...ON LABELING AND INFORMATION

HEARING

BEFORE THE

SUBCOMMITTEE ON NUTRITION

OF THE

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY

UNITED STATES SENATE

NINETY-SIXTH CONGRESS

SECOND SESSION

ON

S. 1651

A BILL ENTITLED THE "DEPARTMENT OF AGRICULTURE NUTRITION LABELING AND INFORMATION ACT OF 1979"

APRIL 1, 1980

PART IV

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Feb. 9 and 23, 1979.—Part III

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NUTRITION LABELING AND INFORMATION

TUESDAY, APRIL 1, 1980

U.S. SENATE,
SUBCOMMITTEE ON NUTRITION OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 324, Russell Senate Office Building, Hon. George McGovern (chairman of the subcommittee) presiding.

Present: Senators McGovern and Lugar.

STATEMENT OF HON. GEORGE McGOVERN, A U.S. SENATOR FROM SOUTH DAKOTA

Senator MCGOVERN. This morning's hearing continues the Nutrition Subcommittee's oversight of nutrition and ingredient labeling by focusing specifically on S. 1651, the "Department of Agriculture Nutrition Labeling and Information Act of 1979." Because of the large number of witnesses today, I will make my opening statement very brief and submit for the record my testimony to Senator Kennedy's Health Subcommittee on March 19, 1980, concerning S. 1651.[1]

In addition to the changes discussed in my testimony of March 19, most of which also apply to S. 1651, I am considering dropping section 8 in S. 1651, which pertains to developing uniform retail quality grading standards. At a minimum, subsections (c) and (d) will be dropped, and a revised subsection (a) introduced that will retain the key concept of uniformity.

The new subsection (a) will leave existing wholesale grading systems as they are, and create a simple color coded retail grade system that would allow consumers to determine easily what the grade order is for any given commodity. Such a modification is consistent with all our efforts to meet both the consumer's right to know and the industry's need for greater flexibility.

In general, I believe we are succeeding in meeting these dual objectives. For example, even though there are mandatory labeling requirements in S. 1651 for processed meat and poultry products, the hearing record to date clearly indicates that these bills will create less regulatory burden than the existing voluntary nutrition labeling system. As Senator Riegle said on March 19, under this legislation, consumers will be able to obtain more accurate and usable nutrition information at less cost.

In conclusion, this legislation embraces a classic principle of American democracy—the Government's responsibility to encour-

[1] See p. 46 for Senator McGovern's testimony before the Subcommittee on Health and Scientific Research on March 19, 1980.

age the flow of vital information in the marketplace. In emphasizing the information function rather than compliance, we can achieve less Government regulation and better market competition by giving people necessary information with which to make informed choices. Therefore, I expect this morning's hearing will focus principally on two key points: (1) the consumer's right to know about the composition and nutritional value of their foods, and (2) the economic uncertainty to the producer of providing such information. I look forward to the discussion and welcome this morning's witnesses.

We will begin with the Assistant Secretary for Food and Consumer Services, U.S. Department of Agriculture, Ms. Carol Tucker Foreman.

STATEMENT OF CAROL TUCKER FOREMAN, ASSISTANT SECRETARY FOR FOOD AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY THOMAS GRUMBLY, ASSOCIATE ADMINISTRATOR, AND JUDITH NEIBRIEF, SPECIAL ASSISTANT TO THE ADMINISTRATOR, FOOD SAFETY AND QUALITY SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Ms. FOREMAN. Since it is April 1, I was going to tell you that I was going to read this outrageously long statement. But if I could, please have this inserted into the record.[1]

Senator MCGOVERN. Yes, we will see that it is inserted into the record.

If you would hold your opening remarks as briefly as possible, all prepared remarks will be included in the record as if read.

Ms. FOREMAN. That does go into the background that we developed and the lengthy process here with the Food and Drug Administration and the Federal Trade Commission in developing labeling proposals, and it also contains extensive comments on your bill, S. 1651. So I would urge those people who are interested in the Department's position to make use of that document.

I am going to summarize it very briefly.

Senator MCGOVERN. Thank you.

Ms. FOREMAN. Obviously, we commend you and your colleagues for the efforts that have gone into S. 1651 and S. 1652, and we strongly support your efforts.

We think that your legislation reflects a careful weaving of consumer interests, industry, and regulatory concerns and we like it because it takes an evolutionary approach to the development of a system of composite nutrient data bases and nutrition labeling requirements, areas where questions remain to be resolved.

The legislation would allow the agencies to better fulfill our regulatory responsibility of assuring wholesome and accurately labeled food. It would enable the Government to move faster toward a comprehensive and consistent food labeling policy.

While we may be concerned with some of the specific language in S. 1651 as initially introduced, we do believe that it represents a very feasible and equitable food policy, and that it would clarify and supplement what authority exists to ensure that food labeling is responsive to the realities of today's health concerns.

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[1] See p. 48 for the prepared statement of Ms. Foreman.

In fact, your legislation reflects the same concerns that led the Food Safety and Quality Service, Food and Drug, and the Federal Trade Commission to reevaluate labeling policies in terms of how well they fulfill our objectives. Some of those concerns are whether our policies provide the information that is necessary for determining which foods to buy and their characteristics, including their ingredients and nutritional value, and whether they present this information in a way that consumers can use to choose products that meet their needs and preferences.

We asked what are the public health and economic implications of these issues and what changes may be necessary so that the interested public is sufficiently informed to make intelligent choices which may influence the marketplace to provide foods that better suit their needs.

Many of our conclusions and proposals for improving food labeling parallel those of your committee's bill. When the agencies began our reassessment of labeling, we were concerned that changes in the food supply and, indeed, Americans' cooking and eating habits had outpaced our regulatory approach. Moreover, we felt that our attempts to keep up had generally consisted of individual agencies responding to the exigencies of the moment.

The result was a complex set of sometimes inconsistent regulations as well as a kind of disquieting feeling that the underlying goals that those regulations should serve were getting lost in the shuffle.

So the three agencies that began this process tried to move toward a consistent food labeling policy. We knew that to do that extensive public participation was necessary; and that public participation needed to involve virtually all of the groups that may be interested in this: Grassroots individual consumers, the organized consumer movement, small business people, large corporations and trade associations, food and nutrition professionals, and private and public bodies that have public health responsibilities.

Because we knew that it would be difficult to get individual consumers involved in this process, we focused our initial efforts on encouraging those individual consumers to make their feelings known, particularly in the 1978 hearings.

More than 450 people testified at these hearings. In addition, more than 9,000 individuals submitted written comments during that period. We think that that somewhat lengthy process has been worthwhile because we have heard directly from people who are sufficiently concerned about food labeling that they considered the issues and made their views known, and those other citizens that frequently Government responds to.

While no one contends that these commenters represent a statistically, projectable cross-section of Americans, their numbers are significant and their views are really relevant to our efforts. They are the large number of people who want to and try to use labeling in selecting foods. It is their difficulties, frustrations, and problems in doing this that has been very helpful in informing us about the shortcomings of current labeling policies. They remind us of the critical role label information can play, telling us about health problems, such as allergies to monosodium glutamate and nuts,

where accurate labeling is their only real protection against serious illness.

The message of the commenters is clear: There is definitely room for improvement in food labeling, particularly in the areas of ingredient and nutrition labeling and freshness information. Labels should provide a more complete profile of more foods and they should present this information in ways that consumers can understand.

Information on consumers' views was also provided by FDA's national survey of primary food shoppers. People were told only that the researchers were doing a survey on food and shopping for FDA. They were then asked a variety of questions about their problems in these areas and about their awareness and use of current label information.

The initial analysis of the responses indicates that although their level of concern is lower, the labeling problems of primary food shoppers are similar to those of the commenters.

When asked about particular problems and concerns, other than price, that they currently have with food, half of the respondents identified difficulties.

Most of these problems involve the quality of food. Many people mentioned ingredient and freshness concerns. These are areas where label information is important to exercising product choice because labeling can provide the answers to what preservatives and colorings have been used, how much sodium and sugar foods contain, and when a product's quality may change. Furthermore, even though the question did not ask them about food labeling, 8.4 percent spontaneously noted concerns in this area.

When the survey turned to food labeling and asked people whether they are satisfied with the kind and amount of information on food labels, one-third saw room for improvement; and when asked specifically about the amount of information, one quarter said they want more.

These levels of response indicate that a significant number of the people doing the food shopping in this country are not satisfied with current labeling information. When those who want more labeling information were asked what changes they would like, their responses, like those of the commenters, focused on ingredient and nutrition information.

The survey went on to explore various labeling areas, such as people's awareness of types of information and their success in using them. While general awareness is high, people seem to be selective; they use portions of the label and look for certain kinds of information. Not surprisingly, people have different concerns and different needs; and we would like to increase the extent to which these desires are accommodated in a single information package.

The survey also explored ways to improve labeling information. Here, questioning was frequently limited to the portion of the population that reported paying attention to the information; in other words, those who would provide informed responses. Again, people seem to be looking for specific types of information, with more than 30 percent reporting they pay particular attention to

sugar and salt content and information on caloric, vitamin, protein, and fat content.

This reinforces our conclusion that we are on the right track.

We did not go out to pull nonissues out of the air; and our proposed actions deal with areas where significant numbers of people have, through their own experience, concluded that there is room for improvement.

We have just concluded our second round of hearings and we will be taking comments on the proposals of the various agencies until April 21.

I think that it is important to note the progress we have made up to this point.

First, let me point out that the Federal Meat Inspection Act, the Poultry Products Inspection Act, the Egg Product Inspection Act, and the Agricultural Marketing Act specifically mandate that the Department of Agriculture assure that labels are not false and not misleading. That legislative mandate has been in the law since its beginning.

We have acknowledged that we could do better in meeting our statutory responsibilities to ensure that products are properly labeled and that labeling requirements must reflect a consistent and coordinated effort to fulfill those statutory goals.

Second, we have involved the public in our policy development to an unprecedented degree.

Third, we have reached a consensus with other agencies on a number of underlying policies. We believe that more complete ingredient information is necessary and that the amount of information on the nutritional composition of food should be increased.

We are now ready to get down to the specifics on a number of issues and to start drafting the proposed regulations that will reflect our consensus and begin to establish the improved labels that our policies envision.

In this process, we will pay particular attention to the economic impact of various changes. An economic impact statement will accompany each regulatory proposal and we will be careful to avoid approaches that result in substantially higher food costs for consumers.

Let me turn now very briefly to the specifics of your legislation, Senator.

The Department supports the bill's provisions for the development of a standardized reference on the nutrient composition of foods. The Department also supports the bill's requirement that at a minimum calories, protein, fat, carbohydrate, sodium, and cholesterol content should be disclosed if nutrition labeling is to provide important health information to consumers.

However, we would like you to clarify that the list in section 3(b) is not exhaustive and that the Secretary has the authority to require the disclosure of other information if it is of public-health significance.

Additionally, we think that it should be clear that while nutrition labeling is currently a voluntary program, in some situations nutrition information is necessary to prevent misleading labels. We plan to propose that nutrition labeling be required where claims are made about a product or nutrients are added to it; in other

words, the same situations in which the Food and Drug Administration requires nutrition labeling now.

We share the committee's concern that nutrition information be presented in a readily understandable fashion, and we understand why you concluded that presenting macronutrient content in caloric terms would have advantages. It would build on information which consumers already understand and in which they are interested.

However, we do not think the bill should require information to be presented in particular ways. We need more information before we can determine the most effective way of presenting nutrient content.

Therefore, we would hope you would be willing to change the legislation to grant the Department some discretion to decide how this information should be disclosed.

The Department supports the bill's approach to ingredient information; but we do have some reservations about the bill's exemption for ingredients which constitute 5 percent or less of a food. We do not believe we have sufficient information to conclude that 5 percent is appropriate as an across-the-board cutoff level. There are times when ingredients which individually comprise 5 percent or less of the product can be extremely important.

For example, take the case of binders such as nonfat dry milk that may be added to meat products and may constitute less than 5 percent, but have great significance to consumers.

That concludes my prepared testimony, Mr. Chairman. I would be glad to answer any questions that you may have.

Senator McGOVERN. Thank you very much.

Senator Lugar, did you have an opening statement?

Senator LUGAR. No.

Senator McGOVERN. Your testimony talks at some length about the Department's efforts to assess consumer interests in improving food labeling. Some of the witnesses that we will hear from today discuss this issue, particularly from the FDA survey and conclude that consumers are really not all that interested in food labels. As a result, the Government is charged with needless meddling by proposing labeling changes, including the possibility of mandatory disclosure of essential nutritional information.

I wonder if you could comment on this particular point?

Ms. FOREMAN. Well, sir, I think you might begin by pointing out that in the last Presidential election very few people bothered to go to the polls. I do not think that reflects a lack of interest in Government and how the Government affects their lives. It sometimes reflects a distrust with the way that Government is being handled, and a lack of confidence in the candidates that are running.

I think that labels have some parallels here. There are a large number of people in this country who, at any given time, if asked in a survey, do not know who is President of the United States. They effectively function, or do not effectively function, outside of the system. I think it was extraordinary that in a survey done by FDA that over 50 percent of those that participated had some problem with the Nation's food supply other than price. This was done in a period of very high prices. I think that is certainly

reflected in the mail that comes into my office where again and again and again people sometimes appear to be commenting on a specific regulation and they are really saying the quality of the food I get is not what I anticipated when I went to the store and purchased that product; or I am having a very difficult time coping with the range and variety of products and choosing wisely for my family.

I think that 50 percent of the people commenting that they have some problem other than the price of food is significant.

Most of the responses that were generated among the 50 percent reflected concern about things that better labeling might resolve. I think that the Department and the Food and Drug Administration should respond to those concerns; but I think that it is obvious that in a period of high food prices, we need to respond to them in a way that creates no more than the absolutely necessary economic burden.

Senator McGovern. One of the concerns I have had is that we do nothing in this legislation that works an undue hardship on small business. These people are having a very rough time, as you know, in any event, trying to stay in compliance with all of the things they are called on to do.

Do you see any difficulty in devising legislation that will protect the small business operator and at the same time protect the desire we have to provide needed health information, nutritional information, to the public?

Ms. Foreman. No, sir. I think, as a matter of fact, your legislation, particularly that portion of it that provides for the creation of the nutrient data bank, answered most of the concerns that people, small business people, would have about increasing labeling.

As a matter of fact, I think perhaps the key to that is in nutrient data base that would be developed by the Government with cooperation from the industry would make it possible for small food processors to do something that now only those giant corporations are able to do; only large food processors are able to do the analysis of their food products so that they can provide nutritional labeling.

Your proposal would suggest that the Government, by increasing the activities—the information contained in handbook 8, would develop most of this information that is necessary and it would be available to people all through the industry. In fact, we think that nutritional labeling of those basic nutrients that we have been discussing would cost less than $150 per product per year, to do the analysis on the product to make sure that it was consistent with the things that are mentioned in handbook 8.

Obviously, by using the nutrient data bank and handbook 8, we would be able to strengthen the list of things we are required to discuss in nutrition labels.

I think one of the concerns that has been raised by small business people, and I think there is some history that warrants their concern, is that the Government, when it gets into nutritional labeling, will be engaged in playing "gotcha." They will want to get some product off the shelf and test it and say to people, aha, you are not in compliance.

I think it is obvious that our regulatory procedures are moving away from that kind of nonsense; that our function is not to play

"gotcha," but to make sure that the public is getting a product that is safe and accurately labeled. I think our actions regarding nitrosamine levels in bacon are a clear reflection of that. We made a decision that we had either the option of going out and putting people out of business with confirmable nitrosamine levels, or we could assist companies in changing the processing so that they could comply. It is that latter course of action that we chose.

We hired consultants, and every time somebody came upon a preliminary problem we would offer them the use of the consultant to help them alter their processing. As a result of that—and once again, that is one of those cases where the industry swore that nobody would be producing bacon 1 year later—in fact, 1 year later, we found that nobody has gone out of business as a result of that; and yet, the public can go out and purchase bacon with the assurance that it has no confirmable levels of nitrosamines in it. It seems everybody benefited. We can apply that same kind of reasonable effort into nutrition labeling and once again we think that everybody can benefit.

Senator McGovern. I think that is right. I think the more the emphasis is placed on the information function rather, as you say, than trying to get somebody or catch them violating a regulation, the more we serve the public and the less we arouse the anxieties of the industry, it is really an effort to help them get the information they need to make sound judgments.

To whatever extent we have established the principle that the Government can be helpful in protecting the public on the food safety front, I think the public now wants to go beyond that to find better ways of making choices, not simply about the safety of food, but its wholesomeness, how do we get maximum nutrition for the dollar we spend. That is essentially an informational function rather than a regulatory function.

Ms. Foreman, there is some concern that USDA's prior approval labeling system could prevent the sale of many foods at the outset of the mandatory program because of the time it takes to approve new labels.

Would you explain how USDA would implement a mandatory labeling program if the Congress decides to go in that direction with respect to approving new labels? How do you answer the anxieties of people who will say, that they will have to sit around for months waiting for you to decide on their label applications?

Ms. Foreman. First, Senator, I think that it cannot be repeated frequently enough that I do not believe that we are at the point now where we can implement a mandatory nutrition labeling system.

First of all, we could not do that until we had adequate handbook 8 data. We have to have that before we could implement such a system. We would not like to be precluded from implementing that at an appropriate time. It is obvious we are not ready to do that yet. That is important with regard to our prior-labeling approval; because I do not think any of us at the Department of Agriculture are completely happy with the way our prior label approval system works. It has some advantages; but it also has, in some cases, reacted slowly. We are taking steps to remedy that.

We proposed in the Federal Register procedures that we institute a first-come, first-served response to labeling applications instead of allowing people to come in through an expeditor ahead of those who cannot afford to make use of an expeditor.

We have undertaken a major effort to improve and modernize our label approval system and we will continue to do so.

On the other hand, the prior label—let me point out one other change that we will be making now.

Right now, if you want to change the number of your establishment or the name or address of the establishment, that requires label system change, and we would like to get to the point where you may forego a prior label approval when you are making those rudimentary changes in a label. I think we can do that.

I think we also get to a point where we have some labels approved out in the field. But the prior label approval system does have some advantages, especially to the small processor; because, in fact, it provides the opportunity for technical assistance. It provides the opportunity for the person who is seeking approval of a label, say the way to do nutritional labeling in the future, to sit down with one of our agency officials on a face-to-face basis or on the telephone and get specific responses to their specific concerns. We have not said everybody has to fall within this No. 1 pattern or No. 2 or No. 3 pattern. We try to deal with labels now on a case-by-case basis.

It strikes me that in a period when the public believes that the Government is faceless and unresponsive that that system has something to recommend it.

Senator McGovern. Some of the witnesses talk about the possibility of a reference book being developed.

What is your thought on that, if any?

Ms. Foreman. I certainly think that a reference book is a good idea. During the hearings we had, people said they would like to have a reference book. On the other hand, I do not think that a reference book can possibly be a substitute for adequate labeling information. Most of us live harried and harassed lives these days, and it is not possible to go into the supermarket and say, I have one package of frankfurters here and another here. I think I will rush over to the reference book that is in the manager's office to decide which of those two packages I will choose. That information should be easily available to the consumers, and I would think those people seeking to market their product would find great advantage in having that information easily accessible to the consumer.

Senator McGovern. Some of the food processing companies testified in a hearing before the Senate Health Subcommittee and indicated that these two companion bills, S. 1651 and S. 1652, even in their present form, would provide a labeling system that would be less costly than the existing regulatory program.

I would like to ask you about your views on that and also a related item: Is there a significant difference, in your view, in the cost between a mandatory program as against a voluntary program that operates only where a nutrition claim is made or where the food is fortified?

Ms. FOREMAN. Well, obviously, at the present time it is our intention to, by regulatory action, require nutritional labeling where nutritional claims are made or where nutrients are added. I think that a mandatory system can be handled over a period of time for the development of a nutrient data bank so that it is not more expensive than that system.

I think that the only way to deal with that is to deal with it on a case-by-case basis which is, obviously, what we would propose to do.

But the collection of the data is by far the most expensive part of this operation; and the fact that the Government would participate in this process, I think, could resolve that quite easily.

I think the one thing that concerns me very much is the notion that somehow this is something very radical and very different. But in fact, going back to 1906, there have been requirements in the Meat Inspection Act for accurate labels. Those were developed, and we began to think of them in a time when food products were very simple. Most people bought fresh meat.

As a matter of fact, 3 years ago, we passed a watershed in which most meat purchased is processed.

Since the law was passed, the system, the food-processing operation system, has become much more complex. We are not dealing with simple products. I think it is important that a labeling system develop so that it helps people deal with the problems of 1980 and 1990 and not go back and deal with a system that existed in 1906.

That is really what we are trying to do here.

We found out during these hearings that people are very concerned and sometimes with very good cause about the impact on their health of the various products that they may purchase in the supermarket. I do not think anybody who testifies here today or anyone who deals with the meat inspection system would challenge for a minute our responsibility to keep the food supply safe. And yet some of the products that we allow—some of the substances that we allow to go into meat products—are a health hazard to some people. It seems to me we have a choice, therefore. You can either go into a system that says, because there are people out there that are severely allergic, maybe 2 million or 3 million, you will not allow that hazardous substance to be allowed at all. You would not allow any substance that anybody is allergic to to be used in the meat product.

I do not think anybody and certainly not the meat processing industry, would like that approach. It seems to me we can do something much more reasonable.

We can provide more easily accessible information to those people who suffer with problems if they come into contact with that substance. It seems to me a way of regulating less, of letting people have the information that helps them avoid a health problem.

I think that in case some people are inclined to say, but those are very few people who are allergic to it—it in fact applies to those people who are hypertensive, who have to avoid products, which have a high amount of salt. It helps them avoid those problems. It helps all of those people and it helps those people who are under doctors' directions to avoid one food or another, one substance or another.

This kind of information should be available and the nutrition information we are suggesting is an excellent way of dealing with this.

Finally, in a time of very high prices, it is important for us to avoid getting labeling changes that would increase prices in an unwarranted fashion. It seems to me it is doubly and triply important in a time of high prices for consumers to have easy access to the information necessary to choose the best value. It may be a much better value to pay a higher price for a processed meat product that is lower in fat than to pay a lower price for one that is higher in fat.

But the customer really cannot make that determination today, and it would strike me that it is essential when food prices are high to have the information to make that decision.

Senator McGovern. Thank you very much.

Senator Lugar. Mr. Chairman, you have cited in your opening statement the points of rationale for these two pieces of legislation. I would simply want to begin by concurring.

It seems to me that what we are involved in here is an especially vital function because of the mounting medical costs in this country and the fact that many consumers are attempting to prevent disease and promote their own health through diet and knowledge of nutrition. And clearly the need for this information can be accelerated, it seems to me, through the process we are talking about this morning.

I am enthusiastic about that process. The problem is one of providing the information and not providing a harassment to businesses, large and small, in this country. The question remains how can this be done in the least expensive way as far as the data base is concerned.

But precisely how to keep these folks in business. That is no easy task. But I am encouraged by what you have said this morning.

You have mentioned you thought you might be able to reduce ultimately to about $150 the cost of providing the information for products. Just zero in a little more on that figure.

How did you arrive at that and what does it represent?

Ms. Foreman. I think the $150 actually, Senator, represents the cost for products per year for checking that product to make sure that the recipe that the company is using makes the products nutritionally equivalent to what is stated in the nutrient data base. That is the test, the analytical test, that would have to be done for potassium, cholesterol, and so forth.

Senator Lugar. I think this is important. One practical problem that has been brought to my attention is that people producing tomato juice have a wide variety of tests on vitamin C and, in fact, some batches have a fairly high vitamin C content but, due to contact with metal or lots of other things, even with time itself, it seems to go away so that the tests that would be required here are problematical.

How many cases of that sort have you run across in the research that USDA has done or anyone in which there are wide swings in processing a particular vitamin or substance that will play havoc with all of this?

Ms. FOREMAN. In our processed products you generally tend to run into these variations in naturally-occurring nutrients and in fresh products.

Senator LUGAR. What do we do about the others?

Ms. FOREMAN. It is obviously more difficult. But the nutrient data bank notion is predicated on the notion of some variations and of the statement of ranges for particular products and then any product falling within that range; and the kind of nutritional labeling required for fresh products would be stated as an understanding that there is a range in those products such as that no particular tomato might need it, but tomatoes of this variety have these nutrients when served fresh.

The same thing could be applied, and we are trying to develop that information now in conjunction with the pork producers, on pork, on the nutritive value of pork, that pork chops generally meet this range of nutrients.

It would strike me, particularly in the case of pork, that there is a great deal of advantage to that because the pork producers, when they talk to me, state again and again and again their concern that the American public still thinks that pork is a kind of product that it was 20 or 30 years ago. Today it is a very lean product and not that old product. The handbook 8 data available in supermarkets on the nutritive value of pork, I think, would be of great market value to those people who want to see the value of their products raised.

Senator LUGAR. I agree. I want to say on the record that there is a recognition on your part and ourselves of the range and some rule of commonsense. As this legislation initially hit a number of my constituents who are farmers and processors and they saw criminal penalties attached and enormous ranges—not only the vitamin C example, but others, it created a certain degree of alarm. This is one value of this hearing and the chairman's opening statement and your commonsense approach to this.

This is not legislation designed to harass people but to provide information. Obviously there are some standards and we are moving down the trail to make certain that the consumer has some phase in the process. That is a corresponding obligation.

Ms. FOREMAN. Let me repeat it again, that first of all, the nutrient data base provides for a range of nutrients in particular products. Let me repeat again, because I do think it is important, that we have not been playing gotcha with the meat industry and that we do not want to play that game, that that is not the way that our responsibilities are best carried out, that does not help the consumers, that does not help the processors, and it is a silly way to regulate.

What we want to do is get a system, and this nutrient data base is a good way to do it, to assist people to provide information. That is a commitment from us to do it that way.

Senator LUGAR. What judgment—or have you come to any conclusions thus far with USDA on sodium and cholesterol? One of our bills gives discretion to the Department to include that or not include that depending on how the Secretary sees that issue.

Do you have any comment at this time on those two items?

Ms. FOREMAN. We would like to have discretion in foods where we think it might be particularly an issue. We might not want to include sodium content in foods where the sodium content is so low it is unnecessary to include it on the label. In other cases it might be quite pertinent. Although there continues to be some debate over the relevance of cholesterol in the diet and its relationship to various degenerative diseases, I think it is fair to say that the majority of scientific data does acknowledge a link there and I think, more importantly, there is no data that says lowering the amount of cholesterol or the amount of sodium one consumes is bad for you.

It would seem to me important to provide that information where it is of such a magnitude that it is important. But, obviously, where it is not, we would not want to load up a label with its mention.

Senator LUGAR. Finally, what timetables do you see for the progress, such as a data base, and could you describe, at least for the record, how does the construction proceed? Who specifically is at work on it and is paying for it, at what expense, and when do you anticipate some conclusions that would give a basis for the legislation we are considering?

Ms. FOREMAN. Well, we would hope, obviously, to be able to move ahead with certain data bases fairly soon. We have the pork and beef data bases underway now. I have Tom Grumbly here who is our Assistant Administrator for the Food Safety and Quality Service, and Judi Neibrief who is our labeling expert.

Do you want to comment?

Mr. GRUMBLY. Senator, as you know, handbook 8 is being updated over time and we would see that the nutrient data base idea would be factored into the preparing of handbook 8. I think it will probably take an effort over the next 5 to 10 years to complete a nutrient data base. The kinds of money we are talking about is probably in the range of anywhere from $25 to $50 million over that period of time.

We would see that as the joint responsibility of Government and industry, and I think only at the end of that time would we ever get into a situation where we would make the entire listing of nutrients mandatory. It is a fairly large undertaking. The people who would be doing it inside the Department would be from the Human Nutrition Center with cooperation from the Food Safety and Quality Service.

Senator LUGAR. How will this matching of funding occur? If $25 to $50 million might be involved, what sort of financial arrangements do you foresee down the trail?

Mr. GRUMBLY. We are, obviously, going to have to develop some joint funding scheme. I feel strange one day after President Carter sent his budget cuts to the Congress asking for more money for the Federal Government. I would be reluctant to say exactly how much and what kind and what arrangement we will make but clearly anything we do has to be joint, and the Government has to be willing to make a substantial commitment.

Ms. FOREMAN. I think there are also different ranges of funding. First of all, as I mentioned, we view a fresh product differently. You might want to deal with a poster and not have to label each

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chicken breast. There are some specialized products, I suspect, we might not get to in 5 years. Somebody out there is making buffalo hotdogs. I think it will be a long time before we get around to buffalo hot dogs.

Senator McGOVERN. Some of my consituents will be glad to hear that.

Ms. FOREMAN. Some of this data is already under development in conjunction with the industry, such as potatoes and tomatoes and beef and pork. So we can move ahead relatively quickly and, once again, it provides the opportunity for the industry to use the nutritive value as a marketing tool.

Senator LUGAR. This is an intriguing idea. For many fresh products you would envision posters being placed in grocery stores?

Mr. GRUMBLY. If you go to the supermarket now with respect to potatoes, you will see a nutrition listing up above the potatoes and we do envision——

Senator LUGAR. The producers would not need to present the information but the consumers can read the posters?

Ms. FOREMAN. Incidently, there is an interesting history where the supermarkets have wanted to provide this kind of information for sometime and have not been able to, and it goes back to a time when Esther Peterson was trying to do labels with Giant Food Stores and found it was not consistent with existing regulations. We have had a great deal of encouragement from the supermarkets.

Senator McGOVERN. Thank you, Senator.

Ms. FOREMAN. Senator, I have been told I was talking about processed foods having come to the point where they make up a large percentage of our foods, and I said processed meats when I intended to say processed foods.

Senator McGOVERN. That correction can be made.

Thank you very much.

Next we have a panel consisting of Max Kellough, John Mohay, James Rill, Richard Hagen, Paul Keene, and Myron Zeitz.

I want to stress, because of the time constraints, if you folks would give us a brief summary and try to hold it to 5 minutes, it will give us more time for questions which is what we really want to get at and give us an opportunity to clarify some of those points. Your prepared statements will be entered into the record.

STATEMENT OF MAX KELLOUGH, CHAIRMAN, NUTRITION SUBCOMMITTEE, NATIONAL CATTLEMEN'S ASSOCIATION, FRIEND, NEBR.

Mr. KELLOUGH. Thank you.

I was here little over a year ago for a hearing on labeling, and you had 22 inches of snow the night before.

Senator, I am Max Kellough, chairman of the Nutrition Subcommittee of the National Cattlemen's Association. It is a pleasure to be here and we appreciate this opportunity to provide some input.

We have submitted a formal statement and I will be very brief in summary of that.[1]

[1] See p. 59 for the prepared statement of Mr. Kellough.

More than 2 years ago, the National Cattlemen's Association adopted a policy supporting nutrient labeling with some certain requirements and, of course, those are included in this statement.

As of now, the National Cattlemen's Association could not support S. 1651, but we would like to make some recommended changes so that possibly we could endorse the bill.

We cannot support in this bill any attempt that might legalize the theory that some dietary components are health hazards if there are no data to indicate that is true and the matter is highly controversial among the members of the scientific community. I am referring especially to section 2, paragraph 2 in the bill.

The NCA, as you know, could not support section 8 relating to uniform quality grade standards. Food grading is a complex issue and it was initiated for different reasons in different food areas. In the area of beef, the primary purpose of these grades is to indicate palatability; tenderness, juiciness, and flavor. Size, color, shape have no bearing on beef grades. It is not so with other foods. We are a long way from a grading science.

Senator MCGOVERN. As you know, I indicated that we are leaning toward dropping that section 8 from the bill. I think some of these other things you are proposing we will take very sympathetically. This legislation is not in concrete. That is the purpose of these hearings, to get some suggestion as to how to make it more workable. I hope all witnesses feel free to make suggestions and recommendations for improving the bill.

Mr. KELLOUGH. We do support the concept that nutrient labeling would be in the best interest of the consumer who would actually use it. We feel that nutrient labeling would be good for our industry because we have a highly nutritious product. We have always in the past, and we will continue, to work for a free market system, as free as possible, from Government regulations.

We are here today supporting nutrient labeling on a voluntary basis only. We always try to be open, honest and fair with the consumer, and if the consumer chooses to use nutrient labeling, fine. If consumers do not want to use nutrient labeling, that choice should be theirs and they should not have to pay for a mandatory system. This choice should be made in the marketplace.

Quite often in the past, even if Government programs were proven wrong, they have been hard to reverse, or even stop. With consumer education, the free marketplace and a voluntary labeling program, the true merits of this program can be determined. If consumers choose products which are labeled over those which are not, I can guarantee you that the industry will respond to this and most food items will soon include nutrient labels.

We would strongly support additional research to provide the best means of doing this. We recommend, first, that a review and analysis of all of the labeling work that has already been done be done. Then we would go from there. It should be a cooperative effort of the producers, the processors, the retailers and all of the appropriate Government agencies.

We would support legislation to prohibit advertising or nutrient references which make or infer misleading or unsubstantiated health claims.

We would also support the development of a nutrient data bank. Presently there is insufficient information for the more than 300 meat cuts that are available.

We would support the "not more than" or "not less than" concept. We endorse the labeling of products based on the cooked and ready to eat product. Most food goes through a different process when cooked or even heated.

We have some other comments that are included in the formal testimony.

We would be pleased to answer any questions and appreciate the opportunity to testify.

Senator McGOVERN. Thank you very much.

I think what we will do is proceed with the panel and then question everyone afterwards.

Next we have Mr. John Mohay who is president of the National Meat Association.

STATEMENT OF JOHN MOHAY, PRESIDENT, NATIONAL MEAT ASSOCIATION

Mr. MOHAY. In keeping with your request, we have submitted our full text and we will summarize.[1]

We appreciate the opportunity to appear before the panel and present our position on the Department of Agriculture's Nutrition Labeling and Information Act of 1979.

Historically, Federal regulation has properly focused on public safety and product integrity. Today, because of laws, such as the Meat Inspection Act and Wholesome Meat Act, the consumer is assured that the product he buys is safe and will be the product he expects to receive. Existing law allows meat processors to provide nutritional labeling on a voluntary basis which many are doing now.

However, the proposed Nutrition Labeling Act breaks new ground by making nutritional labeling mandatory. We think the bill goes too far for a variety of reasons.

Our first objection is that the bill should not apply to fresh meat. Under the bill, the label fresh meat would include on a per serving basis the total number of calories, the amount of protein, fat, carbohydrates, sodium, and cholesterol. To obtain this information for fresh meat products is totally impractical and the cost would be prohibitive.

The nutritional qualities of meat varies considerably from animal to animal. Even carcasses with the same quality grade may have different levels of macronutrients.

Because of these variabilities, any determination of nutritional data would require separate measurements, presumably through chemical analyses, for each different animal. Obviously, this would place an impossible burden on the local grocer.

Nutritional factors also vary considerably within a single animal. The fat to lean ratio of sirloin steak is considerably different than that of a chuck steak. In order to provide nutritional labeling, the grocer would therefore be required to test and analyze many different portions of each animal.

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[1] See p. 64 for the prepared statement of Mr. Mohay.

It might be argued that these objections could be overcome through the use of statistical data. For example, USDA might determine that the average 1-pound cut of chuck steak contains specified percentages of protein, fat and the other nutritional variables. Grocers might multiply these percentages by the weight of a particular cut to arrive at an estimate of the required nutritional data. However, because of the variability between animals, such estimates would probably be worse than having no information at all.

The difficulties I have described with nutrition of fresh meat would also apply to meat processed only by curing and/or smoking, such as ham, bacon, and corned beef.

Nutritional data may be obtained with greater accuracy and less cost in the case of emulsified processed meat food products, such as frankfurters and bologna. These products are produced in large lots or batches of uniform consistency so it would be unnecessary to run tests on each individual portion, as would be the case with steaks or chops.

Manufacturers would therefore be in a somewhat better position to obtain nutritional data for processed products and the cost of obtaining this data could be reduced by the use of nutrition data bases.

However, even in the case of emulsified processed meat, nutritional labeling would not always be easy. Many producers of processed meat vary their recipes from time to time, depending on the cost and availability of ingredients, and new nutritional data would need to be gathered and new labels printed each time the recipe is changed.

We agree that the Department of Agriculture should develop a data base to facilitate voluntary labeling. We support efforts by USDA to foster meaningful consumer education on these matters.

Let me emphasize that voluntary nutritional labeling is what we support. If and when there is consumer demand for nutritional labeling, then we could count on most of the industry to adopt it voluntarily. We do listen to our consumers.

Let me briefly touch on other sections of the bill. We oppose naming each individual spice, seasoning and flavor because it would be very costly, provides little useful nutritional data to the consumer, and could result in the disclosure of valuable trade secrets. This would discourage meat processors from the economical practice of varying their product recipes to take advantage of the most available and least expensive ingredients.

We also oppose uniform grading nomenclature for all products. Consumers are familiar with the terms prime and choice and understand that these terms indicate the eating quality of a particular cut of meat. To change these terms to conform to the terminology used in grading other products, such as eggs or milk, would merely cause confusion.

In summation, the association is in favor of nutritional labeling on a voluntary basis for the kinds of processed meat products where such labeling is feasible.

We also support development of a data base that would make voluntary nutritional labeling less costly and we are in favor of public nutritional education, especially in the form of a simple

practical nutritional reference book. We oppose mandatory nutritional labeling.

Thank you.

Senator McGOVERN. Thank you.

Next we will hear from Mr. Rill.

STATEMENT OF JAMES F. RILL, COUNSEL, NATIONAL BROILER COUNCIL

Mr. RILL. Thank you. My name is James Rill. I am an attorney for the National Broiler Council which is a national nonprofit trade association representing the producers and processors of broiler/fryer chickens.[1]

I am accompanied today by Kerri Ridenauer who is director of Government Relations for the National Broiler Council.

At the outset, I would like to make three points and then discuss, in the time frame you established, the specific positions of the Broiler Council.

First, NBC is not convinced nor does it believe that the record compels the conclusion that new mandatory label information for poultry and poultry products is necessary.

Second, particularly with regard to fresh poultry, that is poultry that has not been further processed, we definitely believe that further labeling requirements are not needed.

Finally, with respect to poultry that has been further processed, a statement of ingredients in the descending order of predominance is presently required under the Poultry Inspection Act by the Department of Agriculture, so the specific provisions in S. 1651 requiring a descending order of predominance statement in ingredient labeling of poultry products is unnecessary.

Now, with respect to specific provisions of the legislation, the first point we would like to address deals with the scope of S. 1651.

NBC urges clarification as to the scope of application of this bill. The mandatory labeling provisions apply to meat food products and poultry products, as defined in the Federal Meat Inspection Act and the Poultry Products Inspection Act. This means that the provisions would apply only to processed meat food products. But, because of the statutory definition of poultry products, it would, literally construed, apply to "any poultry carcass or part thereof."

Mr. Chairman, when you introduced the bill in 1979, you said on the Senate floor, and I am quoting, "The nutrition and ingredient label and labeling requirements are intended to apply to processed food products and poultry products in the USDA bill—fresh meat and poultry could provide label and labeling information on a voluntary basis."

I think the bill should be revised to assure that your intention is embodied within its provisions.

Second, with respect to labeling of colors and spices, NBC recommends that they be treated on the same basis as flavors under the legislation. We concur in the reasons that Mr. Mohay just provided, that the addition of the specification of colors and spices would be costly, possibly confusing, and could, in many respects, jeopardize trade secrets. We believe that mandatory disclosure of colors and

[1] See p. 69 for the prepared statement of Mr. Rill.

spices would be appropriate where there is a demonstrated health need for such disclosure.

With respect to order of predominance, NBC recommends deletion of the requirement that there be a statement that "all ingredients are listed in descending order of predominence by weight." We believe that the costly initial modification of labeling statements would be unjustified and that the existing Government information and dissemination systems to communicate this fact to consumers should be satisfactory.

With respect to sodium and cholesterol labeling, NBC does not object to mandatory sodium and cholesterol labeling if such a requirement is predicated upon a demonstrated public health need for such information.

With respect to nutrition information, Mr. Chairman, NBC's position is severalfold.

First, NBC endorses the development use of a standardized reference on the nutrient composition of all foods. We think this is very important. We are concerned with the inclusion in the legislation which I understand is undergoing some revision, that the information state the nutrient composition at the point of purchase. This point of purchase requirement, I think, could cause substantial problems since most nutrition information developed heretofore is based on point of pack, not point of purchase. Thus there may be not only increased cost but I think increased confusion and unreliability.

Second, NBC would encourage exploration and experimentation by the Government and private industry with respect to the manner of declaring nutrient information and the means of conveying it, that is, what nutrients should be declared, how they should be conveyed and whether the means should be, for example, density or percentage of content.

Partly because there are so many variables and uncertainties at this point with respect to nutrient information, and we heard Mr. Grumbly indicate that somewhere between 5 and 10 years would be required, that mandatory nutrition labeling is unjustified.

Mr. Chairman, we endorse the suggestion to change the effective date that you made in your testimony on S. 1652. We think that should apply to S. 1651.

We do believe that the uniform retail grading standard provision should be revised so as to make it nonmandatory.

We strongly urge the inclusion of preemption of State legislation so as to achieve national uniformity in the area of nutrient and ingredient labeling, and we concur with your proposal that the provisions relative to advertising should be stricken from the legislation.

Thank you.

Senator McGOVERN. Thank you.

Next we will hear from Richard Hagen.

STATEMENT OF DR. RICHARD HAGEN, VICE PRESIDENT, EASTERN RESEARCH LABORATORY, NATIONAL FOOD PROCESSORS ASSOCIATION

Dr. HAGEN. Mr. Chairman, on behalf of the National Food Processors Association, I am pleased to testify on S. 1651.

The National Food Processors Association, represents processors of more than 90 percent of the national production of canned meat, poultry, fish, fruits, vegetables, and specialty products.

Food labeling is vitally important to all food processors. It is important to recognize that in our industry, we are concerned about consumers and must be responsive to their genuine needs and desires in order to stay in business

Recently, in recognizing that the current nutrition labeling program had not accomplished the intended goals we published a "Proposal for a Realistic Improvement in the Labeling of Processed Foods." Copies were provided to this subcommittee.

We have filed for the record a full statement which I shall highlight.[1]

Many of the points covered in our bluebook proposal are, to some degree, also are contained in the legislation.

We agree that any new labeling program must be designed to reduce the cost and increase the flexibility for industry. It should also simplify label information and make it more meaningful. Most importantly, it must eliminate declarations on the label that are not meaningful, or are indeed confusing to consumers.

Given the importance of the label, food processors and especially small processors, view with apprehension the changes proposed by this legislation and separately by the Department of Agriculture. The current USDA labeling program creates many problems for meat processors and canners, and this legislation would add another layer of requirements to an unsatisfactory program.

Processors frequently face delays in getting their products on the market under USDA's "prior approval" system for labels. Processors often wait for weeks or sometimes months while the Department reviews their label. The Department also uses its control over the label to control many aspects of the processor's operation, such as the recipe or formula, the product name, promotional statements, and the substitution of similar but less costly ingredients.

As S. 1651 does not address these problems, food processors question why the Congress and the Department of Agriculture are considering new labeling requirements.

Regarding requirements of the bill we have long endorsed full ingredient labeling in descending order of predominance. However, there is no need for individual listing of all colors and spices by specific names.

We suggest that a consumer food and nutrition handbook, as has been discussed by others, is a reasonable alternative to crowding the label with little understood and often confusing information.

We strongly oppose quantitative or percentage ingredient labeling. We believe there is very little consumer demand for it, as FDA's own food labeling survey shows. It would especially jeopardize small processors by forcing disclosure of proprietary formulas and by eliminating the flexibility to produce least-cost foods based on current market conditions.

A primary difference between the NFPA labeling proposal and S. 1651 is that we believe nutrition labeling should be voluntary, while this bill would make it mandatory, thus eliminating the flexibility we think is so important to its success.

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[1] See p. 71 for the prepared statement of Dr. Hagen with attachments.

We have long supported use of a nutrient data base, as this bill would allow. However, the current language of this bill will not accomplish the intended goals because it leaves the final judgment on whether or not a data base can be used to the discretion of the agency. Use of the data banks should be permitted for nutrition labeling of all foods.

The key unanswered question in the nutrition data base concept is one of compliance. We concur with the chairman who said that "[we] have overregulated this matter by overemphasizing the classic compliance aspect of food regulations."

However, this bill does not address that issue.

In the USDA–FDA–FTC labeling proposal of December 21, 1979, the agencies state that: "The use of a suitable nutrient data base does not exempt a manufacturer from assuring that a product meets its labeled nutrient content within established limits." This proposed agency policy is no different than the unsatisfactory compliance requirements now in force.

There are several other unanswered questions about operation of the data bank which could cause substantial problems especially for small processors.

First. How to qualify, to use it.

Second. Who does the analysis to build the bank?

Third. What sanctions will be applied by USDA if it is dissatisfied with the nutrient content of a given product?

Answers to those questions have not been formulated. Since the fate of many small processors could be affected by forcing these problems on them with a mandatory system, NFPA believes it is far better to work out the details under a voluntary nutrition labeling program.

The mandatory labeling declaration of sodium and cholesterol contents would be particularly damaging to small meat and poultry processors, because they normally do not have the laboratory capability to run the analyses. NFPA urges mandatory sodium and cholesterol labeling be eliminated from S. 1651 for the following reasons:

First. Medical opinion is divided.

Second. Surveys show consumers lack interest.

Third. There are adverse marketing and cost implications.

In conclusion, we support the goals of this legislation, but are convinced that those goals cannot be achieved as the bill is currently drafted. NFPA opposes the legislation as presently written and we have identified the principles we think are essential.

Mr. Chairman, everyone here understands the impact inflation is having on consumers and industry alike. Food processing is a seasonal industry, just like the rest of agriculture. Many processors are having severe problems trying to cope with interest rates of 20 percent and higher.

We question whether this is the time to add costly new mandatory requirements that have no material public health significance.

Senator McGovern. Thank you.

Next we will have Mr. Paul Keene.

STATEMENT OF PAUL KEENE, PRESIDENT, WALNUT ACRES, PENNS CREEK, PA.

Mr. KEENE. Thank you.

I am pleased to testify. I am founder and president of Walnut Acres, Inc. of Penns Creek, Pa.[1] We raise and process many of the foods we sell with complete control over each step. We have been in the mail order food business for 34 years. In that time, we have filled over 1 million orders and sent them to what are probably the most inquisitive customers anywhere. Very few businesses have answered more letters than we about how their foods were raised and processed.

In the hundreds of thousands of letters from a true cross-section of consumers everywhere that we have answered, the percentage of questions which would have been answered by current and/or proposed nutrition labeling is infinitesimal. We would estimate no more than 1 question in 1,000. This is fewer than the 1.5 percent of the consumers who expressed some concern with nutrition labeling in the recent Consumer Food Labeling Survey by the Bureau of Foods.

We feel there is an ever-present danger that mandatory nutrition labeling will be used to deceptive ends, with gross possibilities of adverse effects on the health of the untrained and unwary consumer. With its use, products may be so manipulated as to allow presentation of mediocre or fraudulent foods as being at least equal to real foods in ultimate value to the human body, and perhaps even better.

The nutrition label will never win the battle against the overwhelmingly appealing product promotion tide which beats against our senses everywhere all the time. Its use, combined with the advertiser's art, can in some perverse manner end up in the minds of a large percentage of consumers as a kind of blanket endorsement by whatever powers there be of any product bearing the magic panel. "Here is the nutrition label, therefore the product must be 'good,' the confusing details be hanged."

For the small food processor, often in exceeding tender economic circumstances, the effects of mandatory nutrition labeling can be fatal. In the case of Walnut Acres, a few details point this up. We manufacture and/or package about 440 different food items, including meat and poultry products. Many of these are packed fresh daily, in very small amounts. An annual laboratory testing of even a portion of these items, along with the attendant overwhelmingly complex logistics, could cost us in toto several times our annual net profit.

Over half of our products are hand-packed in paper bags, each in several different sizes. With minimum economic purchase of 25,000 of each of these, our bag inventory would be in the millions, at a cost of over $1 million, far exceeding our present total inventory of all foods plus packaging. Losses in unused bags due to formula change or unavailable ingredients, and in deterioration of bags over the 5 years it would take to use some of them, et cetera, would be simply impossible to bear. Aside from this are the incredible logistics, the storage space, inventory costs, and the like.

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[1] See p. 95 for the prepared statement and additional material of Mr. Keene.

Numerous precedents have been set in many fields where exemptions for smallness are made. OSHA is one example. Even in the current nutrition proposals, a number of products in small demand would be exempted from nutrition labeling. Is it too much to ask, should nutrition labeling be made mandatory, that its application remain voluntary for small food processors unless special claims are made? What percentage of the total food supply would remain nutritionally unlabeled in so doing? Would the national health truly suffer as a result?

Full ingredient labeling, with percentages listed of such items as may in excess be deemed "harmful"—added sugar, salt, fat, et cetera—would enable consumers to make shelf comparisons between a nutritionally labeled product and a similar product not so labeled. For the great majority, this would be more than sufficient. The rest would probably simply not purchase the exempted product. If nutrition labeling is more desirable, more universally sought after than our own experience or the consumer survey seems to show, then the exempted products would simply fade away through nonuse. The small processor is willing to take his chance on that. For us, there could even be a label statement to the effect that the food in the container has not been tested for nutrition labeling purposes.

It would seem better to think of a blanket exemption by dollar volume than to exempt all small businesses automatically. Let any product be exempted for any processor who manufactures less than $500,000 worth of that product in a calendar year. This figure could follow inflationary trends. Above this amount, a processor could probably absorb the added costs of nutrition labeling of the product involved.

As so often happens when something small comes up against something much larger and more powerful, it becomes a matter of life and death for the small. Most large food companies started small. If smallness in the food field can no longer exist because of Government edict, how can any new food business arise with full vigor, inventiveness and competitiveness? What a tragedy for our national life, when young enthusiastic persons are no longer able to dream dreams and hope to see them fulfilled.

Senator McGOVERN. Thank you.

Let me just say quickly before we get to the question period, and I am sure I speak for Senator Lugar and others who are cosponsors, there will definitely be exemptions for small business. The way I envision the legislation working, the larger firms would be expected to, as Secretary Foreman said, pick up part of the costs. Some of the more medium-sized firms may require some help on that, and it would be my own view that the small firms would be exempted entirely so that if your analysis is right, the cost of this program would be more than your net profit, obviously you would be exempted from the program.

There will be an exemption feature depending on the smallness involved. There is some kind of formula needed because the last thing in the world that anybody on the committee wants to do is further inflict difficulty on already hard-pressed small producers and small businessmen.

Mr. KEENE. The small producers will be happy to hear that.

Senator McGovern. I can give you my word on that, and I think Senator Lugar shares that as well as others who are cosponsors of this bill.

Our final witness will be Mr. Myron Zeitz.

STATEMENT OF MYRON ZEITZ, REPRESENTING COMMUNITY NUTRITION INSTITUTE

Mr. Zeitz. Good morning, Senators. I am very happy to be here to represent the Community Nutrition Institute. In the few short minutes which I have been allocated, I would like to focus this committee's attention on the food labeling issue most subject to faulty economic reasoning and sloganeering. That issue is mandatory versus voluntary nutrition labeling.[1]

Like the layers of skin and membrane that surround an onion, we have had to peel away the myths that have spread in order to preserve the status quo.

Permit me to discuss the successive myths on which opponents of mandatory nutrition labeling have depended at various times.

Myth No. 1.—Consumers do not want and would not use nutrition labeling.

The Tripartite Food Labeling Task Force found that over one-half of the 9,800 commenters discussed nutrition labeling in some way and that 96 percent of those who specifically addressed the question of whether they wanted nutrition information on labels said that they did.

Efforts are being made to discredit this lopsided consensus through arguments that the sample was not representative, even assuming for the sake of argument, that the data is invalid, we are hopelessly left trying to explain why the market research departments of major national food companies, such as General Mills, General Foods, and Pillsbury, all of whom favor mandatory nutrition labeling, plus countless other large and small food manufacturers arrived at the same conclusions on consumer demand years ago and now voluntarily, as a marketing tool, provide the very information that some industry representatives still claim is not wanted and would not be understood.

For this reason we reach:

Conclusion No. 1.—Industry already knows that large numbers of consumers want more information on all of their foods.

Myth No. 2.—If consumers truly valued nutrition labeling, the market would provide it voluntarily, and eventually all foods would be so labeled in order to meet the competition.

We know that certain foods, such as lean, frozen, cube steaks, are "naturals" for nutrition labeling, being low in fat and high in protein. Other foods, on the other hand, like pastrami, bologna, or bacon are "naturals" for nondisclosure of nutrient information, being high in salt or fat. Manufacturers of foods in this latter class who might lose 5 percent of their market by not labeling could protect 20 percent of their market by withholding from consumers information that reflects badly on their product. No manufacturer accountable to stockholders can risk voluntary nutrition labeling unless that marketing strategy is likely to at least maintain sales and preserve market share. Sales and market share will drop

[1] See p. 119 for the prepared statement of Mr. Zeitz.

unless consumer satisfaction from having the nutrition information exceeds dissatisfaction with what the data reveals. We submit that for many foods the risk of such a drop will be just too great.

For this reason we reach:

Conclusion No. 2.—Manufacturers of some foods will not upset the salami cart. These foods will never voluntarily be nutrition labeled.

Myth No. 3.—Mandatory nutrition labeling legislation will mean more regulations which will mean increased costs.

Mr. Chairman, I want to briefly discuss three reasons why this attractive economic myth is specious.

One. On March 19, FDA, General Mills, General Foods, and Pillsbury all testified before the Health Subcommittee that the cost of providing information as envisioned by S. 1651 and S. 1652 will be significantly lower than the costs under the present system.

Two. It is freely acknowledged by all parties to this matter that the fixed one-time only cost of establishing nutrient data banks is the only substantial cost factor in representational nutrition labeling. Once the data banks are operational, the cost of maintaining the system will be the same, regardless of whether the labeling is voluntary or mandatory. The labels will be changed only once, after several years of pilot testing label formats to assure success and after plenty of time for manufacturers to exhaust supplies of old labels. Annually thereafter, manufacturers would verify that the product falls within the nutritional profile at a laboratory cost of at most $500 per sample. Such a cost, for most lines, would have an imperceptible impact on individual product prices. We understand that where the sales volume of a particular product is so small that the laboratory fee could not be spread economically, a Government subsidy or exemption would be considered.

Three. Once the benefits of nutrition labeling are taken into account, it becomes clear that the information is anti-inflationary. By comparison shopping and making informed choices, consumers will be able to obtain greater nutrition and health benefits for each dollar of food investment. This will reduce consumer costs at the supermarket and at the doctor's office.

For these reasons we are compelled to reach:

Conclusion No. 3.—Once the nutrient data bank is operational: (a) The cost of nutrition labeling will be substantially lower than under the present framework; and (b) the costs will be approximately the same regardless of whether the system is voluntary or mandatory.

To sum up, providing comprehensive uniform nutrition information on food labels will have a significant overall anti-inflationary impact because it permits consumers to obtain greater nutrition and health benefits for each dollar of food investment. This will reduce consumer costs at the supermarket and at the doctor's office.

Government has the acknowledged role of promoting public health and well-being. Responding to public demand for more information on the relationship between diet and health, USDA and HEW have released the national dietary guidelines. Consumers are being encouraged to evaluate their diets from the point of view of calories, fats, and cholesterol, starch and fiber, sugar and sodium.

Yet, the products they presently purchase are not even required to bear the information consumers would need to make the comparisons that must be made. If the dietary guidelines are not to be converted into a cruel hoax on the serious consumers, Congress must enact mandatory nutrition labeling requirements that provide consumers with the information they need to use those guidelines prudently.

Government also has the acknowledged role of assuring for the public the availability of enough information to make the marketplace more competitive. Many years ago, Congress saw fit to guarantee members of the public who enter the stock market a minimum financial profile on which to base their investment decisions. Surely this Congress, almost 50 years later, will not reject the public's demand for much the same type of information for consumers in the marketplace which commands the investment of an ever-increasing share of their budget, the food market.

Senators, mandatory nutrition labeling is so basic a right and so critical a need for consumers that without it, this important piece of legislation will only offer empty promises and more frustration for the consumers. For us, mandatory nutrition labeling is one of the quid pro quos for allowing representative values through a nutrient data bank and for Federal preemption.

Mandatory nutrition labeling will remain our goal until it is applied to most of the foods that comprise our diet. If stability in the food labeling system is now sought, then this is the time to enact mandatory labeling and to expand it, to include fresh meats and produce, and restaurant foods where feasible. We urge you to reject the myths about consumer indifference and overburdensome costs. We urge you to tie Federal preemption and Federal subsidies for nutrient data banks, to mandatory nutrition labeling. Finally, we urge you to opt for the free flow of information in the marketplace when you are asked to shield certain food products from informed public scrutiny and marketplace forces.

Senator McGOVERN. Thank you.

Mr. Kellough, you represent the National Cattlemen's Association. The bill would exempt fresh meat and put it on a voluntary basis. However, the National Food Processors Association has asked why fresh foods should be treated any differently than processed foods.

What is your answer to that?

Mr. KELLOUGH. The National Cattlemen's Association has always worked for less regulation and to let the decisions be made in the marketplace. We think that all labeling should be voluntary, but there are some differences between fresh meat and processed meat.

One of the things in talking about fresh meats is that we are talking about over 300 different cuts. Since they fall into five different yield grades, we are talking about a compounded difference in nutrient content. So this complicates the matter immediately.

The other thing is that a fresh product has no additives. There is no processing and there are no alterations. Consequently when the hide comes off the steer, the product basically stays the same.

Another reason is, of course, that with so many cuts, so many variations, the little mom and pop grocery store is going to have a

problem because one man on this corner cuts his meat a little differently from the man down the street. In order to comply, there would be a real problem with those kinds of businesses.

Senator McGOVERN. I ask that question not so much for myself but to clarify the record. You think there is a different case for fresh meat as against processed foods.

I am going to have to hurry through some of these questions. We may want to submit some questions in writing later on.

Dr. Hagen, there are a couple of things I wanted to direct to you.

In your written testimony you make the case that there is no real public health need for nutrition labeling and that we should depend upon physicians for nutrition counseling.

One of the problems with that that our committee has encountered over the years is the revelation that so few of the medical schools are training physicians in nutrition. A great many excellent doctors who are highly competent in other fields seem to know very little about nutrition, and yet the evidence before the committee is that of the major killing diseases in this country, a number of them are related to our diets, not that that is the only factor, but it is one of the risk factors that seem to contribute to heart attacks and strokes.

I am wondering if you had taken that into consideration when you recommended that we rely on our medical profession to take care of our nutritional needs?

Dr. HAGEN. That is a very complex question. I think the main point here is that if the physicians themselves are having difficulty translating the food component numbers into meaningful advice to their patients—and apparently there has been some reluctance on the part of the medical profession to do that—the problem becomes that much more complex when you ask uninformed consumers to do it. Only 8 percent of them said they were interested in certain aspects of nutritional labeling. If you ask them to translate label information into meaningful dietary choices, it puts the label in the position of substituting for medical training and medical textbooks. It asks consumer's to make choices that even the medical profession is reluctant to make.

I think there is quite a long leap of faith there.

May I make one comment, going back to the previous question you asked of Mr. Kellough? I think I heard you say that the National Food Processors Association had recommended to the effect that there be a mandatory labeling of fresh meat but——

Senator McGOVERN. No. They had asked why fresh meats should be treated differently than processed foods.

Dr. HAGEN. I wanted to say for the record, that the National Food Processors Association has always recommended a voluntary program across the board for all products.

Senator McGOVERN. Since there is nothing in this bill, Dr. Hagen, that prevents voluntary disclosure of the kinds you recommend, why have you concluded that a mandatory program would prevent adding new information on a voluntary basis to labels? What is there about this bill that makes it difficult or impossible for people to provide that information on a voluntary basis? There is no restriction on that in the bill.

Dr. HAGEN. The bill has to be viewed in the context of the current regulations that are on the books. USDA has required not just macronutrients, sodium and cholesterol, but also a full list of the vitamins and minerals. As we read the language of the bill, there is nothing to preclude that or even more information to be added on as part of this mandatory format that is now required by the agencies.

Senator MCGOVERN. That is one of the purposes of this legislation, though, to supersede some of the existing regulations. In other words, this bill is not coming in on top of the existing regulations. It is to replace them. I thought a pretty compelling case was made by General Mills and General Foods and Pillsbury in their testimony before the Health Subcommittee when they argued that the thrust of these two companion bills, S. 1651 and S. 1652, is actually to simplify the whole system and move it in the direction of an information function rather than a maze of Government regulations. At least, that is the intent. If the bill is not properly structured to accomplish that, then we ought to change it.

Dr. HAGEN. That is where the point of confusion is. The bill in the first section lists the macronutrients but in the back pages it discusses the various testing programs that the agencies should look into including aspects of vitamins and minerals labeling. We are looking to where it will end. We certainly do endorse the concept of the data bank as do, I think, everyone here. There is no confusion on that point.

It is just a question we raised—what are the details of compliance? We have not seen the relief that we think would be appropriate.

Senator MCGOVERN. Those are things we can look at. You discuss at some length in your prepared testimony, Dr. Hagen, your reasons for voluntary sodium labeling, the fact that many sodium foods are available in the market.

One of the things that has puzzled me is why the low-sodium products cost more than the ones with salt. You would think they would be cheaper. If you leave out an ingredient, why does the price go up?

Dr. HAGEN. That is a very good question and there is a very good answer.

With these low-sodium products, it has been the experience of many processors that they just do not sell well. They become a specialty item. The turnover is low. The cost of the special handling goes up. Many companies have attempted to introduce no salt added or reduced sodium products, and they have not been a success in the marketplace. People just do not like them.

Senator MCGOVERN. Can you give us some idea of what percentage of foods that contain sodium are voluntarily labeled? You have made a number of comments about this. I think it would be interesting to have for the record what is happening voluntarily in terms of identified sodium contents in foods.

Dr. HAGEN. I am not aware of any surveys that are definitive on this. We know from following the marketplace that some companies are adding sodium to the label. We heard testimony, I believe, from General Mills and Pillsbury to that effect.

Senator McGOVERN. Do you know what percentage of the sodium in the typical diet comes from canned foods? Is that a significant element?

Dr. HAGEN. It is one of many components. The data are in the Select Committee on GRAS Substances report, and I would be happy to furnish that to the committee for the record, if you would like that.

Senator McGOVERN. If you could get us that, that would be helpful.[1]

I have a few questions for Mr. Keene.

You indicate that you sometimes use stick-on labels, in order to provide ingredient information.

Why could you not use that same thing for nutrition information?

Mr. KEENE. There are two questions that come up. One is, in the first place, this is just a small label containing the list of ingredients. We can prepare it ourselves in our own plants. Were we to have to have the products analyzed, and the cost of doing that aside, and then make up a label large enough to be able to place it on our containers, in particular our bags, this would introduce problems.

If we had to have that printed, that printed with the exact nutritional labeling of the contents of the bag, then it would mean these enormous quantities of bags which we could not handle. So that anything we can do ourselves in our own plant is something we can look at.

Senator McGOVERN. You might, if you would, drop us a letter indicating your own view of what would be a fair exemption criteria; that is, if you thought through what you thought was reasonable as a criteria for exempting small businesses entirely, I would be interested in knowing what that is.

Mr. KEENE. I will be happy to do that. I did make a suggestion here that it be a kind of dollar volume thing of $500,000. But I will be happy to study it further.[1]

Senator McGOVERN. One general question before I yield to Senator Lugar, that I would like to direct to each member of the panel. It has to do with Mr. Zeitz' testimony.

He has focused on the issue of whether nutrition labeling ought to be voluntary or mandatory. He has challenged this subcommittee to ensure that the public receives necessary nutrition information.

What he appears to me to be doing is challenging the food industry to live up to its own statements that a consumer has a right to know about the composition and nutritional value of food in the market. Given his testimony and also the remarks that we heard earlier today from Ms. Foreman, as well as the testimony on March 19 involving the major food companies, all of them indicating that they think nutrition labeling will be less expensive under the modified provisions of S. 1651 and S. 1652, we are faced with kind of a difficult choice between consumer and public health priorities on the one hand, and the apparent economic concerns, as some of our witnesses stated.

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[1] See p. 80 for the above referred to report, and p. 102 for a followup letter from Mr. Keene.

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Nevertheless, based on the testimony we heard this morning, am I correct, and I ask each one of you to think about this, am I correct that if nutrition information disclosure were to be made voluntary for all foods regulated by the Department of Agriculture, if we did that, supposing—I am not saying I am going to, but for purposes of discussion, that we agree to modify this legislation so that the whole thing is on a voluntary basis, except for those foods that specifically make a nutrition claim or are fortified. Would we then have your support for the nutrition labeling bill on a voluntary basis?

Mr. RILL. I will be glad to be the guinea pig and lead off. The National Broiler Council has expressed support of the data bank notion and for experimentation with the best means of conveying nutrient information, both as to how it should be expressed and, in fact, what should be expressed.

The Broiler Council has not at any time opposed voluntary nutrient labeling and, in fact, we think that voluntary labeling could be improved by the data bank and the experimentation that is contemplated under S. 1651.

That is really quite a long way from supporting mandatory nutrient labeling. There are a lot of problems right now with the mandatory approval.

Senator MCGOVERN. Let us rule that out. Let us assume we are acting strictly on the proposition that this will be a voluntary bill.

Mr. RILL. With the Government and industry directed to cooperate to develop a data bank and to experiment with the display of nutrient information, I do not see where there would be any objection to that. There are enormous problems particularly, among others, the compliance problem notwithstanding Foreman's assurances this morning, massive enforcement problems which force us to oppose mandatory labeling.

Mr. KELLOUGH. Of course, we expressed several concerns on the mandatory but, basically, we think that it should be voluntary.

I think Mr. Zeitz has nothing to worry about. If what he says is true, 96 percent of the people want more labeling information. I think that the consumers themselves will put out the mandate, "we want this information on the labels," and that the industry will comply if that is what they want.

So I think that the voluntary system will work itself out and we will have labeling.

Senator MCGOVERN. I am convinced we are going to get labeling one way or the other. If the Congress does not do anything, we will get it done by the regulatory agencies downtown. They will work out a formula and put it into effect.

It strikes me as a person who believes in the legislative process and giving the affected parties a chance, that we will emerge with a better bill the way we are proceeding than to make it a purely executive branch function. I have been around here a long time. I know you have to compromise to get legislation passed.

Without in any way making any commitments, what I am trying to discover is whether we will have strong industry support across the board for legislation if we modify that legislation to make it voluntary. I cannot commit other Senators to that provision. I am not even sure what my own ultimate position will be. But I am

trying to explore the ground here in terms of what we are up against in terms of support if we are to consider that. Maybe we will not want to go in that direction.

I want to know where the industry stands if we were to make that judgment.

Dr. HAGEN. I just wanted to reinforce the bluebook position. We have endorsed the concept of voluntary nutrition labeling so there is no question about that.

I might add, in terms of how well the program has worked to date—the current program on a voluntary basis—the FDA survey of a couple of years ago pointed out that some 60 percent of canned foods were nutrition labeled. I know since then several significant large volume companies have entered the program. I would expect the program to be up to 70 or 80 percent now. That is not any small accomplishment, given the complexity and the high cost of the current program.

The key point which we make in the bluebook, and which is, you might say, the cornerstone of the bill, is the data bank concept. We endorse that concept. If we can get the details of compliance worked out, such that companies would not be forced in a prudent manner, to run the large number of analyses they do, if we can work that out, certainly the stage would be set for even greater participation in such a program.

Mr. MOHAY. Senator, we have always supported voluntary nutrition labeling. We will continue to support it. In fact, I think in conjunction with the data base and the properly reviewed nutrient content, you would find an incentive from small packers to do more voluntary labeling. As it now stands to comply with nutritional labeling costs much more than net profits at the end of the year. You are talking about as much as $40,000 to develop nutritional labeling per product, and a $5,000 a year maintenance cost.

When you are talking manufacturing, 25, 50, or 100 different products a year, a small packer cannot stand that kind of cost. But if the data base was developed and we were able to put it to good use, I am sure it would get much better acceptance.

Mr. KEENE. I have the feeling—there is no question on my own part but that we would be very receptive to this idea. I cannot speak for the thousands of small processors over the country but I see no reason why they would not feel similar to that, especially if there was a feeling that this was not just one step in the direction toward mandatory labeling. I am sure this would be the feeling.

Senator MCGOVERN. I suppose I ought to end with Mr. Zeitz, whether he would still support the bill if we took out all the mandatory features.

Mr. ZEITZ. Let me, for a moment, recount to you an experience of a couple of days ago when I spent 45 minutes at a processed meat counter.

After searching every product, I found there were, in fact, more products labeled. One was low-fat ham steak which, going back to what I said before, is and ought to be labeled because it is a natural for labeling, as I call it. Two others were low-fat products, and the only other type of product that was labeled was a reduced cholesterol, reduced fat frankfurter, which is required to be nutritionally labeled.

It is my feeling that just as there are certain products natural for labeling, there are other products for which voluntary labeling is unlikely. The reason they will never be labeled is that once it appears on the wrapper that each hot dog is 30 percent fat, the consumer is going to make new decisions. Some will be changing their food preferences. Some will be switching to alternate hot dogs that are lower in fat. It is in the continued interest of the producer to withhold that information for as long as possible. This is consistent with Dr. Hagen's remarks as to why there are no low-salt products that have really made it on the market. These products will never be promoted heavily because to do so would automatically draw attention to the salt level in the well-established products.

Senator McGovern. Is that not the way the system works? Suppose on a voluntary basis that the manufacturer of potato chips with a lot of salt on the label says he is going to do better. If he does better, does that not put market pressure on those products with a high salt content to reduce the amount of salt?

Mr. Zeitz. Reduce the content or begin to label?

Senator McGovern. If it is not labeled, I presume that a reasonably discerning consumer will assume there is something that he will want to know.

Mr. Zeitz. As long as most, if not all of the products are labeled, then assumptions like that could begin to arise, but not where few of the competing products are so labeled. Also, you cannot begin to judge the success or failure of the products that are lower in particular components like sodium or fat, until you have had an equally aggressive promotion campaign for that product, upon which to base your conclusions. Until low fat potato chips have been marketed in the same aggressive fashion by companies that devote huge promotion budgets to it, you are not going to have any basis for judging the consumer response. While consumers are moving in the direction of greater awareness of the facts we are talking about, product promotion is still a very large factor in market success.

Senator McGovern. I think that is why the major food companies are coming in in support of this bill because they see the market potential of using labels as another marketing tool. I am playing the devil's advocate in reverse.

I drafted this bill with a mandatory feature in it. But I am trying to see the other side of it because I can see where market pressures will also be powerful in determining the success or failure.

Mr. Mohay. There are frankfurters on the market today, very clearly stating 30 percent fat content in those labels. They have been on the market for 4 or 5 years. There has been no discernible increase or loss of sales. There is virtually no recognition whatsoever.

In response to the second point, about 6 years ago, a major meat packer produced and heavily merchandised a President's table brand low-fat-content hot dog, that was probably the rival of the Edsel in the automobile industry. It was a low-fat meat product that was a bomb. The consumer prefers the juicy products.

Senator Lugar. I would like to follow up Dr. Hagen for just a moment. I want to discuss your concern about the compliance

program. I point to the compliance feature as the heart of the matter of concern.

What comments can you make about how a compliance program ought to work? Do you want to emphasize in any way your thoughts as to how to proceed?

Dr. HAGEN. We are working on that. As I said in the statement, we do not have the answer right now. It is not that simple. I think the key point that needs to be made, according to our attorneys who have looked this bill over from a compliance standpoint, is that a prudent processor under this bill would still have to continue the same kinds of, if you will, definitive analytical programs as under the current USDA regulations. That is why I have struck this point.

There are certain principles which we believe ought to be included in any data bank concept.

No. 1 is that they should recognize in the data bank, the natural variability of nutrients in food. We are working closely with USDA on green beans, canned green beans, as a case in point. We have the data from the data bank. We are supplying more data to the data bank. I am getting information in on a daily basis.

One of the things that is happening with vitamin A which is not a heat-destroyed vitamin, we see variability ranging nearly 100 percent over the mean, the average value. The current regulations of FDA only allow a 20-percent variability.

So a particular processor must declare excessively low values to avoid compliance problems. The net loser on this kind of a system is the consumer.

I have mentioned others. How does one qualify to get into the bank? How do you keep the paperwork minimized? The $150 a year cost would certainly, as mentioned by Ms. Foreman, would certainly be attractive, but that would, according to our cost figures allow half of the analysis on one product per year. That is pretty optimistic.

Finally, the real bottom line question, Senator Lugar, is would all products ultimately have to come under a mandatory nutrition labeling program? We heard statements that were made that they would not, but it is not that clear in the bill.

What if a small processor, like Walnut Acres, has a product which cannot fit a data bank program, and you have a mandatory labeling program. What does he do? Does he pull the product off the market or does he submit it to analysis?

Senator LUGAR. Thank you very much. I appreciate this testimony because I did ask Ms. Foreman earlier a question with regard to the $150 figure for maintenance each year. Really that is an attractive possibility. We just had testimony with regard to some meat products that $40,000 might be required for the initial testing and $5,000 maintenance for the product annually. This is of course, one of the balances that has to be considered in this legislation—whether there would be a genuine savings for businesses, large and small, and if so, how these occur.

One of the obvious things is the data bank and who pays for it and how we come to that point. And in the degree of compliance, through maintenance of these things each year.

Let me ask the panel for their reaction, just as Senator McGovern tried out the voluntary program. Let me express one of my concerns and see how the panel will treat it. I do not mean to zero in on you, Dr. Hagen, but your testimony offered a paragraph that points this up.

You point out on page 8:

> Currently some nutrients are the subjects of public discussion. These include cholesterol, sodium, fat, sugar, and calories. Some people have medical reasons to be concerned about certain nutrients but we question whether this is reason enough to impose extra financial burdens on all consumers that a mandatory labeling program would bring.

Indeed, that is an important question, and in talking about compliance and costs, we just discussed this. I suppose there is at least some reason for concern, in terms of testimony we heard in this committee and elsewhere that indeed cholesterol, sodium, sugar and fat are pretty important considerations.

I think that if we are to look at it as a matter of public policy, they are important enough. There are many persons who have testified from a medical standpoint that major breakthroughs in heart disease, lung disease and longevity are likely to come from changes in lifestyle, diet being one, and exercise perhaps another. That is why diet and nutrition becomes important.

You can raise the question of whether consumers are interested or not. Most consumers, however, are interested in the enormous medical costs and health costs that face this country. This is a monumental debate.

Granted each one could raise the question, is there a proven medical hazard? Of course, there is not.

I must say that my biases are more and more going toward the thought that there are some ties, although I do not know nearly as much as I would like to. In the event we are headed toward a voluntary system and people in the food industry are faced with a horde of bureaucrats—maybe criminal penalties might be removed and we might be able to take a more affirmative attitude, less defensive strategy.

What I feel from some of the testimony is that we are sort of locked into trying to make the best case against regulating the system. Therefore, as a last gap, there are probably not proven ties and maybe we are overly concerned about this.

Is it possible that if we had a voluntary system there could be a more enthusiastic research effort on behalf of food processors to find, along with medical science, what might be helpful and to market that as opposed to taking a defensive posture that this is of no interest to the public, that this is the effort of an elite group trying to foist their attitudes on all of us. I do not know if this gives you enough to hang an answer on, but if anyone would like to have a try in terms of what the health ties would be, if it were voluntary, I would appreciate that testimony.

Dr. HAGEN. Speaking as an industry scientist who works with other industry scientists, I think it is fair to say that they are very sensitive to the consumer needs and the research of the medical and nutrition community. When a question is resolved—the facts are in—I think the industry scientists will get behind a program. Such is not the case with cholesterol. Talking with industry scientists, the facts about cholesterol are not clear. There are all kinds

of questions about it—to what extent does dietary cholesterol affect blood cholesterol, and what about the new concept of high density versus low density cholesterols—the good cholesterol and the bad cholesterol. It is not a clear case. As long as it is not a clear case, it is not going to be the most important thing to put on a label.

Senator LUGAR. You are not arguing, though, the other side, that willy-nilly a person can eat lots of salt, lots of calories, ignore cholesterol altogether. Maybe some would say my grandmother did this and she lived to be 100. But the curve of probability of people doing this are disturbing.

Most of us do not think about these things for a long while.

Dr. HAGEN. The one thing everyone agrees on is: overeating causes problems, whether we are talking about hypertension or serious coronary problems. On a subsidiary level, the questions of sodium and cholesterol may be important to some very small segments of the American public, but as the food labeling survey of FDA pointed out, the hottest issue in response to an open-ended question, was sodium, with 1 percent of respondents showing interest. Consumers are simply not going to use the information, given that level of interest.

Senator LUGAR. What if consumers are worried about high blood pressure or about heart disease? Granted you could argue with me, I suppose, that still there is not a connection between sodium and high blood pressure. But I am inclined to think there is. The consumer may not know this. The consumer may be worried about blood pressure. What is our responsibility as people producing food or legislators or anybody in that respect?

Dr. HAGEN. Going back to the medical facts, the Institute of Food Technologists developed a statement on dietary salt and they point out in here, for example:

> It is still not generally accepted that sodium causes hypertension; however, it has long been known that the blood pressure of many unmedicated persons with essential high blood pressure will go down when they are fed a diet severely restricted in sodium (below one gram per day).

One gram a day is a third of naturally occurring background levels in unsalted foods.

My point is, people who do have severe hypertension must go to a medical-type restricted diet. How this all works we do not know, but we are cognizant of the issues. I think the voluntary program with a data base and the compliance aspects worked out would remove many of the obstacles we have seen.

Mr. KEENE. It seems to me that there are persons who have not nutritionally labeled who are very conscious of this, small industries. I think of our own, in which we try to indicate what percentage of sugar is added in this product and I hinted at that in my short presentation. I think industry would be interested in doing that if there are certain elements—a couple of years ago, someone made a suggestion to simplify it and make it readily understandable by persons who are not overly sophisticated in nutritional matters. If too much added sugar is added, have a figure of a sugar bowl with the words high, low, medium, or a salt shaker with the words high, low, or medium so they can look at this immediately and see this is high in salt and they do not want that. Therefore, I will choose another product.

I would think that this would continue and perhaps increase in its use.

Mr. ZEITZ. It would be very beneficial for the public to receive more information on the dietary components they consume. I think the Department and HEW have moved us a long way toward that goal. I think one role that the corporations and food processors could play in the spread of information is to adapt their promotions and products to what is contained in the Dietary Guidelines. I think that is probably the key role they can play. We do not want them to assume the role of a physician, that is clear. But the recommendations are clear and they point to reducing unnecessary salt intake, reducing unnecessary fat and sugar intake, and finally, maximizing fiber, even though all we are certain of is that to do so will not be harmful. We know reducing fat intake and cholesterol intake will make an important contribution to health and diet. It is through comprehensive mandatory nutrition labeling that processors could play a major role in health promotion.

Senator LUGAR. Thank you very much. Senator McGovern had to leave for a meeting with some Vietnam war veterans. So I suggest we have the next panel?

I ask each of you to address those items not covered in the record. All of your statements will be published in the record in full so if you will limit yourself to a few minutes we then will have questions and we will try to proceed and conclude the hearing within the next 20 to 30 minutes.

STATEMENT OF JANE ANDERSON, DIRECTOR, CONSUMER AFFAIRS, AMERICAN MEAT INSTITUTE

Ms. ANDERSON. Thank you for the invitation to comment today.

I am Jane Anderson, director of consumer affairs for the American Meat Institute. With me today is Dr. John Birdsall, our scientific director. We are submitting our complete written testimony for the record, but in an effort to be short, I will go through the points rather rapidly.[1] We feel that the alternative legislative approach that we want to talk about answered a lot of the questions raised earlier today.

No. 1, we would like to see the nutrient data bank growth increased by taking out the mandatory labeling requirement and by changing the "too product specific" compliance that faces us today.

No. 2, we would like to see studies, demonstrations, and evaluations of alternative information delivery systems begun which will take away our current focus on the food label itself. When you focus on the actual label itself as the only viable information delivery vehicle, you assume that all information is of equal value to each purchaser, and this may not be true necessarily. You also assume that only the foods that carry labels have nutritious ingredients. For example, all meat is nutritious yet 73 percent of all meat sales are in unlabeled fresh meats and 27 percent in processed fully labeled meats.

We would like to see us capitalize on the information that is already available in Government and industry data banks. There is plenty of information available, but under current regulatory

[1] See p. 121 for the prepared statement of Ms. Anderson with accompanying material.

policy and these proposed mandatory labeling changes the problem is that we are not able to use this information. We can't go ahead in providing information to consumers.

When you are talking about the problems that you may have, I have a brother-in-law at 40 who just had a heart attack. My sister now is trying to revise their family's diet. Here is a sample of what can be done. This article appeared in the magazine Family Circle. It is called "How to Serve Your Family the Nutrition They Need." It tells you labeling A, B, C's; how to handle foods; the basic five food groups from which to choose; and, on top of that, it is a handy nutrition book to take to the supermarket and use when you make your purchases.

The most interesting part is that all of this nutrition information cost just 55 cents. This is a sample of just one alternative delivery system that we would like to see considered.

Finally, we would like to make sure that whatever alternative delivery system we finally pick stresses minimal compliance so that we encourage all forms of labeling.

Senator McGovern suggested at the hearing on S. 1652 that we adopt a new regulatory philosophy, one that emphasizes information disbursal rather than regulatory compliance.

USDA has a very heavy, restrictive compliance system at the moment. When you review the evidence uncovered during this huge period of labeling reevaluation, we ask why do we continue this focus on the food label itself? Why do we not focus on testing new systems of distributing labeling information?

Our final point is that we would like to see a stop in any proposed additional regulatory labeling changes until we have had time to evaluate current and future evidence. We need to test alternative delivery systems and study the most effective messages first.

Senator LUGAR. Thank you very much.

Next we will hear from Mr. Carter.

STATEMENT OF ROBERT CARTER, TEXAS CATTLE FEEDERS ASSOCIATION, PLAINVIEW, TEX.

Mr. CARTER. Texas Cattle Feeders Association is pleased to have the opportunity to appear at this hearing and to provide input regarding nutrient labeling of red meat. Nearly 1 year ago, our association studied the labeling issue. At that time, we decided that nutrient disclosure was not only in the best interest of the consumer, but also in the best interest of the cattle industry.

TCFA recognized that there was at that time, as there is today, a growing, though not universal, demand for nutrient labeling. Contributing to this demand is an unprecedented interest in nutrition; concerns about food additives; popular concepts of individualism which emphasize dieting to achieve attractive body weight; the general consumer's right-to-know philosophy; and competitive pressure from food products which now display nutrient labeling.

We believe that beef's nutrient contribution to the diet of the American population is significant. We further believe that many members of the population are not aware of the good things in beef. Labeling could communicate this information.

We believe the following points are in the best interest of the consumers and the cattle industry:

One, voluntary labeling of food. Labeling involves added costs which will be passed on to the consumer. The average consumer should not be forced to pay that cost when he may neither want, nor be able to utilize, the label information. We feel the better approach is to let industry respond to shoppers' votes at the cash register. If the consumer, through his purchases, demonstrates a preference for nutritionally labeled products, there is very little doubt competitive products will meet the demand. The voluntary system preserves the consumer's important freedom to choose a lower priced product which does not reflect the cost of nutritional labeling, but would still meet the rigid requirements for safety and wholesomeness.

Two, additional research to ascertain the best means of providing nutrition labeling that is useful to the consumers and feasible for the industry. The research should be a cooperative effort involving producers, processors, retailers, consumers, and the appropriate Government agency. Research funds should be included in the bill appropriations.

Three, uniformity in labeling format and content. This would decrease consumer confusion in addition to establishing fair labeling practices. The guidelines for contents should also prohibit deception.

Because of the current flood of nutrition misinformation and the results of consumer misunderstanding, special care must be taken that nutrition labeling does not mislead or make deceptive health claims by implication.

The potential for deception is considerable, especially with respect to statements about certain constituents whose presence has come to be associated with the development of a freedom-from-disease state. Given this known potential for deception, it is important that nutrient labeling be scrupulously examined for implied or unfair health claims.

Any approach, however, should take into account the difference between advertising and labeling. The probability that the touting of the component or its absence is most likely to trigger unfair health claims, and the type of added statement, if any, would be necessary in various labeling contexts to assure freedom from deception. Another possibility in regulating disclosure of controversial components is to forbid mention of any component that is not present.

What should be included on the label? Much debate concerns how much nutrient information should be disclosed when any nutrient information is given. Too little disclosure may emphasize unduly and unfairly the constituents which are mentioned.

Calories per serving and information on protein, total fat and carbohydrates expressed either in calories or weight per serving should be included on the label.

Four, the development of a nutrient data bank based on valid and reliable research. Funds for the data bank creation should be included in the initial legislation. The profiles and resulting labeling should be based on product averages and expressed as ranges, or phrases such as "not more than" or "not less than."

Five, point of consumption labeling. Shipping, time on the shelf, table preparation, cooking and similar factors affect the nutrient composition of some foods more than others. Canned peas, corn or beans change little from factory to serving. Fresh meat, on the other hand, undergoes significant change. Many cuts lose separable fat during butchering and cooking preparations, and another 24 percent of their weight, including much fat, during cooking. The point at which nutrient profile is measured, therefore, is critical. Consideration should be given to basing fresh product labels on cooked, separable fat removed calculations and, perhaps, also presenting values for the cooked, separable fat portion. Attention should be given to the extent processed product may change from factory to serving to determine the most appropriate point of measurement.

Six, grading guidelines should not be included. Section 8, which deals with the development of uniform retail quality grade standards based on nutrient composition, should not be included in this legislation because it is not germane to the central issue, which is nutrition labeling. Grading and grading nomenclature is a complex issue in itself. It needs and deserves concerted study by producers, consumers, retailers, packers, processors and Government before changes are considered.

Texas Cattle Feeders Association is indeed a proponent of the dissemination of valid and reliable nutrition information. Whether the majority of consumers really want, need or will use nutrient labeling, and if they will pay the added cost, is unknown at this time. However, if labeling can be handled voluntarily, the competitive forces within the marketplace will make the determination. The Federal Government can play an important role in seeing that such labeling is accurate, uniform and not misleading.

Thank you.

Senator LUGAR. Thank you very much.

I hate to restrict everybody unduly, but I think that we are likely to have a vote on the floor shortly after 1 o'clock. So you will all be heard if you hold your testimony to about 3 minutes of testimony each.

As I say, the full statements will be inserted in the record. If you could hit the highlights, I would appreciate it.

STATEMENT OF MILDRED JORDAN, PRESIDENT, NATIONAL PORKETTES, SUFFOLK, VA., ACCOMPANIED BY DONALD VAN HOUWELING, DIRECTOR, GOVERNMENT AFFAIRS, NATIONAL PORK PRODUCERS COUNCIL

Ms. JORDAN. I am president of the National Porkettes.

I have attempted to keep my remarks within 5 minutes. Now, you have asked me to cut them to 3. I will make an effort to do so.

On behalf of the National Porkettes and the National Pork Producers Council—NPPC—I am pleased to testify with you today.

NPPC membership consists of 97,000 pork producers in 35 States who voluntarily contribute to industry promotion, research and education. I represent, as well, the National Porkettes, with a membership of over 16,000.

The pork industry recognizes the importance of good nutrition as one part of health maintenance for all Americans, and the nutri-

tional value of pork comprises a large part of our promotional efforts. Through scientific research, production methods have been refined to produce a leaner pork product. Our industry encourages fair and unbiased Government explanation through regulation, legislation, and the policy of the nutrition of pork and all red meats.

The pork industry advocates a responsible approach to information distribution that will result in minimal cost increases to consumers. Consumers want food labels with understandable nutrition and ingredient information. Labels that will aid them in making purchasing decisions for planning a varied, balanced, and nutritious diet for themselves and their families.

We do not support mandatory nutrition labeling. We do support voluntary nutrition labeling. Labeling involves large added costs which will be passed on to the consumer. The average consumer should not be forced to pay that cost when he may neither want, nor be able to utilize the label information. If consumer purchases demonstrate a preference, and willingness to pay, for nutritionally labeled products, competitive products will be obliged to meet the demand. We do support uniformity in labeling format and content.

There are added reasons for preferring a voluntary system of nutritional labeling in the case of fresh meats.

First, nutrient profiles, specified by grade—for example, prime, choice, good, et cetera—cooked, lean and separable fat content, do not exist for many of the more than 300 cuts of meat available to the consumer today. Development of these profiles and updating and expansion of data in Agriculture Handbook Nos. 8 and 456 and USDA House and Garden Bulletin No. 72 is underway. However, more time is required and many difficult questions, such as how to establish accurate profiles for products which may show significant variability within a given cut and grade, remain unanswered.

Second, unlike processed foods, fresh product is sold in its natural form without processing or the addition of other foods and constituents which alter the natural nutrient profile. Nutrition labeling as a means of revealing such alterations is therefore not needed.

Third, nutrient labeling of individual packages of fresh meat, as profiles become available, will be extremely costly and difficult to effect. Unlike processed foods, which may be mechanically labeled as part of an automated procedure at the place of processing, most fresh meat is individually prepared at the place of sale. Meat must be hand separated by grade and cut, and manually price labeled for immediate sale. Under this established preparation procedure, onproduct labeling, if it is to occur at all, would be the responsibility of the food retailer. At a minimum, this would mean that independently owned meat stores as well as supermarket chains would be responsible for, one, obtaining nutrient data; two, for the design, acquisition and inventory of the required labels for each cut merchandized; three, for establishment of a procedure and work force for assuring proper manual affixing of the correct label to each meat item sold; and four for periodic nutrient profile verification. The consequent cost and disruption to retailers would be substantial and would be magnified for each nonmeat fresh food sold in the outlet.

Mandatory offproduct labeling of fresh product is no less objectionable. To illustrate, it is not reasonable to expect the composition of fresh pork to vary outside the limits of the representative ranges which will be placed in the national nutrient data bank, at the conclusion of the industry-USDA pork composition study now in progress. Moreover, there is little a retailer or anyone else can do, short of genetically induced change over time, to alter fresh pork composition as it is now presented. Hence, periodic profile verification, as proposed for processed product, would serve no useful purpose in the case of fresh product.

This is not to say that we oppose voluntary dissemination of nutrient information about fresh meat through innovative, economically feasible means. Completion of the present livestock composition studies will occur in the next several years. With this new data we anticipate development by industry of point of purchase nutrient charts and related materials for widespread retail use.

Product shipment, period of storage, preparation techniques and similar factors affect the nutrient composition of some foods more than others. Canned peas or beans change little from factory to serving. Fresh meat, on the other hand, undergoes significant change. Many cuts typically lose separable fat in the packinghouse and cooking preparation. Another 24 percent weight loss, including much fat, can occur during cooking.

The point at which nutrient profile is measured therefore is critical. Consideration should be given to basing fresh product labels on cooked, separable fat removed calculation. Attention should also be given to the extent processed product may change from factory to serving to determine the most appropriate point of measurement.

We suggest a moratorium period, for example, 2 years on any labeling changes, to thoroughly study and research what labeling changes the American consumer feels are necessary. In our opinion, proposed changes may provide much more nutrition detail than is useful to the average consumer. We feel better data must be obtained to explain how to better improve labels before changes are enacted to alleviate a piecemeal nutrition labeling policy for the 1980's.

The period of study should more closely evaluate the cost factor of any labeling changes for all involved. It is time to make wise use of our tax dollars.

Alternative offlabel sources, for example, a consumer nutrition handbook for the supermarket, should be evaluated. An offlabel approach would help to answer the nutrition education aspect so vitally needed to make any labeling, including present labeling, useful.

The research on need and cost for nutrition labeling should be a cooperative effort involving producers, processors, retailers, consumers, and Government. We offer to serve on an advisory committee to evaluate study results and make recommendations.

We caution any attempt to legislate or imply the existence of a negative relationship between certain dietary components—saturated fat and cholesterol—and chronic disease. Whether such a relationship exists is questionable and highly controversial within the scientific community. We urge close examination of how this

controversial subject is handled to eliminate implied or unfair health claims. We support legislation or regulations to prohibit advertising or nutrient reference which infers unsubstantiated health claims—for example, "This product contains no cholesterol."

The pork industry feels that section 8, which deals with the development of uniform retail quality grade standards, does not belong in this legislation. Grading and grading nomenclature is a complex issue, deserving thorough study and evaluation before changes are proposed.

Lengthy consideration must be given to compliance standards placed upon the industry, both from a practical and cost viewpoint.

Again I state our concern for substantiated product information to reach the consumer. The pork industry wants consumers to understand our product and to consume it. Valid questions should be raised about whether consumers want, need or will use nutrition labeling. And if consumers, as well as the industry, can and will pay the added cost. We urge full investigation of the cost and need for nutrition labeling prior to any changes being enacted.

Thank you.

Senator LUGAR. Thank you.

The vote that I had feared has occurred or is about to.

Let me now please hear the testimony of Mr. Olsson.

STATEMENT OF PHILIP OLSSON, COUNSEL, NATIONAL TURKEY FEDERATION

Mr. OLSSON. I am Philip Olsson, counsel to the National Turkey Federation, which is a national trade association representing producers and processors of turkeys and turkey products.[1]

Very briefly, we would applaud the subcommitte's effort to improve the food labeling process, but we urge that you avoid any ingredient or nutrition labeling that would aggravate consumer's concerns over complex labels.

We applaud the exemption for fresh poultry and red meat, and hope that that exemption will be clarified as was suggested earlier.

To address two points in regard to nutrition labeling, Senator, we believe that nutrition labeling should and does serve an important information and education function for the consumers, but this can best be achieved through a voluntary program.

We think that the necessary data for a voluntary program is available now and it is available in information which USDA has published in Handbook 8 and various supplements. What is here right now.

In the August 1979 foreword to Handbook 8, Supplement 5, Dr. Hegsted, Administrator of USDA's Human Nutrition Center, points out that: "Data on nutritive value of foods were first compiled and evaluated in the Department by W. O. Atwater in the 1890's. . . . In 1896, the now classic USDA Bulletin No. 28, 'The Chemical Composition of American Food Materials,' by W. O. Atwater and C. D. Woods was published. This document was the first in a long series of food composition tables that has been issued by the Department."

Now, if the data which USDA has been developing for 90 years is not good enough to base some informational, educational label on,

[1] See p. 140 for the prepared statement of G. L. Walts, of the National Turkey Federation.

and this committee has properly identified that as a function of nutrition labeling, we question whether the industry should be asked to reinvent the wheel.

We think that the nutrition labeling programs that have been developed are a start, that they can use this type of data. They have had their imperfections and we think that USDA had a proposal pending for 7 years for nutritional labeling. FDA has required substantiation data. To make these programs mandatory, we think, is not to overcome the reluctance of processors but to mask the failures of Government agencies which have made these programs unattractive.

USDA has no regulations and yet there are turkey processors already nutrition labeling. We think the program should be voluntary because then the Government, the Government agency, would be obligated to make them attractive.

We appreciate the opportunity to appear here today.

Senator LUGAR. I will hear from Mr. Silverman next.

STATEMENT OF RICHARD B. SILVERMAN, COUNSEL, AMERICAN FROZEN FOOD INSTITUTE

Mr. SILVERMAN. I think it is unusual that you will get two lawyers being very brief, but I will try.[1]

The only point I wish to highlight deals with the suggestion that we made that the legislation be amended to provide that "point of pack" is the appropriate place in the food distribution chain at which to base nutrient value determinations.

We have supplied to members of the committee a document which was recently published by AFFI, entitled "Nutrients in Frozen Vegetables." This is a new data bank for consumers and industry. We show this to you to highlight the point that all of the work that has gone into this has been at point of pack. If the legislation were to require it to be based at point of purchase, a lot of work readily available would go out the window.

I think my background might be of interest to you. I spent 5 years with FDA as Associate Chief Counsel for Enforcement, and the next 4 years as general counsel for a major food company before succumbing to the lures of Washington and Potomac fever. I have seen first hand the voluntary program and the disincentives of that program. I, for a fact, know that many companies not now presently nutritionally labeling would do so if some of these disincentives could be removed. For instance, FDA requires in its nutrition labeling program that you must list a whole litany of information to include macronutrients and micronutrients information. Many companies would be more than willing to provide caloric information alone on the information panel, but under present regulations they are not allowed to do so.

So, from a marketing standpoint, the FDA program acts as a terrible disincentive.

With respect to USDA's program, there are no regulations in place. The sampling requirement that USDA mandates is far in excess of those required by FDA and act as an economic disincentive to industry to voluntarily nutrition label.

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[1] See p. 142 for the prepared statement of Mr. Silverman.

When you overlay the conflict between USDA and FDA with the Federal Trade Commission—because one of the requirements of the present system is that you must nutrition label if you make a nutrition claim for a product or you fortify that product—you can trigger these requirements by what you do in advertising. In many instances, manufacturers would be more than willing to voluntarily provide useful information to the consumer but if they were to do so they would have to give the litany of micronutrient zeroes on the label when the consumer does not want that. This is particularly important where you have two major manufacturers dominating a market. If one goes and voluntarily nutrition labels and the other does not because of micronutrient declaration requirements it is a terrible disincentive to continue a voluntary nutrition labeling program.

Senator LUGAR. Thank you very much.

Our final witness will be Carole Bisogni.

STATEMENT OF CAROLE A. BISOGNI, PH. D., CHAIRMAN, NATIONAL NUTRITION CONSORTIUM FOOD LABELING COMMITTEE, AND ASSISTANT PROFESSOR, DIVISION OF NUTRITION SCIENCES, CORNELL UNIVERSITY

Dr. BISOGNI. I work at Cornell University as an assistant professor in the division of nutritional sciences. I am here today on behalf of the National Nutrition Consortium, which is an organization made up of the 10 major professional societies in food, nutrition, and dietetics. The names of the societies are listed in my prepared statement.[1]

I am chairman of the committee on food labeling formed recently by the consortium to address some of the issues we are talking about today. Our committee is preparing a statement to be reviewed by the consortium board at its May 1 meeting.

A starting point for our document will be the important statement by the consortium board submitted for the triagency labeling hearings in 1978. Key points in that statement are related to the bill we are considering today.

First of all, the board supports the need for nutrition information on food labels.

The board endorses placement of major emphasis on providing consumers with nutrition information for the total diet. The board recognizes, however, that some flexibility may be needed in the system to encourage the participation of all producers, small and large.

The board strongly supports nutrition education. Well-funded and well-designed programs are essential to the success of any labeling program. Nutrition labeling should be a part of, but not a substitute for, nutrition education.

The board supports the evaluation of alternative formats and contents for nutrition labeling through well-designed programs of consumer research.

Senator LUGAR. I apologize for hurrying your testimony but your statements will be published in full.

We are grateful to you for taking time to come to this hearing which I think has been a useful one.

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[1] See p. 143 for the prepared statement of Dr. Bisogni.

With that, the hearing is adjourned. Thank you again for coming.

[Whereupon, at 12:55 p.m., the subcommittee adjourned, subject to the call of the Chair.]

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APPENDIX

STATEMENT OF HON. GEORGE MCGOVERN, A U.S. SENATOR FROM SOUTH DAKOTA, BEFORE THE SUBCOMMITTEE ON HEALTH AND SCIENTIFIC RESEARCH OF THE COMMITTEE ON LABOR AND HUMAN RESOURCES, MARCH 19, 1980

Mr. Chairman, I am pleased to be here this morning to open this hearing on nutrition labeling and information. I particularly want to thank you and Senator Kennedy for your support of both S. 1652, "the Nutrition Labeling and Information Amendments of 1979 to the Federal Food, Drug and Cosmetic Act"; and S. 1651, the "Department of Agriculture Nutrition Labeling and Information Act of 1979." I anticipate holding hearings before the end of April.

If I could take a minute, I would like to outline how we arrived at this point. S. 1652 is the product of what is now a two year initiative, and the heir to other Senate efforts earlier in this decade. The process began in August 1978 with hearings before the Agriculture, Nutrition and Forestry Committee. Then in the fall of 1978 the Department of Agriculture, the Food and Drug Administration, and the Federal Trade Commission held 10 days of hearings in 5 cities on the topic of food labeling. Those agencies testified both at the outset and again at the end of the oversight hearings held by my Subcommittee on Nutrition that totalled 6 days ending in February 1979.

In the spring of 1979, staff from the Committees on Agriculture, Nutrition, and Forestry; Commerce, Science, and Transportation; and Labor and Human Resources began meeting informally with individual food companies, trade associations, consumer groups, and the three agencies. Finally, on August 2, 1979, S. 1651 and S. 1652 were introduced with co-sponsors from those three Committees.

With the depth and breadth of effort over the last two years, I believe that these two bills offer the best proposal to date on the nutrition labeling and information issue. They represent a spirit of cooperation among the agencies administering the laws, and the committees of Congress who have legislative jurisdiction. They also equally reflect the interests of the food industry and the consuming public.

I particularly want to underscore this last point. This legislation represents a very constructive and ongoing initiative that is based on industry/government cooperation. I think it is exemplary of the kind of productive and equally beneficial outcome that can occur when the private and public sectors sit down to solve their mutual problems.

Thus, the enactment of this legislation is in the best interest of all Americans. The ability of consumers to select a more nutritious diet is critical in preventing disease and promoting good health because diet is a risk factor in 6 of the 10 leading causes of death, and it is a causative factor in obesity and dental caries. Furthermore, more optimal diet selection can help slow mounting medical care costs because healthier people need less medical attention.

The passage of these bills is also in the best interest of the American food industry. This legislation focuses on removing overly restrictive regulation that has prevented the market from functioning on a more competitive basis. The food market can only be truly competitive if consumers have sound, objective and relevant nutrition and ingredient information with which to make an informed choice. As a possible additional benefit, by being able to make such a choice, consumers will feel more confident about the American food systems which in turn will enhance the credibility of our number one industry.

The Congress has never specifically enacted nutrition labeling legislation. As a result, current nutrition labeling is based on the existing statutes of the Federal Food, Drug, and Cosmetic Act—an act which is essentially punitive in nature because of the very real food and drug safety concerns that it addresses. However, the consumer's need for nutrition labeling is on a totally different plane from that of regulating toxic substances in our foods. Our hearings have demonstrated that, in fact, because the Congress has not taken direct action on nutrition labeling, we have overregulated this matter by overemphasizing the classic compliance aspect of food regulations.

I recognize that the public usually associates more legislation with more regulation. But this is not always the case. In this instance, this legislation is aimed specifically at ridding us of overly restrictive labeling regulations that have evolved

as a result of trying to use inappropriate statutory language to meet an unintended purpose. This legislation addresses the problem of inappropriate regulation by directing the focus away from compliance and toward the vital information function of nutrition and ingredient labeling. Thus, this bill embraces a classic principle of American democracy—the government's responsibility to encourage the flow of vital information in the marketplace. By so doing, we can achieve better market competition and less government regulation by giving people necessary information with which to make informed choices.

With this in mind, we have sought to meet three key objectives. First, the consumer's need and desire for objective and useful nutrition information that is suitably accurate, and that can be provided on food labels or labeling at the same or less cost as the current system. Second, the food industry's need for greater flexibility and full participation in the development process. And third, both groups stated position that a person has the right to know what is in the food that he or she chooses to eat, as well as the right to choose those foods that he or she desires to eat. Furthermore, we have examined the problem comprehensively by considering it as an information system that includes all types and sources of food.

I will close out my testimony this morning by discussing four key modifications that I believe will further improve S. 1652.

First, Section 7, Notification to and Report by the Federal Trade Commission, should be dropped from S. 1652. The more time I spend with this legislation, the more I have realized the importance of matching the desired objective with the best means to attain that particular objective. In this case, the best method that I have seen to convey a modest amount of accurate, objective nutrition information is on food labels. This does not mean of course that nutrition is not suitable as a topic in advertising. Rather, I don't think we should ask advertisers to attempt to provide nutrition information via a medium that is not best suited to effect the desired objective.

Second, the central working principle of S. 1652 is the establishment of a nutrition data base approach to food labeling. Since I expect the details of this method will be discussed by this morning's witnesses, at this time I will only make the following two points. I would recommend that an altered time frame and implementation sequence be added to the bill. Specifically, as currently drafted, mandatory nutrition labeling for all processed foods would go into effect two years after enactment of S. 1652. I would recommend instead that after two years we adopt a new labeling format based on the findings from Section 5, Demonstrations and Evaluations, but that no food would be required to provide nutrition information until it was in the nutrition data base. Furthermore, no mandatory nutrition labeling would result until a majority of all foods are in the date base. Of course, if a nutrition claim is made about a food by the producer, then nutrition labeling would be required even if that food is not already in the data base.

The projected timetable for establishing the data base and thus shifting over to a predominantly mandatory nutrition labeling system is five years after enactment.

In addition to evaluating label and labeling formats, I would also recommend that the demonstration projects in Section 5 include testing and studies of so-called off label methods of disseminating nutrition information. One proposal recently made by the food industry for achieving this objective is via a reference book that would be made available to consumers. Such a text is a natural extension of a food label. It solves the problem of having only a finite amount of space on a label. It would be particularly valuable to people who require far more detailed nutrition information because they have health problems. It would also be useful as a resource in the nation's schools for teaching our children about food labels and nutrition. Once a comprehensive, national nutrition education program is developed, the demand for a text of this kind could make it as commonplace in kitchens as a cookbook. Such a document is one means by which FDA could meet the requirements of Section 6, Consumer Education Program on the Use of Labels and Labeling.

Third, S. 1652 needs to include a new section authorizing the President to establish a joint USDA/FDA committee that will oversee the development of the data base and the demonstration projects, and the dissemination of the nutrition information via labels and off-label methods. This joint committee would have industry and consumer input.

Finally, S. 1651, the USDA companion bill before my subcommittee, drops the existing criminal penalties for the mislabeling of nutrition and ingredient information. As currently drafted, S. 1652 does not do this. I believe that we should match the penalty to the crime. Whereas food safety concerns require that criminal penalties be applied to many parts of the Federal Food, Drug and Cosmetic Act, I question whether such a severe penalty is appropriate for inaccurate nutrition and ingredient labeling. If we are serious about developing a new regulatory philosophy

in this area that emphasizes information dispersal rather than compliance, then examining where we might modify or eliminate criminal penalties under S. 1652 for the nutrition and ingredient labeling provisions is an important consideration.

STATEMENT OF HON. CAROL TUCKER FOREMAN, ASSISTANT SECRETARY, FOOD AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE

Mr. Chairman, I am pleased to have this opportunity to appear before the Nutrition Subcommittee of the Senate Agriculture, Nutrition, and Forestry Committee to comment on the Department of Agriculture Nutrition Labeling and Information Act of 1979.

I would like to commend the sponsors of the bill, your colleagues, and your staffs for all the insight and hard work that have gone into preparing this clear and positive response to many of the perceived problems in present food labeling law and policies. The Senate particularly has devoted much effort in recent years to developing recognition of a simple, but eloquent truth: There are relationships between diet and health, and between diet and disease. In this legislation the Committee has articulated a feasible, equitable and economical way to incorporate that truth into our food labeling policies by affirming consumers' need for accurate, objective and understandable nutrition and ingredient information.

This bill and its companion reflect a careful weaving of consumer, industry and regulatory concerns. All questions about the implementation of nutrition labeling have not been resolved. In fact, a significant strength of the legislation is its revolutionary approach to the development of a system of composite nutrient data bases and nutrition labeling requirements.

Consumers, manufacturers and government stand to gain if this legislation is enacted. Consumers would have greater access to more nutrition and ingredient information about more foods—information many consumers want and need, and to which they have a right. If consumers are more informed about the characteristics of foods, they may influence the marketplace to provide more foods of better nutritional quality.

Those manufacturers who wish to label their products with nutrient information would be able to do so more easily, once the nutrient data base system authorized by section 6 of the bill contains adequate information. Manufacturers would not bear the burden of initial determinations of nutrient values. S. 1651 would encourage industry to participate in the development of mandatory nutrition labeling that is reasonable and flexible from an industry perspective.

The legislation would allow the agencies to better fulfill our regulatory responsibility of assuring wholesome and accurately labeled food. It would enable the government to move faster toward a comprehensive and consistent food labeling policy.

BASIS FOR SUPPORT

This legislation confirms and supplements the Department's current labeling authority under the Federal Meat Inspection Act (FMIA), the Poultry Products Inspection Act (PPIA), the Egg Products Inspection Act (EPIA), and the Agricultural Marketing Act (AMA). We do have some concerns with the language of the bill as introduced because the bill does not refer to egg products, uses terminology inconsistent with current statutory authority, and in some cases might be construed to detract from our current authority. However, we understand that the bill's sponsors intend it to encompass egg products and do not intend to diminish the Department's current authority. We also understand that a revised bill may be introduced before mark-up. We would be pleased to submit specific language for substitute legislation that would amend the Federal Meat Inspection Act, the Poultry Products Inspection Act, the Egg Products Inspection Act, and the Agricultural Marketing Act of 1946. Our support of S. 1651 today is based on our understanding that these revisions will be made.

This bill complements the work of three Federal agencies toward a national, comprehensive food labeling policy by granting us the explicit authority to implement some labeling changes that could not be made under current legislative authority and by confirming our authority to implement other labeling changes.

The Federal Register notice of December 21, 1979, describes our strategy for improving food labeling policies. This document represents a substantial achievement—Federal agencies speaking with one voice on significant food labeling issues. I want to summarize briefly the process that culminated in the issuance of the December 21 notice, because S. 1651 is a logical extension of that process.

The Food Safety and Quality Service (FSQS) of the Department of Agriculture, the Food and Drug Administration (FDA) of the Department of Health, Education,

and Welfare (now the Department of Health and Human Services) and the Bureau of Consumer Protection of the Federal Trade Commission (FTC) began working toward improved and more uniform food labeling policies in 1978. FSQS has been involved because it carries out the Department's responsibility to assure that meat, poultry and egg products are safe, wholesome and accurately labeled. The FDA regulates labeling of other foods. The FTC has also been involved because it regulates food advertising.

When the three agencies began concerted work on food labeling in early 1978, we found many disparities between FSQS and FDA labeling requirements. The disparities grew from differences in underlying legislation and regulatory philosophies. For instance, FSQS regulations now require all ingredients to be listed on labels specifically and in descending order of predominance, with certain exceptions: Spices, flavorings and colorings may be listed generically as spices, flavorings and colorings. (The presence of artificial flavorings and artificial colorings must be specified on the label.) Fats may be listed on the basis of animal or vegetable source.

These fairly straightforward requirements are derived from fairly straightforward laws. The Federal meat and poultry products inspection act demand that we prevent false or misleading labeling and that we prescribe by regulation any labeling information necessary to assure that products do not have false or misleading labeling and that consumers will be informed of the manner of handling required to maintain the article in a wholesome condition. The Department also has stated authority to require by regulation the optional ingredients that must be listed for products subject to a standard of composition or identity; and the law requires all ingredients to be listed by specific name on the labels of other products (except for spices, flavorings and coloring, which may be listed generically).

Similarly, the Egg Products Inspection Act directs the Department to require by regulation any label information that is necessary to describe the products adequately and to assure that their labeling is not false or misleading. FDA and FSQS have worked out specific agreements to administer labeling requirements for egg products.

Unlike these laws, the Federal Food, Drug, and Cosmetic Act exempts mandatory ingredients in standardized foods from being listed (e.g., alcohol in vanilla extract). Consequently, FDA has adopted different regulatory strategies than FSQS in order to provide more complete ingredient information to consumers. For example, FDA has encouraged manufacturers of standardized foods to voluntarily list mandatory ingredients; many have complied. And FDA is amending its standards to require that, if an ingredient is mandatory but two or more forms (i.e., "options") of it may be used, then the specific form used (the option chosen) must be listed.

Over time, then, FDA and USDA labeling policies evolved in somewhat different directions as each agency attempted to respond, within its own statutory constraints, to changing needs. When the agencies began our reassessment of food labeling, it was very clear to us that to address the issues in a meaningful way and move toward a consistent national food labeling policy, extensive public participation would be essential. And that participation would have to include all of the interested public—the grassroot, individual consumer and the organized consumer movement, small business people and large corporations and trade association, food and nutrition professionals and private and public bodies with public health responsibilities.

The agencies sought public views on several basic issues to help determine which labeling issues most concerned a broad spectrum of consumers and which labeling changes were most necessary. In the late summer and fall of 1978, we sponsored public hearings in 5 cities. Almost 10,000 written and oral comments were received and analyzed. These views were from people who are sufficiently concerned about food labeling to consider the issues and make their views known. While no one contends that these commenters represent a statistically projectable cross-section of Americans, their numbers are significant and their views are very relevant to our efforts. They are the large number of people who want to and try to use labeling in selecting and using foods. Their difficulties, frustrations, and problems in doing this have been very helpful in informing us about the shortcomings of current labeling policies. They reminded us of the critical role label information can play, telling us about health problems, such as allergies to monosodium glutamate and nuts, where accurate labeling is their only real protection against serious illness.

The message of the commenters is clear: There is definitely room for improvement in food labeling, particularly in the areas of ingredient and nutrition labeling and freshness information. Labels should provide a more complete profile of more foods and they should present this information in ways that consumers can understand.

Information on consumers' views was also provided by FDA's national survey of primary food shoppers. People were told only that the researchers were doing a survey on food and shopping for FDA. They were then asked a variety of questions about their problems in these areas and about their awareness and use of current label information.

The initial analysis of the responses indicates that although their level of concern is lower, the labeling problems of primary food shoppers are similar to those of the commenters. When asked about particular problems and concerns, other than price, that they currently have with food, half of the respondents identified difficulties. Most of these problems involve the quality of food. Many people mentioned ingredient and freshness concerns. These are areas where label information is important to exercising product choice because labeling can provide the answers to what preservatives and colorings have been used, how much sodium and sugars foods contain, and when a product's quality may change. Furthermore, even though the question did not ask them about food labeling, 8.4 percent spontaneously noted concerns in this area.

When the survey turned to food labeling and asked people whether they are satisfied with the kind and amount of information on food labels, one-third saw room for improvement; and when asked specifically about the amount of information, one-quarter said they want more. These levels of response indicate that a significant number of the people doing the food shopping in this country are not satisfied with current labeling information. When those who want more labeling information were asked what changes they would like, their responses, like those of the commenters, focused on ingredient and nutrition information.

The survey then explored various labeling areas, such as people's awareness of types of information and their success in using them. While general awareness is high, people seem to be selective; they use portions of the label and look for certain kinds of information. Ways to improve labeling information were also investigated. Here questioning was frequently limited to the portion of the population that reported paying attention to the information; in other words, those who would provide informed responses. Again, people seem to be looking for specific types of information, with more than 30 percent reporting they pay particular attention to sugar and salt content and information on caloric, vitamin, protein, and fat content.

Following the hearings and the FDA consumer survey, and drawing from our review of current labeling laws, regulations, and policies, the agencies considered a number of options for improving nutrition and ingredient labeling policies. The agencies also analyzed options in labeling areas not addressed in S. 1651. On most issues, we reached consensus. On some, we determined that additional information is needed.

The agencies considered three interrelated principles in developing our positions, principles that are also inherent in the provisions of S. 1651. First, food labeling is of public health importance. Second, the public has a right to know certain information about the foods they buy in order to make appropriate economic and nutritional choices. Finally, while labeling policies should provide consumers with economic protection, proposed changes should be carefully evaluated to ensure that they do not impose costly and inflexible requirements on industry which would result in substantially higher food costs for consumers.

The agencies published a tentative food labeling plan in December 1979. We believe that this document proposes effective solutions to many of the thorniest regulatory problems faced by FSQS and FDA. It also resolves many of the differences in our labeling policies. In early March we held our second set of hearings. Almost 40 people, primarily industry representatives, testified on the interagency food labeling document. We will be accepting written comments through April 21st.

We are now getting down to specifics on a number of issues and beginning to draft proposed regulations. At this stage, we will be paying particular attention to the economic impact of various changes. An economic impact study will accompany each regulatory proposal. We will be careful to avoid approaches which result in significantly higher food prices without commensurate benefits.

We strongly support S. 1651 because it would confirm the Department's authority to implement some of the tentative proposals in the interagency labeling document, and because it would grant us new authority to implement other proposals. In short, S. 1651 would help us fulfill the promise of the interagency labeling document.

I will now comment in some detail on the major provisions of S. 1651: the development of a standardized reference on the nutrient composition of foods, mandatory nutrition labeling for processed products, increased ingredient labeling information, demonstration programs, enforcement and uniform retail quality grade standards.

NUTRIENT DATA BASES

The standardized reference on the nutrient composition of foods authorized by Section 6 of S. 1651 is the cornerstone of the bill's goal of increasing the amount of nutrition information available to the public. A uniform standard that provides representative (weighted) nutritional values for all foods is essential if accurate and objective nutrition labeling is to become widespread. Such a data base system should specify a range of nutritional values, with reasonable variations, that will be present if foods are properly handled and good manufacturing practices are followed.

We are pleased to see that S. 1651 envisions the standardized reference as a comprehensive system of data bases evolving from the existing National Nutrient Data and other sources. The Department's work in gathering, analyzing and publishing information about the nutrients in foods dates to the 1890's; the first bulletin on this subject, "Chemical Composition of American Food Materials," was issued in 1896. Since then, of course, we have learned a great deal about vitamins, minerals and other dietary essentials. We continue to learn more as new varieties of foods are developed and growing practices change, as analytical procedures improve, and as nutrition research struggles to catch up with food processing technology.

The National Nutrient Data Bank consists of three computerized data bases. One of these summarizes all of the nutrition information available, considers all that is known about a given food product, weights these factors, and arrives at representative nutritional values. Information from this data base will appear in the updated Handbook No. 8, Composition of Foods: Raw, Processed, Prepared.

Handbook No. 8 is the Department's well-known, standardized reference table on the nutrient composition of foods. It was last completely revised in 1963. We have updated it since then on a section-by-section basis, according to major food groups. We have published revised sections on 144 dairy and egg products, 43 spices and herbs, 217 baby foods, 128 fats and oils, and 304 poultry products. The updated section on soups, sauces and gravies has been completed and is in press.

Handbook 8 presents at least the following profile of each food included: energy; proximate composition (water, protein, fat, carbohydrate, ash); refuse; 7 mineral elements (calcium, magnesium, iron, phosphorus, potassium, sodium, zinc); 9 vitamins (ascorbic acid, thiamin, riboflavin, niacin, pantothenic acid, vitamin B6, folacin, vitamin B12, vitamin A); individual fatty acids; total saturated fatty acids; monounsaturated fatty acids; polyunsaturated fatty acids; cholesterol; total phytosterols; and 18 amino acids.

In recent years, much of the nutrient data on processed foods has been provided by industry. For instance, the National Nutrient Data Bank includes entries from nearly all major manufacturers of baby foods, canned soups, and canned and frozen fruits and vegetables. We do not, however, have industry-wide data on the nutrients in such foods as processed meats, baked foods, snack foods, frozen dinners and entrees, and beverages.

Research by USDA and industry will provide important additional nutrient data over the next 3 years. We are now conducting large-scale studies of nutrients in beef and pork, and we have contracted for pilot studies to provide preliminary information on the nutrients in vegetables, fruits and legumes. One of these studies will compare the relative nutrient composition of apples and several vegetables in raw, canned, frozen and cooked states. Representatives of our Science and Education Administration (SEA) are working with representatives from FDA, land-grant university experiment stations, the United Fresh Fruit and Vegetable Association and Giant Food to develop research protocols for additional studies that would provide data to enable nutrition labeling of selected fresh fruits and vegetables. However, as valuable as the results of these cooperative studies will be, they will not be sufficient to provide a comprehensive data base system for nutrition labeling.

S. 1651 would authorize a total of $4 million for cooperative research over the next three years. This amount of money would allow us to accelerate greatly our nutrient research. We are currently spending about $800,000 a year generating data for the National Nutrient Data Bank: obtaining and preparing nationally representative samples and then making laboratory analyses of them. Even so, appropriation of all the funds authorized by S. 1651 would not enable us to fulfill the intent of S. 1651: the development of a comprehensive data base system to serve as a basis for implementing mandatory nutrition labeling.

We estimate that $5–6 million per year for each of the next five years would be necessary to expand our nutrient data bases to include information on the amounts of calories, protein, fat, carbohydrates, sodium, potassium and cholesterol for the 300 "core" foods most frequently consumed. FDA has estimated that obtaining nutrient information on *all* important nutrients in *all* foods, including complex formulated products, could cost as much as $110 to $130 million.

The costs of developing a comprehensive system of nutrient data bases depend on many factors, and there are several unresolved questions. For example, is it appropriate or even possible to assess the nutrient composition of all foods at "point of purchase"? Some foods may be bought and sold several times before reaching the consumer; nutritional values can deteriorate naturally or be affected by poor handling. Is it workable to analyze the nutrient composition of *all* foods, or would it be more workable to apply a recipe approach in providing nutrient data for some foods, calculating the total nutrient values in these products from the values of their ingredients?

Other factors that will have a bearing on the costs as well as the time involved in developing a comprehensive system of nutrient data bases include: the level of industry participation, the amount and reliability of available information, the variability of indigenous nutrients (those occurring naturally), the stability of nutrients during processing, handling and storage, the list of nutrients that are determined to be of most pressing public health significance, the foods that are chosen first to be analyzed, and the variations from labeled nutrient amounts that are determined to be sufficiently accurate for consumer purposes, fair to industry and enforceable.

We believe that resolution of these issues may be approached from two directions. We plan to establish a joint working committee with FDA to recommend priorities for expanding the National Nutrient Data Bank and to evaluate the quality of available data on a continuing basis. We believe that this joint committee could best coordinate the development of composite data bases, as well as their application to nutrition labeling requirements. The interagency committee will be able to recommend priority categories for the development of nutrition data; priority categories might include foods with high consumption levels and foods of health importance to significant segments of the population. The interagency committee will also be able to determine when enough is known about nutrient values in a product to set representative nutritional values and reasonable compliance ranges.

Second, the agencies have requested industry and other public comment on questions of data base cost and feasibility. We cannot hope to "complete" the system without industry cooperation, regardless of the funds authorized and subsequently appropriated for the development of a composite system of nutrient data bases.

HOW THE NUTRIENT DATA BASE SYSTEM WOULD BE IMPLEMENTED IN NUTRITION LABELING

During the next several years, we will continue to encourage industry to develop data bases and submit them for review, but nutrition labeling will remain primarily voluntary: the regulations we plan to propose would require nutrition labeling only for meat and poultry products about which nutrition claims are made or to which nutrients are added. In the future, we will have accurate information in the nutrient data base system on a number of foods.

At that time, S. 1651 would require the disclosure of nutrition information on meat food and poultry products, expanding on our current authority to require nutrition labeling. We believe that the most effective interpretation of S. 1651's "feasible and appropriate" clause is one that would require nutrition labeling only when nutrient data base information is available for the given processed product. The required information would include at least caloric, macronutrient, sodium and cholesterol content per serving.

We envision the nutrient information in the nutrient data base to be linked to definitions and standards of composition and identity. A number of classes might be created to reflect the broad variations within a single type of food. For example, there might be standards for the following classes of hotdogs: "beef hotdogs," "pork hotdogs," "pork-beef hotdogs." These classes might be further broken down by ranges of fat content. Nutrient information would be required for each subclass for which information is available.

Thus, for example, a manufacturer who processes "pork-beef hotdogs with 25 percent fat" would be required to provide nutrition labeling once the applicable data base is completed. He or she would be able to use this information in determining the values to be declared. However, the manufacturer would still have to assure that the product meets the labeled nutrient content within reasonable limits by conducting periodic verification—probably on an annual basis—using accepted, reliable and appropriate procedures, such as those of the Association of Official Analytical Chemists (AOAC).

We know that the average cost of performing one set of analyses for fat, protein, carbohydrates, sodium, potassium and cholesterol is about $150. Of course, the cost of verification depends on the nutrients to be tested, which in turn depends on the type of product and the likelihood of significant nutrient variation. We are sensitive

to the need to assist small processors in obtaining verification at the lowest possible cost. However, it should be pointed out that the manufacturer would no longer bear the extensive costs of testing to establish the initial values.

Information on the nutrients present in fresh or raw products, such as chicken breasts and apples, will also be included in the nutrient data base system. The bill would allow us to move towards nutrition labeling of such products on a voluntary basis. For example, we might encourage posters listing representative nutritional values for apples and chicken breasts to be prominently posted in supermarkets.

Some processed products, such as salted duck and packaged kumquats, might never be represented in a nutrient data base. Because such specialty products are sold in small volume, they might never achieve sufficient priority for analysis by either the agencies or by private companies.

INDUSTRY CONCERNS

Industry groups have repeatedly expressed concern about the costs of revising labels to comply with revised nutrition and ingredient labeling requirements. These costs, on a one-time basis, may vary from a few dollars to thousands, depending not only on the information that must be included, but also on the type of packaging and printing chosen. However, labeling costs are an essential, and usually small, cost of business. We believe that any new ingredient and nutrition labeling requirements can and should be implemented on an orderly but flexible basis to minimize label redesign costs. For example, we are cognizant of the need to establish effective dates for revised requirements which allow sufficient time for a number of changes to be implemented simultaneously, for new packaging and labeling materials to be procured, and for reasonable label stocks to be used.

S. 1651 recognizes the importance of industry contributions in activating its provisions, and the importance of being flexible and responsive to industry concerns throughout the process. The Department strongly supports these tenets of S. 1651, and we will remain sensitive to industry in implementing any new labeling policies. The Department has traditionally sought to avoid undue adverse impact on small business and the segments of industry most affected by new regulatory requirements. We have sought to provide technical assistance and other support that does not conflict with our duty to consumers. We will continue these policies.

NUTRITION LABELING REQUIREMENTS

We welcome the concept that underlies the authority provided by this legislation to require nutrition labeling on processed products in order to provide important health information. This new authority would supplement significantly our current authority.

Currently, the FMIA and PPIA contain specific clauses requiring nutrient and other dietary property information on the labels of products promoted for special dietary uses. Regulations incorporate by reference the FDA labeling requirements for such foods (e.g., infant foods). These laws also allow FSQS to require information where labeling would otherwise be misleading. However, regulations for the FMIA and PPIA do not address nutrition labeling, per se.

The labeling regulations for the Egg Products Inspection Act require nutrition labeling for egg products about which nutrition claims are made or to which nutrients have been added. FDA regulations for nutrition labeling are incorporated by reference.

Even though we have no specific nuturition labeling regulations for meat and poultry products, we have our prior label approval process to make certain that relevant nutrition information is included on the labels of meat and poultry products making nutrition claims (less fat than other products meeting the same definition or standard, for instance). The regulations we plan to propose would require nutrition labeling on meat and poultry products when nutrition claims are made or when nutrients are added, making FSQS requirements more consistent with those of FDA.

Many manufacturers also choose to list nutrition information on meat and poultry products as a selling point. Currently, about 75 companies manufacturing some 275 products voluntarily provide nutrition information on their labels. These products include frankfurters, luncheon meats, pizzas and some canned meat and poultry products. USDA currently allows use of the FDA nutrition labeling format (calories, protein, carbohydrates, fat, and seven vitamins and minerals) and an abbreviated format (calories, protein, carbohydrates, and fat).

S. 1651 would enable us to go beyond these requirements and would authorize a more positive labeling responsibility: nutrition labeling to provide health information to the general population on the broad range of foods that are available. The

bill would require labels to list amounts per serving of protein, fats, carbohydrates and—unless we determine that this information is not necessary for particular products—sodium and cholesterol. We would strongly urge the Committee to clarify the bill and insure that the Secretary of Agriculture has the discretionary authority to require disclosure of all nutrition information of public health significance.

The Department is already considering the need for additional information. Our proposed nutrition labeling regulations will require the listing of sugars and possibly potassium content where meat and poultry products are fortified or nutrition claims are made about them. Sugars have been linked with tooth decay; clinical conditions, such as renal disease, which require control of sodium intake frequently require control of potassium intake as well. In addition, Many Americans are monitoring the types of fat they consume as well as their total fat and cholesterol intake. And as we continue to learn more about nutrition, we may find that many diets may not provide adequate amounts of certain micronutrients. Label information on these nutrients might be a way to provide important health information to consumers.

S. 1651 would also require nutrition information to be declared on a "per serving" basis and macronutrients to be expressed in terms of caloric content. The issue of serving size has been a difficult one for both FDA and FSQS; and I think it would be useful for the Committee to be aware of some of the problems we have had. If serving sizes are not reasonable or not presented in consistent, uniform and comprehensible terms, consumers will not be able to compare the nutrition information on competing products, and they may be misled about the nutritional value of foods.

FDA defines serving size a reasonable amount of food to be consumer as part of a meal by an adult male engaged in light physical activity, except where foods are intended specifically for infants or children under 4 years of age. FDA has encouraged industry to apply this definition to specific food products and standardize serving sizes within product classes; and FDA has proposed uniform and reasonable standard serving sizes for certain products. However, neither FDA nor FSQS has issued final regulations that establish serving sizes for specific foods.

FSQS currently does not require that serving size be indicated. However, regulations require that if a label claims that a certain number of servings are present in a product, then the quantity of the serving size also must be disclosed on the label. Serving size may be expressed in units of food (e.g., one frankfurter) or in units of measure (one cup of beef stew).

Because of the lack of standard serving sizes for processed foods, all manufacturers have not chosen to use the same units to express serving size. For example, one product label might state that "one frankfurter" is a serving, while another might state that "2 ounces" is a serving. Furthermore, some franks are packed 8 per pound, some 10 per pound, and some are packed 8 per 12-ounce package. So one frankfurter might well weigh from 1½ to 2 ounces. Serving size may also be influenced by container size. If a manufacturer wants to show a whole number of servings per container, and the same product is available in 8-ounce and 15-ounce cans, then the serving size will be different for each size can.

The absence of standard serving sizes also means manufacturers can "balloon" nutrient content by using unreasonably large serving sizes, or can minimize their products' caloric content by showing very small serving sizes.

Because of the importance of serving size information to meaningful nutrition labeling and because industry has failed to set useful serving sizes in many cases, FDA and FSQS plan to establish standard serving sizes for various product classes and/or types of foods.

The Department also wants to explore ways to improve the presentation of nutrition information; and we welcome the emphasis on demonstration projects in S. 1651. We see why the Committee concluded that presenting macronutrient content in caloric terms would have advantages. Consumers commenting in labeling issues stressed the importance of calorie information, and since consumers are interested in this information, it *may* be useful to present macronutrient information in caloric terms, as S. 1651 requires, rather than in gram amounts. For instance, protein might be represented as 25 percent of a total of 400 calories, or it might be represented as 100 calories of a total of 400 calories in a serving of the product.

However, we do not think that the bill should require information to be expressed in particular ways. As the provision on demonstration projects indicates, we need more information before we can determine the most appropriate and effective method for expressing macronutrient content. Therefore, we believe the bill should grant the Department discretion to decide how this information should be disclosed.

INGREDIENT LABELING

We support the bill's approach to ingredient information. We agree that ingredient information should be more complete and more information should be available about the quantities of significant ingredients in foods. In fact, we plan to act in these areas under our current regulatory authority.

According to FDA's consumer survey and public comments on food labeling, ingredient information is the labeling area of most concern to consumers. Ingredient labeling may be thought of in at least three contexts: the specificity of ingredient information; the significance of ingredients with respect to cost, quality and consumer acceptability; and the functions of ingredients.

SPECIFICITY

S. 1651 would require all ingredients to be listed by their common or usual names, in descending order of predominance by weight, with two exceptions: (a) ingredients comprising five percent or less of the total weight of the product would be exempt from the order of predominance requirement and named at the end of the ingredient list; and (b) flavorings would be listed generically as natural or artificial unless the Secretary determines that more specific information is necessary for health reasons.

Currently, FSQS has broader authority than FDA to require specific listing of ingredients. The meat and poultry inspection laws require a food that is subject to a standard of identity or composition to bear the standard name and any ingredients required by regulation to be listed, other than spices, colors or flavors. If definitions and standards of composition or identity have not been set for a product, the law requires all ingredients—again except for spices, flavors and colors—to be listed unless exempted by regulation. These laws also require the presence of artificial coloring and artificial flavoring to be listed unless exempted by regulation.

FSQS has chosen by regulation to require all ingredients in products under our jurisdiction, whether standardized or nonstandardized, to be declared by name (except for flavors, spices and colors, which may be listed generically) in descending order of predominance. Because artificial colorings and flavorings must be so designated, the use of the terms "flavoring" indicates that a natural and approved flavoring such as a spice extract has been used and the use of the term "coloring" indicates that a natural and approved coloring such as carotene has been used.

We agree with the Committee that spices and colors should be listed by their specific names, but that it should be permissible to list flavors generically unless a more specific declaration is necessary to provide important health information—if, for instance, a flavor ingredient may cause allergic reactions. Most foods do not contain more than a few spices or colors. Therefore, we do not believe that requiring them to be listed will present practical problems. However, as some processed foods contain as many as 125 flavors, requiring that all flavors be listed would be impractical.

FSQS plans to require greater specificity in another ingredient area: sources of fats and oils. Currently, meat and poultry inspection regulations allow the fats and oils used in products to be listed on the basis of source, i.e., as animal and/or vegetable. (Labeling policies for egg products are consistent with FDA requirements.) We plan to propose regulations requiring the specific fat and oil ingredients to be listed when total fat content comprises at least 10 percent of the product on a dry weight basis. If total fat makes up less than 10 percent of the dry weight of the product, a manufacturer could use "and/or" labeling, indicating each fat or oil that may be present (for instance, "soybean and/or corn oil"). We believe that this approach would suit the needs of people with allergies to specific fats, as well as those who wish to avoid specific fats for religious, health and other reasons, while maintaining flexibility for those products in which fat is not a significant component.

SIGNIFICANCE

We strongly support Section 3(b)(4) of S. 1651, which would confirm and strengthen our authority to require quantitative listing of valuable, characterizing, or otherwise significant ingredients. We plan to propose regulations to implement percentage labeling of certain important ingredients insofar as current statutes permit. While the listing of ingredients in descending order of predominance already provides the consumer with some indication of the amount of the various ingredients in product, the agencies have concluded that this information is not always sufficient.

We now consider the amount of characterizing or valuable ingredients in determining definitions and standards of composition or identity. The USDA has set definitions and standards for about 300 foods; for example, chili con carne must

contain at least 40 percent meat. We have also set processing requirements for some foods and we have developed some "recipes." However, consumers generally are unaware of these definitions and standards. While the product name itself may provide indications of the amounts of valuable or characterizing ingredients (e.g., "Chicken with noodles" should contain more chicken than "Noodles with chicken"), providing more specific quantitative label information about the amount of chicken in the product would provide not clues but solid information to the consumer.

I do have reservations about the effects of the bill's exemptions for ingredients constituting five percent or less of the total weight from (a) declaration in order of decreasing predominance and (b) quantitative listing on the basis of significance to quality, consumer acceptability or cost. We do not have sufficient information to conclude that five percent is appropriate as an across-the-board cut off level.

We understand the benefits of allowing low level ingredients to be declared out of order at the end of the list and without quantitative information: manufacturers could make minor formulation changes without having to change their labels. However, many ingredients used in meat and poultry products which individually comprise five percent or less of the total product have a significant bearing on consumer acceptability or product identity, quality, or cost. Binders and extenders are just two examples.

These provisions might result in insufficient information on the amounts of "undesirable" or "neutral" ingredients in meat and poultry products. I think we need clear authority to require quantitative information whenever an ingredient or ingredient class has a significant bearing on the quality, consumer acceptability or cost of a product, accompanied by the complementary authority to exempt ingredients from these requirements.

S. 1651 would also require a label statement indicating that ingredients are listed in descending order of predominance. We support this provision. Under our current authority, we plan to amend our regulations to require an explanatory statement of this type. However, the bill should make it clear that the Department has the authority to require qualifying statements to take into account any exceptions to the general rule; e.g., ingredients comprising five percent or less of the total product. Otherwise, consumers could be misled.

FUNCTION

Public comments on food labeling indicate that as the number of processed foods and the number of unfamiliar ingredients in those foods has grown, the task of interpreting the names of ingredients and their functions has become extremely difficult for many consumers. The comments indicate that many people have problems determining "what" is in their foods even when they know the names of the ingredients used.

The agencies believe that much of the confusion and concern may be the result of a lack of knowledge about the functions various ingredients serve. Therefore, we intend to explore the development of an "ingredient dictionary." The dictionary, unlike the nutrient data base system, would be a consumer tool. Consumers, using dictionaries available in supermarkets, libraries or other outlets, could look up a specific ingredient and find its function or functions listed. The Subcommittee might wish to consider endorsing such a concept as one alternative for meeting its goal of communicating ingredient function information.

VERIFICATION AND ENFORCEMENT

Three basic compliance provisions currently apply to manufacturers who provide nutrition labeling on products under USDA jurisdiction. First, when processors initially submit data for use in labeling, FSQS requires them to validate those data with substantial analyses, using methods of the Association of Official Analytical Chemists (AOAC) or other FDA-accepted procedures. Second, manufacturers are required to verify periodically that the nutrient statement is still accurate. If a nutrient occurs naturally in a food, verification analyses must show that at least 80 percent of the labeled amount of the nutrient is present. If a nutrient has been added, the verification analyses must show that at least the labeled amount of the nutrient is present. The number of verification analyses required depends on the nature of the product and the volume of the producer. Third, packers who provide nutrition labeling must maintain approved quality control system to monitor routinely the continuing accuracy of the label nutrient information. Procedures for routine monitoring may be less sensitive than those required for initial validation or periodic verification of nutrient information.

The development of the composite data base system called for by S. 1651 could greatly reduce the costs of mandatory nutrition labeling to individual manufactur-

ers. Manufacturers would be able to use nutrient values from the data base system to determine the information to be declared on their labels. While manufacturers would still be required to conduct periodic verification testing to assure that their products meet the labeled nutrient content within reasonable limits, we would work with them to minimize any burdens this might impose. For example, we would offer technical assistance, and we would consider the need to subsidize the cost of verification checks or to revise the limits within which labeled values may vary.

S. 1651 would encourage more nutrition labeling by waiving statutory requirements for participants in demonstration projects and by removing criminal penalties for labeling violations. While we support the thrust of these provisions and the concept of adding civil penalties to our current enforcement powers, we have serious reservations about the enforcement section of the bill.

During the next few years, as we develop a nutrient data base system, implement nutrition labeling, and "get the bugs out," we would expect some technical violations of nutrition labeling requirements to occur. Such violations would be accidental or unintentional and would have no effect on the wholesomeness of the product. We believe that in cases of minor nutrition labeling violations, we should make every effort to work with the firms involved to correct the problem where foods are properly handled and good manufacturing practices are followed. We have taken a similar approach with our nitrosamine monitoring program. We give plants every opportunity to come into compliance with regulations providing some technical assistance where necessary. This approach has been very successful, and we believe that it would be well-suited to minor nutrition labeling violations.

To enforce the law effectively, however, it is essential that we have a range of powers that enables us to choose the enforcement tool best suited to the specific violation. S. 1651 as now written would detract from our current enforcement authority. More importantly, its provisions would not allow us to resolve adequately the range of labeling and misbranding violations that may occur.

Our current enforcement authority against adulteration and misbranding allows us basically three options: a letter of warning, the injunction approach indicated in the bill, and criminal prosecution. We have used the letter of warning approach most often. It has been effective in halting minor violations, but it lacks any teeth to punish violators or to deter serious violations. We have found injunctions useful in some cases to stop violations that have continued despite repeated warnings but have not resulted in unwholesome products. Injunctions, however, lack deterrent effect on potential violators; in addition, it can be difficult and time-consuming to get injunctions enforced once they have been issued.

Only about 5 to 10 percent of all violations are determined by the Department to be serious enough to refer to the Department of Justice for review for possible criminal prosecution. In 1979, Justice chose to prosecute 56 of the 90 cases we referred. When cases are rejected, we have sometimes sent a warning letter as our only enforcement tool.

Because we have not always found current enforcement powers adequate, the Department is considering asking Congress for the authority to withdraw inspection and impose civil penalties. Such legislation would allow us an intermediate response for those cases that now fall between the cracks: ones which are too serious for a letter of warning but may not warrant criminal prosecution. Under this approach, a violator could choose to settle the case without a formal hearing or have a hearing before an administrative law judge. A penalty would be assessed if the Department could show by a preponderance of the evidence that a firm or individual violated the law. Persons could appeal the administrative decision in the appropriate U.S. court of appeals.

DEMONSTRATION PROJECTS

Section 5 of the bill is particularly important to implementing a mandatory nutrition labeling program because it recognizes the need for improvement in the presentation of nutrition information. The interagency labeling document also acknowledges this need and commits us to action designed to meet it. The agencies expect to continue working closely with industry members, consumers, and food and communications professionals during the next few years on the development and evaluation of ways to improve the nutrition labeling format. We view industry participation as critical to these efforts. We intend to draw extensively on industry expertise and to work with industry in pilot programs to test alternative labeling formats.

Any effective system of nutrition labeling will have to tread the sometimes thin line between providing objective information in an understandable manner and oversimplifying, propagandizing, or appearing to dictate food choices. To date, we know that many consumers have difficulty understanding or using nutrition labeling. We need more information on what criteria best evaluate the effectiveness of

nutrition labeling formats. Effectiveness cannot be judged only by product sales. We must find ways to evaluate whether or not the nutrition information has been transmitted to the consumer.

We must also avoid nutritional gimmickry and consumer confusion, which might result if experimental formats are not evaluated against appropriate criteria before testing or if there is a proliferation of inconsistent formats. Therefore, we agree with the bill's provisions for agency supervision of demonstration projects. The agencies should have the authority to approve or reject proposals as well as the authority to grant waivers from labeling requirements while approved demonstration projects are being conducted and evaluated.

UNIFORM RETAIL QUALITY GRADE STANDARDS

Section 8 of the bill represents the only labeling area that is not addressed in our interagency labeling document. We support the goal of uniform retail quality grade standards. While we believe that the Department already has the authority to implement uniform grade standards, we welcome the additional support in S. 1651, particularly its recognition of the importance of consumer information and education to a successful program. However, in view of our experiences with quality grading, we recommend that the bill be modified in several respects.

Grading is intended to signify that products meet certain standards of quality above and beyond being safe, wholesome, and minimally acceptable. As the country expanded, agricultural areas tended to be further away from the urban areas where foods were sold. Because wholesale buyers were often unable to examine products before buying them, an informal system of grading gradually developed, using such terms as "good quality" and "top quality." But the informal system began to break down because of regional differences in interpreting these terms, the lack of a mediator to resolve differences in interpretation, and changes in quality as products traveled from farm to market. Therefore, Congress authorized the Department to standardize food quality grades and to provide grading services, with users reimbursing the Department for the costs of grading, so that producers and buyers could rely on the grading certificate issued by this third party.

Over time, the Department's grades became nationally accepted; and different grades evolved to meet the needs of different segments of industry. These differences presented no particular problems until distributors began to use grade information to persuade consumers to buy their products. Butter manufacturers were the first, in 1924, to petition USDA for permission to label retail containers with grade marks.

As grading evolved into a consumer marketing and quality information tool, possible consumer confusion in the face of the diversity of grading terminology became a matter of public concern. For example, while the consumer may understand the meaning of "Grade AA" on butter, does he or she have any idea of the relationship between the "AA" on butter, the "prime" on beef, the "A" on poultry, and the "U.S. Fancy No. 1 on fruits"? Even if the consumer is not confused by the use of different grading terms across food groups, does he or she understand the difference between retail chain store grades for meat—e.g., "X-Brand Lean"—and the USDA grade mark, and does the consumer use these terms in comparison shopping? Several studies over the past 12 years, including a 1975 General Accounting Office report and a 1977 Office of Technology Assessment report, have confirmed that consumers are definitely confused by current grading nomenclature.

The Department has been working for some time toward more uniform grading nomenclature and other labeling policies that would demystify grading for consumers. For example, in 1976, the Department adopted a uniform nomenclature policy for fresh fruits and vegetables. Under this policy, all standards for the 82 commodities in the category, when established or revised, will be classified as "U.S. Fancy, 1, 2, or 3." To date, 109 out of 153 standards meet this policy objective.

We are now moving into another phase. We have conducted consumer research to find out the extent to which consumers are aware of USDA grades and the extent to which they understand and use this information. On the basis of this and other information, we will develop a set of options for improving grade labeling policies. We plan to solicit public comment on these options in the near future and to publish a proposed regulation this summer.

Providing grade information on labeling at the retail level presents complicated issues, not all of which have been resolved. The Committee should be aware that it will not be a simple, speedy or cost-free task to untangle the confusion that grading now creates for the consumer while dealing fairly with industry concerns. For example, given that participation in the grading program is purely voluntary, and will remain so, what would be the implications of requiring all those who choose to use grading at the wholesale level to carry it through to the retail label?

A related issue is label disclosure of nonparticipation in the grading program. In early 1978, we proposed that all meat not USDA graded be marked "U.S. Ungraded." We shelved this proposal following overwhelming negative reaction from industry people, who objected that they would be forced into grading meat because consumers would assume ungraded meat was not inspected or was not wholesome. Because the "not quality graded" provision in S. 1651 appears to present the same problems, we believe it should be deleted.

The Department must also determine what type of labeling requirements can best communicate product quality. The grade names are not the only vehicle we can use to inform consumers about product grades. For example, graphic systems or color coding systems could be used to supplement the traditional grading terminology. Finally, as S. 1651 recognizes, a consumer information and education program would be critical to the success of a retail grading program. We would need to develop publications and information campaigns to inform consumers about the new labeling information.

These communications issues are separate from the question of the criteria on which grade standards should be based. We understand that the Committee has decided to delete the provision in S. 1651 linking grade standards to nutritional quality. We support this change because adding such a distinct criterion would increase complexity at a time when we are seeking to clarify and simplify label language.

Moreover, preliminary analysis of our consumer research indicates that the public would prefer nutrition information to be presented separately.

Finally, we suggest that S. 1651 be modified to include grade standards for processed fruits and vegetables. These products are also graded by FSQS and, therefore, should be part of any uniform retail grade standard system.

CONCLUSION

I want to thank the Committee for this opportunity to comment on S. 1651. I hope that my remarks have conveyed our appreciation of the support this bill provides for our efforts to make food labeling a more effective consumer information tool. You have indentified several key areas where improvements are needed; and you have laid out a feasible plan for making these changes without imposing unwarranted burdens on industry. We all recognize the need to avoid costly changes for the sake of change. But this must not obscure other needs, such as those set out at the beginning of this legislation.

Again, I commend you on your work.

STATEMENT OF MAX KELLOUGH, CHAIRMAN, NUTRITION SUBCOMMITTEE, BEEF PROMOTION AND CONSUMER RELATIONS COMMITTEE, NATIONAL CATTLEMEN'S ASSOCIATION,[1] DENVER, COLO.

The National Cattlemen's Association is pleased to have the opportunity to appear at this hearing and to provide input regarding the nutrient labeling of food.

Both studies and observations tell us American Consumers, for various reasons and in various ways, are expressing an increased concern about nutrition and the foods they eat. The consequence of that concern should prove to be beneficial, provided it is built on a strong and positive base.

One very positive and sound base on which to build is nutrition information—and, when we are talking about nutrient labeling, we are really talking about nutrition information.

Providing consumers with objective nutrition information has been a long-time goal of the beef cattle industry. Beef is a nutrient dense food. As such it makes a significant contribution to a healthful diet. (1) Consumption of the product is advocated on the basis of its nutritional contribution to a balanced diet. (2)

To appear here today as an advocate of providing nutrition information through many means, including nutrient labeling, is very much in keeping with long-standing philosophy of the industry and current policy of the National Cattlemen's Association. The following points summarize the Association's general position on nutrient labeling.

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[1] The National Cattlemen's Association is the national spokesman for all segments of the nation's beef cattle industry—including cattle breeders, producers, and feeders. The NCA represents approximately 280,000 professional cattlemen throughout the country. Membership includes individual members as well as 51 affiliated state cattle associations and 15 affiliated national breed organizations.

NCA POSITION ON NUTRIENT LABELING

1. We endorse the general concept of nutrient labeling as being in the interest of those consumers who desire to use the information in making food choices, and in the interest of cattlemen who feel beef is a highly desirable food from the standpoint of good nutrition as well as taste appeal.

2. We endorse voluntary nutrient labeling. Voluntary labeling would allow consumers to choose labeled foods, if that is their desire. If consumers desire labeled food items, most will become labeled because of marketing advantages.

3. We support additional research to ascertain the best means of providing nutrition information, through labeling or otherwise, which will be useful to consumers and feasible for the industry.

4. In the interest of equity and clarity, we support uniformity of labeling format and content.

5. We would support legislation or regulations which would prohibit advertising or nutrient reference which infers or implies unsubstantiated health claims. Example: This product contains no cholesterol.

6. We favor the development of a nutrient data bank based on valid and reliable research. Funds to create the data bank should be provided for in legislation.

7. We support nutrient labeling based on averages and expressed as ranges or phrases such as "not more than" or "not less than."

8. We support nutrient labeling based on a food's nutrient content at the point of consumption and in the case of fresh beef, only on separable lean.

We feel most of these points are or can be included in Senate Bill 1651.

We do have concern, however, that the language in Section 2 of S. 1651 may cause the bill to be construed as legislating the existence of a negative relationship between certain dietary components (saturated fat and cholesterol) and certain chronic diseases (heart disease and cancer.) These relationships are theoretical and highly controversial within the scientific community.

A recent review of the scientific literature on the relationship of diet to heart disease by the American Council on Science and Health contains 449 references—pro and con. The Council's January 30, 1980, news release which accompanied the review concludes:

"Contrary to popular belief, there is no firm evidence to support the premise that reducing saturated fat and cholesterol in your diet will in itself lower your risk of heart disease. Although weight control is desirable, it is premature to recommend specific nutrient changes in the diets of most Americans as a means of preventing coronary heart disease. In other words, we now have no evidence to suggest that use of products such as meats, eggs, butter and other dairy products in an otherwise balanced diet poses a human health hazard."

We are all interested in promoting better health. Unproven and questionable diet-health relationships, however, should be resolved by science, not legislation. In this regard, we would strongly recommend that Section 2 be rewritten to reflect the impression that the only purpose of nutrient labeling is to provide information.

Section 8 deals with uniform retail quality grade standards. Grading and grading nomenclature are complex and controversial issues in themselves, reaching far beyond the subject of nutrient labeling. Before any changes are considered the entire grading system should be thoroughly and cooperatively reviewed and studied by producers, consumers, retailers, packers and processors, and government. To keep the proposed legislation focused on the central issue of nutrient labeling, we would strongly urge that Section 8 be deleted.

The following information is offered as further explanation of some of the preceding points.

NUTRIENT LABELING SHOULD BE VOLUNTARY

The National Cattlemen's Association believes nutrient labeling of foods should be done voluntarily, not mandated through legislation or regulation.

Labeling on a voluntary basis coincides with our conviction that a marketing system as free as possible from government regulation is, in the long run, in the best interest of producers and consumers. Voluntary labeling would allow the industry to try it if it wants to—to experiment, and respond appropriately according to consumer reaction.

If a supplier or retailer utilizes nutrient labeling in its merchandising program and is successful in terms of increased sales, it is assured that others will follow suit.

Mandatory labeling of fresh meat would not be feasible now because nutrient profiles for many of the more than 300 meat cuts do not exist. The development of such profiles and the updating and expansion of such information is underway; but, more time is needed to answer the many difficult questions concerning variability

between cuts, grades and yields. This project is being conducted as a cooperative effort between the National Live Stock and Meat Board and the U.S. Department of Agriculture. The NCA supports this project as a vital first step in developing an accurate and reliable data base.

But, even when the profiles become available, the nutrient labeling of fresh meat may be costly and difficult to effect. It is questionable whether consumers should be forced to pay for something which at this time is not available, they may not necessarily want, or which is in a form that may not be usable.

Once an issue is resolved by legislation or regulation it becomes difficult to later make desirable or necessary changes. In the interim, however, considerable cost can be imposed on government and industry which will ultimately have to be paid by consumers as taxes or as higher prices at the retail counter.

Voluntary labeling would allow consumers to choose labeled foods, if that is their desire. If consumers choose food items which are labeled, rather than those which are not, industry will quickly respond to that as a marketing opportunity or advantage and most food items will become labeled.

Fresh foods, however, present a unique problem in terms of practical application. To individually label the more than 300 cuts of meat will create an insurmountable problem. Point-of-purchase labeling (signs, brochures, etc.) in the case of fresh foods would preclude this need, but still be a means of providing nutrient information.

Understandably, certain guidelines would need to be established in the interest of providing the information properly and adequately, but point-of-purchase labeling would offer economies of cost and ease of updating as new information on nutrient composition of foods becomes available.

RESEARCH

One of the first questions to be answered pertaining to nutrient labeling deals with how the information should be provided so it will be the most useful. Some speak only of macro-nutrients; others feel both macro- and micro-nutrients should be addressed. Other possibilities include a variety of graphics.

Numerous components of the food industry are conducting research and study designed to determine ways of effectively communicating nutrition information to the general public.

Dr. Tim Hammonds of Food Marketing Institute, which headquarters in Washington, D.C., reported recently on work that organization has been doing in trying to determine how best to impart nutrition information to consumers.

Dr. Hammonds said a variety of graphics such as bar graphs, pie charts and the "Dutch" graphic system have been tried. It was concluded that all were basically failures.

Before undertaking such projects, work already done should be thoroughly reviewed and analyzed. It is likely that many questions dealing with more effective means of imparting nutrition information have already been answered by others who would be willing to share their knowledge.

We would encourage and support sufficient Federal funding of adequate research to ascertain the best means of providing nutrient labeling so the information would be most useful to consumers and feasible for the industry. Such research would be most productive if conducted cooperatively with input coming from producers, processors, retailers, consumers and the appropriate government agency or agencies.

UNIFORMITY IN LABELING

It would also be desirable for nutrient labeling to be uniform in format and content. Again, a cooperative effort involving producers, processors, retailers, consumers and the appropriate government agency or agencies to determine how the labeling can best be done to provide equitable treatment to all foods and clarity to consumers would be the most productive and effective.

It should be stressed again that nutrient labeling should be entirely voluntary; but, if a labeling program is undertaken by a merchant or supplier, it should be complete, non-discriminatory, accurate and adequate.

MISLEADING OR UNSUBSTANTIATED HEALTH CLAIMS

The NCA also favors legislation or regulations which would prohibit advertising or individual nutrient reference (on the package or otherwise) that would make or infer misleading or unsubstantiated health claims.

This refers to the practice of pointing out that the product contains no cholestrol. Sometimes the advertising message proclaims that using the low- or no-cholesterol product will keep your heart healthy. Other times, the claim is made by implication. Either way, the message is deceiving and misleading to the consumer.

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Consumers are entitled to know the nutrient content of the food they eat. But, manufacturers of certain food products should not be allowed to seize upon a medical controversy as an aid in selling their products.

NUTRIENT DATA BANK

Regardless of the way nutrition information is provided, consumers will want to know that the information is correct and consistent. To this end the initial legislation should include funds for the development of a nutrient data bank as a central source of nutrient composition data.

NCA supports the development of such a bank, based on valid and reliable research.

NUTRIENT COMPOSITION BASED ON AVERAGES

Because of the variability of the nutrient content of fresh meats, nutrient labeling (point-of-purchase or otherwise) should be based on averages expressed as ranges or the use of phrases such as "not more than" or "not less than."

This method of labeling would be sufficient for most consumers. Supplemented with hand-out pieces and the nutrient composition information currently available from many sources, even the most discerning consumer would be able to plan nourishing and wholesome meals.

The objective would be to provide adequate, accurate and usable nutrient information about foods, without imposing on consumers additional and unnecessary cost to analyze and label each individual piece.

NUTRIENT CONTENT BASED ON PRODUCT COOKED AND READY-TO-EAT

As regards most foods, the NCA would encourage nutrient content labeling based on the cooked and ready-to-eat product. As a food is heated, its nutrient composition undergoes some alteration. The change is not always great; but there is, in all foods, at least some change.

In the case of fresh beef, the nutrition information would be most useful if based on how it is most often eaten—cooked and trimmed of excess fat.

Basing the nutrient content of food on the cooked and ready-to-eat product relates to the product as it is consumed, and is the way most nutrient labeling is currently being done.

LABEL CONTENT

The NCA would support the disclosure of cholesterol as well as protein and the major minerals and vitamins.

The NCA feels it is in the best long-term interest of the beef industry to tell consumers as much as is possible about the product, openly and honestly. To resist including cholesterol on a label under the prevailing atmosphere would damage the industry's credibility with the consumer.

Mounting scientific evidence concludes that, for the vast majority of people, dietary cholesterol is not a significant risk factor. However, for those consumers under orders from their doctor to reduce their cholesterol intake, listing cholesterol would help them make the proper food choices.

On a per-serving basis beef compares quite favorably in cholesterol content with many other foods of animal, fowl, or marine origin.

Cholesterol content of some ready-to-eat foods—3 oz. serving (mg)

Beef	77.0	Mackerel	86.0
Chicken (half white, half dark)	73.0	Pork	75.0
Herring	82.0	Shrimp	128.0
Lamb	85.0	Turkey (half white, half dark).	76.0

Source: Journal of the American Dietetic Association 61:2, August, 1972.

The industry would, however, react quite strongly to legislation or regulations that would mandate the discriminatory listing of cholesterol on meat only or give it undue emphasis. NCA would also oppose efforts to use that information to imply that foods containing cholesterol increase the risk of heart disease.

This Association and the industry object to current efforts to alert consumers to the hypothetical dangers of dietary cholesterol, suggesting health benefits will accrue to the general population if those foods are avoided. The issue is, as is pointed out in "Dietary Guidelines," controversial.

In the long run this issue will be resolved by science, and the positive role of beef in the diet will be maintained.

Beef contains fat. That is also a fact. The industry has, however, made tremendous strides in the past 20 years in reducing the amount of trimmable fat on the beef animal. That was accomplished voluntarily, through breeding and feeding, in response to consumers indicating less fat was desirable. Again, the free market system works; and it will continue to work best without undue outside interference.

Many persons may be surprised to learn that beef fat is not all saturated. It is about half saturated and half unsaturated. Consumers also may be surprised to learn that many vegetable oils and margarine products are not all unsaturated. Many are partially hydrogenated and chemically altered so that they contain varying amounts of saturated fats.

As in the case of dietary cholesterol, there is mounting evidence that dietary saturated fat does not have a significant effect on cholesterol levels in most people; and there is mounting evidence that incidence of heart or other diseases is not affected by the type of fat in the diet. Too many calories from all sources can be harmful, but there is not good evidence to support the popular recommendations against saturated fat.

SECTION 8—UNIFORM RETAIL QUALITY GRADE STANDARDS

Food grading is a complex issue. Most food grades were initially developed to be used as a pricing and marketing tool for the *trade.* The criteria for determining grades varies from food-to-food. The primary purpose of beef grades, for example, is to indicate palatability—tenderness, juiciness and flavor. Grade factors for other foods include size, color, shape, appearance, etc., which are primarily cosmetic factors and do not necessarily include palatability. Some retailers have incorporated grades into their merchandizing programs, but this was not the original intent.

There may be merit to such a system and it may deserve consideration. We would, however, call your attention to the fact that action in this area will cut across many lines of concern—including consumers, retailers, the trade, cattle feeders, cattle breeders, geography, science and educators, to name a few. The grading subject is so complex that it is an issue in and of itself.

It would be our recommendation that the matter be given concerted study by everyone involved—producers, consumers, retailers, packers and processors, and the appropriate government agency—before changes are proposed. In other words, that the subject of grading be separated from nutrient labeling and be given separate and distinct consideration at some future date.

CONCLUSION

The National Cattlemen's Association is a proponent of good nutrition and the dissemination of soundly based nutrition information. The Association also encourages increased nutrition research.

Valid questions could be raised about whether the majority of consumers really want, need, or will use nutrient labeling, and if they will pay the added cost. However, if labeling can be handled voluntarily, the competitive forces within the marketplace will make that determination. The Federal government can play an important role of oversight to see that such labeling is accurate, uniform and not misleading.

REFERENCES

(1) *The value of meat in the diet.*—The amount, variety and quality of food available to the American people continue to be the envy of the rest of the world. Animal food products, including meat, with their biologically superior protein and extraordinary mineral and vitamin content in highly assimilable form, is recognized as one of the primary contributors to that enviable position.

Meat, including beef, is an excellent source of high quality animal protein. It contains all the necessary amino acids, properly balanced, to make it a highly desirable food from the standpoint of selectivity in providing a complete protein in one easy-to-prepare package. In addition, an animal protein included in the meal provides for the most efficient utilization of plant protein.

Present knowledge indicates that a diet sufficient in foods of high quality protein will also supply adequate amounts of all the essential B vitamins. Because meat is such an excellent source of high quality protein it is also an excellent source of B vitamins and ranks as the principal dietary source of most of them.

In addition, meat is one of the best sources of highly available heme iron; and meat and variety meats rank high as sources of vitamins, A, C, and D and minerals such as copper, cobalt, manganese, zinc, and aluminum.

Under proper handling, meats retain their high nutritive value to a very high degree during cooking, canning, dehydration, or freezing.

While fat has drawn attention as a dietary negative, it is a dietary essential and important as a concentrated source of energy, a supplier of needed fatty acids and as the carrier of vitamins A, D, E and K.

The fat associated with meat has additional value in that it tends to slow down the passage of food through the stomach, and the rate of digestion, thereby preventing a feeling of hunger from setting in quickly after a meal.

Food digestibility is a factor often overlooked in diet and menu considerations. Meat from animals is almost completely digestible and the proteins from meat are at least 97 percent digestible. Other foods may rank quite high in nutritive content but have such low digestibility that the value to the consumer is significantly reduced.

Because of meat's nutritive value and high rate of digestibility, it has become an important part of many therapeutic diets in the treatment and prevention of certain types of illness and disease. In this regard meat has been shown to be especially valuable in the diets of premature infants, diabetics, post-operative and peptic ulcer patients, and those suffering from nutritional anemia and diseases of the liver and kidney.

Meat may also be a psychological aid to the digestion of other foods. The pleasing aroma and appetite appeal of well-cooked meat help initiate the flow of important digestive juices in the body, assisting the normal assimilation of other foods.

Taken in total context the nutritive value of meat, its ability to retain nutrients under normal handling methods, its digestibility, its satiety value and therapeutic value lead to the conclusion that meat in the diet is not only desirable from the standpoint of good health but also from the standpoint of the economics of the average consumer.

(2) *Livestock industry—an advocate of good nutrition.*—Providing nutrition information has been, and continues to be, a major effort of the livestock industry. The National Live Stock and Meat Board was established in 1922 by the livestock industry for the purposes of research, education and product improvement. Following are just a few examples of the kinds of material which the Meat Board has provided:

1. Lessons on meat.—This classroom reference published by the Meat Board is a 1974 revision of Ten Lessons On Meat first published by the Meat Board in 1925. It makes the following recommendation for planning nourishing meals:

"Two words to remember, whatever the guide, are variety and moderation. No one food or group of foods can do the job alone. They work together in building and maintaining healthy bodies."

In the same reference, the "Daily Food Guide" recommends that poultry, fish, eggs, peas, beans, nuts and peanut butter, as well as red meats, be included in the "Meat Group" portion of one's diet, and to count as a serving two to three ounces of lean cooked meat, poultry or fish.

2. Another book published by the Meat Board is "Teaching About Meat." The stated objectives are: (1) To help students recognize the nutritional contribution of meat and to understand what constitutes a well-balanced diet; (2) To help students gain experience in planning meals which take into account the practical aspects of today's living; and (3) To motivate improved eating practices among students which will extend into adult life.

3. The nutritive value of meat is another publication of the Meat Board which is designed to provide accurate information on the nutritive value of many foods—not just meat. Again, the emphasis is on ". . . the soundness of a varied diet of both animal and vegetable origin." The book discusses the dietary value of most nutrients and gives detailed information on sources and amounts—animal and vegetable.

STATEMENT OF JOHN G. MOHAY, PRESIDENT, NATIONAL MEAT ASSOCIATION

My name is John G. Mohay. I am testifying in my capacity as President of the National Meat Association, a trade association comprising over 300 members of the meat packing and processing industry. Our association represents 70 percent of the beef industry and a substantial portion of the pork industry and processed meat industry.

HISTORICAL BACKGROUND

The United States of America offers the safest and most nutritious food supply the world has ever known. Congress and the United States Department of Agriculture can take credit for important contributions to the success story of the American food industry, particularly with regard to meat products. Beginning with the Meat Inspection Act of 1906, Congress established a system of regulation that has produced enormous benefits not only for consumers, but also for the meat industry.

We in the industry recognize that our own enlightened self-interest requires continuing Federal regulation. By insuring the wholesomeness and integrity of meat products, the government has helped greatly to create and maintain consumer confidence in our industry.

To date, federal regulation has properly focused on public safety and product integrity. The Federal Meat Inspection Act protects the public safety by prohibiting the sale of adulterated meat. The Act promotes product integrity by prohibiting the use of false or misleading labels and by authorizing the Secretary of Agriculture to establish standards of identity and composition for meat food products. The consumer is thus assured both that the meat product he buys will be safe and that it will be the product he expects to receive. These regulations are in the interest of both the consumer and the industry.

Existing law also provides for the voluntary quality grading of meat by USDA's grading service. The various quality grades, such as prime and choice, provide a good indication of what USDA calls the "eating quality" of the meat—that is, its marbling, color, texture and firmness. Quality grading of meat was originally established in 1926 to facilitate wholesale meat trading, but USDA grades are now widely used on retail cuts to provide consumer information.

Existing law also permits meat processors to provide nutritional labeling on a voluntary basis. Approximately 75 companies regulated by USDA use nutritional labeling for about 275 different products (although not all of these are meat products). In the grocery store you can find nutritional labeling on products as familiar as frankfurters and bologna. I should add that the meat industry is in favor of good nutrition, and that our products contribute to good nutrition. Meat represents the most important source of protein in the American diet. Meat proteins are also complete proteins. They do not need to be supplemented by other kinds of proteins in order for the body to use them to build tissues.

GENERAL COMMENTS ON THE NUTRITIONAL LABELING BILL

The proposed Nutritional Labeling Act breaks new ground by making nutritional labeling mandatory. We think the Bill goes too far, for a variety of reasons. In the case of some meat products, the Bill is unworkable. For other products, the Bill is far too costly in comparision to its possible benefits. We think that the objectives of the Bill can be accomplished more effectively and less expensively by a combination of consumer education and voluntary nutritional labeling.

Before I go into detail on our objections to the Bill, I should point out that we concur wholeheartedly with many aspects of the legislation. We agree that USDA should develop a data base to facilitate voluntary nutritional labeling. We would also support efforts by USDA to foster meaningful consumer education on nutritional matters.

NUTRITION LABELING IS UNWORKABLE FOR MANY MEAT PRODUCTS

Our first objection is that the Nutritional Labeling Bill should not apply to fresh meat, such as steaks, roasts, pork chops or hamburger. Under the Bill, the label for fresh meat products must include the following information: "the total number of calories per serving; . . . the amount per serving of proteins, fats and carbohydrates in terms of caloric content; . . . the amount per serving of sodium . . .; and the amount per serving of cholesterol." To obtain this information for fresh meat products is totally impracticable. The cost would be prohibitive.

The difficulties arise both from the nature of the product and the manner in which it is marketed. Most of the fresh meat consumed in the United States is not broken down into consumer sized portions until it reaches the local grocery store or butcher shop. These establishments typically receive half or quarter carcasses shipped in refrigerated trailers from packinghouses located in various parts of the country. Grocers or butchers then "break" the meat into the steaks, chops or other cuts sold to the consumer.

The nutritional qualities of meat vary considerably from animal to animal, depending largely on the animal's age and diet. Even carcasses that have the same quality grade may have considerably different levels of macronutrients, cholesterol and sodium. Because of these variabilities, any determination of nutritional data would require separate measurements, persumably through chemical analysis, for each different animal. Obviously this would place an impossible burden on the local grocer.

Nutritional factors also vary considerably within a single animal. The fat to lean ratio of a sirloin steak is considerably different than that of a chuck steak. In order to provide nutritional labeling the grocer would therefore be required to test and analyze many different portions of each animal.

It might be argued that these objections could be overcome through the use of statistical data. For example, USDA might determine that the average one-pound cut of chuck steak contains specified percentages of protein, fat and the other nutritional variables. Grocers might multiply these percentages by the weight of a particular cut to arrive at an estimate of the required nutritional data. However, because of the variability between animals, such estimates would probably be worse than having no information at all. The variabilities within and between carcasses would frustrate all efforts to estimate nutritional data with any degree of accuracy.

Any procedure for estimating nutritional data would have to begin with a determination of the ratio of fat to lean in a particular cut. But this ratio is impossible to determine, unless, of course, we put the meat through a blender and perform a chemical analysis. Even an experienced butcher cannot determine the depth of the fat in portions of a cut that he cannot actually see. It would therefore be impossible for the butcher to arrive at a reasonable basis for estimating nutritional data.

Finally, even if Congress were inclined to require the use of estimated nutritional data for fresh meat, it should consider the economic effect such a requirement would have on grocers and butchers, particularly those who run small business operations. Even with the widespread availability of calculators, such a requirement would increase labor costs substantially and thereby drive up the price of meat. The requirement would undoubtedly put some distributors out of business, and it would clearly have an inflationary and anticompetitive effect. This would be far too high a price to pay for the limited benefit to consumers that might result from data estimates.

The difficulties I have described in the nutritional labeling of fresh meat would also apply to meat that is processed only by curing or smoking. Such meat would include ham, bacon and corned beef.

Nutritional data may be obtained with greater accuracy and less cost in the case of emulsified processed meat food products, such as frankfurters and bologna. These products are produced in large lots or batches of uniform consistency, so it would be unnecessary to run tests on each individual portion, as would be the case with steaks and chops. Manufacturers would therefore be in a somewhat better position to obtain nutritional data for processed products, and the cost of obtaining this data could be reduced by the use of nutrition data bases. However, even in the case of emulsified processed meats nutritional labeling would not always be easy. Many producers of processed meats vary their recipes from time to time depending on the cost and availability of ingredients, and new nutritional data would need to be gathered and new labels printed each time a recipe is changed. Nutritional labeling could be extremely costly for products such as frankfurters that contain a variable blend of beef and pork. It would be less costly, however, for products that are all beef or all pork.

Even in the case of all beef or all pork processed products, nutritional labeling would be economically feasible only for products that are not repackaged between manufacture and sale to the ultimate consumer. It would not be feasible in the case of meat products sold in bulk, such as large unsliced sausages and other bulk products sold by the pound at delicatessen counters. Nutritional labeling in the case of bulk sales would require the grocer to prepare a separate label for each particular package.

Calculating the nutritional data would be extremely difficult. Presumably the manufacturer could supply the grocer with nutritional data on a per pound basis (for example, 800 calories per pound). The grocer would then be required to determine the weight of each slice of meat, calculate the calories per slice, and prepare an appropriate label for the consumer. Similar calculations would be performed for other nutritional factors, such as proteins, fats, carbohydrates, sodium and cholesterol. Obviously, the calculations would need to be redone for each different meat product and for each different thickness that a particular product is sliced. The burden that this procedure would impose on the local grocer is plainly unwarranted.

In sum, we believe that nutritional labeling is totally impractical except in the possible case of processed emulsified meat products packaged by the processor in consumer sized portions. And for these products, we believe that nutritional labeling should be voluntary rather than mandatory.

NUTRITIONAL LABELING, WHERE FEASIBLE, SHOULD BE VOLUNTARY

Previous governmental regulation of the meat industry had focused on preventing adulteration and on making sure that the consumer gets what he bargained for. Existing regulation thus reflects the government's traditional regulatory functions of protecting the public safety and preventing unfair or deceptive business practices. Although nutritional labeling and quality grading are permitted on a voluntary basis, they have never been mandatory.

The bill under consideration goes much further. It proposes to draft meat processors as involuntary teachers in a nationwide program of nutritional education. This is really a job for the nation's schools and universities. It is not the proper function of the food industry. It is unrealistic to expect that product labels can accomplish educational functions that our learning institutions have failed to perform.

Consumers, by and large, do not perceive a need for mandatory nutritional labeling. In a recent consumer survey conducted by the United States Food and Drug Administration consumers were asked: "Aside from price, please tell me about any particular problems, difficulties, or concerns which you have with food these days." Only about 1 percent of the consumers surveyed appeared to be concerned about the nutritional value of food.

The survey also asked: "Are you satisfied with the kind or amount of information available on food packages and cans, or can it be improved in some way?" Only about one-third of the consumers responded by suggesting that labeling should be improved. Consumers who gave this response were then asked: "In what way would you like to see the information on food packages and cans improved on?" Only about a quarter of those who wanted labeling to be improved suggested that the label should contain more nutritional information. This represents only 8.2 percent of the total number of consumers in the survey.

It is not true that voluntary nutritional labeling would mean no nutritional labeling. Even now some manufacturers of processed meat products voluntarily provide data on calories, proteins, fats and carbohydrates on products packaged for the consumer. If nutritional labeling is truly something that the consumer needs, consumer demand will encourage other manufacturers to adopt nutritional labeling. The success of voluntary quality grading shows that industry labeling practices will respond to true consumer needs. If, as we believe, only a small minority of consumers would benefit from nutritional labeling, this group may patronize the producers that have adopted nutritional labeling voluntarily. There is no reason to force the entire industry to adopt an expensive labeling program for the benefit of a tiny minority of consumers. Public nutritional education and voluntary nutritional labeling would provide a far better approach.

It is commonly accepted that much of our national problem with inflation is brought about by excessive governmental regulation, and President Carter struck a responsive chord in the last election when he campaigned for simplicity in government. We should not add to the problem of excessive regulation by mandating expensive labeling programs that will assist only a small minority of consumers. If and when there is a consumer demand for nutritional labeling, then we can count on most of the industry to adopt nutritional labeling voluntarily.

COMMENTS ON SPECIFIC SECTIONS OF THE BILL

We have several comments on specific items in the Bill, beginning with Subsection 3(b).

Subsection 3(b) (1) and (2).—Paragraphs 1 and 2 of Subsection 3(b) are unnecessary. Similar requirements are established in USDA regulations issued under existing law. The principal change from existing law is to require that each separate spice and color used in meat products be named individually. Colors are rarely used in meat products, except in the case of some sausage casings, so the individual listing of colors is not particularly significant to the industry.

However, the individual listing of spices is highly undesirable. Under existing law spices need not be named individually, but are referred to on the label by the general term "spices". To name each individual spice would provide the consumer with information of no nutritional importance.

It would, however, have several disadvantages for both the industry and the consumer. Naming each individual spice would harm the industry by increasing the cost of labeling and by compelling the disclosure of valuable trade secrets. There is no offsetting benefit to consumers that would justify these results.

The naming of each spice would also work to the detriment of consumers. Processed meat products contain up to 15 separate spices. To name each of these on the label would double or triple the length of ingredient lists. This might well force meat processors to set their labels in smaller type to accommodate the additional information. It would also clutter the label with information that is of little importance to the consumer. These effects could not help but discourage consumers from reading labels, particularly in the limited time available during a trip to the supermarket or grocery store.

We believe that the Bill takes a far more reasonable approach with regard to flavoring, which, unlike spices, would not need to be named individually on the label. We see no basis for treating spices differently; neither spices nor flavorings should be named individually on product labels.

We also believe that the requirement that ingredients be listed in descending order of predominance should have an exception for reasonable recipe variations. This exception should be similar to the USDA regulation found in 9 C.F.R. 317.2(f)(1)(v). Under this exception beef and pork could be interchanged in a recipe, subject to reasonable limits, if they were listed on the label as "beef and pork," without a comma separating the two ingredients.

Subsection 3(b)(4)(A).—We oppose the mandatory percentage labeling required under Paragraph 4(A) of Sub-Section 3(b). Meat producers have found it helpful to vary their product recipes from time to time depending on the cost and availability of ingredients. A maker of frankfurters, for example, may be able to hold down costs (and thus prices) by using more beef or pork depending on the relative prices of these ingredients. USDA now requires that variations in recipe be kept within reasonable limits so that there will be no significant variation in the flavor or integrity of a product.

Mandatory percentage labeling would discourage this economical practice. Every time that a meat processor varied his recipe, he would be required to use a new set of labels. This procedure would clearly be impractical, so the processor would probably abandon variations in recipe. The loss of the economies achievable through recipe variations would undoubtedly result in an increase in the sales price of processed meat products. The cost effects of the percentage labeling requirement would undoubtedly outweigh the small benefit that a consumer might be able to derive from knowing the precise percentage of a particular ingredient.

The 1978 FDA consumer survey makes consumer preferences on this point quite clear. Almost half of the consumers surveyed said they had no "problems, difficulties or concerns" with food, other than price. Two-thirds of the consumers thought the amount of information on food packages is about right, and only 3.8% said they would like for food labels to have a quantified ingredient list. We have no doubt that if consumers were informed that percentage labeling would require price increases, the vote against percentage labeling would be practically unanimous.

Subsection 3(b)(8).—Paragraph 8 of Sub-Section 3(b), requiring a statement of cholesterol content, is scientifically unsound. Although high cholesterol levels in blood serum are associated with heart disease, dietary cholesterol is far less a factor than was once thought. People who consume little cholesterol may have high levels in the blood and vice-versa. Heredity and activity level are known to be principal factors that affect serum cholesterol levels. It is also known that the preponderance of serum cholesterol is synthesized by the human body, and that above certain levels an increased consumption of dietary cholesterol produces no increase in serum cholesterol. To require cholesterol labeling would not further the cause of nutritional education, but, on the contrary, could cause consumers to adopt a simplistic and frequently incorrect approach toward a healthy diet.

Section 8.—Finally, although we approve of the concept of voluntary USDA quality grading of meat, we oppose the idea of uniform grading nomenclature for all products. Consumers are familiar with the terms "prime" and "choice" and understand that these terms indicate the "eating quality" of a particular cut of meat. To change these terms to conform to the terminology used in grading other products, such as eggs or milk, would merely cause confusion.

Under existing quality standards, meat is graded for what USDA calls "eating quality"; poultry is graded for "table quality" (which involves the proportion of edible meat in relation to bone, the "finish" of the bird, and freedom from defects such as cuts, tears or bruises); eggs are graded for appearance and suitability for various methods of cooking; and instant nonfat dry milk is graded on the basis of flavor, bacterial count, dispersibility and moisture content. Obviously, quality grades mean different things for different products. To require uniform nomenclature would mislead the public by implying that different products are graded by the same standards.

Nutritional grading would pose a particular problem with respect to meat. As I have said, the nutritional content of fresh meat cannot be determined until the grocer or butcher breaks it into consumer sized cuts, and even then nutritional content can be determined only by chemical analysis. It would be impossible for graders at a packing house to foresee how each individual purchaser would break the meat, so the graders would be unable to obtain nutritional information that would be meaningful to the consumer.

We are aware that the existing quality grading system has been criticized because it does not take nutrition into account. One particular criticism is that the meats with the highest quality grades generally speaking have a high fat content. But the answer to this criticism is not to abolish the existing system for quality grading.

It is less important to establish a single grading nomenclature than it is to provide the consumer with the information necessary to made an informed choice

among meat products. The existing quality grading system for meat provides the consumer with a good rating of eating quality. Because eating quality is a major criterion in consumer choice of meat products, the present grading system is helpful to consumers, and it should be continued. Any nutritional grading program should supplement the existing program, not replace it. However, as I have said, nutritional labeling of fresh meat is totally impractical, and the best approach would be consumer education.

We should not scrap the existing quality grading system merely because it does not take nutrition into account. The system is absolutely indispensable to wholesale meat marketing, which, of course, is the purpose for which quality grading was developed. Experience has shown that quality grades provide a good indication of the market value of meat. To abolish the system would throw the wholesale market into chaos.

Nothing in the quality grading system prevents the consumer from taking nutritional factors into consideration. The relationship between meat tenderness and fat content is well known, and consumers who need to reduce fat consumption can take this relationship into account when buying meat. If Congress decides that consumers should be better informed, it could establish consumer education programs for this purpose. It should not abandon a grading system that provides the industry and consumers with valuable information on meat quality.

A PROPOSED ALTERNATIVE TO NUTRITIONAL LABELING: A PRACTICAL NUTRITIONAL REFERENCE BOOK FOR CONSUMERS

If Congress decided that the public needs more nutritional information, it should determine the best and most economical way to accomplish this goal. In our opinion, the best means would undoubtedly be a practical, easy-to-use reference book for consumers.

The first principle of good nutrition is to eat a well balanced diet, and this is the first lesson that should be taught in any program of nutritional education. A reference book would help to teach this principle by showing that no single food, by itself, will provide a proper diet. The book would also enable consumers to select proper combinations of foods to provide good nutrition.

Nutritional labeling, by comparison, would be far less effective in improving public nutrition. Although a consumer could easily plan a well balanced meal by using a reference book, he would find this task extremely difficult if he had to rely on individual product labels. Studying product labels in the supermarket is simply not an efficient way to plan a well balanced diet.

More importantly, nutritional labeling would provide a consumer with no information on what constitutes a proper dietary balance. Rather, it would focus consumer attention on technical data which many consumers, if not most consumers, would be unable to use. Mandatory nutritional labeling would also create the impression that the nutritional value of a particular food may be considered in isolation, on the basis of label data, without regard to the other foods that the consumer is eating. This might lead the consumer to stock up on foods that each appear to have good nutritional data, but, when taken as a whole, do not provide a proper diet.

In short, Congress should promote public nutrition by providing nutritional information in a form that will be convenient for consumers. Congress should not embark on a costly labeling program when a practical reference book would be both more economical and more effective.

CONCLUSION

In summation, the Association is in favor of nutritional labeling on a voluntary basis for the kinds for processed meat products where such labeling is feasible. We also support development of a data base that would made voluntary nutritional labeling less costly, and we are in favor of public nutritional education, especially in the form of a simple, practical nutritional reference book. But we oppose mandatory nutritional labeling, which is in the interest of neither the industry nor the consumer.

STATEMENT OF JAMES F. RILL, COUNSEL, NATIONAL BROILER COUNCIL

Good morning. I am James F. Rill, Esq., counsel for the National Broiler Council ("NBC"). NBC is a national, nonprofit trade association representing the producers and processors of broiler/fryer chicken. NBC's members produce and process more than 75 percent of the broiler/fryer chicken consumed in the United States.

NBC appreciates this opportunity to testify concerning S. 1651—The "Department of Agriculture Nutrition Labeling and Information Act of 1979."

At the outset I wish to state, for the following reasons, that NBC is opposed to any mandated label changes for poultry products. First, we believe that consumers are currently provided adequate information on food labels of processed poultry products. Additional mandated labeling would provide more information than consumers can effectively understand and use. Second, we do not believe that there should be any required labeling for fresh poultry. Further processed poultry must already contain a listing of all ingredients in descending order or predominance by weight, and we do not believe that additional information is necessary or desirable.

With these positions stated for the record, I will now focus on those provisions of this bill which are of major concern to our industry.

Scope.—NBC urges clarification as to the scope of application of this bill. The mandatory labeling provisions apply to meat food products and poultry products as defined in the Federal Meat Inspection Act and the Poultry Products Inspection Act. This means that the provisions would apply only to processed meat food product, but, because of the statutory definition of poultry products, would, literally construed, apply to "any poultry carcass, or part thereof . . ." 19 U.S.C. Sec. 453(f).

We do not believe this uncertainty in coverage is intended since there are also two separate provisions in the bill which contain specific references to meat and poultry in addition to meat products and poultry products. Furthermore, when Senator McGovern introduced this legislation in the Senate, he said, "the nutrition and ingredient label and labeling requirements are intended to apply . . . to processed meat food products and poultry products in the USDA bill—fresh meat and poultry could provide label and labeling information on a voluntary basis." 125 Cong. Rec. S. 11, 465 (daily ed., August 2, 1979).

Labeling of colors and spices.—This legislation would require listing of the common or usual name of color additives and spices. NBC opposes this requirement for the following reasons: First, the listing of the specific names of these ingredients would unduly lengthen the ingredient statements with long chemical names having no meaning to consumers. Secondly, flavors, colors and spices utilized by manufacturers constitute, in many cases, important trade secrets which should not be disclosed without a compelling reason. NBC recommends, therefore, that the same treatment be accorded spices and colors as is already accorded flavorings in this bill, namely, that a specific name listing would not be required unless and until there was a finding of a public health need for such information.

Order of predominance statement.—NBC recommends deletion of the requirement that there be a statement that "all ingredients are listed in descending order of predominance by weight." Such a statement would necessitate an initial modification of virtually every food label currently bearing ingredient information and would add to existing label clutter. We believe that in the alternative, the government should utilize its existing education and information dissemination systems to communicate this fact to consumers who might be unaware of present labeling requirements. Additionally, this label statement would be inaccurate because the bill already provides that "any ingredients that individually comprise five percent or less of a food need not be listed [in descending order of predominance] but shall be named at the end of the ingredient list."

Sodium and cholesterol labeling.—NBC does not object to mandatory sodium and cholesterol labeling if such a requirement is predicated upon a demonstrated public health need for such information.

Nutrition information.—NBC endorses the development and use of a standardized reference on the nutrient composition of all foods. We are, however, concerned that this information is to be based "at point of purchase." Retention of this point of purchase requirement will cause substantial problems since most nutrition information developed heretofore is based on point of pack, not point of purchase. In our view, conversion to a system based on point of purchase would be extremely costly and time consuming and of little significance to the consuming public.

NBC encourages experimentation with means to organize and present information which will enable consumers to comprehend nutrition information. However, we believe that extensive research is needed before this issue can be resolved.

NBC is opposed to any mandatory requirement for nutrition labeling. We believe that the present policy is the correct one—that food should not have to bear nutrition labeling unless nutrition claims are made for the product or the product is fortified.

Effective date.—NBC strongly urges that the requirements of this proposed legislation not become mandatory two years after enactment of this legislation since most of that time will be taken in promulgating and implementing regulations. We, therefore, urge that Senator McGovern's recommended modification of a similar provision, in his testimony of March 19, 1980 on S. 1652, be reflected in this bill as well.

Preemption.—NBC suggests that S. 1651 be amended to provide for language preventing the states or their political subdivisions from enacting ingredient or nutrition labeling legislation in addition to or different from the federal requirements. We believe that a clear resolution of the preemption issue might well be obtained by tracking the preemptive language of the Meat or Poultry Products Inspection Acts.

Uniform retail quality grade standards.—NBC does not object to the development and promulgation of retail quality grade standards expressed in a uniform nomenclature. However, we oppose that portion of the bill which requires that product not graded be conspicuously labeled "not quality graded by the United States Department of Agriculture." We oppose this crepe labeling requirement for the following reasons:

(1) Quality grading is a voluntary service paid for by industry. If a food processor decides not to avail itself of this service, for cost or other reasons, we do not believe that it must then label non-graded product in language that could easily be taken to connote inferior quality.

(2) Because of the inferior quality connotation, this self-disparaging crepe labeling provision might, for marketing reasons, have the net effect of unfairly transforming a voluntary service into one that is "mandatory."

Nutrition advertising.—NBC concurs with the suggestion made by Senator McGovern, in his March 19, 1980 testimony on S. 1652, to delete the advertising provisions which would have required FDA and USDA to recommend to the FTC what nutrition information should be included in food advertising. We recommend, therefore, that the analogous provision in S. 1651 also be deleted because we agree with Senator McGovern that advertisers should not be asked "to attempt to provide nutrition information via a medium that is not best suited to effect the desired objectives."

STATEMENT OF DR. RICHARD HAGEN, VICE PRESIDENT, EASTERN RESEARCH LABORATORY, NATIONAL FOOD PROCESSORS ASSOCIATION

Mr. Chairman, on behalf of the National Food Processors Association (NFPA), I am pleased to testify on S. 1651, the Department of Agriculture Nutrition Labeling and Information Act of 1979.

The National Food Processors Association, formerly the National Canners Association (NCA), represents firms that process more than 90% of the national production of canned meat, poultry, fish, fruits, vegetables, and specialty products.

Importance of label.—Mr. Chairman, the label is vitally important to food processors. We recognize the consumer interest in informative labeling. We also are aware that consumers are confused by the label due to clutter and to terms they do not understand. Yet, as we try to improve the label, we are restrained by mandatory government formats and controls.

At the same time, processors must be very cost-conscious about the label. Many processors must have hundreds or thousands of different labels and the cost of label designing, printing, and inventory is an important aspect of their operations. The label is also an important marketing factor, especially for the small processor who typically does not have a large advertising budget.

Given the importance of the label, food processors view with apprehension the changes proposed by this legislation and separately by the Department of Agriculture. The current USDA labeling program creates many problems for meat processors and canners, and this legislation would add another layer of requirements to an unsatisfactory program.

One member of NFPA estimates the costs of labeling including nutrition labeling to be twice as much under the USDA program as under the FDA program for a given product. Processors frequently face delays in getting their products on the market under USDA's "prior approval" system for labels. Processors often wait for weeks or sometimes months while the Department reviews their label. The Department also uses its control over the label to control many aspects of the processors' operation, such as the recipe or formula, the product name, promotional statements and the substitution of similar but less costly ingredients. Nutrition labeling, in the experience of our members, has been especially difficult to initiate because of the ever-changing, complex and costly analytical and sampling obstacles in the current USDA label prior approval process.

S. 1651 does not address these problems. Food processors question why the Congress and the Department of Agriculture are considering new labeling requirements.

History of NFPA labeling advances.—Recognizing the importance of the label, NFPA has actively worked for many decades to improve food labeling. In 1934, the

Association began its *Descriptive Labeling Program* which first proposed and implemented a system for uniform descriptive terms to describe product attributes. Declaration of mandatory labeling information in standardized form on a principal display panel of each container and voluntry placement of recommended desirable information on an equally prominent side panel where proposed in 1939. These recommendations have been widely adopted by the industry, in advance of any governmental requirements.

In the 1940's and 1950's, NFPA (then NCA) continued to make label improvements. We also published a comprehensive labeling manual, Modern Labels for Canned Foods, now in its seventh edition.

In 1965, the Association recommended to the industry that "added salt" be stated on the label even though that requirement did not exist for the bulk of the products then standardized.

Most recently, in June, 1979, the Association published its Proposal for A Realistic Improvement In The Labeling Of Processed Foods. We have submitted this proposal to USDA, FDA and the appropriate committees and subcommittees of Congress including this subcommittee.

That proposal recognizes that the current labeling program should be improved, because the present system of nutrition labeling is too complex and confusing. An improved labeling program must achieve simplicity and avoid the confusion of label clutter. Our proposal is based on the concept of voluntary labeling which has worked successfully for many years, and could be accomplished without legislative changes.

Goals and limitations.—A major problem exists with what this legislation seeks to achieve, given the limitations of the label as a source of consumer information. The first "declaration" of the bill is, "Consumers need accurate, objective, and easily understandable nutrition and ingredient information on the foods they eat in order to help them choose healthier [sic] diets at reasonable cost".

The bill then states, "more optimal diet selection can help slow mounting medical care costs because healthier people need less medical attention", pointing out that "diet is a risk factor in six of the ten leading causes of death".

The bill goes on to require numerous mandatory ingredient and nutrition label statements.

Clearly, the goal of this legislation, by requiring certain information on the label, is to improve public health and consequently to reduce medical and health care costs.

We respectfully suggest that this goal is vastly over-optimistic. As the FDA 1978 labeling survey shows, consumers generally do not have time when they are shopping to read and study nutrition information on the label. Price, quality, taste and the presence of specific ingredients are their main interests, according to the survey. Moreover, consumers usually do not use nutrition information on the label at home. Therefore, significant changes in public health and the reduction of medical expenses will not result from additional, compulsory label declarations. Achieving those goals more logically should be left to education programs and the health care profession.

The NFPA labeling proposal has many points in common with this legislation, and while we agree with several other goals of the legislation, we have many concerns and reservations about the specific provisions.

Cost of new requirements.—Unquestionably regulations carry a cost with them, both to government and to industry. There is no doubt that the full cost of regulations ultimately is borne by the consumer. It's encouraging to know that Congress and government agencies are becoming increasingly aware of this.

With Congress and the President trying to control inflation and achieve a balanced budget, we seriously question whether this is the time to add costly new mandatory requirements that have no material public health significance.

We are prepared to cooperate in the development of needed regulations. But in the public interest, in this time of fiscal austerity, we must continue to resist what we believe to be unnecessary regulations.

This legislation cannot be considered alone but must be considered in the context of the numerous additional potential requirements that USDA, FDA, and FTC proposed on December 21, 1979. In trying to develop a simple, straightforward, uncluttered label that will present salient information to consumers, we must bear in mind that the new requirements proposed in this legislation are in addition to other requirements the agencies have said they will propose under existing authority. We cannot expect to achieve the goals of this legislation, and respond to the desires of the public if we attempt to answer all questions about diet and nutrition on the label. Also, the cost of changing labels is a large enough factor in food costs

that good conscience and practicality dictate that changes not be made in a piecemeal fashion.

Basis for changes.—To determine what consumers want and need from label statements, the three agencies—USDA, FDA and FTC—conducted a series of hearings in 1978. We believe Congress should guard against giving an undue weight to these hearings. As stated in the *Federal Register,* "the agencies recognize that the testimony received at the hearings and the written comments do not represent a random sample of the American public's views." Those who testified or commented clearly had a particualr motivation. The aggregate result, if translated into label declarations, would require almost encyclopedic information on food labels. This is not physically possible, or even desirable, because the volume of information would be overwhelming and confusing. After a detailed examination of the hearing record, we conclude that the hearing results are virtually meaningless as a basis for making policy because they could be used to justify almost any conceivable label declaration.

The FDA 1978 Consumer Food Labeling Survey is much more realistic and significant because it was conducted according to scientific principles, and much more accurately reflects what the public thinks about the food label.

This FDA survey revealed that about three shoppers in five (59 percent) are satisfied with current food labeling. Only one shopper in twelve (8 percent) is unhappy enough with food labeling to name this as a major problem with food these days; another 25 percent express lesser degrees of dissatisfaction. The survey showed that only 2.9 percent of canned food buyers consider label deficiencies a major problem. In short, consumers do not have an overhelming desire for drastic label revisions, and there is no widespread public demand for new mandatory labeling requirements.

We believe that several important improvements must be made in the legislation if it is to accomplish what is intended. We would like to share our specific recommendations on the provisions of the bill, under the categories of ingredient labeling, nutrition labeling, and administrative provisions.

It must be emphasized that due to the demonstrated lack of consumer interest, NFPA believes that labeling legislation is unnecessary at this time.

I. INGREDIENT LABELING

Full ingredient labeling.—The first significant provision of this legislation is to require "the common or usual name" of each ingredient in the descending order of its predominance by weight, except that any ingredients that individually comprise 5% or less of a food need not be listed in such order but shall be named at the end of the ingredient list.

The National Food Processors Association has supported full ingredient labeling on all foods for the past fifteen years or more, but with spices, flavors, and colors designated as such rather than by name. NFPA members have cooperated with this program by voluntarily listing all ingredients, including mandatory ingredients on foods having a standard of identity.

We support the provisio that ingredients comprising 5% or less of a food need not be listed in descending order of predominance but shall be named at the end of the ingredient list.

Labeling of colors and spices.—NFPA supports the present method of declaring colors, spices, and flavors.

This bill, if enacted, would change that policy. It would require that colors and spices be declared on the label by "common or usual name".

Ironically this would have the very effect USDA and FDA are trying to avoid. It would present the consumer a wide variety of often exotic, unfamiliar identifications, which would increase consumer confusion, not reduce it.

The declaration of colors and spices by specific name would detract from the label identification of key food ingredients. There would be an increase in food costs for consumers as a result of such a requirement. For example, it would reduce the opportunity to modify these essentially condimental minor ingredients. It is in the best interest of consumers to have the flexibility to modify the color and spice formulation, in order to adjust to changing tastes or to use similar but less expensive colors and spices.

The declaration of colors and spices by specific name would make it more difficult to protect formulations. This is especially important to small processors, many of whom are competitive because they have a specific recipe that others have not been able to imitate.

The argument in support of the declaration of colors and spices by specific name implies that consumers think some ingredients are unsafe. Consumer concern about the safety of food additives could be better addressed by an educational program on

USDA's approval process for food additives rather than by confusing consumers with a list of technical names on the ingredient statement.

Quantitative ingredient labeling.—This bill would give USDA discretionary authority to require "a declaration of quantity or percentage" of any specified ingredient (other than a flavoring) or class of ingredients if the agency determines that an ingredient "has a significant bearing on the quality, consumer acceptability, or cost of food or food of its class." USDA indicated in its recent proposal that it intends to use this authority broadly, if enacted, to require overall mandatory percentage ingredient labeling.

There is no need for broad sweeping authority for percentage ingredient labeling, as evidenced by marginal consumer interest in the declaration of percentage ingredient labeling. In the FDA Consumer Food Labeling Survey, only 3.8 percent of those questioned wanted to see the label changed by quantifying the ingredient list. In another line of questioning, 3.9 percent said the ingredient list should be quantified to give desired additional information. Of these, 2.6 percent would do so by stating percentages. Such small numbers cannot be interpreted as a compelling consumer interest.

For the vast majority of consumers, the present ingredient statement, stated in order of predominance, appears adequate. Percentage ingredient labeling often would make batch type products more costly because, while the percentages of ingredients in the batch are known, the exact percentages in each container may vary somewhat.

Many meat products are formulated from several ingredients. Even with the most sophisticated equipment, some variation exists in the percentage of ingredients. In view of the unavoidable variation, the rigid application of quantitative or percentage ingredient labeling is impracticable.

Small processors generally have less sophisticated equipment, due to high cost. The more precision required by proposed percentage ingredient declarations, the more costly and burdensome it becomes for some processors.

USDA already requires a minimum amount of a key ingredient, such as beef in beef stew, where there is a need or the value of the product is involved. These practices are adequate to protect the public interest, without percentage or quantitative ingredient declaration. These requirements are available to the public in the USDA publication, "Standards for Meat and Poultry Products—A Consumer Reference List".

Percentage ingredient labeling would make it more difficult to protect specific recipes and product formulations. Percentage or quantitative ingredient disclosure would, in some cases, reveal information that cannot be determined by any form of analysis.

For the above reasons, NFPA opposes mandatory quantitative ingredient labeling, as proposed in this bill.

Descending order statement.—The bill requires a statement on every label that "ingredients are listed in the descending or of predominance by weight". The stated purpose for this additional requirement is that a large number of consumers apparently do not know that ingredients are, and for the past forty years have been, listed in descending order of predominance.

The objection to putting such a statement on the label is simply that it takes up precious space. On smaller labels, such as those on small convenience products, it takes up a sizable portion of a very limited label space. The statement would add to label clutter, which many consumers say needs to be reduced.

The information that ingredients are listed by descending order of predominance is an appropriate subject for consumer education programs initiated under this legislation and otherwise by the government.

II. NUTRITION LABELING

Mr. Chairman, a major portion of this legislation is on nutrition labeling. If enacted, the bill would require declaration of certain nutrition information on all processed foods. It would give USDA authority to permit use of a nutrient data base as the source of nutrition information but only if USDA elects to do so.

We agree with the goals of the legislation in the area of nutrition labeling. The primary goals, as we understand, are to provide "objective and useful nutrition information" for consumers, and at the same time "to reduce, if not eliminate, the economic and regulatory burdens" of nutrition labeling. The proposal is intended to meet "the food industry's need for greater flexibility and full participation in the development process." The approach is to redirect "the focus toward the vital information function of nutrition and ingredient labeling instead of the "the classic compliance aspect of food regulation."

The goals are consistent with NFPA's goals, and we support them.

We firmly believe, however, that the legislation must be changed in several important respects in order to meet these goals.

The NFPA voluntary nutrition labeling proposal has been put forward by the food processing industry as the best approach to achieving these goals. The primary difference between the NFPA proposal and this legislation is that nutrition labeling should be voluntary, not mandatory.

We recognize that the current voluntary nutrition labeling program is not adequate, because the format, which is mandatory, is confusing and in many cases does not provide relevant information to consumers. We can see clearly that a totally mandatory program covering the broad range of food products would be far worse, resulting in expenditure of huge amounts of time and money with small benefit for consumers. As we contemplated changes in the existing program, we should keep in mind our past experience. The program should be voluntary to lessen the impact of unforeseen problems and costs.

A great merit of a voluntary labeling system, as NFPA has proposed, is that it allows market pressures to operate to the consumer's best advantage. It also permits flexibility to adjust the label for new or different information as more is learned about nutrition.

Given our limited knowledge of the relationship of any specific nutrient to health, it is not surprising that certain nutrients tend to be in or out of vogue, depending on the contemporary state of the science.

For example, at the outset of the current nutrition labeling program, providing accurate label information on the micronutrients—the vitamins and minerals presently required in nutrition labeling—was considered an absolute necessity to the success of the program.

Now, as the Chairman has said, micronutrients are of less interest than macronutrients. As evidenced by the 1978 FDA Food Labeling Survey and other surveys, very few people understand or use the micronutrient information. This earlier postulated interest in micronutrients has resulted in a significant amount of added expense without corresponding benefit to consumers. Let's not repeat this by a broad-based mandatory program without a demonstrated need.

Currently, some nutrients are the subjects of public discussion. These include cholesterol, sodium, fat, sugar and calories. Some people have medical reasons to be concerned about certain nutrients but we question whether this is reason enough to impose the extra financial burden on all consumers that a mandatory labeling program would bring. According to most nutritionists, those people who for medical reasons need to control the intake of certain nutrients should do so under the care of a physician and should not depend on a label to tell them what, and what not to eat. There are many special dietary products available on the market including foods with reduced caloric, sodium, cholesterol, sugar or fat contents.

In addition, Mr. Chairman, we need a nutrition labeling program that is flexible enough to allow for the addition of new information as it develops, and it surely will because all is not yet known about the effect of foods we eat on our physical well-being. A program based on legislated mandatory requirements does not provide this flexibility.

Indeed Mr. Chairman, we do not understand why processed foods are singled out for so much attention in this legislation. This bill, S. 1651, requires mandatory nutrition labeling for processed and packaged meat and poultry products. Yet the average American spends about 40 percent of the food dollar on food away from home that bears no nutrition labeling. Also, a substantial portion of meat and poultry is consumed fresh, again without nutrition labeling. If, as some have suggested, posters in supermarkets are adequate to inform consumers about nutrition values of these products, why shouldn't they also be adequate for food placed in a package or other container?

We suggest it makes no sense to require mandatory nutrition labeling for processed foods when there is no nutrition labeling for the vast amount of food that is consumed fresh or away from home. All the nutrition labeling imaginable for processed meat and poultry products would still leave the consumer uninformed about the nutrient content of most of the other foods he or she eats.

Need for industry innovation.—The current nutrition labeling program is limited by a mandatory format. If a food processor voluntarily uses a nutrition label, or makes a nutrition claim, he must follow a prescribed format with a required set of complicated declarations, many of which are unnecessary and meaningless. This format thwarts innovation and initiative in finding better ways to convey nutrition information on the label.

The food processing industry tries continually to learn what consumers want and how to provide its customers with a high quality, reasonably-priced product. There is a clear understanding throughout our industry that "the consumer is boss." The

key to success in the food industry is, and has been, the ability to provide a superior product to consumers. The recognition of this fact, coupled with ingenuity, has given the American consumer the best food supply for the lowest cost, of any in the world.

NFPA's nutrition labeling proposal would allow the industry to apply its ingenuity and research toward creating a nutrition label that is both responsive understandable to consumers.

The current nutrition labeling program, with all its limitations, clearly demonstrates one fact: a voluntary program can effectively make nutrition information available to the public whether they use it or not. More than 60 percent of processed foods are presently nutrition labeled, including virtually every kind of product. If industry flexibility is maximized, and the use of data base information allowed, as we propose, nutrition labeling will be even more prevalent.

NFPA's nutrition labeling proposal

NFPA's nutrition labeling proposal addresses each of the nutrient declarations required by this bill, as well as several nutrients not addressed in the legislation.

Calories.—NFPA recommends that the voluntary declaration of the calorie content of a food, standing alone, should not require further nutrient declaration. This option would give processors flexibility to respond to a key consumer interest, and to the USDA's and HEW's "Dietary Guidelines for Americans," without being required to make other nutrient declarations that in many instances are not needed or are meaningless to the consumer.s

Protein, fats, and carbohydrates.—S. 1651 would require declaration of "the amount per serving of protein, fats, carbohydrates in terms of caloric content." This format is potentially misleading. If consumers don't understand nutrition labeling now, they will be further confused by this format of caloric density.

NFPA recommends that the label statement of protein be made in grams per serving. This will allow for comparisons, about all we can reasonably expect consumers to do with this kind of information.

The same is true for fat. However, for some foods there may be voluntarily added a further statement of saturated and polyunsaturated fats.

The declaration of total "carbohydrates" may, where appropriate be accompanied by an additional statement in grams of the amount of "sugars" (meaning mono- and di-saccharides) and "other carbohydrates." This option is responsive to the interest some consumers have shown in sugar.

Sodium.—S. 1651, if enacted, would require declaration of "the amount per serving of sodium unless the Secretary determines that providing such information is not necessary to provide health information to consumers." In effect, this is mandatory labeling, because USDA has already stated its intent to require sodium labeling if this legislation is enacted.

NFPA opposes mandatory sodium labeling. The NFPA labeling proposal for sodium labeling is a practical alternative that is responsive to demonstrated public health and consumer needs.

In addition to the ingredient declaration when salt is added, NFPA's proposal calls for amendment of USDA/FDA labeling regulations to allow voluntary quantitative declaration of sodium, either in combination with full nutrition labeling or on labels which do not contain nutrition labeling.

For consumers with a real or perceived health problem due to excessive sodium intake, there is a broad range of dietetic low-sodium products currently available and fully labeled. A long list of these products has been compiled and published by the American Heart Association. The wide selection shown by that list well demonstrates how the industry has voluntarily responded to the consumer need and desire for low-sodium products.

Mandatory sodium labeling is not justified for several reasons:

1. Consumer need has not been demonstrated. Only one percent of respondents in the 1978 FDA Food Labeling Survey expressed concern over salt labeling. This was true in both the open-ended and the semi-direct questions which specifically asked what additional label information consumers want.

2. Data is lacking to show the consumers can effectively understand and use quantitative sodium labeling. The agencies Labeling Background Papers (p. 48) state that: Evidence also indicates that educational efforts will be required to help consumers use sodium information on the label; most consumers do not understand the difference between salt and sodium. *Whether consumers use the information will depend upon how well they understand it, as well as the interest they have in it.* (Emphasis added.)

3. Hard facts are missing to support the implied assumption that mandatory provision of sodium information would provide a demonstrable health benefit either to hypertensive-prone people or to the vast majority of Americans who are susceptible to hypertension. Most authorities recognize that current studies do not show

that sodium consumption is a causative factor in hypertension. Data presented to the Select Committee on GRAS Substances (SCOGS) emphasized that benefits from reduced sodium intake accruing to hypertensives could be demonstrated only when daily sodium intake levels approached one gram or less (NaCl equivalent). Since SCOGS also concluded that the naturally-occuring or background salt equivalent in American food intake is approximately three grams, it is extremely difficult to conclude that quantitative sodium labeling, either alone or coupled with a massive education program, could have a significant health impact.

Some experts contend that excessive sodium in the diet comes mainly from salt added at the table or in home cooking to suit individual tastes. Again, according to the SCOGS report, up to 50 percent of the average daily intake is added in this way. The solution to that is nutrition education. Addition of salt at the table will not be resolved by any form of sodium declaration on food labels. If that is the main problem, as it appears to be, then mandatory sodium labeling is unnecessary and unjustified.

The daily need for salt clearly varies on an individual basis. Persons who engage in heavy physical exertion or are active in hot weather need more salt than those who do not. There is no question that overzealous reduction of salt from the diet of these individuals presents a health risk.

A more detailed discussion of sodium in the diet is contained in the article entitled "Dietary Salt", prepared by the Institute of Food Technologists' Expert Panel on Food Safety and Nutrition and the Committee on Public Information. We would be happy to provide this article to the subcommittee.

4. Sodium analysis requires relatively sophisticated and costly flame-emission equipment and skilled technicians to operate it. Mandatory sodium labeling would be costly and burdensome, especially for small food processors.

5. Sodium is a component of many processed meat preservative systems. Meat processors cannot eliminate or reduce these sources of sodium without making their products unsafe. Additionally, meat absorbs the sodium in curing agents at varying rates, resulting in a natural variability in final sodium content. Mandatory sodium declaration as proposed in S. 1651 would create difficulties for processors. Although the bill provides for a nutrient data bank, it does not address the compliance issues. Compliance as USDA and FDA define it is too rigid and restrictive to accommodate the natural variability of sodium in meat and poultry products.

Cholesterol.—S. 1651 would require a label statement of "the amount per serving of cholesterol unless the Secretary determines that providing such information is not necessary to provide health information to consumers."

Many of the same arguments regarding sodium can be made for cholesterol. The absence of any demonstrated need or benefit from mandatory cholesterol labeling is well established by the following excerpt from the "Food Labeling Background Papers" prepared by USDA, FDA and FTC.

"Medical opinion about the health implications of fat, fatty acid and cholesterol intake is divided. While elevated serum cholesterol levels have been established as a risk factor in atherosclerosis, a causal relationship between dietary risks factors and the development of heart disease has not been established. *Hence, it is impossible to assess the benefit likely to accrue to the general population from the dietary modifications that increased label information might facilitate."* (Emphasis added.)

NFPA recommends that where fat is labeled, with or without an additional declaration of saturated or polyunsaturated fats, cholesterol content may be declared. Such a statement should be voluntary and not required.

A voluntary label statement of cholesterol responds to prevailing consumer interest. A voluntary program would ensure availability of cholesterol labeling on foods where appropriate, yet not require such labeling on foods where the statement would be superfluous.

Micronutrients.—The legislation does not require labeling of micronutrients (vitamins and minerals) but leaves USDA the option to do so. Previous statements by Senator McGovern have suggested that micronutrient labeling should be optional.

NFPA recommends that declaration of a full range of macronutrients (calories, protein, fats, carbohydrates, sodium and cholesterol) should not result in mandatory labeling of micronutrients. Micronutrient declaration should be voluntary.

As previously mentioned, current micronutrient labeling is not understood by consumers. Such declaration adds to label clutter and confusion.

If consumer interest in micronutrients becomes keener, then the voluntary program would allow them to be declared.

Nutrient data base.—NFPA long has advocated use of nutrient data bases and supports them now. However, there exist several problems and unanswered questions with the provision in S. 1651, especially for smaller processors. For example, how does a small processor qualify to use the data bank? Who does the analyses to

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get data into the bank? What sanctions will be applied by USDA if it is dissatisfied with the nutrient content of a given product? How will the compliance program work? What will be the cost?

S. 1651 states that USDA "shall allow to the maximum extent feasible and appropriate, the use of nutrition data bases that indicate representative (weighted) nutritional value at point of purchase." Under this language, the use of nutrient data bases is discretionary for USDA. We urge that if the legislation is considered further, this section be strengthened to mandate the agency to permit the use of nutrient data bases with a reasonable compliance provision.

USDA and FDA have said that nutrition labeling should remain voluntary until the data for a given product is available through the data base. Such an approach is inadequate. Nutritional labeling should continue to be voluntary after the data base is set up, because a small processor could still be faced with unforeseen costs or compliance problems under mandatory labeling.

The key unanswered question in the nutrition data base concept is one of compliance. As Senator McGovern has said, "(We) have overregulated this matter by overemphasizing the classic compliance aspect of food regulations." We agree with this goal, but this bill does not address the compliance issue.

Ultimately, accuracy becomes an issue, thus compliance is the key to success or failure of the nutrient data base concept. In the USDA/FDA/FTC labeling proposal of December 21, 1979, the agencies state that "the use of a suitable nutrient data base does not exempt a manufacturer from assuring that a product meets its labeled nutrient content within established limits." This proposed agency policy is no different than the unsatisfactory compliance requirements now in force.

An unrealistic compliance program, rigidly enforced, would be disastrous for the entire industry, and especially for small processors. Small processors simply cannot afford to have products placed on hold or penalized due to an arbitrary compliance standard unrelated to the reality of natural variations.

Currently, a food processor who voluntarily nutrition labels will declare nutrient values high or low, depending on whether USDA views the nutrient as "bad" or "good", in order to ensure that the statement will be in compliance. Consequently, the current compliance program produces an inaccurate label. We believe the obligation for USDA to implement the data bank concept with a reasonable compliance provision should be more strongly stated.

The data base concept should take into account natural variations by providing a representative value that is accurate over a period of time. Inherently, the nutrient content in a given sample of product may vary from the representative value. The compliance requirements must be realistic in terms of natural variation.

Answers to these data bank questions have not even been committed to writing, and undoubtedly further questions and problems will arise as the data bank is put into operation. The fate of many small processors could be affected by forcing these problems on them with a mandatory nutrition labeling program. NFPA believes it is far better to work out the problems under a voluntary system.

If the nutrient data bank reduces costs as expected, and marketplace experience demonstrates that consumers use the information, then competitive factors will eliminate the need for a mandatory labeling program.

Additionally, we do not know how much it would cost the industry to participate in the data base. However, we do know that nutrition analyses are expensive, especially for micronutrients. Eighty percent of the analytical cost of the mandatory nutrients in the current nutrition labeling format is for vitamins and minerals (micronutrients). The cost to small processors and to the industry as a whole is a major concern. USDA and FDA recently estimated that the cost of developing the nutrient data base could be in excess of $100 million, although careful cost analysis has not been done. A thorough cost analysis should be made by USDA and FDA.

We recommend the nutrition labeling program be voluntary and not mandatory since the cost will not be truly apparent until the agencies begin to implement the program.

The provision for "nutritional value at point of purchase" is confusing and impractical. If taken literally, it would require new and costly analysis of all products, even where nutrition analysis has already been done. The phrase "at point of purchase" should be deleted.

Label format.—This bill gives the USDA discretionary authority to "prescribe a system of symbols, figures, or other devices" to convey nutrition information.

Use of graphic methods to convey nutrition information can be misleading to consumers. Use of such a format should be preceded by extensive market testing and careful analysis. This provision is unnecessary, in view of the authority in Section 5 allowing USDA to conduct demonstrations and evaluations on new label formats.

Nutrition handbook.—We suggest that a reasonable alternative to crowding the label with little understood information is a food and nutrition handbook. NFPA endorsed this concept in 1978 during the multi-city USDA/FDA/FTC hearings.

The nutrition handbook was proposed by officials at the Food and Drug Administration, who referred to a "food formulary" although that term is generally associated with drugs.

A nutrition handbook, as we envision it, would be available to consumers who are interested in more detailed information than in practicality can be placed on the label. A handbook presents greater opportunity for consumers to compare products. It could be more easily maintained by the government than the huge number of labels currently controlled by USDA.

III. ADMINISTRATIVE PROVISIONS

Criminal liability.—Senator McGovern stated upon introducing S. 1651 that elimination of criminal penalties for labeling violations is a key step in addressing "the problem of inappropriate regulation by redirecting the focus toward the vital information function of nutrition and ingredient labeling".

NFPA agrees with this, but we have a question about the technical drafting of the bill. As we understand, criminal liability for labeling is eliminated because S. 1651 as a free-standing bill does not provide for criminal liability, even though the Federal Meat Inspection Act (FMIA) and the Poultry Products Inspection Act (PPIA) do. If that be so, then it appears the preemption of state and local standards in the FMIA and the PPIA also would not apply.

Since the Chairman has pointed out that both elimination of criminal liability and preemption of state and local standards are essential to an improved labeling program, we suggest that both should be clearly reflected in the bill.

Nutrition information in advertising.—This bill provides in Section 7 that USDA shall recommend to the Federal Trade Commission (FTC) which nutrition information, if any, should be required to be included in advertising a food product.

Mr. Chairman, this provision has a most objectionable implication and the entire Section 7 should be deleted.

We understand that Senator McGovern now advocates the elimination of Section 7. We concur.

Demonstrations and evaluations.—NFPA does not object to a program of demonstrations and evaluations. Whether such a program will be of consequence depends on how it is carried out. We suggest that an advisory panel with industry representation be appointed to guide and counsel development of the program.

The provision for a demonstration and evaluation program further precludes the need for a mandatory nutrition labeling program. The stated objective is to find more effective methods to convey nutrition information. If more effective methods are found, it would entail label changes. Under a mandatory program, label changes could result in major costs and disruptions in the food marketing chain.

The most effective research and testing of methods to convey information can be carried out by industry. Under the NFPA voluntary nutrition labeling proposal, industry would be encouraged to undertake what this provision of S. 1651 proposes to have government do.

Consumer label education.—NFPA has long supported better nutrition education for consumers, and that includes education on nutrition labeling.

Conceptually, it is easy to agree that everyone should know more about nutrition and about what they eat. Disagreement usually arises over the nutrition education message.

In response to the Dietary Goals published by the former Senate Select Committee on Nutrition, and on other occasions, consumers make it abundantly clear they do not want to be told what to eat. Instead, they want to have the best information available, in the most cost-effective way, so that they can use the information if they choose. Beyond that, consumers have asserted their right to eat foods of their choice.

We recommend provision be made for establishment of an independent advisory panel to include food industry executives. The requirement should be written into this legislation that USDA make a good faith effort to incorporate recommendations of this panel into the consumer label education program. The food industry is in direct daily contact with consumers about their attitudes toward food and food labels. A relevant and meaningful program is much more likely with food industry input.

In conjunction with an education program on nutrition labels and labeling, there must be greater emphasis on nutrition education. Nutrition labeling is only beneficial to consumers if they know how to apply the information. Knowledge and

understanding of nutrition among consumers today is woefully lacking, in part because nutrition science itself is in the developmental stages.

Mandatory nutrition labeling is inappropriate in the absence of a better public understanding of nutrition. This is one reason why NFPA's voluntary labeling proposal should be adopted, for it allows a degree of nutrition labeling that is commensurate with consumer interest and understanding.

In conclusion, we support the goals of this legislation but are convinced that those goals cannot be achieved as the bill is currently drafted. NFPA opposes the legislation as presently written and we have identified the principles we think are essential.

We believe that the goals outlined for S. 1651 could best be achieved through adoption of the NFPA voluntary labeling proposal and by regulatory changes. We do not think legislation is necessary at this time. We urge the subcommittee to endorse the voluntary concept.

[The following information was furnished by Dr. Hagen; see p. 29 for textural reference:]

EVALUATION OF THE HEALTH ASPECTS OF SODIUM CHLORIDE AND POTASSIUM CHLORIDE AS FOOD INGREDIENTS—1979

(Prepared for Bureau of Foods, Food and Drug Administration, Department of Health, Education, and Welfare, Washington, D.C.—Contract No. FDA 223-75-2004, by Life Sciences Research Office, Federation of American Societies for Experimental Biology, Bethesda, Md.)

CONSUMER EXPOSURE DATA

The total dietary sodium chloride intake has been assessed with attention to total sodium load in terms of discretionary (consumer controlled) and nondiscretionary uses (commercially added and naturally occurring). Any contribution to the total intake resulting from the migration of sodium chloride from food packaging is probably insignificant. Data from dietary and industrial surveys, sodium excretion studies, direct food analyses, and production and sales reports are examined in this section.

The NRC survey of industry

A National Research Council (NRC) subcommittee surveyed the 1970 industrial food use of GRAS substances (3). The survey provided the following information on each GRAS substance: its level of addition to foods, the total quantity added to foods annually and the 10-year trend in this quantity, its importance in producing certain desired technical effects, and other information considered relevant to its food use. While the survey showed many other sodium-containing ingredients were added to processed foods, none contributed more sodium, per capita, than sodium chloride, which accounted for about 90 percent of the sodium used by the surveyed food industry in 1970. The data are insufficient to determine the contribution of other sodium-containing ingredients to the sodium content of specific foods; however, on the basis of the total poundage of sodium-containing ingredients used by the surveyed processors, as much as 1 g of sodium could be added daily to the average diet by ingredients other than sodium chloride.

The weighted means of the usual levels of sodium chloride addition to one or more products are shown in Table I by processed food category. An entry in the Table does not mean that all foods in the category contain added sodium chloride or that any one product contains that particular level of added sodium chloride. Assuming all foods within the categories contained sodium chloride at the levels shown in Table I, the NRC subcommittee calculated a possible average daily intake for added sodium chloride using data from Market Research Corporation of America on the mean frequency of eating foods by food category and U.S. Department of Agriculture data on mean portion size of foods in these categories. Because of factors outlined in its report, the NRC subcommittee believes that, for most GRAS substances, application of this method results in a considerable overstatement of average intakes.

TABLE I.—CALCULATION OF A POSSIBLE AVERAGE DAILY INTAKE BASED ON LEVEL OF ADDITION OF SODIUM CHLORIDE TO FOOD BY FOOD CATEGORY (3)

Food category	Level of addition (weighted mean) percent	Possible average daily intake (g) 2 to 65 plus years
Baked goods, baking mixes	1.31	1.8
Breakfast cereals	1.09	.2
Grain products such as pastas or rice dishes	.74	.2
Fats and oils	1.43	.2
Milk products	.45	.2
Cheese	1.00	.1
Frozen dairy desserts, mixes	.04	[1]
Processed fruits, juices, and drinks	.48	.6
Meat products	2.49	1.9
Poultry products	.83	.1
Egg products	.64	[1]
Fish products	.96	.1
Processed vegetables, juices	.68	.6
Condiments, relishes, salt substitutes	3.18	.3
Soft candy	.42	[1]
Sugar, confections	.51	[1]
Sweet sauces, toppings, syrups	.47	[1]
Gelatins, puddings, fillings	.41	.1
Soups, soup mixes	1.02	.3
Snack foods	2.08	[1]
Beverages, nonalcoholic	.04	[1]
Beverages, alcoholic	.02	[1]
Nuts, nut products	1.12	.1
Reconstituted vegetable proteins	7.27	[1]
Gravies, sauces	1.17	.1
Dairy products analogs	.64	[1]
Hard candy	.41	[1]
Seasonings and flavorings	5.53	[1]
Calculated possible average daily intake of added sodium chloride for the age group, 2 to 65 plus years		7.1

[1] Less than .05 g.

The contribution of each food category to the calculated possible average daily intake of 7.1 g of sodium chloride for the 2-year and older age group is shown in Table I (3). It appears that a significant fraction of the population could achieve this level of intake of sodium chloride as an added ingredient in processed foods. Even though two categories, baked goods and meat products, account for over 50 percent of this calculated average intake, a high variability in individual sodium chloride intakes and in the relative contribution of the various food categories to those intakes can arise as the result of food selection and preparation habits. Breakfast cereals, cheese, soups, snack foods, and other food categories that appear to make a small or negligible contribution in Table I can make a significant contribution to the sodium chloride intakes of individuals. For example, higher intakes could result for persons consuming those products containing sodium chloride at levels higher than the mean and for persons consuming products from these categories more frequently or in larger portion sizes than average.

Processing practices as regards the level of addition to a particular type of product are probably relatively uniform. With the exception of the category of processed fruits, in which most of the foods probably do not contain added salt, the addition levels for food categories in Table I contributing 4 percent or more to the calculated intake represent the weighted means of responses from more than 20 surveyed firms (3).

Because salt is used extensively as a processing aid and in brines that are often discarded, the quantity of salt used per capita for all purposes in processing foods will be greater than the per capita intake. In 1970, respondents to the NRC survey (3) reported the use of 831,000,000 kg of salt or about 11 g per capita daily. Based on survey data that suggest these figures may represent about 60 percent of actual usage, the recalculated total usage in 1970 would be 1.4 billion kg or 18 g per capita daily for a U.S. population of 205 million. A resurvey that provided data for 1975

usage indicated usage was 77 percent of the amount used in 1970 or, expressed on a daily per capita basis, 8.2 g (7). On the basis of a 1977 statistical study, the quantity of food grade salt sold to food processors and directly to consumers was estimated to represent a per capita consumption of 8.9 g per day (8). It thus appears that the NRC survey represented greater than 60 percent of actual 1970 usage of sodium chloride and that the total amount of sodium chloride used by the food industry is decreasing.

The levels of addition of sodium chloride to processed baby foods in 1970 as determined by the NRC survey are believed to be higher than the levels being added currently. In addition, several processors no longer add sodium chloride to their products (9–11). For these reasons, the NRC data on calculated possible average daily intakes of sodium chloride for age groups younger than 2 years and the levels of addition to baby foods are considered to be outdated and are not discussed in this report.

FDA selected minerals in food survey

Several anions and cations have been determined in each of 12 food composites that comprise the FDA "market basket," and some data, Table II, are available from analyses of foods collected in 1972–1973 and 1976 (12, 13). Each market basket collection (117 individual food items) consists of the retail purchases for a 3900-kcal daily diet for a 15- to 20-year-old American male. The foods are collected in the southeastern, northeastern, central, and western regions of the United States and prepared as they would be for home consumption but without the addition of any salt. For the purposes of the Selected Minerals in Food Survey, the amount of salt consumed daily that is under discretionary control is added to the food composite of sugar, salt, and adjuncts for analysis. The amount of sodium provided by this diet should be greater than the sodium intake of an average adult consuming a diet of fewer calories (14).

Analysis of the foods in six market baskets collected in 1976, including 12 food composites and therefore discretionary salt, showed an average sodium content of 6.8 g in a 3900-kcal daily diet, Table II (12). The nondiscretionary sodium content, calculated by subtracting the discretionary addition to the six market baskets, is 4.9 g and is in good agreement with the analysis of the 1972–1973 survey which showed 4.7 g of sodium and 6.5 g of chlorine in the food composites of a 3900-kcal diet that were analyzed (13).

The sodium content of two 1976 market basket collections from the southern and north central regions for infants (6 mo) was 485 and 876 mg, respectively, for a 880-kcal daily diet, an average of about 3 meq per 100-kcal (12). For toddlers (2 yr), two 1976 market basket collections from the same regions contained 1928 and 1759 mg of sodium in a 1300-kcal diet, an average of 6 meq per 100-kcal. These values include the naturally occurring sodium ion and commercially added sodium chloride. No discretionary salt was included in the analyzed infant and toddler diets.

Excretion data

An indirect calculation of the dietary intake of sodium and chlorine may be derived from urinary excretion data. Using data derived from several experimental studies, the sodium excretion averaged 60 mg (range 25 to 94 mg) per kg body weight per day (15). For a 60-kg adult, the sodium excretion would be 3.6 g per day. Chloride ion excretion was 100 mg (range 40 to 180 mg) per kg body weight per day or about 6 g daily for a 60-kg adult. Assuming that all sodium ion excretion results from ingestion of sodium chloride, the total intake would be 9 g per day for the average individual.

Dahl (16), in a study of employees at Brookhaven, used 24-h urine collections to estimate salt intake of 1124 males over a 3-year period. He reported the average daily sodium chloride intake was 10 g (range 4 to 24 g). On the basis of similar measurements in other population groups, a linear relationship was suggested between dietary sodium chloride intake and the prevalence of hypertension (140/90 mm Hg or more).

TABLE II.—SODIUM AND CHLORINE CONTENT (MG) BY FOOD COMPOSITE OF 3,900–KCAL DAILY DIET COLLECTED IN FDA SELECTED MINERALS IN FOOD SURVEY (12, 13)

Food composite	1976 [1]	1972–73 [2]	
	Sodium (mg)	Sodium	Chlorine
Dairy products	717	953	1,569
Meat, fish, poultry	1,000	1,133	1,387

TABLE II.—SODIUM AND CHLORINE CONTENT (MG) BY FOOD COMPOSITE OF 3,900–KCAL DAILY DIET COLLECTED IN FDA SELECTED MINERALS IN FOOD SURVEY (12, 13)—Continued

Food composite	1976 [1] Sodium (mg)	1972–73 [2]	
		Sodium	Chlorine
Grain and cereal products	2,036	1,960	2,569
Potatoes	65	86	236
Leafy vegetables	18	49	73
Legume vegetables	224	230	310
Root vegetables	16	26	33
Garden fruits	264	267	365
Fruits	74	([3])	([3])
Oil and fats	380	([3])	([3])
Sugar, salt, and adjuncts	[4]1,970	([3])	([3])
Beverages	9	([3])	([3])
Total	6,773		

[1] Mean value of 6 market basket collections; 2 each from the southern and northeastern and 1 each from the north central and western regions.
[2] Mean value of 20 to 25 market basket collections.
[3] Composite was not analyzed.
[4] Includes the discretionary salt normally used in home food preparation and for seasoning at the table. The discretionary salt varies by geographical region and accounts for 1,855 mg of sodium in this analysis.

Coatney *et al.* (17) studied the effectiveness of chloroquine- and pyrimethamine-salt mixtures as a suppressive against sporozoite-induced vivax malaria. They estimated the average daily sodium chloride intake at 11 g (8 g from added salt and 3 g from sodium chloride naturally present in dietary items prior to processing, preparation, or seasoning). Individual values ranged from 2.7 to 17.7 g of sodium chloride. They derived their estimates from chemical analysis of food and by monitoring urinary chloride excretion of 16 healthy subjects of military age on two to eight occasions during a period of 5 months.

The sodium excretion of two groups of 10 healthy young men fed "carefully controlled low-sodium" foods and permitted discretionary addition of table salt (sodium chloride) was measured as part of a 28-day study of men consuming sodium chloride or a 1:1 mixture of sodium chloride and potassium chloride (18). Data on the group consuming the potassium chloride mixture is presented on page 41. The basal diet provided 2500 kcal. Snacks and soft drinks that contained very little sodium were available. The discretionary use of sodium chloride by the 10 men averaged 5.55 g, ±0.85 g standard deviation (range = 1.52 to 14.89 g). The total daily sodium intake was 3712 ± 326 mg of which 2176 ± 326 mg was added as discretionary salt by the subjects. The recovery of sodium in the excreta was 98 percent.

Production and sales data

Wood (19) indicated that total sales of table salt for discretionary use in 1968 were approximately 275,000 tons (250,000,000 kg). Based on a population of 200 million, 3.42 g was the estimated average per capita daily discretionary use of table salt. No adjustment was made in this estimate for that indeterminate amount of salt not actually ingested.

Bowen *et al.* (20) used data from the Bureau of Mines on salt production and salt usage in all aspects of food production and processing to calculate total sodium chloride consumption per person per day. They noted that the industrial production of sodium chloride for all purposes including food processing averaged 23.6 g per person per day from 1970 to 1973 and estimated the daily intake to be 14.5 g (8 g nondiscretionary and 6.5 g discretionary use). This figure was adjusted by the authors for an estimated amount of salt used in food processing that is not present in the final products as consumed.

Sales of food grade salt to the food processing industry and directly to consumers were estimated by Dickinson (8) as 8.9 g per capita per day on the basis of 1977 statistical studies. This estimate was not adjusted for uses of food grade salt that do not result in ingestion.

Other aspects of sodium intake

Meneely and Battarbee (21), in a 1976 review of sodium and potassium, estimated that contemporary human diets contain 6 to 18 g per day sodium chloride. Based on estimates of adult daily requirements for sodium of approximately 0.5 g, they

concluded that the majority of people in developed countries consume 10 to 35 times the required amount of sodium chloride.

While no acceptable daily intake of sodium chloride has been set by the FAO/WHO Expert Committee on Food Additives, the FAO/WHO Codex Alimentarius Committee on Foods for Special Dietary Uses (22) has suggested that the maximum sodium content in canned baby foods should be 250 mg per 100 kcal and in infant formulas 60 mg per 100 kcal. Using the NRC Recommended Dietary Allowances (23) of 117 kcal times body weight, the suggested maximum sodium level in infant formulas would provide an intake of about 350 mg of sodium per day for a 5-kg infant; an 8-kg infant receiving 108 kcal per kg body weight would receive a maximum intake of about 2.2 g of sodium daily from canned baby foods.

In a 1970 review and evaluation of information on the safety and suitability of salt for use in baby foods, a special subcommittee of the National Academy of Sciences (24) found no evidence that the levels of sodium chloride then current in baby foods were either harmful or beneficial to the healthy infant. The NAS subcommittee recommended that no more than 0.25 percent sodium chloride be added to commercial preparations of infant food. The subcommittee also pointed out that since commonly used unsalted foods supply more salt than does human milk, plus the fact that by 4 monhts of age most infants are receiving cow milk which contains more than three times as much sodium as does human milk, there is no nutritional justification for adding sodium chloride to infant foods.

Corley (25) has pointed out that sodium in drinking water, natural as well as artificially softened, may add a significant amount of sodium to the diet. In a survey in Nebraska, 55 communities had water with sodium content in excess of 50 mg per liter. Bills et al. (26) determined sodium concentrations in 150 municipal water supplies that provide water for 28 percent of the population of the continental United States, and found 1 to 340 mg of sodium per liter. They concluded that most public water supplies contain low sodium levels. However, based on an average daily consumption of 2.5 liters of water in foods and drink, 500 mg of sodium from water alone would be ingested from a supply containing 200 mg per liter. This quantity is approximately equal to that suggested as a daily required amount of sodium (21).

TABLE III.—SOURCES OF DIETARY SODIUM AND ESTIMATES OF TOTAL SODIUM INTAKE [1]

	Sodium intake [2]	Comment	Reference
A. Nondiscretionary sources of sodium:			
1. Naturally occurring sodium in foods	2.5–4.5	Estimated food composition	20
	3.0	Chemical analysis (institutional diet)	17
2. Sodium added by industrial processing:			
(a) Salt	7.1	1970 NRC estimate (~ 3200-kcal diet)	3
	8	1966–70 Bureau of Mines data	20
	8.4	Total 1975 usage by food industry	7
(b) Other sodium-containing ingredients	1.0	Calculated from 1970 NRC survey	3
3. Total nondiscretionary sodium	12–12.5	Calculated from 1972–73 and 1976 FDA Selected Minerals in Food Survey (~ 3900-kcal diet).	12, 13
B. Discretionary addition of salt to foods by the consumer.	3.4	1968 retail sales	19
	4.4–6	1965 USDA survey	12
	6.5	1966–70 Bureau of Mines data	20
C. Total salt usage	8.9	1977 sales of food-grade salt	8
D. Total sodium intake	10	Urinary excretion	16
	11	.....do	17
	14.5	1966–70 Bureau of Mines data	20
	11	Urinary excretion	15
	12	Estimated from review of literature in 1976	21
	17.1	1976 FDA Selected Minerals in Food Survey (~ 3900-kcal diet).	12

[1] These values are not necessarily additive; see text for discussion.
[2] Expressed as sodium chloride (in grams per day).

In summary, several direct and indirect estimates of discretionary (consumer controlled), nondiscretionary (naturally occurring and added in industrial processing), and total sodium chloride intakes for adults have been examined (Table III). Given the diversity of the data and the range of individual intakes these estimates are considered very rough approximations of the national average. The best esti-

mate of sodium intakes by adults based on these data is an average daily intake, expressed as sodium chloride, of not less than 10 to 12 g. Discretionary use accounts for about one-third of this total; estimates vary from about one-fourth to one-half (3.4 to 6.5 g). The nondiscretionary intake is contributed by about 3 g of sodium chloride (sodium occurring naturally in foods expressed as sodium chloride). By difference, the average diet provides the equivalent of about 4 to 6 g of sodium chloride from sodium chloride and other sodium-containing ingredients that were added to foods during commercial processing.

[The following letter was subsequently received by the subcommittee:]

NATIONAL FOOD PROCESSORS ASSOCIATION,
LEGISLATIVE AFFAIRS DIVISION,
Washington, D.C., May 6, 1980.

Dr. CHRISTOPHER HITT,
Professional Staff Member, Senate Agriculture, Nutrition, and Forestry Committee, 322 Russell Senate Office Building, Washington, D.C.

DEAR CHRIS: As you said on the telephone, Senator McGovern asked two questions of Dr. Hagen during the hearing on S. 1651.

The first question you cited was, "Can you give us some idea of what percentage of foods that contain sodium are voluntarily labeled?"

Dr. Hagen responded, "I am not aware of any surveys that are definitive on this." That statement remains true and there is nothing we know of that provides any quantification of the number of sodium labeled products. However, the Association (when it was the National Canners Association) did prepare the "Dietetic Canned Foods" Bulletin advising canners on sodium labeling. As the bulletin demonstrates, NFPA and the industry have been involved in voluntary sodium declaration for about three decades. I think you will find the bulletin to be interesting and informative.[1]

Also enclosed is a copy of a brochure prepared by the American Heart Association listing a number of low sodium or no-added-salt products available in the Los Angeles area. This publication is seven years old, so it does not reflect the number of products now labeled with sodium content.[2]

The second question you mentioned was, "Do you know what percentage of the sodium in the typical diet comes from canned foods?"

Dr. Hagen promised to provide additional information and cited the "SCOGS" (Select Committee on GRAS Substances) Report.[3] The relevant extract from the report is enclosed. The report does not specifically address the quantity of sodium in the diet from canned foods however, Table I shows a "possible average daily intake" of 1.2 grams of sodium chloride from salt added to processed fruits, juices, and drinks and from processed vegetables and juices. Thus, sodium intake from these sources, which would include canned fruits and vegetables, could range from 7 to 12 percent of total sodium intake (Table III). The report suggests that salt added to processed foods has been declining in recent years, so the percentage of sodium contribution may actually be lower.

Also enclosed is an article entitled "Dietary Salt".[4] This article does not specifically answer Senator McGovern's question, but may be of interest to you.

I have provided a copy of the SCOGS Report excerpt with the transcript for inclusion in the hearing record.

Sincerely,

CLAUDE D. ALEXANDER,
Legislative Representative.

Enclosures.

DIETARY SALT

(A Scientific Status Summary by the Institute of Food Technologists' Expert Panel on Food Safety and Nutrition and the Committee on Public Information)

Sodium Chloride, most frequently encountered in the food supply as common table salt, is an essential part of the human diet. As it dissolves in water, it dissociates into two ions—one of sodium and the other of chloride. In all mammals, including man, the sodium ion is required to maintain the pressure and volume of

[1] Retained in committee files.
[2] Retained in committee files.
[3] See p. 80.
[4] See p. 85.

the blood. It is also essential in controlling the passage of water into and out of the body's cells, and the relative volumes of fluids inside and outside those cells. In addition, sodium is needed for the transmission of nerve impulses and for the metabolism of carbohydrates and proteins.

The chloride ion, too, is essential, and is involved in maintaining the acid-base balance in the blood, and in tissue osmolarity (the passage of water across cell walls to maintain proper concentrations of various chemical entities). It is necessary for activating certain essential enzymes, and for the formation of hydrochloric acid in the stomach, needed in the digestive process.

Thus, both sodium and chloride are normal and necessary constituents of body tissues and fluids, and must be provided for in the diet. However, the exact amount required by a human has been extremely difficult to assess. Some estimates of the minimum adult daily requirement for sodium are as low as 25–50 mg per day (about 0.06–0.12 g of salt, which is 39 percent sodium) under favorable conditions (Dahl, 1958). The most frequent estimate of the minimum adult daily requirement is 200 mg of sodium (0.5 g of salt).

The minimum daily sodium requirement for an infant, on a pound-for-pound basis, is somewhat higher than an adult's, owing to high growth rates and greater sodium losses via feces and skin. It has been estimated at about 100–200 mg (about 0.25–0.5 g of salt).

No known national diets commonly contain such small amounts of salt, although there *are* largely vegetarian cultures whose normal sodium intake is in the range of 150–200 mg of sodium (less than a half-gram of salt) per day. Such a diet would seem very dull, even unpalatable, to the typical North American consumer today. His average daily diet is currently estimated to include about 3 g of salt occurring naturally in the food eaten, about 3 g added by the cook and at the table, plus some 4–6 g added during commercial processing of food.

Thus, the total daily intake of a North American consumer is estimated to be in the range of 10–12 g of salt (3,900–4,700 mg of sodium). When evaluating the accuracy of this estimate in individual cases, it is probably worth pointing out the extreme variability with which individuals use the salt shaker and "nibble" on salty snacks. Many homemakers and restaurant chefs are also quite casual in the way they "measure" salt when cooking, and many use other sodium-containing food ingredients, such as soy sauce and monosodium glutamate (MSG), with a lavish hand.

Each individual's salt requirement will fluctuate, depending on a number of conditions, including amount and intensity of physical activity, the quantity and composition of sweat, environmental conditions, and degree of acclimatization. It is possible to calculate the salt lost in sweating at different temperatures and activities, and, thus, to estimate the requirements for increased salt under these conditions. Actual salt deficiencies produce certain characteristic symptoms in humans: headache, weakness, giddiness, lack of concentration, poor memory, and poor appetite.

The amount of salt most individuals consume is usually considerably greater than the actual physiological requirements, however, so the "palate" serves as a safeguard against an actual salt deficiency in normal individuals.

Sodium and chloride are not normally "stored" in the body, even when there is a high intake of salt. Amounts consumed in excess of need are excreted, so that the sodium level in the body is maintained within very narrow limits, as is the chloride, regardless of the intake. The primary route of excretion is via the urine, with substantial amounts lost in sweat and the feces. About 50 percent of the sodium in the human body is located in the extracellular body fluids, 10 percent inside the cells, and 40 percent in the bones. Chloride is found principally in the gastric juice and other body fluids.

SALT AND HEALTH

Essential though sodium is to the normal functioning of the human body, there has been considerable recent concern about the amount of salt in the diet. Much of this concern centers on questions about dietary sodium and hypertension, or high blood pressure.

Hypertension afflicts more than 20 percent of the population of the world, according to estimates by some health professionals; they estimate that there are 24 million cases in the United States alone. In about 90 percent of the cases studied, the actual cause of the hypertension cannot be determined (Marx, 1976), and these patients are referred to as suffering from "essential" or "primary" hypertension. Since the sodium ion plays such a major role in the physiological regulation of body fluids, it is reasonable to assume that it is capable of influencing blood pressure.

Research on the possible role of sodium in essential hypertension has been going on for some 60 years. It is still not generally accepted that sodium causes hyperten-

sion; however, it has long been known that the blood pressure of many unmedicated patients with essential hypertension will go down when they are fed a diet severely restricted in sodium (below 1 g per day). It is also known that their blood pressure will increase again when substantial amounts of sodium are added back to the diet. On the other hand, "normotensive" individuals, people with normal blood pressure, will usually not show an increase in blood pressure even when fed levels of sodium substantially in excess of that normally consumed by North Americans (Moses, 1978).

In many (but not all) studies of various ethnic populations, there have been positive correlations between their estimated average salt consumption and their incidence of hypertension (Freis, 1976). Epidemiological studies of this type are often complicated by the inability to control or eliminate other possible causes of hypertension, such as obesity, genetic predisposition, general nutritional status, and potassium intake. It has also generally proved impossible to study differences between individuals within these cultures.

SOURCES OF DIETARY SODIUM

Without attempting to take a position on whether or not high sodium intake causes hypertension, let's look at the various sources and forms of sodium in the diet, at the functions performed by sodium compounds, and at the chances (and hazards) of reducing their levels.

Sodium compounds occur naturally in many foods, including meats, fish, dairy products, and vegetables (See Table 1 and Jones, 1979). A number of food processing operations add salt or other sodium-containing additives. Drinking-water supplies, especially from deep wells, contain varying amounts of sodium whether "softened" or not. In addition, many nonprescription drugs contain substantial amounts of sodium compounds which the consumer frequently overlooks.

There are varying degrees of "essentiality" to both the use and the ingestion of these materials, and the 20 percent of the population potentially sensitive to sodium needs to be more aware of its presence and effect in making its dietary choices.

TABLE 1.—SODIUM CONTENT OF SELECTED FOODS[1]

	Sodium content (mg per 100 g)
POPULAR FRUITS AND VEGETABLES[2]	
More than 50 mg of sodium per 100 g:	
Beet greens	130
Celery	126
Dandelion greens	76
Kale	75
Spinach	71
Beets	60
Watercress	52
From 10 to 49 mg of sodium per 100 g:	
Turnips	49
Carrots	47
Artichokes	43
Collards	43
Mustard greens	32
Chinese cabbage	23
Cabbage	20
Radishes	18
Broccoli	15
Brussels sprouts	14
Garden cress	14
Cauliflower	13
Green pepper	13
Cantaloupe	12
Honeydew melon	12
Parsnips	12
Onions (dry)	10
Sweet potatoes	10
OTHER FOODS	
Beef, ground	48

TABLE 1.—SODIUM CONTENT OF SELECTED FOODS[1]—Continued

	Sodium content (mg per 100 g)
Beef liver	136
Pork chops	60
Ham, cured	860
Bacon	1,077
Bacon, Canadian	2,555
Sausage, link	958
Codfish	70
Cheese, blue	1,396
Cheese, brick	557
Cheese, cream	294
Cheese, Parmesan	1,848
Cheese, process	1,421
Milk, whole	50
Butter	224
Eggs	122
Olives, green	2,400
Peanuts	5
Peanuts, salted	418
Soda crackers	1,100
Ice Cream	83
Sherbet	45
Pickle, dill	4–5,000
Pretzels	7,800
Soy sauce (mild)	3,569
Soy sauce (regular)	6,082

[1] From Watt and Merrill (1963).
[2] Most of the fruits and vegetables not listed contain less than 10 mg of sodium per 100 gw.

SALT IN FOOD PROCESSING

Salt serves a number of essential functions in food technology (as reflected by the amounts used annually—see Table 2). In some cases, its action is unique. It has served widely as a preservative for centuries, and is essential in processing meats and cheese products. Its use controls certain microbial actions; for example, it allows sauerkraut to "emerge" from shredded cabbage, or specific kinds of cheeses to form from initially identical dairy cultures. Salt also controls textures and moisture levels in various foods, as well as providing its obvious flavoring function.

What is there about salt that makes it so useful in such a variety of functions?

Salt is often used to alter the environment with a food so as to retard or prevent the growth of undesirable organisms. The microbiological stability of a given food, or its likelihood of spoilage, depends on its "water activity." For every different microorganism, there is a value for water activity above which the organism will grow and below which it will not. Food can be dried or dehydrated to reduce its water activity, or hydrophilic ("water-loving") chemicals can be added. Salt is one of the most effective agents for lowering water activity. Sometimes, water removal and the addition of hydrophilic compounds are combined, as in certain meat and cheese products.

In the production of certain food products, such as sauerkraut, pickles, fermented sausages, and cheese, salt withdraws water plus various nutrients from the tissue to provide the proper environment for growing the *desirable* bacteria. The growth of microorganisms which would cause spoilage or undesirable properties is controlled primarily by the salt, the accumulation of organic acids that are formed during fermentation by the desirable microorganisms, and processes that exclude oxygen. Using too much salt will delay desirable fermentation, while too little salt results in poor quality or loss of the product because of undesirable fermentation.

In cheese, for example, salt is added to the milled curd after cheddaring to help remove the whey, to suppress the growth of unwanted microorganisms, to slow down acid development, and to develop normal flavor. Too much salt will produce a dry, brittle texture, while too little salt results in a weak, pasty body. In the production of blue cheese, cheese curd is highly salted to inhibit the growth of most microorganisms while allowing the mold *Penicillium roqueforti* (which is relatively

salt tolerant) to grow. In contrast, *Propionibacterium* species may be added to *lightly* salted cheese curd to yield the characteristic "eyes" and sweet flavor of the Emmental or "Swiss" cheeses. Salt also has a dehydrating effect, helping to form the rind of the cheese.

TABLE 2.—ANNUAL SALT SALES BY MAJOR END USES IN 1978 [1]

Use	Tons	Percent of total sales [2]
Highway de-icing	10,927,000	44.4
Chemical raw material	4,114,200	16.7
Water conditioning	2,304,800	9.4
Agriculture	1,980,000	8.1
Food	1,002,800	4.1
Total	20,328,900	82.7

[1] From Dickinson (1979).
[2] Total sales equaled 24,500,000 tons.

Salt in processed fruits and vegetables

Canned vegetables usually have salt added to them during processing, primarily for flavoring, since the heat processing provides the preservative function. The average amount added is 0.6 percent to 1.0 percent of the finished product (undrained), although it varies with the specific vegetable involved (See Table 3). When vegetables are processed for special low-sodium diets, the sodium content is considerably less than that of regular pack. Sodium values for such products will appear on the label. Frozen vegetables, except for lima beans, butter beans, and peas, are usually processed without added salt.

Similarly, salt is generally not used in the processing of fruits for freezing or for canning. Therefore, their sodium content is equivalent to, or only slightly higher than, that of the raw product. Both fruits and vegetables are good sources of potassium.

Various processing procedures for vegetables also involve the use of salt. For example, a salt brine is used to separate or sort overly mature, starchy green beans or peas—which will sink—while the younger beans or peas float. The sorted beans and peas are then washed with water before freezing. Some fruits and vegetables also have their peel removed by being passed through a hot lye (sodium hydroxide) bath. They are subsequently washed. The level of residual sodium from both processing operations is very low.

Storing fresh produce in some partially processed form for further processing or eating during the nongrowing season has been practiced for centuries. For example, "tanking" fresh cucumbers in a salt brine solution to preserve the pickle for some months prior to final processing is a common practice in the food industry worldwide. This "salt stock" is removed from tanks as required for production; the pickle is then partially desalted, and packed with appropriate other ingredients as a pickle or relish product. Approximately half the total pickles produced in the U.S. are processed in this way.

TABLE 3.—SODIUM AND POTASSIUM IN SOME COMMON CANNED VEGETABLES [1]

Product	Content (mg per 100 g) [2]	
	Sodium	Potassium
Beets, sliced	275	155
Carrots, diced	290	215
Corn, whole-kernel	255	175
Green beans	380	120
Lima beans	330	300
Peas	290	105

[1] From Niven (1979).
[2] Potassium levels reflect those naturally present in food, while sodium content is largely added in processing.

Salt in meat processing

Most processed meat products, such as frankfurters, corned beef, luncheon meats, sausage, ham, and bacon, have salt added to them during processing, for many different reasons. In addition to its important seasoning role, salt also serves as a preservative or curing agent, to inhibit the growth of undesirable microorganisms, as part of the fat emulsification process in sausages, and as an aid in forming an edible or "skinless" casing for sausages. The sodium content of processed meat products is thus highly variable, and often substantially higher than that of the raw products.

For example, fresh pork sausage may contain as little as ¾ of 1 percent sodium, while dried, chipped beef, at the other extreme, may go as high as 4.35 percent sodium (almost 11 percent salt!). Country ham, processed in the traditional way, may contain up to 3 percent sodium. Although no reliable average is available, most processed meat products contain between 1.1 and 1.3 percent sodium (Marsden, 1978).

This variation arises from a number of factors, the most important being that salt brine solutions of various strengths are used in making sausage to dissolve the different muscle proteins in the meat. This dissolved protein forms a binding solution, which combines the meat, moisture, and fat into a desirable gel texture, and hence, a sausage. Salt's use as a solubilizing agent goes back to about 3000 B.C. Even the name "sausage" is derived from the Latin word "salsus," meaning salt.

Salt brine contributes most of the added sodium in the 200-odd cured meat and sausage items on the market. However, there are a number of other added ingredients which contribute to the sodium content, varying with the specific product. Curing ingredients, such as sodium nitrite, used as preservatives against deadly botulism as well as to provide the "cured" taste and pink color, contribute varying amounts. Sodium phosphates are often used in cured meats such as hot dogs to reduce shrinkage during processing, to retard the development of rancidity, and to improve texture (Marsden, 1978).

Nonfat dry milk is sometimes used as a nonmeat protein additive to supplement the binding effect of the salt-soluble meat protein. Depending on its form, the dry milk product may contain from 535 to 2,280 mg of sodium per 100 g. Whey-derived products also contain sodium, as do soy-derived protein additives, hydrolyzed vegetable protein, and monosodium glutamate. All these additives are allowed in varying but relatively low levels in different products, depending on the recipe or "standard of identity" established for that product by the government.

In addition, meat fiber itself contains sodium (about 55 mg per 100 g in beef and 65 mg per 100 g in pork). It also contains potassium, in amounts roughly five times larger than sodium.

Sodium in bakery products

Although the level of sodium in wheat flours is quite low (2–3 mg per 100 g), most finished bakery products contain substantially larger amounts. The major sources of sodium in such products are added salt, baking soda, and certain leavening acids. The average per capita consumption of bread (three slices) contributes about 1 g of salt (400 mg of sodium) to the daily U.S. diet (Vetter, 1979).

The major source of sodium in bakery products is added salt. It serves a variety of functions, not the least of which is to "roundout" or enhance the other flavors in the product (few breads have a distinctly salty taste). In addition to enhancing flavor, however, added salt performs a variety of other functions.

One major role is in controlling the rate of fermentation of yeast-leavened products. Just as in the production of fermented meat and dairy products, the presence of salt controls the rate of growth of desirable microorganisms, and prevents the development of undesirable "wild" types of yeast, which would lead to uncontrolled fermentation rates and variable products. Salt also has a strengthening effect on the gluten in bread doughs, which helps ensure good dough-handling properties, and it reduces the dough's water absorption rate as well.

Salt-free breads *are* produced by most major commercial bakeries, to satisfy the needs of consumers on salt-restricted diets. As a rule they are not popular with the general populace, and sales volumes are low.

Leavening agents provide most of the other added sodium in bakery products in which they are used. Baking soda, with or without various leavening acids, provides the carbon dioxide gas which is a major factor in developing the final grain, texture, and volume (or "lightness") of the finished product. There are only a limited number of substitutes known. Calcium phosphates are the most widely used leavening acids (compounds used with baking soda to release leavening gas). Sodium acid pyrophosphates are used in many industrial baking powders for specialty products and in refrigerated doughs and donuts. These, of course, also contain sodium.

Sodium aluminum phosphates, with a low level of sodium, have become popular in recent years.

Some specialty bakery products and snack foods are characterized by the presence of salt on their surface. These would include such items as hard and soft pretzels, potato chips, and popcorn. The amount of salt added varies widely with the product and the producer. The effect of added salt, and hence the amount "needed," depends on many things—the size of the crystal, the amount of oil on the surface (which "enrobes" the salt and delays its taste), and the depth it penetrates into the surface all play a part.

SODIUM IN DRINKING WATER

In addition to sodium in food, naturally present or added, drinking water provides a widely variable amount of sodium to one's daily diet. Nearly all natural water supplies contain some sodium, depending on the source of the water and its treatment. From 1963 to 1966, the U.S. Public Health Service surveyed 2,100 water supplies which affect half of the U.S. Population, and found that 42 percent had concentrations of sodium greater than 20 mg per liter (about one quart) (White et al., 1967).

Well water, especially from deep wells, is generally higher in sodium content than water from rivers or lakes (Talsma and Philip, 1971).

Water tapped at shallow depths may be high in calcium and magnesium. If these "hard" waters are "softened," either by the individual consumer or the municipality, the calcium and magnesium ions will be exchanged for sodium, resulting in higher levels of sodium in the water as drunk. (Conventional water treatment processes such as aeration, sedimentation, filtration, and chlorination do not affect the sodium content appreciably.)

Inadvertent contamination of local water supplies with sodium can also occur where salt is used on highways for de-icing in the winter. This is especially true in the northeastern United States.

SODIUM IN MEDICATIONS

Relatively few prescription drugs contain sodium in their active molecules, and in many cases, the physician has access to alternatives for those of his patients who are on sodium restriction. Nonprescription, over-the-counter (OTC) drugs, however, can present more of a potential problem to those attempting to maintain a low-sodium intake. (See Table 4 for some selected examples of OTC drugs.)

Sodium in such medications can exist as part of the active ingredient or as part of its "excipients." Among the more common sodium-containing excipients are sodium chloride, sodium alginate, sodium hexametaphosphate, sodium carboxymethyl cellulose, sodium bisulfite, sodium caprylate, and sodium saccharin. In some cases, a specific sodium-containing compound is the only one which will perform the necessary function, while in other cases, alternatives are available.

Some OTC antacids can supply a total daily sodium intake of at least 1,200 mg (equivalent to 3 g of salt), and, in one instance, as much as 7,000 mg. There is a wide variety of alternative products available, and many will yield only approximately 100–200 mg of sodium per day. Among pain relievers, only sodium salicylate (aspirin) presents a potential problem. However, other analgesics may be compounded using sodium-containing antacids, so caution should be exercised. Some laxative and sleep-aid products contain high levels of sodium.

The best course of action for consumers who must restrict their sodium intake is to scan all labels carefully, and to consult a health professional or write the manufacturer if still in doubt.

TABLE 4.—SODIUM CONTENT OF SELECTED NONPRESCRIPTION DRUGS [1]

Type of product and trade name	Ingredients	Sodium content	
		mg per dose	mg per 100 ml
Analgesic (Various)	Aspirin	49	
Antacid analgesic:			
Bromo-Seltzer	Acetaminophen, sodium citrate	717	
Alka-Seltzer (blue box)	Aspirin, sodium citrate	521	
Antacid laxative: Sal Hepatica	Sodium bicarbonate, sodium monohydrogen phosphate, sodium citrate.	1,000	

TABLE 4.—SODIUM CONTENT OF SELECTED NONPRESCRIPTION DRUGS [1]—Continued

Type of product and trade name	Ingredients	Sodium content	
		mg per dose	mg per 100 ml
Antacids:			
Rolaids	Dihydroxy aluminum, sodium carbonate	53	.....
Soda Mint	Sodium bicarbonate	89	.....
Alka-Seltzer Antacid (gold box)	Sodium bicarbonate, potassium bicarbonate, citric acid.	276	.....
Brioschi	Sodium bicarbonate, tartaric acid, sucrose	710	.....
Laxatives:			
Metamucil Instant Mix	Psyllium, sodium bicarbonate, citric acid	250	.....
Fleet's Enema	Sodium biphosphate, sodium phosphate [2]	250–300	.....
Sleep-aids: Miles Nervine Effervescent	Methapyrilene, sodium citrate	544	.....
Antacid suspensions:			
Milk of Magnesia	Magnesium hydroxide		10
Amphogel	Aluminum hydroxide		14
Basalgel	Aluminum carbonate		36
Maalox	Magnesium hydroxide, aluminum carbonate		50
Riopan	Magnesium aluminum complex		14
Mylanta I	Magnesium hydroxide		76
Mylanta II	Aluminum hydroxide		160
Digel	Simethicone		170
Titralac	Calcium carbonate		220

[1] From Bennett (1979).
[2] Absorbed.

SALT AND THE INFANT

It is generally agreed that on a pound-for-pound basis, an infant's minimum salt requirement exceeds that of adults, and that the requirement increases during certain minor illnesses. An infant fed only breast milk will receive from 100 to 200 mg of sodium (about 0.35-0.5 g of salt per day), satisfying its requirement. An infant fed a cow's milk formula will receive a two- to three-fold increase in sodium intake, and the introduction of homemade solid foods increases the actual sodium intake considerably more. The earlier a child is started on such solid foods, in addition to milk, the higher the sodium content of his diet at any age.

A newborn infant does not develop renal mechanisms adequate for conserving and excreting salt until about one month old. It can then tolerate salt intakes much higher than the minimum requirement, just as adults can. However, if the infant's consumption of water is limited, it may be at risk.

Some parents add salt needlessly to their infant's food. There is no evidence that infants reject bland food, and it would appear that salt is added to foods to satisfy the palate of the mother rather than the infant. Commercial baby food once contained more salt than necessary for acceptable taste, but the addition of salt has been discontinued in recent years.

Within the last ten years, the question has been raised as to whether high sodium intake in infancy may be a predisposing factor to hypertension which will persist into adult life (Guthrie, 1968; Dahl, 1968; McLain, 1976). A subcommittee of the Food and Nutrition Board of the National Academy of Sciences/National Research Council reviewed the issue of hypertension and salt (NAS/NRC, 1979) and concluded that the evidence relating salt intake to hypertension later in life was ambiguous. However, the subcommittee *did* recommend that manufacturers reduce the amount of salt in infant foods, and most have since eliminated salt altogether. The Committee on Nutrition of the American Academy of Pediatrics has also recommended that the present level of salt intake by children be reduced, or at least not increased (APP, 1974).

MEDICAL ASPECTS OF SODIUM INGESTION

As described earlier, a significant minority of the population suffers from essential hypertension, a disorder that can sometimes be improved by drastic reductions in dietary salt. The causes for this seem to include both genetic and environmental factors. For this "at-risk" group, it seems reasonable that a low salt intake begun early in life may protect them, to some extent, against developing hypertension (AAP, 1974; Morgan et al., 1978; Dahl, 1972). A family history of hypertension is a

strong indicator in predicting whether hypertension will develop or not, and can be helpful in deciding whether to restrict sodium and how severely.

There also appears to be a relationship between obesity, hypertension, and salt intake. Overweight individuals consuming a high-sodium diet have a higher incidence of hypertension than normal-weight persons consuming a low-sodium diet. Current medical treatment of such individuals combines weight reduction, salt restriction, and the use of diuretics and other antihypertensive medication, and is often successful in reducing the blood pressure. Recent studies have shown, however, that weight reduction *alone,* even without any concurrent reduction in salt intake, can bring blood pressure down to normal levels in many individuals (Reisen et al., 1978).

The prevalence of obesity is significantly higher in hypertensive children than in normotensive children. The correlation between obesity and hypertension seems to be higher in whites than in blacks, although a larger proportion of the black population suffers from hypertension than do whites. All these factors help point out the complexity of determining the actual causes of hypertension.

SODIUM AND POTASSIUM RELATIONSHIPS

The balance between potassium and sodium in the body is very important for proper physiological function. Therefore, the ratio of potassium to sodium should be considered when evaluating the role of sodium in the diet (Michelsen et al., 1977; Gros et al., 1971).

Some studies have supported a theory that increased intake of potassium chloride can reduce the blood pressure of hypertensive patients, even in the presence of excess sodium chloride (Meneely, 1973). Potassium chloride has been reported to exert a protective action against sodium-induced hypertension in animals, and to reduce the blood pressure of diabetic children taking excess salt in their diets.

Some consumers, particularly those on moderately reduced sodium diets, may benefit from the use of mixtures of sodium and potassium chloride for "salting" their food. Sodium chloride can be mixed with potassium chloride in ratios up to 1:1 without a noticeable change in taste for most consumers. Exclusive use of such a mixture as "table salt" could cut up to 1½ g of salt (600 mg of sodium) from the average diet. Excessive amounts of dietary potassium should, of course, be avoided (except under a physician's instructions) because of potential toxicity at very high levels.

DIETARY GOALS AND SALT

In 1977, the staff of the Senate Select Committee on Nutrition and Human Needs produced a set of Dietary Goals for the United States (Senate Select Committee, 1977a). One of the stated goals was that salt consumption be reduced to approximately 3 g a day, a reduction of some 50 to 85 percent. A task force of fourteen scientists for the Council for Agricultural Science and Technology (CAST) responded that while some general reduction in salt consumption might be desirable, "an arbitrary goal of only three grams of salt per day, however, would provide an unpalatable, therapeutic-type diet that would require exceedingly careful selection of foods from a limited list" (CAST, 1977). The task force also concluded that this severe restriction would complicate achieving adequate supplies of other nutrients by standard dietary means.

Later in 1977, the Senate Select Committee raised its recommendation to *five* grams per day (Senate Select Committee, 1977b). A diet of 5 g per day could be achieved by eliminating most highly salted processed foods and sodium-containing condiments and by eliminating added salt at the table.

In a recent letter to the president of the Salt Institute, Senator McGovern, chairman of the Senate Select Committee, wrote that the intention of the Committee "was to state that about 5 grams should be the upper limit of salt (sodium chloride) *added* to raw food commodities as they are prepared commercially or in the home and including salt added at the table. This would be *in addition* to our nondiscretionary intake of approximately 3 grams of sodium chloride (sodium occurring naturally in foods expressed as sodium chloride)." (Emphasis added.) This brings the recommendations to a total salt intake of about 8 g per day, not far below the average of 10–12 g currently ingested.

The Canadian Department of National Health and Welfare in 1977 adopted certain dietary recommendations designed to educate the public to select a diet appropriate for the promotion of personal health (Vanderstoep, 1978). One of these recommendations is the consumption of a diet that minimizes alcohol, salt, and refined sugars. The guidelines suggested for consumers to meet this recommendation with respect to salt are (a) to reduce intake of salty foods, and (b) to limit the

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use of salt in cooking and at the table. No specific amounts are recommended but rather a more general approach is embodied in these dietary recommendations.

CONCLUSION

As is the case with any dietary components, there are levels of salt which cannot be exceeded without placing vulnerable individuals "at risk." (Potential hazards also exist for the individual who reduces his intake *below* his requirements, although this is unlikely in North America.)

Salt requirements and tolerances are specific for each individual. The potential hazard of salt intakes above the requirement are therefore specific for each person based on a number of interrelated factors such as genetic vulnerability, other attendant pathologies, stress, nutritional status, and—perhaps especially—obesity. For those whose genetic make-up leads to medical vulnerability, clearer labeling and access to information concerning sodium content of all ingestible substances is highly desirable.

In addition, the unique funtions filled by the sodium ion in food processing and preservation mean that decisions to restrict or eliminate salt from specific products must take into account the effects on food safety and on the free choice of food products for that majority of consumers who are not "at risk."

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STATEMENT OF PAUL KEENE, PRESIDENT, WALNUT ACRES, PENNS CREEK, PA.

PART 1—AN AMERICAN SAGA

The year was 1946. Thirty four years ago Mrs. Keene and I moved onto our newly acquired farm, named Walnut Acres. We came out of a background of rural village living, and of teaching. My training was in Mathematics, Chemistry and Physics. For several years I was head of the Mathematics Department of a small college.

While teaching for several years in India, we had become deeply interested in the land and our relation to it. We felt we had to know more, so we decided to leave teaching altogether, to make our living and raise our family on a farm. For four more years we studied all branches of organic farming and living on the land in general, at two separate schools then in existence.

We had only two hundred dollars to start with, plus a fine team of horses, some old pieces of equipment, no tractor, and loads of university debt. We were able to borrow the money to buy our lovely farm, and with our small children we moved onto it. The going was not always easy, but in the best Mom-and-Pop tradition we were determined to make a "go" of it in our great free-enterprise system. Nothing could stop us. We were moving against the tide by not using any synthetics or artificials, on either the soil or the plants, or in any products we prepared to sell. It is interesting now to note modern trends in this direction.

The years have gone by all too rapidly. Grandchildren now play around our knees. Yet we have remained true to our principles, and have shown many fascinating things about insect and disease control, for example. We have seen great results in both soil and crops. We were among the pioneers in this field in modern times. We became one of the best-known and most-trusted sources for specially-grown-and-prepared foods. We have always tried to make small, fresh lots of our foods, and have watched a reputation for quality develop all about us.

We have not claimed our way to be a universal panacea, applicable in all circumstances. But we had the freedom to try out what we felt to be a valid approach. Several giant companies offered to buy our business, but we were not interested. One of the wonders of being in business in this country, we soon learned, was the way in which little persons like ourselves could hold up our heads proudly, making our way among the giants of the food industry, setting and living up to such standards of integrity and unselfishness as we felt proper, and still succeeding. With us, all around quality of products has always come ahead of quantity and large incomes.

People soon began coming and writing from the cities for our products. They wanted us to ship by mail. Here they could contact directly the people who did it all, from the ground up. We could attempt to answer their questions about growing and processing methods, which even in those early days were of great interest to them. As they become more sophisticated in their requests, experience led us to know more of the answers. We had first one customer, then two—and then a hundred, a thousand. Now there are a number of thousands, all over the country and out of it.

Sales are still primarily by mail. We make no special claims for our products. We tell how we grow and process, people may come to see us at our work, and they decide if they want what we produce. We feel we offer a valid, important choice, and our customers keep pushing us continually for more products. Their sensing that we want only to supply what they desire, in friendship and honor, has caused a bond to be formed which ties us all together into one large, consumer-supplier "family", where true concern for the other comes first.

We could not do it all alone, so we reached out to our neighborhood farm and rural-village people for help. Most of us are of hard-working, simple, frugal Pennsylvania-Dutch stock. Our lives will be spent in this rather depressed Upper Appalachian mountain region. Here is our home. Overall incomes before taxes in our work average between eight and nine thousand dollars yearly. We are all shareholders who work and own the company in common. No stock is sold outside the company. No one may hold more than one hundred shares of ownership stock. No person or

family holds a majority of the stock. It is really ours together. Our average net profit over the past five years has been 1.83 percent. We brought millions of dollars into our area, and have earned the high respect of many persons.

As normal, public-office-holding, community-serving farm persons, we've tried to conserve both the soil, and also all those special values inherent in rural community living. We borrowed money from the F.H.A. to build a lovely community center in our village. This is unique in the whole of central Pennsylvania. Its program reaches people for miles around, upbuilding, enlightening.

We've seen much joy and growth come as a fulfillment of earlier dreams. Only in this country could something so wonderful have developed. It is so typically American. We thank God every day for it.

Yet now, through ever-present tendencies to force all people into molds, this whole way of life is seriously threatened with complete extinction. If nutrition labeling is made mandatory, we are finished. But not we alone, for a host of other small food processors all over this great nation will suffer a similar fate. What a pity to see small things forced by law to die, that only the large might remain. We think of nature's attempts with the dinosaurs, and weep.

PART 2—THE GOVERNMENT AND WE

We have numerous close ties with federal and state authorities. We keep in touch with things which affect us and our work. We come under F.D.A. and U.S.D.A. regulations and inspections, of course, and are basically happy that we live in a country where there are agencies of this nature, concerned with the public health. We have found their requirements and oversight reasonable, helpful, and possible. We would not want to live without the protection they afford in their monitoring of the safety and cleanliness of the food supply.

We have reason occasionally to write, telephone or visit legislators and regulatory agency persons about particular concerns. Over the years we have been impressed with the ability, sincerity and dedication to the public that we have sensed in these contacts. We have not felt harassed or put-upon. If we have shown deficiencies, we have received help and guidance, and have learned the best way, to our ultimate all-around benefit. It has been in most areas a happy relationship of mutual understanding, and, we think, of appreciation.

However, over the past eight to ten years we have become increasingly concerned with what seems to be a determination to force what is termed "mandatory nutrition labeling" upon every food processor who engages in interstate commerce. Occasionally over the years bills concerning nutrition labeling have come up. Some have passed into law, but up to this time it has been on a voluntary basis only.

In 1974 we were invited to comment at a sub-committee hearing on the Moss-Hart amendment proposal to S. 2373. Under this proposal, nutrition labeling would have been made mandatory. After our presentation, we were told by committee members that they had never before known how damaging mandatory nutrition labeling would be to small food processors. Changes were made, and the plan to make nutrition labeling mandatory was dropped.

But since that time rumors of mandatory nutrition labeling have simmered under the surface quietly. This year our ever-present nagging fears seem to be coming to a head. So we begin all over to struggle for our life. Over the years it has taken countless hours of our time, plus many thousands of dollars in printing and postage, telephone calls, trips to Washington, in correspondence and in the making and writing of presentations, and in lost opportunities, to try to inform legislators, regulatory agencies, and public in general about the indisputable danger to the very existence of small food processors countrywide, of mandatory nutrition labeling. This is over and above the ever-present mental anguish that can be so debilitating. This time and money, both so precious, should have been going instead into the increasing of productivity, the lowering of prices. Now we start another round.

We were invited by the Chairman of a Senate subcommittee to attend a meeting in February of this year, in the Senate Office Building, to learn more about certain aspects of two companion nutrition bills that have been introduced. These are S. 1651 and S. 1652. We were grateful for this invitation, with its opportunities. Representatives from the F.D.A. and the U.S.D.A. presented their views, and a general discussion followed. We were able to present our views.

We learned that attempts are under way in current proposals to soften the blow and ease the burden of mandatory nutrition labeling, but that the concept is still very much alive. We sensed a determination this time to push through some form of it to its final adoption.

The past ten years have seen the beginning of work on a "nutrition data bank" concept. Under this, a federal "bank" is established which contains basic nutrition data on a number of foods. The idea is to have collective analyses of five-to-six

thousand food items in this bank, in about five more years. These will be the foods most commonly used in our country. These would have to be laboratory analyzed annually by each food processor making any of them. Other less-used foods would never come under this plan. They would be exempt from mandatory labeling, since they would represent in total but a small percentage of all foods.

It is our hope that this paper will assist persons in seeing a side of the question which may not be commonly seen, so that small food processors may once more retire at night in peace.

It was T. S. Eliot who wrote:

"We shall not cease from exploring
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time."

We small food processors would like very much to work with those who do not realize fully our plight, that we may continue to explore together.

PART 3—HOW DO CONSUMERS FEEL ABOUT NUTRITION LABELING

Will Rogers once said—"This country is where it is today on account of the real common sense of the big normal majority." Let us look at recent responses of a consumer cross-section to questions concerning food labeling, to learn the thinking of the people.

In the fall of 1978, the Consumer Research Staff, Division of Consumer Studies, Bureau of Foods, of the F.D.A., conducted the 1978 Consumer Food Labeling Survey. In May, 1979, an eleven-page Summary Report of the findings was published. Copies are available from the Bureau of Foods, F.D.A., 200 "C" Street S.W., Washington, D.C. 20204.

This study was done by a research firm chosen by the Bureau of Foods. It was based on personal interviews with a representative and nationally-projectible sample of "primary food shoppers." Presumably the hope was to learn with a fair degree of accuracy something of the thinking of the people at large on this subject. The method used here affords a wholesome balance to the holding of hearings, which often are attended primarily by persons representing strong personal or corporate points of view which may be in part biased.

One should read the whole report to get the full flavor. Here we quote points from it, in brackets, which impinge particularly upon our concern with mandatory nutrition labeling. These quotes are from pages 3, 4, 5 and 10 of said Survey.

(Quote from Pages 3, 4, 5 of Survey) "Scope of Consumer Concern With Food and Food Labeling." The first question in the survey asked, "Aside from prices, please tell me about any particular problems, difficulties, or concerns which you have with food these days." In response to this question, about half of consumers (49 percent) reported no problem other than price. On the other hand, 47 percent did mention one or more specific problems. Most of the problems mentioned were with the food itself, with 14 percent of consumers having generalized and rather undifferentiated concerns about product quality (feeling food is simply not as "good" as it might be), another 14 percent concerned with possible adverse health implications of the ingredients in their food, and 8 percent feeling that the food that they purchase is not as fresh as it should be. In addition to concerns about the food itself, 8 percent of respondents mentioned specific food labeling problems, and 3 percent mentioned problems dealing with such things as damaged containers, insufficient stock in the store, and other similar shopping concerns.

Looking in detail at the one person in seven who reported concern with the health implications of food, it appears that about a third of them (35 percent) (W.A. note—5 percent of the total) are worried about preservatives, 29 percent (W.A. note—4 percent of the total) are concerned about additives or chemicals in general, 20 percent (W.A. note) 3 percent of the total) are apprehensive about the sugar content of their food, 8 percent (W.A. note—1 percent of the total) specifically mentioned artificial colors, 7 percent (W.A. note—1 percent of the total) have concerns about sale content, and 4 percent (W.A. note—0.5 percent of the total) worry about the use of artificial flavors. Only 8 percent of those concerned with the health implications of food (i.e., about 1 percent of the total population) mentioned any problem with the nutritional value of their food.

It is clear from this and from the other findings reported below that there is among American consumers some degree of fear of the food supply. Relatively few people question the nutritive value of their food, but large numbers express concern with what they see as a proliferation of substances with long-or-short-term adverse health effects. It is clear that most consumer advocacy of food label revision stems from this fear, rather than from desires to achieve a more nutritious diet, from

economic concerns, or from a generalized "right to know" not attached to a specific need.

Turning to the one person in twelve who expressed some concern about food labeling, about a third (32 percent) (W.A. note—2.5 percent of the total) of them mentioned the ingredients list, a quarter (25 percent) (W.A. note—2 percent of the total) mentioned freshness information, 19 percent (W.A. note—1.5 percent of the total) had some concern with the information on the nutrition label (most of these discussed only calorie information) and one person in five (20 percent) (W.A. note—1.5 percent of the total) expressed concerns about deceptive or inaccurate labeling.

In response to the question, "Are you satisfied with the kind of information available on food packages and cans?", 59 percent of consumers expressed themselves as fully satisfied. However, one person in three (33 percent) did see some need for improvement. The portion of the label most in need of improvement, according to these consumers, is the ingredients list—19 percent of all consumers see need for improvement in this area. The most commonly expressed needs were: to list all ingredients, to simplify the language used in the list, to extend the ingredients list to all products, to make it more legible (most often, to use larger print), and finally to quantify the information on the ingredients list (preferably in percentages rather than in weights of each ingredient).

One person in twelve (8 percent) saw a need for improvement in the nutrition label, and 3 percent expressed a desire to extend open dating to more products. About 2 percent mentioned a need for drained or fill weight on canned goods, and fewer than 1 percent expressed a desire for information about the specific sources of fats and oils. *(End of quote from pages 3, 4, and 5.)*

(Quote from Pages 10 and 11 of Survey) "Consumer Desires for Food Label Revision." In addition to the questions already discussed as to ways in which the food label could be improved, and sources of confusion with the label, respondents were asked directly whether they would like to have more or less information than is currently available on food labels. Although 2 percent of respondents indicated that the label has too much information on it already, 25 percent indicated a desire for additional label information. Again, most comments dealt with the ingredients list. The most commonly cited additional information wanted is quantification of the ingredients list, followed by simplification of the ingredients list, and calorie information on all products. Other relatively high frequency requests included making the ingredients list more exhaustive, giving the amount of sugar, and extending open dating to more products. Finally, rather low levels of interest were expressed in the amount of salt, listing of all preservatives, extending vitamins/mineral information, extending the ingredients list to all products, and giving drained or fill weight.

In summary, it appears that about 10 percent of consumers are seriously critical of the food label and see strong need for revision. An additional 15 percent appear to be less concerned, but still express some desire for one or more changes in the food label. The other 75 percent of the population does not care much about the food label, is satisfied with it as it now stands, or is simply so confused as not to be able to express preference. (End of quote from 1978 Consumer Food Labeling Survey.)

These findings from "the big normal majority" parallels our own experiences over the years. Consumers want to know what ingredients are in the foods, in toto. From our beginning we have attempted always to list on our labels every ingredient of every food, even where not required to do so. We think this is most important. The current voluntary nutrition labeling program has not satisfied the deep need for consumers to know exactly what they are putting into their bodies, and into those of their children. They would rather be free, it seems, to choose on the basis of ingredients than on that of analysis. Perhaps their common sense leads them to want to know the whole picture rather than little bits here and there.

We have a very close, first-hand, mail-order relationship with our customers, who are generally highly inquisitive, highly knowledgeable persons who ask endless questions. We answer thousands of letters, and thus gain a rather good picture of what they want to know, which is everything! We probably have more real, first-hand information on this than most businesses have, and perhaps more than government agencies.

Basically, people contacting us want to know what is in the food and what has been taken out; how much is real food and how much, if any, is synthetic or artificial; exactly how the food is raised and prepared; if poisonous sprays can drift onto our farms from our neighbors; how fresh and whole the products are; how dried foods are dehydrated and at what temperatures; at what temperatures honey is bottled, and how the bees are treated; how products are peeled and blanched; and so on. They want to know not only what we do not use on the soil, but also how we feed and care for the soil and plants; how we handle insect and disease problems; at

what temperatures we dry grains if we have to, and so on. They come from all over the country to see for themselves what we do and how we do it.

In light of the Consumer Survey quoted above, and our own experiences, it would seem that mandatory nutrition labeling may be barking up the wrong tree. We calculate that we have filled in the last 34 years over one million mail orders. We cannot honestly recall more than an infinitesimal number of questions coming to us with these orders which would have been answered had all our foods been labeled nutritionally. In our unique situation, this tells us a lot.

Times are changing. More and more the real concerns of consumers are not answered by nutrition labeling. The public is not greatly concerned over it. It seems not to be as much an answer to the health needs of the nation as it was hoped to be. Nowadays those persons most concerned about foods and health know to a sufficient degree of refinement to please themselves much of what nutrition labeling reveals. For them it is largely redundant.

Based on the Consumer Survey, one would expect a lessening of emphasis on requiring nutrition labeling, instead of the opposite. A number of questions arise at this point, among which are the following:

(1) Is it wise and proper for government (particularly in times such as these when frugality is of the essence) to mandate the costly giving of label information which a large percentage of consumers does not want and/or will not use?

(2) Is a small label the best place to educate the public in nutritional matters, when those who use the label information are so few?

(3) How may it be assumed that more consumers will read and profit by label nutrition information in the future than do so now?

(4) Is it logical and just to force upon all food processors steps which will invariably increase overall food costs to consumers, directly through increased costs and indirectly through costly bureaucratic programs, which will not be used to any significant extent, and which may put out of business many sound, contributing companies which cannot possibly meet the costs and conditions involved?

(5) If nutrition labeling were to be made mandatory, based on analytical factors deemed currently important, what guarantee is there that in a few years the thinking might not change dramatically, but too late to resuscitate the host of small food processors who have in the meantime succumbed? Even now there is disenchantment with the nutrition labeling information being placed voluntarily on some food containers, with calls for change after just a few years of use.

(6) Can it truly be said that mandatory nutrition will lead to a significant bettering of the public health?

PART 4—SMALL FOOD PROCESSOR IMPOSSIBILITIES UNDER MANDATORY NUTRITION LABELING

There are two chief "impossibilities" for small food processors under mandatory nutrition labeling plans, as we see them. Granted that our case may have unusual features under which we would be subjected to manyfold overkill, the same principle applies to small food processors in general, most of whom would stand to suffer from the same "impossibilities", perhaps to a lesser extent but enough to do them in.

Impossibility No. 1—Annual laboratory testing

Current discussion centers around the ultimate possibility of a food processor being required to have analytical laboratory tests run annually of many of his food products. Small companies, not having their own laboratories, would have to send away samples to an outside commercial laboratory. Recently we received an advertisement from one such, showing the minimum fee for analysis of one sample of one product, providing current nutrition labeling data, as being $250.00. The literature from this company suggests that one sample would not be sufficient.

We package at present four hundred and forty items. One must think of the cost of products shipped for testing, of shipping charges, of the additional staff required to handle the day-to-day collecting, cataloging, shipping of samples. Also for the receipt of the reports, the filing, collating, checking old labels and destroying those which will have to be changed, ordering new labels, holding up manufacture until new labels arrived, and on and on.

For the actual testing of only one sample of each product the cost for all items could run well over one hundred thousand dollars. If more than one test of each product annually were to be required, this amount would grow accordingly. Add in costs for other items above, and it could easily reach 50 to 100 percent additional to testing costs themselves. If only 75 percent of our products were finally listed in the nutrition data bank, costs would still be incredibly beyond us. We could try to raise prices by about 10 percent, but then we would be priced out of this growingly

competitive market. This does not speak to the incredible complexities and hopeless, never-ending muddles that would ensue. Actual out-of-pocket costs would be at least several times our present average net profit. There have been suggestions that a way may be found to allow the government to subsidize at least a part of the costs of such a program for small processors. Considering all the difficulties involved in this testing program, the real possibilities of the government supporting the program in sufficient amount seem rather remote.

Impossibility No. 2—Actual labeling logistics

Suppose in our case we do not consider the labeling logistics with the two hundred of our products which we do not pack in paper bags. That leaves two hundred forty products that we now pack in paper bags, in three to four different sizes. The minimum economical order is twenty-five thousand bags of each size. At present, that many bags of any one size might last us two to three months, since they can be used for all 240 items. We stamp the various product names on the bags.

But if we had to use a separate bag for each size of each item, each with its own appropriate nutrition labeling on it, we could need at the most up to one hundred thousand bags for each product, or at the outside about twenty million bags. The estimated maximum of two million dollars for bag inventory alone would then be several times our present total inventory for all our foods and packaging materials together. Obviously we would not be required to have printed separate bags for such items as would not be listed in the data bank, and this may seem like exaggeration for emphasis, but the principle and impossibility remain clear.

For slower moving products, our bag inventory could last us five years or more. Many, many would end up being discarded. Formula improvements would be almost impossible. The bags would keep us tied forever to the original formula. If one ingredient became unavailable, we'd have to discard untold numbers of bags. If due to soil, crop variety, weather conditions, etc., an analysis would change, more bags would have to be discarded. There could be ultimately up to eight hundred different bags. We are overwhelmed by thoughts of storage, of deteriorating bags, of the terrible logistics of handling. As we make very small lots, we are daily in the two-to-three hundred bag range. Simply impossible.

PART 5—THE ONLY WAYS WE CAN CONTINUE TO LIVE

We think of nutrition labeling as proposed as being a most costly exercise, which cannot do what is hoped. We regret feeling we must write this, knowing the calibers of those persons who have spent so many years in deep involvement in the health problems of our people. The sincerity of these persons, the depth of their concerns, cannot be questioned. If the time were to come, however, when it was felt good to mandate nutrition labeling as discussed earlier, we see the following as being the only situation with which the majority of small food processors could possibly remain vital.

In what follows we refer to certain exemptions. As pointed out earlier, under the data bank program, exemptions are permitted for lesser-consumed foods. Likewise exemptions could apply as well to small producers, whose total production of data bank foods would be of very little significance in comparison to the production of large companies, whose products would presumably be nutrition labeled.

Way No. 1—Let nutrition labeling remain voluntary

It is not true that we and others like us oppose mandatory nutrition labeling because we want to market cheapened, inferior products. We merely beg for the right to continue to exist. If nutrition labeling is so necessary, so desirable, so universally sought after, then surely non-nutrition-labeled foods would fade away, unable to compete. Those consumers who felt concern for nutritional information would simply cease purchasing the non-nutrition labeled products. We'd take our chance on that.

Way No. 2—Let nutrition labeling be made mandatory only

For any product of any processor who manufactures and sells over five hundred thousand dollars ($500,000.00) worth of that product per calendar year. The processor should be able to afford the program for products selling more than this.

Way No. 3—Allow the use of a disclaimer

In either of the above two ways, require processors who do not use nutrition labeling to print on the label or package some kind of disclaimer—for example—"The food in this container has not been tested for nutrition labeling purposes." Precedents for this sort of thing may be shown in numerous areas. Cigarette manufacturers, purveying a product generally accepted as being harmful to health,

may still sell their product by placing a disclaimer on the package. In clothing and bedding, flammable materials are marked as such, and are sold to consumers without further ado. The consumers make up their own minds, make their choices on the basis of their own wishes.

PART 6—OBSERVATIONS AND CONCLUSIONS

If, regarding matters of nutrition and health, the public has been miseducated, undereducated, or simply mesmerized by the siren song of the hucksters, after all the noble efforts of so many persons working in these fields for so long a time, it seems sanguine indeed to expect a series of small labels, containing a table of sterile figures, to come to the rescue and remedy the defect. The nutrition label will never win the battle against the overwhelmingly-appealing product-promotion tide which beats against our senses everywhere, all the time.

We read recently that a mixture of shoeleather and glue, plus a few synthetic additives, could be made to yield a very appealing nutrition label—low in sodium and cholesterol, in sugar and salt, high in protein, and in other good things. Let not the sow's ear of mediocre foods be made in any manner, through either clever promotion or infinitely-detailed analyses or both, to appear as a silk purse of wholesomeness.

When even the saddest "food" product, of little hope or promise, can glean forth enveloped in the very best four-color Madison Avenue aura, given seeming respectability, and perhaps even in some perverse way government endorsement itself, what hope is there for any significant impact from this "nutrition" information?

There must be a better way. Study should look in other directions, perhaps, to the curtailment of over-enthusiastic inferences or blandishments which may be deceptive, and which may even work against the health of the people.

If the public will not read, interpret and apply nutritional label information, and if too much of certain elements (sugar, salt, fat, etc.) may have harmful effects, then let food processors be restricted in some manner in the amounts of these dubious elements which may be placed in a product. Let such food elements be simply unavailable in concentrations dangerous to health when appearing in combination with other foods—sugar in children's cereal, for example.

Some persons hope that the annual testing of nutrition-data-bank foods will keep food processors on their toes, almost shamed out of cheapening a product too much. The same result might be obtained by requiring processors, in each combination of foods, to list every ingredient by name, and also to show the percentages of such ingredients as are considered "harmful". Should the amounts of "harmful" ingredients in a food product be higher than a certain specified percentage, perhaps a warning message stating that it may be harmful to health could be placed on the label.

On our price list we even now show the percentage of sugar in a number of items. If a product contains any one of a number of ingredients (including sugar) which we know some of our customers wish to avoid, we mark this product in a special manner, calling attention to this fact.

On can and bottle labels, this information could be printed when the labels are printed, usually in very small quantities for the small processor. For those bagged items of ours which contain a mixture of foods, we have printed, or print for ourselves on a small machine, small quantities of labels telling all the product ingredients. These labels are then stuck to the bags. It would be easy on such labels to include the percentages referred to above, assuming that label and type sizes, plus location on the bag, made for clear, easy reading. This method of labeling lends itself to small amounts of information on relatively few products. It would not be workable for extensive analysis information on a large number of items.

If followed, these methods would avoid the overwhelming cost and cumbersomeness of mandatory nutrition labeling. Processors, government agencies, and the public in general would be saved millions of dollars each year, an appealing prospect. In the overall health picture, this could be more promising than nutrition labeling, and help fulfill the needs most indicated in the Consumer Survey.

Emerson once spoke of the real value of "common sense and plain dealing." The small food processor needs and uses a lot of both. This paper is a plea for allowing folks like us to continue building on these as a basis for a sound, enduring, and contributing way of life. We feel we are struggling against mighty odds. In this time of national election campaigns, and deep international concerns, there is a great danger that something truly harmful to our society and its future, at the grass roots level, will be rushed through without sufficient study.

As so often happens when something small comes up against something much larger and more powerful, it becomes a matter of life and death for the small. Most large food companies started small. If smallness in the food field can no longer exist

because of government edict, how can any new food businesses arise with full vigor, inventiveness and competitiveness? What a tragedy for our national life, when young enthusiastic persons are not longer able to dream big dreams, and hope to see them fulfilled!

We would like to sit down on a one-to-one basis with anyone, to give more details on the plight of the small food processor in this matter. We will go anywhere, at any time that we can. We would like to speak in hearings. We feel that we are literally fighting for our lives, as well as for those of a multitude of small food processors all over our country. We beg for the privilege of presenting our case. We understand something of the problems of legislators and consumers, as well as our own, and those of many fellow processors.

In all our work here, we ask only to be free to experience in the future the joy of living that the years past have brought to us in this great venture. George Bernard Shaw was speaking for us when he wrote:

"This is the true joy in life, the being used for a purpose recognized by yourself as a mighty one; the being thoroughly worn out before you are thrown on the scrap heap; the being a force of nature instead of a feverish selfish little clod of ailments and grievances, complaining that the world will not devote itself to making you happy."

[The following letter was subsequently sent by Mr. Keene in response to questions from Senator McGovern.]

WALNUT ACRES, INC.,
Penns Creek, Pa. April 9, 1980.

Hon. GEORGE MCGOVERN,
Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR MCGOVERN: It was pleasing and heartening to take part in the April 1st hearing on Mandatory Nutrition Labeling. Thank you for the privilege. You have no idea how good it was to learn that whatever develops in the labeling matter will not work an economic hardship on the small food processor.

In my presentation I suggested that exemptions be considered in terms of dollar volume of any product, rather than in terms of the size of the business. You requested me to write my views on fair exemption criteria.

I suggested $500,000.00 in sales for a product as a break-point below which it would be exempted for any processor. Perhaps I was, as Senator Lugar suggested the panel members might be, a bit on the defensive. Here I would like to analyze my mathematical reasoning for you. Chris Hitt spoke to me on the phone about the following matter, and I gave him some wrong figures out of my head. It would help if he could read this to get the true picture!

Our annual net profit in the past 5 years has averaged 1.83 percent of sales. On single-item sales of $500,000.00, at that rate our net profit would be $9,150.00. If all the work of having laboratory analyses run, including value of products shipped for testing, shipping costs, analytical costs, labor of record-keeping and the like ran closer to $500.00 than $150.00 per product, our profit would be reduced by, say, $500.00 to $8,650.00. In effect we would be losing 5.46 percent of our profit, reducing the net profit to 1.73 percent. The table following analyzes the situation for various dollar sales amounts. It is difficult to know what one could live with.

Individual item sales	Profit at 1.83 percent	Profit after subtracting $500	Percent of profit diminished	New net profit (percent)
$500,000	$9,150	$8,650	5.46	1.73
$400,000	7,320	6,820	6.83	1.70
$300,000	5,490	4,990	9.1	1.68
$200,000	3,660	3,160	13.66	1.58
$100,000	1,830	1,330	27.32	1.33
$50,000	915	415	54.64	.83
$25,000	457.50	−4.50	109.28	(1)

[1] Loss.

If at no cost to us the regulatory agency came to our plant, picked up and paid for samples of products to be tested, performed the lab analyses and returned the results to us, then the remaining costs to us for record-keeping, filing, correspondence, label handling, label changes, label loss, and general additional work involved

could run to half or more of that $500.00 estimate for each product. Under this situation, the percentage of profit lost in the above table would be cut in half, and one would step up the new net profit to the next higher figure in that column. Still, the amount we would have to spend would be at least $100,000.00 for our 450 products. (We just added 10 new products.)

Who is to tell at what level of sales a company on a low net profit level can begin to absorb the additional costs of nutrition labeling? Every fraction of a cent increase in unit cost can mean a significant drop in the net profit. In one of the last five years our net profit was only 0.70 percent. To lose 27.32 percent of this for sales of $100,000 of one item, or 54.64 percent for sales of $50,000, is almost to see the whole process of being in business as an exercise in futility. One skates perilously close to the thin edge of insolvency, which can be a soul-shaking process, involving continual doubt, fear, and mental anguish in general, plus ulcerfication.

I did not respond well to your question concerning the matter of affixing labels to our paper bags. I was taken by surprise—someone had read my paper!

Also, the response is more detailed than I felt prepared to give on the spur of the moment. I appreciate the privilege of expounding here.

Enclosed please find two sample bags, with ingredient labels affixed. You will note that the label just fits the space alloted on the bag front. We print these labels here on a small machine which does at times a rather fuzzy job. There are at present no more than 50 bagged items for which we print an ingredient label on this machine. Most of our other bagged items (about 200) are not mixtures, and in bagging them we merely stamp the name on the front with a rubber stamp—"Kidney Beans, Brown Rice," etc. The cost of printing and applying these labels, which fit all our bag sizes, (8 ounce, 1, 3, 5 and 25 pounds) is about 2 cents each. Suppose we would have to label our 250 bagged items nutritionally. We would of course want also to include the complete ingredient list, perhaps with the percentages of some or all of the elements. The largest label our machine will print is about 5″ x 4″. We do not know if they would hold all the information or not. Certainly it would not fit the smallest bag, of which we use about 35,000 per year.

The printing machine uses a rubber mat, which is made for us by the label company. The size of the type used may not be too small or it fills with ink and makes an illegible smudge. We could redesign our bags to allow space for this larger label on the back, but we must be sure to allow sufficient space for turning down and sealing the bags. There would be no room on the bag front. It would be impossible to fasten labels on the bag sides.

If we estimate roughly the cost of this large label, the large printing mats, the labor of printing the labels, the ink, all for 250 items instead of the present 50 items, and add the label stock inventory, the logistical hassle of keeping an orderly flow of labels going to the proper departments, plus the far larger time required to apply large labels neatly and properly to irregular bag backs by hand than to rubber stamp product names at lightening speed—well, we are looking at an incredibly complex and costly process. In addition, we should really rubber stamp the food name or apply the present ingredient label to the bag front in any case so persons could see the article name and content list without hunting all over the bag.

The larger label itself, unprinted, costs 2.5 cents each. Considering our current usage of 500,000 bags yearly, the labels themselves would cost $12,500. beyond present costs. All the other factors involved, including two to three additional persons to order, receive, stock, print, send to proper departments, and finally to apply to all bags would cost $25,000 to $30,000 per year, for a total increased cost of perhaps $40,000. This would be 1.6 percent of our average sales of $2,500,000 leaving a net profit of 0.23 percent only, or $5,750. From this estimated remaining profit must be subtracted the estimated $100,000 the analysis program would cost us, even if the agency did all the testing free. You should know, incidentally, that our 450 items run from less than one thousand dollars in annual sales, to perhaps fifty thousand dollars, considering each product bearing a label different from the rest as a separate product. Thus ten kinds of peanut butter count as ten items.

This does not address the issue of what agency regulations would permit as to style and size of type, spacing between this and that, location of information panel on the bag, distance from here to there, and host of other minutae that could complicate matters considerably. One other issue of concern to us has to do with the handling of data bank foods—say whole wheat cereal or flour—which would not meet the standards set. What does one do then?

In response to the question of our being able to support voluntary nutrition labeling, it is easy to give an affirmative answer. I'm not sure what this support entails. Our willingness may stem largely from the feeling of relief and joy and free-breathing at not being forced into an impossible situation! But you have our full

support in your efforts and your hopes. If voluntary labeling is of real help, and does not lead in time to mandatory labeling, we're with you in it. I suspect that under a voluntary plan, many food industries will find that they gain a competitive edge by labeling nutritionally, and that, as a result, over the years a large percentage of the country's food supply will be so labeled in any case.

Altogether I've had heart and soul in this work for almost forty years. When we began, people in our field were thought of as being really on the fringe of things. Even ten years ago, on the first Earth Day, we were one of the few groups in the country farming and processing as we did. We take no particular credit for the "great awakening", but we stand back in awed amazement as we see how life breaks out of all bonds in which men try to ensnare it. People will eventually know the truth so they may be truly free. Nothing can prevent this principle from ultimately holding sway.

Who would have predicted the salad bars in every restaurant, the sprouting of seeds for food, the availability of so many fresh fruits and vegetables and whole grain products and seeds and nuts, and the knowledge of food that is so evident everywhere? (We sold crude sprouters 30 years ago—fed sprouted oats to our horses, cows and chickens long before that.) Is this one more indication of that spirit, wherein lies our hope, which always pulls man back from the brink?

You have done so much to foster and aid this spirit. Your "Dietary Goals for the United States," of December, 1977, will remain a classic. What a concentrated, heartening work to issue forth from Washington. Upon reading it we felt no longer as alone as formerly. In our approximately forty years in this field we've learned so much, working with almost missionary zeal. May I tell you just a bit of the essence of our approach?

First, enclosed please find, in addition to the bags a copy of the Walnut Acres Story. This speaks both to our philosophy and our actions.

Second, please find a copy of our latest price list. You know the emphasis—on whole foods, on small-batch freshness, on synthetic-free farming and processing, on making a host of indications to aid the food shopper in deciding which foods to purchase. The descriptions of those indications are shown at the top of Page 2.

Actually we have always tried on our lists to give nutrition information in as many ways as possible. For perhaps twenty years we've listed real food sources of vitimins and minerals so that people can make informed choices (P. 13). Please note the warning about highly-concentrated sweets (P. 20).

Note too the listing of ingredients, the marking of sugar-and-salt free items, the freshness of the nut butters, (P. 6), the ingredients and the freshness of the myonnaise and dressings (P. 18), the wholeness of the cereal products (P. 2 and 3). We tried on the list to answer in advance the questions people ask. Many of our customers are highly educated, highly motivated persons with consumers-rights orientation. Yet very, very few ever ask about facts covered by nutrition labeling.

I must admit that, given the power of advertising and its effects, as pointed up in Dietary Goals for the United States, I must temper my acceptance of your Goal 2, that Congress require food labeling for all foods as spelled out there. In making the partial and the ever-changing seem like the whole and the permanent to unsophisticated persons (as nutrition labeling may do), an unintended, misleading harm may be perpetuated. The junkiest foods can appear on a par with the best. Consumers may have some of their fears (of too much salt, sugar, fat, etc.) allayed, but their greater concern as to what is real, trustworthy food goes unanswered.

It is almost as if persons were being told that it really makes no difference what they eat, so long as it is nutritionally labeled. Four Breakfast Bars per day are all one needs for complete nutrition. Hostess Twinkies and Kool-Aid are great foods. Lucky Charms really fill the bill for youngsters' breakfasts. Basically it fosters the assumption that Man may with impunity take apart, devitalize in a thousand ways, and still come up with something every bit as good as whole, fresh, undevitalized, real foods.

This is wrong, and always will be. Eventually the truth will out. If the human spirit is for too long given a stone instead of bread, it will simply move around nutrition labeling as being a costly non-answer, and will find out for itself what is real food, urged on by one of nature's strongest instincts. A person removed from society for the past 20 years and coming back now would find it hard to believe the way knowledge of real nutrition has grown, so largely outside of established channels of information.

It is probably not possible to try to tell food producers and processors how to prepare foods. Yet is little short of sinful to allow a nation's people to be encouraged to put absolutely anything into their stomachs as being life-giving, so long as it is not actually poisonous. Mediocrity may in its way be poisonous too. A body can be no stronger than the materials the cells can extract from the blood stream.

One can safely predict, I feel, that the future will see people seeking out more and more real foods as remain available, and buying less and less of the junk. The move in this direction has just begun. If government would be in the vanguard, it should be telling us what is real food and what is not. If nutrition labeling is hinting, without saying so explicitly, that too much sugar, salt or fat may be harmful, then should too much of the dubious product be allowed in foods? Or should a warning be placed of foods potentially harmful? If government does not point out firmly where harm may lie, who will? Was the Masover and Stamler report not suggesting that government take a firm stand for the right and stick with it?

It is the poor, the elderly, the less-educated who will be most taken in by falseness and cheapness and high-pressure advertising, and thus be most harmed. It is to the shame of us all that we are reticent to tell what we all really know; namely, that dead food is wrong food, and cannot ever successfully sustain a balanced, whole, bouyant national or individual life.

The food processor—and thus increasingly the real health of the nation itself—is caught between his conscience and a good profit. We had with us for ten years a man whose work it was to come up with new food products. This had been his work, at separate times over a period of ten earlier years with two of the nation's largest food companies. Invariably, he said, in this early work he would come up with a fine recipe, only to be told by the New York office, time after time, to cheapen it. It was too expensive to allow the company to compete. This is the heart of the problem, really. Then the advertising department is commissioned to make the downright cheapened product seem to the public to be worthy. As we understand it, nutrition labeling does not speak to this situation.

If cheapening is done with shoes, or clothes, or furniture, or automobiles, consumers may be disappointed or discouraged or financially inconvenienced, but they will probably not be harmed. But when the concern is so basic as that of a nation's foodstuffs, and if cheapened foods are ultimately reflected in cheapened, unbalanced bodies, then looking at any aspect of the food supply without facing this fundamental issue may be at best but palliative. There is a point beyond which food cannot be cheapened without detriment to the health of the nation, or indeed to the health of the soil itself. One gets, generally, what one pays for.

This is not to decry the great strides which have been made in life expectancy, in the food supply in general. It is rather to hope for continual upward movement, perhaps to the lessening of the need for the expending of so much energy and money for national medical and hospital bills. This all sounds terribly self-righteous, I'm sure. Please forgive my overenthusiasm for something we've lived with for so long. But we do get such wonderful letters from so many thousands of people everywhere. They tell us that they have proven for themselves and their families what is for them one good way to abounding health. Fewer and fewer of these are from the crackpot fringe. They come now from mainstream America.

These persons appreciate the trust they can put in foods like ours. This trust is what people seek primarily, and need most to feel. There is no way this can be conveyed by a series of analytical figures. Processors may feel that nutrition labeling will help convey that sense of trust which they devoutly wish to merit. But the discerning consumers of the future will not be fooled. Let them know they are getting real food, and not fancily packaged substitutes. Let them know how much salt, sugar, fat, etc., is added to these real foods. They will take it from there. People have been hoodwinked so often in so many ways. Instinct now drives them to find the truth in this most vital of their interests in whatever way they can.

We wonder if nutrition labeling is intended to be, basically, a kind of warning to the consumer. At least, as far as possible "harmful" contents are concerned. If so, perhaps it could be stronger. Perhaps labeling could be made mandatory only for those foods which contain more than a certain "safe" amount of dubious ingredients. Perhaps symbols or colors could be used to indicate degrees of harmfulness. If only there were a simple way, additionally, to indicate the percentage of "real food" in a product, and the percentage of artificiality!

We are not idolizing small food processors, purveyors of so-called "health foods", or any other persons or groups. We certainly do not know all of the answers. But we've written our feelings, and hope they may be helpful.

Sincerely

PAUL KEENE.

P.S.—Over the years I have been an ardent admirer of the approaches and positions you have taken on many issues. I was most hopeful in 1972, and have often wondered since if things would not have been much better in our country had you become president. Your deep concern with the national health by itself has assured you an ongoing place in the lives and hearts of millions now living and yet to come. This must be a kind of rare immortality which is reserved for but few

persons. We are most happy for your life and work, for in you the word "Senator" takes on its highest meaning.

Enclosures.

THE WALNUT ACRES STORY

WALNUT ACRES, PENNS CREEK, PA. 17862. One Of The Earliest Of Organic Farms. We've Been Growing, Preparing, and Shipping Whole, Unchemicalized Natural Foods By Mail For Over 30 Years.

"Best, most reputable source in the United States. Foods like you've never tasted . . " — LAST WHOLE EARTH CATALOG.

Greetings:

Here we have something of the story of Walnut Acres. Things have a way of growing imperceptibly, much as children grow. One can be so close to them as not to realize that others have not kept up with this growth. This then is an attempt to gather up the past years of Walnut Acres into a few words.

In looking back, we can see how much of life is growth. Growth in size, yes. But perhaps more important, growth in form, in outlook, in outreach, in understanding. We suspect the growth must be slow at first if it is to be proper. We must creep before we walk. And although the thought of once having crept on the floor appears to an adult as slightly ludicrous, it is generally cheering to know that he has advanced. And to look back over the years to one's beginning can be humbling.

Well, we (Paul and Betty Keene) didn't set out to become farmers. At one time Paul Keene was head of the department of mathematics in a small college in New Jersey. On a leave of absence from this work he spent almost two years in India, teaching in a mission school, travelling, studying, inquiring everywhere. Three of the fields of inquiry turned out to be agriculture, rural living and nutrition. He spent some time in a rural school run by Mahatma Gandhi and his disciples. He never met two British Civil Servants who were in India at the same time — Sir Albert Howard and Sir Robert McCarrison — but their work and their writings helped him change direction. He and Betty Morgan Keene, who was born, reared and educated in India, were married there.

Upon return to this country we taught one more year, but mathematics was losing ground rapidly to thoughts of fields and streams, of proper foods and rural living. Opportunity then came along to spend almost two years as assistant directors in study and teaching at the School of Living near Suffern, New York. This was founded by the economist Ralph Borsodi, and taught a kind of decentralized, self-sufficient, back-to-the-soil, do-it-yourself homesteading. Its thinking laid the groundwork for much of current thinking in this field, and moved us to the next step of studying natural farming at a full-time farm school.

At this time Kimberton Farms School, near Philadelphia, was the only organic farm school in the country. In fact it existed as a farm school for only a few years— long enough to give us two wonderful years of work and study under Dr. Ehrenfried Pfeiffer, who had come from Switzerland to direct the school. Dr. Pfeiffer was one of the foremost authorities on natural farming, and the years under him were years of wonder and revelation. He helped bring all of life together for us into a definite cohering pattern. During our years there we first met Mr. J. I. Rodale, who attended a short lecture-course, and who spoke of starting a periodical to be known as "'Organic Gardening".

After farm school we lived for over a year on a rented farm in eastern Pennsylvania. After some tragic losses there by reason of heavy hail-and-rain storms, undaunted we decided in 1945 to try to locate a farm of our own in an area where land was relatively inexpensive. This search led us finally to Penns Creek, in a lovely little valley, by a beautiful mountain stream, to a farm located just at the foot of Jack's Mountain in an ancient sea-bed. Indians once lived and roamed everywhere hereabouts. A sign at the end of the lane, when we had our first view of the farm, proclaimed — LONG'S — WALNUT ACRES — PIGS FOR SALE. The Longs (lovely people) soon left, as did the pigs, but the black walnut trees, often squirrel-planted, grew and grow everywhere, most readily.

So the dream ended (or began?) happily with the moving to Walnut Acres in early 1946. We had to live very simply at first, without plumbing, in a solid old house heated only by wood. For several years we used Mollie and Prince, the horses we had brought along, as our only source of power for farm work. Sometimes the going was really hard, even for a young family, and it took more endurance and faith than we thought we could muster. Fortunately, there was more on the bright side than on the dark. We can see now the baby sleeping at the edge of the corn field as we hand-husked the quarter mile rows of golden grain on a heavenly autumn day. One day of that made up for all the anguish a whole month could produce.

Our concern in those days was several-fold. We were practically destitute and had to make a living for a growing family. We wanted to raise our family in the country, far, we thought, "from the madding crowds ignoble strife". We wanted to make our full contribution to the community through church and school. And we wanted both to learn and to teach all we could concerning nutrition and natural farming.

Things evolved slowly. Clementine Paddleford, of the old New York Herald Tribune, learned somehow that we were making applebutter the old-fashioned way over an open fire, from unsprayed apples which were worm-free. She wrote about this in her food column. Soon people were writing to us (and coming to see us) for our very first mail-order product, which we called Apple Essence. This contained not only apples and spices, but also delectable wood-smoke odors, the colors of gorgeous fall days, and infinity from the depths of the blue, blue sky. What a way to start a life on the soil.

Next came easily shipped products — potatoes, carrots, beets, eggs, chickens. Then we secured a small hand-powered steel-burred mill for grinding grains into coarse flours and cereals. There was no need to lift weights to develop muscles with that little monster to manipulate.

In 1949 we purchased our first stone mill. What high adventure that was. We can remember how very gritty was the first flour from the new mill. How faint at heart we became at the thought of sending flour like that to our customers. We didn't know that a newly dressed stone takes a little grinding to wear off the rough edges. Now we have a number of mills (with no rough edges!) of various kinds, to make all kinds of fresh flours and cereals.

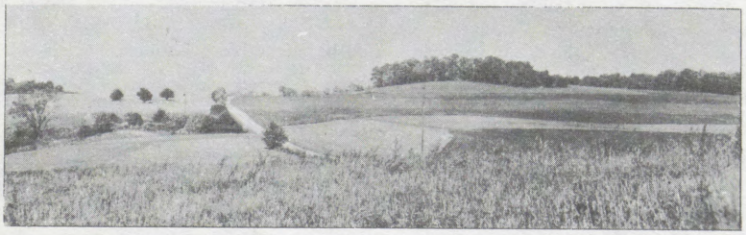
As we grew we moved our milling operations from brooder house to hog pen to the big old barn, all renovated of course. In 1958 we completed conversion of this barn into a modern custom-grinding mill and store. In 1964 and 1965 we added an entirely new wing, to house the new mill with its refrigerated storage bins, a complete cannery, food processing rooms, vegetable rooms, a freezer room, office, and a lovely new store and lounge for persons coming here to see and to shop. In 1972 we built large new storage, kitchen and store facilities. The fascination never ends.

Now on a fine summer day one can see cars here from many states. We sell our products here in our new store on the old farm. People seem to come from everywhere to shop, to visit, to tour our plant. We are open from 8 to 4:30 six days a week, excepting only Sundays and holidays. There are rough places to park trailers or campers, perhaps even to pitch a tent, and there are picnic tables about, but we do not have a regular, approved camp site. We can give you information on camp sites and other places to stay in the area. We do like to have visitors.

62-339 O - 80 - 8

We are reached best by car. Interstate Route 80 runs about 15 miles north of our farm. We are 4 miles south of Mifflinburg, just off Route 104, near the village of Penns Creek. Look for our signs. Ask for our direction sheet if you wish. No trains or busses run within 15 miles of us, so you cannot drop off at our doorstep. The nearest commercial airports are Williamsport (40 miles) and Harrisburg (65 miles), and one must rent a car there. We are rather out in the hills.

Most of our products are shipped by parcel post, United Parcel Service, or truck freight. Please ask for our price list, which contains shipping information. Our products are carried by some stores, also. Many thousands of persons have discovered the virtues of ordering foods by mail. It does take one kind of time and effort, but so do other forms of food purchase. There is certainly less impulse buying. There is a fresh hand-craftedness about the products which it is difficult to duplicate elsewhere. There is a person-to-person relationship set up with the actual growers and processors which can be highly rewarding, and which is exceedingly rare. And if it allows one to deal with informed, authoritative, dedicated persons, a kind of happy certainty can grow out of the experience. To sit down in the quiet of one's home and order at leisure, with time for deliberation, can fill one with undisturbed, uncompetitive, good healing thoughts. One uses the mind, not only the eye. And the wait itself can be delicious with anticipation. Up to a point!



On our 360 acres acres of cultivated farm land we raise as many organic grains and vegetables as we can. We have never used any chemicals or poisonous sprays. The soil is improving steadily and it is a delight to our hearts. The improvement itself is wonderful, but more wonderful is the knowledge that our ideas and ideals are sound in the main and that the same laws run through all of life. We generally take off only two crops in three years. We work into the topsoil tons of green manure, straw and organic matter. And we feed the soil with organic supplements and manure. It has really come alive.

Our organic grains are now kept in our refrigerated bins, the only ones in existence in a mill anywhere, as far as we know. One rarely sees an insect. If you think this is not unusual then inquire diligently at any flour mill as to how they control insects. And what chemicals they use, and how often.

We grind flour fresh every day. It does not stand around anywhere for weeks, months, or years. The flours and cereals are 100% whole, entire, complete. From start to finish it is all as wholesome as it can possibly be made.

After we started selling grain products by mail, people asked for other natural foods which we could not raise or prepare here. So to the central core of our own grain and vegetable products in great variety, we added natural foods which we purchase elsewhere. We pick and choose very carefully. We try always to find out as much as we can about our products. We find completely organic sources whenever we can. We are careful in our definition of the word "organic", and use it only when we feel certain. Our list shows the symbols we use to indicate various categories. We want people to know.

Our work is almost custom work. Our foods cost more than many "store foods" going under the same name. But people have come to see that in food, as in clothing or anything else, one gets exactly what one pays for, and no more. Good foods cannot be mass produced like automobiles. It costs more to produce better foods than to produce cheap food. And it is worth more.

All our work depends upon the Walnut Acres "Family" of dedicated workers, without whom nothing. There are quite a number of us here now, all of whom live in this general area. Under our unique plan we are all part owners of the project, with the expectable wholesome results. We try to reach out beyond ourselves, too, through local community service, through the sale here of international craft items to help encourage small industries in less fortunate countries, through fund-raising for needy areas around the globe. We like to think we serve at many of life's levels.

We must point out here that we are not a commune, or an international community, or a religious committee holding all things common. We do not have a motel or guest house, nor do we have facilities or programs for learners, students or inquirers. Our energies go into making what we like to think of as being an honest living, and into trying to educate people to a better way of life. We are not "owned" by any other company, we do not intend to sell out, and we do not own any other company. We intend to remain ever small, reaching out only so far as we can within the limits of the standards we have set.

I wish you could know of the thousands of people who come to us for food. Many of these are folks of modest, average intelligence, education, experience, and income. Some are professional people — teachers, lawyers, dentists, physicians. The letters we receive are wonderful. They tell of the many persons whose whole lives have been changed through proper living. You cannot argue with these folks. You cannot speak in terms of chemical analysis. They have seen results, and they know. Knowing the truth has automatically granted them the promised freedom. And these are not "crackpot" persons of small intellect. These are men and women of pride and strength and stature who have taken their place in the long line of those who have sought and found.

Knowledge of our work has become widespread. We have been written up in all sorts of publications from newspapers to books and everywhere in between, in this country and elsewhere. We've had a great variety of interviews, have spoken countless time at all sorts of groups in many places. But when the latest word has been written and read, when the last of the applause has died away, we come home again. Home for the food that nourishes. Home for healing and balance and proportion. Home to one small place which will be better for our having lived there. What more could one ask than this privilege?

There you have the bare outline of our story. It is the story of a never-ending love affair with life. There must be elements of universal appeal in this type of thing, for so many people are now moving closer to the soil. We may yet find that only at unacceptable cost can we move too far from the source of our being, that ultimately we must go back if we want to be wha we must be — whole.

In what follows we have detailed some of the ideas, approaches and practices on which our present work is built.

Thirty years we've been here. How good to know that we need never wonder how much persistent chemical remains in the soil, perhaps to get into the food chain. We arrived here before the days of the modern insecticides and herbicides, and we feel assured that none of these was ever used on the soils. Had we decided suddenly, just yesterday or a year ago, to become "organic" because it seemed the thing to do, perhaps after many years of poisoning the soil, we would have reason to wonder about such things. And to feel a little hesitant at declaiming our naturalness.

It would be difficult now to try to determine how much organic matter and ground rock material we have added to our soil over all these years. We are so happy that we did this to build it to a high level of fertility and natural balance instead of depending on chemical fertilizers. Each year we use only sixty to seventy percent of our cultivatable land to produce take-off crops. The other fields, seeded to clovers, alfalfa and deep-rooted grasses, are allowed to grow up lushly. This growth (tons and tons of it) is shredded at least twice during the growing season, and left on the soil in a large-scale sheet-composting program. In addition we use manures, phosphate rock, dolomitic limestone, or various mixtures of organic and natural substances on the farms yearly. No hay or straw is removed (except on the livestock farm, where the resulting manure is returned), so that we end up putting back more than we take out.

The soil is a seemingly endless source of materials, although we add the ground rock material to supplement these. By using natural farming methods minerals are etched from the subsoil by carbonic acid and other acids of the decomposition of organic matter. How sensible it seems to use the wholesome, balanced methods of nature to renew the soil continuously. How logical to make available large amounts of a great variety of natural elements, letting the plants make their own wise choices. We feel this tends toward the highest quality, if not always the largest quantity. How wonderful to know that here is an oasis of a sort, a small stone-beset patch of earth's surface, where poisons have never been used, and where the soil has been treated with love and respect all these years.

It used to be said that the best manure was the farmer's shadow. Ah, there we are again, manuring. Since we have never used chemicals for weed control, we have weeds. In some years they grow beautifully. It takes many, many hours of hand work in the carrot and beet fields, or machine cultivation in other fields, to keep the weeds under some semblance of control. Young Amish girls and women help us in this project. They come from neighborhood farms, cheering us all with their willingness and their blythe spirits. Of course this is a most costly project, but under our program there is no other way to control the weeds, ultimately. We suggest that you make diligent inquiries into the way your "organic" carrots are grown. See how many you can find which are not sprayed, when tiny, with Stoddard's solvent or with a naptha to control weeds.

We used to be concerned about insects, wondering if natural farming methods would have any effect on them. That was years ago. We think we have learned a few things now, and are happy to state that we are rarely troubled by them in our field crops. This makes it delightfully simple. We do see a few here and there on the beans or cucumbers, but generally we do not have to do anything about them. Natural predators get full chance to do their work. Once in a while, in certain years, we may be bothered by cabbage worms. We may even use rye flour or rotenone dust to do them in. Rye flour wraps them about in a glutinous mass, rotenone kills them.

Rotenone is made from the roots of plants which grow in South America. It is a natural substance which deteriorates in a few days in the air and the rain and soil, becoming completely harmless even to cabbage worms. We know nothing

of the deadly array of insecticides which may remain unchanged in the soil for many years after their use. We've heard some of the names but don't even know which is supposed to do what.

What a blessing to have been able to skip over the age of chemicals. What a feeling of assurance it gives to have been able to build one's body and one's life from the very soil and stones at one's feet, knowing that there may be complete freedom from concern. There, in browns and greens, lies spread out one's bone and blood and sinew. Perhaps even one's hopes and fears, attitudes and inclinations as well. And those of one's children and grandchildren. We have heard of an old American Indian, who once wondered how many faces still lay in the soil at his feet. How lovely, how apt.

We carry our principles over into the raising of livestock and poultry, which we undertook relatively recently. Under commercial methods a number of things are done which we cannot sanction. There, as is the case so often, the emphasis is on quick, cheap growth — to get the heaviest animal or chicken in the shortest possible time at the very lowest cost. This can lead to such artificiality, weakness, and disease susceptibility that all manner of props must then be devised to keep the animal standing up and functioning.

This is not to decry genuine advance in medical knowledge. But when antibiotics, synthetic female hormones, a wide range of vaccines and medications must be depended upon as necessary parts of a commercial cattle or poultry venture, it would seem to be carrying things too far.

From our standpoint, another hurtful thing is the attempt to raise creatures away from contact with the soil. If an animal or a chicken has free range on a broad, clean, sun-washed, stream-bordered grass pasture — which would seem to be, after all, its heritage — then the result must be a different product from today's "hot-house" creatures. Commercial chickens rarely if ever get to savor earth's delights. They are born, are raised, and die in completely controlled chicken factories, behind gloomy, grey walls.

Laying hens seem now to be winged automatons, somehow taking a "scientifically compounded" mess of meal-plus-chemicals, with water, and transmuting these into a shelled mixture of the same basic elements in another form. The feed used determines the egg obtained. And all this is done in a monstrously cruel, inhumane wire cage where the chicken barely has room to turn around. Some day society will look back on these agricultural dark ages with revulsion and disgust. Oh where is the SPCA?

Many a veal calf, many a milking cow never feels the earth beneath its feet. Into a wooden cage goes the calf, there to stand to become more toothsome and tender. Into a barn goes the cow, to spend her entire life enclosed. Broilers never see grass, except from upstairs windows of old converted barns. If an animal or a chicken can sport about a pasture with spirit, kick up its heels and run, then it uses up energy which should be going into egg or meat production.

"Close them in so they cannot move, don't 'waste' a calorie", it is said. "Mankind will starve right off if we don't exploit and push to the ultimate limit", we are told. "Make foods cheaper, cheaper, chaper"—so that we ourselves, thus cheapened, may turn our depreciated sensibilities to the creation of a cheapened society? O tempora! O mores!

At present we are raising Holstein cattle. We prefer these to the higher-fat Angus or Hereford animals, whose flesh is said to be marbled with fat. Some persons think of this as the richness which destroys, for excess "fat" does seem somehow allied with weakness and disease. Sometimes after being moved, in a wet spring, an occasional animal may come down with shipping fever, a kind of distemper or influenza. It is standard practice in the industry to inject for shipping fever any animal which has been shipped or hauled. On occasion we have had to resort to the use of such an injection. When done, the animal still has a year to live and grow with us. In this time we feel the blood will have been cleansed, should there have been any taint. We use no diethylstilbesterol or other hormones, no antibiotics as growth stimulants.

We have the young animals out on pasture during as many months of the year as possible. They may come nowhere near the barn or shed for months. They eat and bask in the green and the gold. We may chop feed for them if the pastures cannot keep up with their needs. Or supplement with good hay.

When the grass has retired for the winter, and grain-and-hay feeding begins, we use largely our organically grown grains, to which we add sea kelp, and bran. We grind and mix our feeds in our own machinery right on the farm. We use all our own legume and grass hay, which is, of course, neither sprayed nor treated. The drinking water comes from an unpolluted small stream, or from our own incredible spring. We simply do not know a better, more natural, more costly way of raising beef, with every step assured.

Our chickens are raised similarly thoughtfully. They get largely strictly organically raised grains, with the addition of such supplements as bonemeal, sea-weed, wheat germ and brewer's yeast, plus foods like milk powder, alfalfa meal and meat scraps. They too get out to range on the earth, among the grasses, in the sunshine, for as long as possible during the year. We start with chicks which are closer to the older, perhaps sturdier breeds of yesteryear.

Chicks are often brought low by coccidiosis, a kind of diarrhea which may attack them fatally. We generally mix the prescribed amounts of a medication with the chick feed for the first few weeks to keep this within bounds should it occur. This is almost universally done. Later there is no problem, no medicine.

Chickens for meat have free run of the fields after the first few weeks. Chickens for eggs have free run also until they are ready to begin laying. Then into the large house they go, all uncaged, to have the advantage of the outside run, plus the company of the strutting, seed-sharing, liberated males, bless their hearts! We suggest that you check our description of organic chickens, step-by-step, with other "organic" chickens.

We do not wish to create the impression that everything we offer for sale is our very own produce. Please note on the page 1 of our price list the complicated system of symbols by which we attempt to set forth some information on this score. We cannot raise all of our grains and vegetables, all of our beef and chickens, but we are growing more all the time here. Nor can we say that organic, natural products we purchase from friends and neighbors are raised precisely as we raise ours here, as described earlier.

But we must emphasize that we have known our chief suppliers as honorable individuals over a period of a number of years. We know them as friends, visit their farms, are acquainted with their philosophies and their motivations. Their ideas

fall happily within our concepts and standards of what is a naturally fertilized, unchemicalized, unpoisoned product. These people farm naturally because to them it seems to be the right way. They have remained increasingly convinced over the years, as have we, that the right way is also the best way, even if it is not always the most profitable way. They love the earth with a passion. To them, as to us, the soil is a living entity whose mysterious ways can be neither transgressed nor fully measured.

* * *

In searching for natural products there is no grasping here, grabbing there, taking just anything offered. When an item meeting our specifications is not available, it is not available. This causes confusion all around, but it reflects an honest attempt at least. We try to hold to a minimum of five years of proper treatment from the time poisonous sprays were last used on a field before we will even consider its produce as being "organic".

Unfortunately, all about us we now see a saddening watering down of what has been for us, for over thirty years, a motivating ideal. Perhaps we are too much purists. But it hurts to see the energetic exploitation of "natural foods" by mammoth interests with a consequent, inevitable lowering of standards and weakening of definitions. The word "organic" is used more and more loosely.

It seems sometimes as if a way were being sought to squeeze natural, organic ideals and methods into. the already established patterns of typical, commercial, corporate agri-business. We are not at all certain that this is possible. Perhaps in time each will end up with his/her own little homestead. where carrots and beans may be raised with certainty.

Some attempts at certification of the naturalness of foods seem to be based rather negatively, on the assumption that if foods do not contain more than a tiny fraction of this or that poison, they are "organic" foods. In a natural food store we have seen tomatoes, each bearing a label stating that it was grown organically by hydroponics. Grown in a mush of just plain chemicals and water! Tests would probably have shown no traces of any poison sprays.

Other attempts at certification add to this a consideration of minute soil analyses as to chemical content. The assumption here seems to be that by these means, someone, somewhere can determine the naturalness of a particular soil. A weakness in this approach seems to be that a good balance, high in chemical elements, could have been maintained over the years by pure chemical fertilization only.

Certification programs seem strongest in that area where they make the ultimate decision as to the honesty of the grower; where they determine the number of years he has built up his soil naturally, and has farmed without the use of any chemicals, poisonous sprays, and so forth; and where they are interested in the organic matter content of the soils involved.

We realize that as grandparents to the whole idea we must still move with the times, and we will try to do so. But words written by John Milton in 1644 (Areopagitica) have stayed with us over the years — "Though all the winds of doctrine were let loose to play upon the earth, so truth be in the field. we do ingloriously to misdoubt her strength. Let her and falsehood grapple: who ever knew truth put to the worse in a free and open encounter?". Ultimately, when all the claims have been made (perhaps blown out of all proportions), and when all seals of approval have been handed out, truth will still have to stand at the cornerstone. No product will be more reliable than the grower himself. And the more control the producer of food has over the whole process, from soil to sale, the better he can tell the consumer the whole winsome, honest story.

All this harangue is aimed, of course, at making a most favorable impression. We're convinced, and we want you to be, even if we never see or contact one another again. It may be good just to know that there are people out there really trying. Somewhat boastfully, then, we ask ourselves questions like these. Where else does one go to find in the food business someone who completed almst two years of training in an organic farm school? Where else does one go to find a farm which has been consciously, deliberately built up along natural lines based on this training for over twenty-five years. Where else can one go to visit, to see the whole fascinating operation, where there is nothing to hide, from beginning to end? Where else have literally thousands of unsolicited letters poured in over the years affirming the delight of users with the foods? Where else does a kind of free information service on natural foods and farming go along with business dealings? (Well, at least we try!) Where else can you know and talk with the people who actually produce and process the foods? And where else is the food processed and sent out so freshly, with so full attention to every detail?

We complete this paper by adding just a few details concerning our storage and processing habits. We want to keep just as much as we can of the whole goodness nature has been permitted to build into our foods. We do not want to modify more than necessary for preservation or for the sake of appearance, ease of use, shelf life or whatever.

First, we have large refrigerated rooms in abundance, with varying temperatures and relative humidities to suit the needs of the product. For example, in our bins we can hold ten thousand bushels of grains cool at all times, thus keeping wandering, hungry insects from these grains without chemical treatment. We have coolers for potatoes, for carrots and beets, for all varieties of perishable items. We try to keep destructive heat from foods which would not have to be refrigerated, just to keep the quality high. Of course we have large freezers as well.

We have grain dryers, to remove moisture at harvest time, in rainy seasons only. But we operate these only at slow speed and low tempratures, to prevent damage to the germ. It may take two to three times as long to dry grain this way as with commercial high-temperature methods.

We do not use poisonous sprays, insecticides, fumigants and the like anywhere in our mill, or in our canning or freezing plant. We try to control insects with enormous fans at doors, with electrocutors, with fly paper, with cleanliness. We are quite successful, although in the hottest times we can't keep out every fly. A commercial rodent exterminator takes care of any wandering mice or rats through the use of warfarin, but we rarely see any evidence of rodents at all.

We have our own modern grain-cleaning equipment. We have our own fruit and vegetable washing, cleaning and peeling equipment. We use our own untreated, unchemicalized, tested, hard, deep well water in our processed foods. (We sell bottled drinking water, have it tested monthly, come out just fine each time.)

To blanch products for freezing we do not use hot water blanch (common practice), but rather pass them through steam on a moving stainless steel belt, and follow this with a cold water spray. Hot water takes out more of the food value than steam. In moving vegetables from one area to another we do not use water flumes (common practice), as they too tend to wash out food value.

In doing tomato products, we do not use copper or alloys of copper to contact the product, as this tends to reduce the Vitamin C content. We do not use lye (caustic soda or sodium hydroxide), (common practice), to aid in peeling. We do not use tin salt (stannous chloride) to "salt" the product, nor do we use calcium chloride to "firm" the tomatoes.

Our peaches are peeled by hand after being steamed for a few seconds. They are not peeled by the use of lye (common practice) followed by hydrochloric acid to neutralize the lye, followed by hot water baths to remove both. Lye peeling is commonly used commercially for peeling peaches, apricots, tomatoes, and sometimes for sweet potatoes and carrots. Grapefruit segments are often made skin-free by the use of lye. Our products are peeled by hand or by abrasive rolls or stones — never by the use of chemicals. Our things are freshly processed — you will never find here the smell of rotting tomatoes which is common around large plants where truck loads of tomatoes sit dripping for long periods of time. We never need spray or dust for the fruit flies which are common around large packaging plants. Since our fields surround our plant, vegetables are processed generally within a few hours at the most of being harvested. There is no sitting around on overloaded trucks for long periods of time (common practice), with accompanying heating up of the product and loss of food value.

With meat products, we remove as much of the fat as we readily can. How different from commercial meat balls, say, where the huge mixing vats are white with fat. We discard hundreds of pounds of fat every month — commercially this normally gets into the food supply. No wonder our products cost more! We also put considerably more than the very minimum called for of chicken or meat into soups and stews.

We are cutting the use of sugar to a minimum, removing it from products, or replacing it with honey, as you will note. We use very little salt in salted products. We use no synthetic sweeteners of any kind, no monosodium glutamate (msg), no flavor enhancers, no synthetic coloring material, no chemicals of any sort, whether permitted under government standards or not. We tell every ingredient on each label, making it as plain and undeceiving as we know how. Products are always listed on the label in the order of their weights in the product, the greatest amount shown first.

Our products are excellent for babies, although we encourage breast feeding and the use of freshly prepared (not canned) foods for at least the first six months of the baby's life. Many mothers use one of our Happy Baby Food Grinders, a simple gadget, to grind up meats, vegetables and fruits for their babies. Many

commercial baby foods and cereals are made to suit the mother's taste. They are made to hold together, to look nice in the jar through the uses of cheapening starches and thickeners. They are often highly salted and sweetened. Oh how Science can complicate the simplest things!

We are concerned with getting the best liners for our tins. We were among the first to use lined tins for tomatoes, now they are commonly used. We sometimes get heavier linings than normal or than is needed. These cost a little more, but may keep the product better. We feel that now tins are as good as glass for holding preserved foods, and tins are degradable. Then too, our canned items are always cooled as soon as cooked, to preserve quality. They are not stored at high temperatures.

In making our dressings and mayonnaise, our flour and cereal products, our peanut butters, roasted and baked products, and so on, we study carefully to find the very most wholesome and unsullied ingredients. Then each product is freshly made, generally every few days, and shipped out promptly. It does not sit around in warehouses, going from producer to jobber or wholesaler to retailer to you. We use no preservatives — the product must be fresh to be good. Usually the sensitive ingredients are refrigerated until used, then the product is refrigerated until sent out.

We are inspected (and have been for years) by the Food and Drug Administration, by the Pennsylvania Department of Health and the U. S. Department of Agriculture. A federal inspector is here whenever we handle meat or poultry products. We meet all sanitary regulations. We want to be clean. We want to meet all requirements, and then exceed them.

We hope we've given a picture of what we do and how we do it. A group of fine people work together here to make all this possible, and we think they show a happy spirit. We all are a part of something larger than ourselves, and this strengthens us. We hope this is reflected in our work. We are far from perfection, but we find deep satisfactions in doing our work with constructive attitudes. We hope you will find here a friendliness and a genuine concern which go far beyond a cold business relationship. Our lives and our work are not in separate compartments. The wholesomeness that is Walnut Acres results.

Cordially,

Paul Keene

"Nature provides no written text on her laws. She only smiles or frowns faintly on her subjects, and whispers softly in approval or disapproval of their conduct. Her disciplines seem very mild, even to the most careful observer, but in the long run, continued obedience to her laws leads slowly to great abundance and continued violation of her laws ends in desolation."

Author Unknown

STATEMENT OF MYRON ZEITZ, REPRESENTING COMMUNITY NUTRITION INSTITUTE

The Community Nutrition Institute is a non-profit public interest organization that supports the development of a national food and nutrition policy serving consumer needs at the community level. We publish a weekly newsletter (CNI Weekly Report) on food and nutrition issues and we provide training and technical assistance services as well as sponsoring workshops and conferences on public policy issues in food and nutrition.

BACKGROUND

It is indeed a pleasure for me to present the views of CNI on the important recent developments in food labeling. We have long been very deeply involved in efforts to reform the presently inadequate legal framework for food labeling in order that the American consumer might have access to the information they need and want.

We believe the development of a new food label, refocused to meet the health and economic needs of the American people, is and ought to be a national priority. We testify here today in support of S. 1651 which will provide, for the most part, an appropriate legal framework for food labeling in the 1980's.

During hearings of this committee, in August, 1978, on the need for comprehensive nutrition information and food labeling, we spoke on the long-evolving approach to diet and health throughout this century.

As you will recall, with the discovery of vitamins over 75 years ago, nutrient deficiencies became the focus of the science of nutrition. With the growth of technology and a changing demand of a more affluent society, our diets shifted from basic and traditional foods to more highly processed foods. Seeking to avoid nutrient deficiencies, we ate more: more meat, eggs, cheese, fruit, vegetables, and cereal. In their processed forms they contained invisibly large quantities of fat, salt, sugar and other highly refined carbohydrates. In addition, as a result of that processing, many nutrients were lost; only some to be replaced by set quantities of specific nutrients.

These and other dietary developments have left in their wake an epidemic of health problems which are the leading causes of death today: heart disease, stroke, cancer, obesity and hypertension. These conditions place a tremendous strain on society—in elevated medical costs, human disability, premature death, and decreased human potential during much of life. These are diseases which often cannot be adequately treated after diagnosis; the societal loss cannot be regained on the surgical table or over the counter. There is only one approach that will be truly worthwhile—efforts must be stepped up to ensure the prevention of these dietary disabilities.

RECENT DEVELOPMENTS

In the few short years since the Senate Select Committee on Nutrition and Human Needs published its findings on the links between diet and disease, the evolution of which I spoke earlier, has changed course dramatically. We have since seen numerous "fronts" open up in our overall effort to provide American consumers with an opportunity to obtain a nutritious health-supporting diet at affordable prices. The Surgeon General's Report on Health Promotion and Disease Prevention and the publication of the Dietary Guidelines by USDA and HEW have both made landmark contributions to the evolution of rational policy and reflect the emerging scientific concensus to which officials of both Departments refer, on the relationship between diet and health.

Consumers, through their unprecedented level of participation in the food labeling hearings before the three agency Food Labeling Task Force have made it clear that they are concerned about the relationship of diet to health and that they need more, different and better information on foods available in grocery stores and elsewhere. Survey after survey reveals that consumers are becoming more knowledgeable about the advantages and disadvantages of certain dietary components and patterns but that they aren't getting the kind of information they need to make the right food choices.

For consumers, the label is a critically important tool for making food decisions. Essentially, it links knowledge on nutrition to voluntary modifications in diet and food purchasing patterns. The information consumers seek is not something which can be intuited or committed to memory. Nor is it reasonable to expect them to write food manufacturers for data which survey after survey reveals is so basic that it would be used routinely by large numbers at point of purchase.

The Food Labeling Task Force (of FDA, USDA and FTC) has responded in an appropriate fashion to the outpouring of consumer interest in a refocused food label. The three agencies have conducted the most comprehensive review of food labeling ever undertaken. The voluminous product of their labors is something which con-

tributes greatly to the literature and will serve as the foundation for all future discussions on food labeling, both in the agencies and inside Congress.

In the Senate, the response has been equally gratifying to consumers. In furtherance of their commitment to progressive national food and nutrition policies, the sponsors of the legislation have undertaken the very important objective of bringing our nation's laws up-to-date by offering two major bills that would largely provide the needed legal framework for refocusing the food label.

The role of this committee and its staff as well as Senator Kennedy's Health Subcommittee and its staff has been decisive in identifying the degree to which industry, consumer, and regulator perspectives are compatible and this alone has been the single most important factor in the success you have had in obtaining the broad support of so many parties interested in food labeling.

ANALYSIS OF LEGISLATION

In general CNI has allocated a high priority to passage of legislation of the type now before this committee. S. 1651 derives its vitality and significance from numerous features, four of which I will briefly address specifically.

1. *Mandatory nutrition labeling.*—CNI fully supports mandatory nutrition information labeling. Unless uniformly available, many of the most important applications of such labeling will be precluded, especially comparison shopping to ascertain, for example, the degree of processing that may have altered the nutrient composition of the food as compared with its traditional counterpart or other analogous processed alternatives.

It is fully appropriate that such information be based on nutrient data bank analysis, provided by the federal government cooperatively with industry. Consumers, industry and regulators share equally the view that nutrition information must be provided at the lowest possible cost. It is widely recognized that by adopting the representative value approach, utilizing the nutrient data bank, the legislation assures that labels will display the essential information at minimum cost. Equally important, though, is the axiom that nutrition information is anti-inflationary in itself. Mandatory nutrition information will allow each and every consumer, in waging his war on food inflation, to get more "bang" for his buck. When food prices rise faster than personal income, families make inevitable nutritional and health compromises. Mandatory nutrition information will permit a new type of food shopping to occur. Mandatory nutrition information will make the consumer's traditional cost comparison more meaningful by allowing nutrition to be factored into the product's price and value so that appropriate substitutions can be made, where necessary.

2. *Percentage ingredient labeling.*—Existing food labeling laws and regulations serve the consumer well in guaranteeing that beef stew contains some beef and that mushroom soup contains some mushrooms. It is time however, to move ahead. Today's consumer wants to know how much beef and mushrooms are in the respective containers. Just as today's food shoppers require nutritional information for shopping, they also need percentage ingredient labeling to make economic and nutritional value comparisons in a meaningful way.

S. 1652's treatment of percentage ingredient labeling is an area which we believe should be subjected to re-examination. CNI recognizes that percentage ingredient labeling of some non-characterizing ingredients might be inappropriate. Nonetheless, a quantitative declaration of some non-characterizing ingredients would not only be helpful to some consumers but would be essential to most.

It is known that the human body cannot distinguish natural sugars, sodium and fats from added sugar, sodium and fats. In fact, the nutrition labeling framework envisioned by S. 1652 provides only for information on total carbohydrates, fats and salt. Yet the thrust of the Dietary Guidelines is that intake of sugar, fats and salt should be reduced and that this reduction should take place through the consumer choosing between different brands of similar products which contain the ingredients and among different prepared products using similar basic foods. For this reason consumers of such foods as canned fruit or celery in cream sauce need to know the quantity of added sugar or sodium. To only require nutrition labeling of the total amount of such ingredients would tend to over-emphasize the importance of naturally-occurring (and uncontrollable) sources of these components and under-emphasize the importance of deliberate (and fully controllable) processing techniques.

Consumers need percentage labeling for ingredients which, although not characterizing, have an accumulative effect in sugar, fat and salt. For this reason, CNI supports FDA and USDA's recommendation in hearings before the Subcommittee on Health, that discretionary authority be provided to require quantitative listing of ingredients comprising less than five percent of the finished food product.

3. *Protein, fats, carbohydrates, sodium, and cholesterol declarations.*—The third particular provision which gives life to this legislation is the requirement that a

declaration of fats, carbohydrates, sodium and cholesterol be made. We at CNI believe that this provision is vital to achieve the overall goal of the legislation preventing disease and promoting health. Without these declarations, Americans, who wish to utilize the Surgeon General's recommendations and the Dietary Guidelines by exercising control over their diet will be hamstrung by the unavailability of essential data.

4. *Format and consumer education.*—A failure of the fourth and final aspect that I will discuss today will diminish the possible success of years of cautious and carefully planned work to refocus the food label. This is the transition management: designing the label format and consumer education.

Redesigning the format of the label as a key issue in this important project. By allowing the respective Departments two years to supervise the demonstration and evaluation of new methods to convey the required information, the opportunity for success is multiplied.

Without a full commitment to comprehensive consumer education on the refocused food label, the public's ability to utilize the refocused food label will necessarily suffer from dietary myopia. Just as uncorrected visul myopia impairs our ability to navigate our car through a crowded metropolis, dietry myopia impairs our ability to navigate through the food labels to select the most prudent diet, no less complex a process. A thorough and meaningful program to educate consumers in the use of the refocused label will be as useful to the consumer in selecting foods as providing spectacles to a myopic driver. The benefits will be just as great to the navigator and to the society of pedestrians which pays the medical cost arising from poor diet.

In conclusion, we urge prompt consideration of this important piece of health promotion legislation. During these trying times of double digit food inflation and increasing knowledge about the links between diet and disease, S. 1651 would provide consumers with the long needed tools to arm themselves in today's complex market place. We support S. 1651 as an effective, inflation fighting, health enhancing protective measure for the future.

STATEMENT OF JANE ANDERSON, DIRECTOR, CONSUMER AFFAIRS, AMERICAN MEAT INSTITUTE

Good morning. Thank you for the invitation to comment today. I am Jane Anderson, Director of Consumer Affairs for the American Meat Institute. We are a trade association representing 300 meat packers and processors. I would like to introduce Dr. John Birdsall, our Scientific Director. John and I will both answer any questions that may follow our comments.

We are submitting for the record a point-by-point discussion of S. 1651 with our concerns on each point and a copy of our triagency (USDA, FDA and FTC) presentation made on March 4 which addresses many of the same issues before us today. AMI believes that the compelling consumer need, the real economic costs and the best information delivery systems have not been proven on the food labeling proposals as they are now before us. Consequently, we would like to talk to you about an alternative to your legislative proposal.

As you state in S. 1651, we, too, feel that consumers have a right to "accurate, objective, and easily understandable nutrition and ingredient information" at the same cost as or at less cost than, the current system. AMI believes the evidence to date demonstrates the need for an alternative information approach versus our current emphasis on the food label itself. There is an excellent nutritional story to tell consumers about meat and conveying the information in a fair and comprehensive manner is in everyone's best interest.

The alternative legislative approach we offer has four basic points.

1. *Encourage the growth of the nutrient data bank.*—The best way to accomplish this is to eliminate any possibility of mandatory labeling. Through joint industry and government effort establish testing protocols which eliminate excessive product specific sampling.

Food nutrient values may vary for several rasons but this variance does not preclude using representative average nutritional values, with ranges, as a sound basis for nutrition information. After all, we eat averages of nutrients from both fresh and processed foods in the course of a week.

2. *Conduct studies, demonstrations and evaluations of alternative information delivery systems.*—Capitalize on the information that is already in place—in the data bank, in USDA's preclearance labeling files and industry's mail-out nutritional information. Let's not limit ourselves to labels. It may well be that much needed information would be more effective—off the label—to increase its value to consumers. Focusing solely on labels is a short-sighted policy. In March 11 Family Circle, this freelance article called, "How to Serve Your Family the Nutrition They Need,"

combines basic nutrition and labeling ABC's in a readily understandable format. It's addressed to a specific audience and it delivers the information in a setting where the reader can absorb the information. It includes this insert, A Pocket Nutrition Counter for over 300 foods, which is a handy, portable guide to take to the supermarket. Over 8 million people have now had the chance to see this information plus a magazine full of stories and other tips. Total cost of this alternative delivery system—55 cents.

3. *Ensure that any system selected incorporates minimal compliance in order to encourage industry cooperation and participation.*—The current nutrition labeling programs show that voluntary systems work and that strict compliance procedures are a deterrent. Far more products are now nutritionally labeled under FDA jurisdiction than under USDA because the heavy compliance procedures of USDA have made voluntary nutrition labeling a cost burden for both industry and consumers.

Whatever the outcome of such studies, demonstrations and data bank one thing is clear—any future implementation of an information system must be uniform throughout the food industry and must be voluntary.

A statement made by Commissioner Goyan in Business Week, March 10, which states, "Labels are much more effective than people are willing to believe. Indeed, I suspect that if they weren't then some of the people in the industry who are against these labeling changes we are promoting would not be so much against it." Contrary to that statement, industry resists unproven labeling changes which we know build in costs that will ripple throughout our entire economy. In the case of meat—it's even more dramatic since meat expenditures take one-fourth of our food dollars. This regulatory label focus is based on the presumption that all labeling information is of equal value to each purchaser. The evidence to date shows instead that the who, what, where, when, why and how's of imparting information at point of purchase are still not known. AMI believes that the present regulatory procedures which stress the label as the only means of providing information are unrealistic.

We believe the present regulatory philosophy that we must do something because we're on the firing line is a simplistic response. The record shows a majority of consumers satisfied with labels but in many cases lacking the knowledge or time to use label information already in the market place. The record also shows the underlying regulatory inconsistencies that have hampered information flow to consumers. Therefore we believe that:

4. *We should not proceed with legislative or regulatory labeling changes in the interim.*—True, we need not wait for action until every nutritional tidbit is known about every food nor do we need to wait until nutrition science has resolved the controversies around today's dietary concerns. But until we understand what information is needed, what formats are usable, and which delivery systems are effective—to mandate untested label information on a piecemeal basis as proposed by USDA would be a costly mistake!

As you suggested, Senator McGovern, at the hearing on S. 1652, we, too, are serious about adopting a new regulatory philosophy—one that emphasizes information dispersal rather than regulatory compliance. We feel the time is at hand to encourage a voluntary and cooperative effort between industry and government sharing the expertise and amassed resources of each to create a more complete nutritional data base. Simultaneously to refine our educational techniques so that the benefits of new nutrition knowledge far outweigh its production costs. We offer our four-step alternative legislative approach in the belief that it will better help us reach our mutual goal of maximum information dispersal at minimum cost and avoid the problem of "haste makes waste."

AMERICAN MEAT INSTITUTE,
Washington, D.C., April 1, 1980.

Senator GEORGE MCGOVERN,
Chairman, Subcommittee on Nutrition, Committee on Agriculture, Nutrition and Forestry, U.S. Senate, Washington, D.C.

We sincerely appreciate your invitation to us to comment on S. 1651, the "Department of Agriculture Nutrition Labeling and Information Act of 1979."

The American Meat Institute (AMI) is the principal trade association of the meat packing and processing industry. Established 75 years ago, AMI represents, among others, all the major meat food product manufacturers in the U.S. Virtually all of our members would be directly affected by the bill, and for that reason we are vitally interested in its contents.

AMI shares your goal of providing consumers with accurate, objective and useful nutrition information at the same cost as, or at less cost than, the current system. Meat has an excellent nutritional story to tell consumers, and conveying the information in a fair and comprehensive manner is in our best interest. Meat has a fine nutritional density rating. Fresh meats as well as processed meats provide a com-

plete protein with ample iron, B6, B12 and trace elements such as zinc and selenium. Meat is a moderate source of cholesterol (approximately 80mg–100 grams). Meat is also a complete fat source, containing all three types of fat, saturated, mono and poly unsaturated fats. By law, the fat level of most precooked processed meats is limited to a maximum of 30 percent. Fresh meat is a low source of sodium and a high source of potassium. Sodium has two specific uses in processed meats. It binds protein in the meat emulsion, and is an integral part of preservation systems. It is used only incidentally as a flavoring agent. The definite salty flavor of processed meats alerts consumers to its presence. The best part of meat's nutrition is that it enhances the body's use of nutrients supplied by other sources when they are eaten in the same meal.

In a nutshell, AMI applauds many of the concepts and goals of S. 1651, but believes that in execution, it would fail to achieve those goals because of a variety of technical and practical shortcomings. As a general proposition, we strongly believe that certain basic questions should be answered, such as:

(1) Is information needed?
(2) By whom?
(3) What information is needed?
(4) What format would be usable, understandable, and would best impart the information?
(5) What delivery systems would effectively convey the information?

Before any further legislative or regulatory thought of implementation. We also firmly believe that the key to success for any nutrition information program is cooperation between industry and government. This is best accomplished where there are incentives to participate, and minimal compliance requirements to deter.

S. 1651 has many operative sections, and numerous implications. We will comment on the bill accordingly.

1. Section 3(a). Development and implementation of system

Section 3(a) directs the Secretary, after consultation with the HEW Secretary, to develop and implement a nutrition labeling and information system. AMI supports the development of an information system to inform consumers about the composition of foods. However, we oppose the implementation of any system until basic questions are properly addressed, and until all alternative systems are considered, studied and demonstrated. Answering those basic questions, enumerated above, are indispensible precedents to any informed consideration of implementation. To implement first, would be putting the cart before the horse—a costly shot-in-the-dark for government as well as industry and consumers.

The development of a nutrition information system need not be limited only to labels. Traditionally, the government has used existing regulatory labeling authority to impart information regarding ingredients. More recently, it has used compliance powers under the "misbranding" definition to impart nutrition information also on labels. This is a shortsighted approach. What evidence is there that labels are the only, or the best, or even an effective vehicle to deliver food composition information, particularly nutrition information? In fact, there is considerable evidence to the contrary; that is, that labels are not a particularly effective dispersal system for nutrition information. Therefore, before authorizing the Secretary to implement a nutrition information system based on labels, it would be prudent to direct the Secretary to first consider, study and test alternative systems.

Finally, the bill appears to be silent with respect to the extent, if any, to which industry, academia and consumers would participate in the development of a nutrition information system. We recommend that an Advisory Council be created, comprised of an equal number of industry representatives, academicians (nutritionists, marketing experts), and consumers, with responsibility for selecting, overseeing and evaluating the studies and demonstrations involved.

2. Sections 3(b) (1) and (2). Label must contain specific information

Sections 3(b) (1) and (2) would require all labels to contain the common or usual name of each ingredient including color additives and spices, in descending order of predominance by weight (except for ingredients comprising 5 percent or less of a food), and flavorings which may be generally designated as artificial or natural. Under existing USDA statutes and regulations, our products already list virtually all ingredients under their common or usual name in descending order of predominance by weight. We support the current USDA method of declaring colors, spices and flavors, but oppose specific naming of them because of the numerous problems that would arise.

First, and most obvious, is label clutter. Meat food products contain anywhere from four to 40 different spices; and often multiple colors and flavorings. It is easy to visualize what those additional terms would do to an ingredient list and how they

might look on a two ounce package. Second, the common or usual name of meat spices, colors and flavorings would tend to confuse, rather than enlighten most consumers. Among spices and colors found in our products are fenugreek, star aniseed, chervil, alkanet, annatto and cochineal. Third, spices, colors and flavorings are the things that distinguish one product from another, and to the extent that they are disclosed, confidential proprietary information is revealed to the competitive detriment of the manufacturer. Fourth, many manufacturers, particularly smaller manufacturers, buy their spices from outside spice manufacturers, and simply don't know what is in the spice blend. The blends, in such cases, are put on confidential file by the spice manufacturers at USDA prior to premarket label approvals of meat products using those spice blends. These meat product manufacturers would be unable to comply with such specific disclosure requirements.

3. Section 3(b)(3). Declaration that ingredients are listed in descending order

Section 3(b)(3) would require a label statement that said "Ingredients are listed in the descending order of predominance by weight." Existing USDA regulations require us to list ingredients in such order. Therefore, the remaining questions are to what extent there is consumer confusion about this fact, whether the addition of such a statement would disabuse any such misconception, and the cost-effectiveness of such additional label statement as well as considerations of label clutter. Perhaps one way to deal economically with this issue is to have labels state: "Ingredients (by predominance)."

4. Section 3(b)(4). Quantity or percentage labeling

This section would require label disclosure of the quantity or percentage of "significant" ingredients (except flavoring) or class of ingredients. We strongly oppose this section for a number of reasons.

First and most importantly, this provision would eliminate customary "least-cost-formulation," a longstanding traditional practice among meat processors that facilitates cheaper prices for consumers. Most sausage products, like hot dogs, are made from a blend of pork and beef meat. The USDA permits a manufacturer to combine pork and beef in any ratio so long as the blend is not more than 70 percent of one or less than 30 percent of the other. As you know, meat prices are extremely volatile and change on a daily basis. Least-cost-formulation allows a manufacturer to take advantage of such fluctuations and to pass it on to consumers. For example, using published prices on March 21 for fresh pork and beef, the 85 percent meat portion of a hot dog could have cost any where from about 68 cents/lb. to $1.06/lb. (See table 1.) Given the fact that about two billion pounds of meat are used in processed meat products, the elimination of least-cost-formulation could cost consumers about $750 million. If manufacturers had to percentage label, the cost of label changes alone, to reflect such frequent reformulations, would be prohibitive. But even more costly to manufacturers and consumers, percentage labeling would cause manufacturers to abandon the traditional, cost-saving practice of least-cost-formulation.

Second, clarification is needed to better define what would be a "significant" ingredient for purposes of quantitative labeling. As the bill is currently drafted, the Secretary is given very broad discretion to require quantity labeling, and the standards for exercising such discretion are vague and amorphous. Such broad authority could conceivably result in a preposterous label such as the one recently suggested in an opinion by an Administrative Law Judge at the USDA:

TABLE 1.—BENCHMARK ILLUSTRATION

	Percent	Cost per pound
Fresh pork:		
Picnics (4/8)	70	31.33
50 percent lean trimmings	30	8.40
Total		39.73

TABLE 1.—BENCHMARK ILLUSTRATION—Continued

	Percent	Cost per pound
Fresh beef:		
Barrels chucks	50	72.50
85 percent lean trimmings	50	61.75
Total		134.25

Note: Meat=85 percent of total hot dog ingredients before cooking. 30 percent beef, 70 percent pork: 40.28+27.81=68¢/lb. 70 percent beef, 30 percent pork: 93.88+11.92=$1.06/lb.

Source: National Provisioner Yellow Sheet, March 21.

"Hash Style Potatoes and Beef with Corned Beef. This product is not to be confused with products meeting the corned beef hash standard since it contains, instead of the requisite 35 percent cooked and trimmed beef, the following percentages of ingredients: Water percent, Dehydrated Potatoes percent, Cooked Beef, percent (with corned beef constituting percent of the product's total contents), Salt percent, Sugar percent, Onion Powder and Black Pepper percent, and Sodium Nitrate percent."

In re Castleberry's Foods, Inc., FMIA Docket No. 36. January 3, 1980

Some quantitative labeling currently exists at FDA with respect to the characterizing ingredient in a small number of products (diluted orange juice beverage, seafood cocktails). If quantitative labeling is to be done, and we are still not convinced of any consumer outcry for it, then "significant" should be defined as the "characterizing" ingredient when there is no standard of identity to otherwise indicate minimal levels of that characterizing ingredient. In any event, an exception should be made for meat because quantitative labeling of its characterizing ingredient would eliminate traditional economical least-cost-formulation practices.

Finally, any quantitative labeling, if it is to be done, should be on an "as packaged" basis. Meat products are precooked, and consequently, their quantitative ingredient and nutrient content may change (e.g. water loss occurs during cooking). Therefore, quantitative labeling, if required, should be on the finished product.

5. Section 3(b)(4)(B). Ingredients under 5 percent

The Secretary would be given discretion to require disclosure of an ingredient comprising 5 percent or less. We support disclosure of ingredients comprising 5 percent or less when they are grouped as spices, colors or flavorings. We are already doing this under existing USDA regulations. However, we oppose disclosure of individual ingredients on such small quantity—which for us are inevitably spices, colors and flavorings—for the reasons stated previously.

6. Section 3(b)(5). Calories

Based upon government surveys, calories per serving is one piece of information that a large number of consumers appear to want. Analysis of this information is relatively simple. It would contribute only slightly to label clutter. But, such disclosure should be voluntary.

7. Section 3(b)(6). Protein, fats, carbohydrates

Disclosure of protein, fats, and carbohydrates in terms of calories would be misleading. A knowledge of the differing caloric values of carbohydrate, fat and protein is necessary for this format to the be useful to consumers. Consumers are familiar with total caloric values but not the breakdown of a food's caloric components. On the other hand, grams are an equitable measurement as they represent the basic food composition. Currently, therapeutic advice is based on gram measurements. Therefore, grams would be the better basis than calories.

8. Section 3(b)(7). Sodium and cholesterol

We oppose segregating out these items for label disclosure for a number of reasons.

First, selective disclosure of nutrients is misleading. Nutrition information should be disclosed in a fair and full manner. That means providing macro- as well as micronutrient information in terms of measurements that are meaningful relative to other nutrients and to consumers. Selecting out particular food components such as sodium and cholesterol does not provide a balanced nutritional picture of a food. Rather, it tends to highlight such nutrients, and as such, to raise concern about them. Using a label format to so selectively disclose nutrients is deceptive because it relates only part of the information and may mislead consumers as to the value of

nutrients so listed vis-a-vis those not so highlighted. Selective label disclosures would give rise to "avoidance" behavior by consumers rather than "informed" behavior. This is particularly troublesome given the state of our knowledge of, and the controversies surrounding, nutrients and related health risks and benefits. Since we don't yet know the downside risks of eliminating or minimizing individual nutrients in our diet, a govenment policy that might engenderd massive avoidance of selective nutrients is risky. The recent controversy surrounding the elimination of sodium and chloride in an infant formula product illustrates this dilemma.

The inclusion of certain nutrients often have health purposes other than nutrition. For example, salt is used extensively in processed meat products to inhibit the growth of harmful microorganisms. Salt helps to preserve the product, which facilitates its distribution and consumption throughout the county, even under abusive handling conditions.

There is no evidence that most consumers can effectively understand and use quantitative sodium or cholesterol labeling. Similarly, there is no uncontroverted evidence to support the underlying assumption that declarations of sodium and cholesterol would provide a health benefit to Americans. These questions must be addressed to ensure that any disclosure of this information informs, rather than misleads, consumers.

Finally, a macronutrient format, as described here, would be discriminating to meat products. Although meat products are vitally important sources of protein, iron, B6, B12, zinc and other nutrients, that balanced information would not be presented under the proposed label format. In fact, the bill is unclear as to the extent to which manufacturers could continue to disclose micronutrient information on labels. We believe manufacturers should be able to select, voluntarily, either macronutrient or micronutrient information, or both, for purposes of label disclosure, so long as the information can be verified and any claims substantiated.

9. Section 5(a). Demonstrations and evaluations

Under this section, the USDA Secretary would coordinate a program of demonstrations and evaluations to ascertain the most effective method of organizing the mandatory information on labels. We wholeheartedly support this proposal but strongly recommend that it not be limited to labels. The objective of the bill is to develop a system that best informs consumers of accurate, objective and useful nutrition information. The label may not necessarily be the best vehicle for such information. We suggest that the program include studies, demonstrations and evaluations of alternative systems, such as reference handbooks, point of purchase placards, and other innovative systems. There is simply no evidence that the label is the sole, or the best, or even an effective vehicle to deliver such information, despite the fact that everyone has been acting on this assumption for years. We also recommend that industry, academia and consumers fully participate in this program.

10. Section 6(a). Standardized reference

Under this section, the USDA Secretary may publish a standardized reference on the nutrient composition of all foods which can serve as a basis for information required to be placed on labels. The Secretary would cooperate with the HEW Secretary and land-grant institutions in this effort. AMI supports the development of a nutrient data bank based on representative (weighted) nutritional values. Development of such information is in everyone's best interest. How that information is secured and what is done with that information, however, is of great concern. We believe that nutrient data should be developed and should be used by food manufacturers and consumers under the most minimal compliance scheme. We agree with Senator McGovern that nutrition information laws should not be predicated on compliance, as has been traditionally true for other food laws. Nutrition information laws would not involve questions of imminent safety or health risks and therefore compliance schemes, if needed at all, are inappropriate. In any event, any minimal compliance deemed necessary to develop such a program should be uniform throughout the food sector, whether under FDA or USDA jurisdiction.

In addition, industry and academia should participate in the development of a data bank. The current data bank collection system has flaws. At present, the data bank being developed at the USDA uses costly multiple testing protocols which incorporate excessive sampling. Representative nutritional values with ranges are sound basis for nutrition information. The USDA system overemphasizes testing and verification, and minimizes range tolerances without measurably improving the usefulness of the information. It also delays the development of such information, adds costs and discourages industry participation.

11. Section 7. USDA-FTC requirements

Under this section, the USDA Secretary would notify the Federal Trade Commission (FTC) of the required label information recommend which (if any) of that information should be required in the advertising of those products. The FTC would report to Congress what actions were taken in this regard and account for failure to act on USDA recommendations. This provision is grossly unfair. It is premised on the assumption that failure to make designated nutritive disclosures in advertising would be false or misleading. We question that assumption, and accordingly oppose this provision.

12. Section 8. Retail quality grade standards

Under this section, the USDA Secretary would implement a system of retail quality grade standards using uniform nomenclature. We oppose this provision for a variety of reasons. First a uniform nonenclature system using nondescriptive terminology (such as A, B, C, D) would falsely imply superiority or inferiority about a product to consumers. A strawberry may be graded A because of its large size, but smaller, sweeter (lower grade) strawberries may be superior in taste and therefore preferable to consumers. Second, grading has a dramatic effect on pricing, and to the extent that the Government so falsely or misleadingly grades products, it unfairly injures competition. Third, the meat industry has long used quality grade standards for wholesale purposes. Over the years, the consumer has grown to understand and use the meat grade terms. In fact, surveys show meat grades are understood by three out of five consumers. However, the same surveys show consumer confusion between the two government systems of inspection and grading. Therefore, it would be a disservice to consumers to introduce yet another system of nomenclature. It would be unfair to ask consumers to unlearn a workable system and to add to the confusion that is already present.

Conclusion

We are in complete accord with the goal of S. 1651 to provide accurate, objective and useful nutrition information to consumers at the same cost as, or at less cost than, the current system. As manufacturers of highly nutritious products, it is in our best interest to provide this information in a full and fair manner.

The bill would fail to accomplish this goal becaue of a number of technical and practical shortcomings. First, certain basic questions about the how, what, where, and why of nutrition information need to be answered before any further legislative or regulatory thought of implementation. It would be a costly and wasteful exercise to implement any program before identifying, studying, testing and evaluating existing data as well as possible alternative systems.

Nutritional information laws must not be predicated on compliance and certain safeguards must be built into the legislation to ensure that compliance does not later encroach this area.

Clarification and definition is needed with respect to the treatment of fresh foods vis-a-vis processed foods; participation by industry academia and consumers in the development of the program and the nutrition data bank; compliance requirements; and most importantly, the extent of regulatory discretion.

Legislation must be reaonsable and must be written in a way that promotes a cooperation between government, industry, academia and consumers to provide nutrition information in a cost-effective way.

STATEMENT OF JANE ANDERSON, DIRECTOR, CONSUMER AFFAIRS, AMERICAN MEAT INSTITUTE—FOOD LABELING: TENTATIVE POSITIONS OF AGENCIES, WASHINGTON, D.C.—MARCH 4, 1980

Good afternoon, I am Jane Anderson, Consumer Affairs Director for the American Meat Institute (AMI), a national trade association representing approximately 300 meat packer and processing members doing business in all 50 states. We welcome this opportunity to offer general comments on the labeling issue as it relates to the meat industry and consumers. Our detailed comments will be submitted before April 21, 1980.

Currently, meat packers and processors are required by law to operate constantly under either federal inspection or equivalent state inspection. The federal inspection program includes a requirement that all new labels or any label changes for our products must be submitted to Washington for prior approval by the U.S. Department of Agriculture. Labels are scrutinized to see that the listed ingredients comply with established product standards and that any claims made for the product are not false or misleading. All ingredients must be listed in the order of their predominance regardless of whether the product comes under a true standard of identity or whether it is subject to a composition standard which only establishes maximums

for some ingredient and minimums for others. For example, a typical wiener label lists beef, pork, water, salt, corn syrup, flavoring, dextrose, sodium erythorbate, sodium nitrite. Consequently, the meat industry already operates under mandatory full ingredient labeling.

Some of our members have voluntarily nutritionally labeled their products using guidelines established by the U.S.D.A. Many AMI member companies have compiled complete nutritional profiles of product lines. Most of the requests for this information come from health professionals who deal with the small segment of the population needing therapeutic diets.

Open dating is voluntary and many AMI members date their products. U.S.D.A. regulations require that any date used must be accompanied by an explanation of what it means. Several options are available. This has turned out to be a practical approach to refrigerated product dating. Thus, as can be seen from this brief review of the current status, AMI and its member companies already have a real stake in the labeling issue. We, therefore, commend the agencies for taking a new look at the complex set of labeling rules that are sometimes duplicative and inconsistent.

We have a vested interest in providing product information in an accurate and cost-effective manner. Our companies have a long tradition of producing products that have generated strong consumer loyalty over the years. As a key segment of the food industry, we have, on occasion, been asked by consumers, producers and government to justify cost increases. For this reson, it is particularly important for us to weigh the benefits of giving new labeling information desired by some consumers against the costs which would be borne by all consumers.

About 25 percent of the consumer's weekly shopping dollar is spent for meat and meat products. This is about 4 percent of the average American's after-tax income. In 1979, 31 billion pounds of red meat passed through the retail markets with an estimated value of $58 billion. Thus, any significant labeling change will have a major ripple effect on our total economy, and will be highly visible to consumers in the form of higher food prices. We advocate, therefore, a responsible approach to information distribution that will result in the processing and distribution of meat and meat products at minimal cost increases to consumers.

America's 18 percent inflation rate is a major concern to us all. Food is not a luxury that we can do without. A recent informal telephone sampling of consumer mail received by our member companies revealed an increasing preoccupation with inflation. Many consumer letters begin like this: "Dear Sirs, I've never written to you before, but due to higher food prices, I felt the need to write." AMI members have also experienced a significant increase in mail-back coupons as consumers seek to cut food costs.

In view of the increasing hardship inflation is causing at the checkout counter, we believe that no new, extensive labeling system should be implemented without a clear and compelling case that it is needed, wanted and will not result in increased food costs. We believe that such a case has not been made by the three agencies. In AMI's review of the information contained in the Federal Register Advance Notice of Proposed Rule Making, we found evidence lacking in the following four areas:

1. The comments gathered at the joint agency hearings are not representative of society as a whole. In the agencies' Federal Register Notice, ". . . although the hearing commenters and those who submitted written comments are not statistically representative of the general public, they do reflect the shopping public's concerns about the food label. The higher level of concern exhibited in the hearing and written comments may be due primarily to the fact that these commenters represent a self-selected group with sufficient interest in labeling to submit their views. In contrast, the Food Labeling Survey includes many consumers who do not appear to be concerned about food labeling." In developing the proposed policy, the agencies have relied too heavily on these non-statistically representative comments. As a result, the demand for labeling change to suit these special interests has been inflated. In a quick check of our member company consumer mail, we find no upsurge or significant increase in concerns over labeling formats, nutritional profiles or product ingredients to match the hearing period commenters.

2. Since the 1978 FDA food labeling survey is statistically representative, it should have been weighted more heavily. It shows that three out of four Americans feel that current labels offer enough information for their use and require no change. These statistics are especially surprising in light of the negative tone of the survey. For example, the first question on labeling does not begin by asking: What is a label? or What should be on a label? or How do you use a label? Rather, it asks: "Aside from prices, please tell me about any particular problems, difficulties or concerns which you have with food these days?" This question sets the stage for a negative food/label discussion which is further reinforced by several questions that begin with a negative concept. For example, Question 20 on the ingredient list uses

asks: "Do you ever use the ingredient information to avoid using a particular ingredient?" The ensuing discussion centered around the negative word "avoid." We might ask, "Would the rate of consumer label satisfaction have been even greater than shown if the questions had been pretested and asked with the positive contest first?" In any event, survey results garnered from this style of questioning are used to make the case for labeling change. It is not a strong case.

3. The mandate for label change has been improperly raised by comparing survey percentages which do not reflect all the consumers in the study with the hearing commenters. (See Tables C to F Federal Register p. 75995, 75996.) The casual reader, without access to a complete tabulation of the study, is given the impression that there is far more concern than really exists nationally on the issues of nutrition information importance, substance avoidance, ingredient list quantification method, and open dating system preference. As an example, 35 percent of all consumers are interested in caloric content, not 55 percent and in the case of substance avoidance, the entire food labeling survey percentage values have been doubled by not including all consumers surveyed.

4. The comparison between the agency research and the hearing record does demonstrate the tremendous gap between the concerns of the commenters and those of all consumers surveyed. Comparative Tables A and B on "Label Concerns and Label Changes Most Desired" make this point. For example, while about 85 percent of commenters found the ingredient list a major area of concern, only 3 percent of surveyed consumers did so in the open question situation. Similarly, as many as 35 percent of the commenters expressed a specific labeling change desire, but no more than 1 percent of all surveyed consumers indicated a preference for any one particular label change.

Based on the evidence published in the Federal Register Notice, AMI believes the agencies have yet to make a compelling case for their proposed food label rulemaking. Indeed, the agencies' data clearly indicates the lack of a mandate for massive label changes to suit specific individual needs on the part of the general public. Further, it highlights the significant gap between the views of special interests and those of the general public.

Economic factors are one of the three guiding principles the agencies cite for all their labeling activities. Under President Carter's Executive Order 12044 on "Improving Government Regulations," it is the agencies' responsibility, not industries', to determine the economic impact of this proposal. The contemplated package of future proposals should be classified as one proposal and "significant." As such, it is within the meaning of the President's Executive Order as it has major economic consequences for the general economy, for individual industries, and levels of government. An agency impact statement is required. Therefore, AMI requests that an economic impact statement on the total tentative labeling positions of the agencies be issued before any individual labeling proposal is made. Obviously, in this inflationary period, and with inflation cited by President Carter as our leading domestic problem, determination and consideration of cost are more important than ever before.

Two other principles—public health concerns and the consumer's right-to-know—are the agencies' justifications for their labeling proposal. The public health concern must include the delicate balance between information and education. Survey participants and hear-commenters both point out that in some areas there is too much unusable, unintelligible information already on labels. If focusing on the consumer's right-to-know forces processors to make constant label changes or adhere to unnecessarily rigid product formulations, the resultant costs and decreased availability of competitive products will endanger the consumer's equally important right-to-freedom-of-choice. (Current industry practice of using least cost formulation for products would be threatened.) AMI feels that the three guiding principles of the agencies' rationale for future labeling activities (economics, public health and consumer's right-to-know) need further research and consideration.

AMI would like to make three recommendations before the proposed rulemaking proceeds: (1) test market experimentation, (2) exploration of alternative information distribution systems, (3) more statistically representative research on the positive aspects of food information.

We cite the information gathered by the agencies which shows there is a lack of consumer understanding of current labeling formats. Historically, when business has every possible incentive to make its investment in new product development work for their customers, there are still many failures. Why then propose the exchange of one labeling format for another without new product testing? Testing in the market place is a necessary, cost effective step before action is taken.

Recent consumer surveys show the food label is not the best place to inform and educate the public. The average consumer spends 20 to 60 minutes in selecting

about 30 to 40 items from among 5,000 possible choices. More consumers shop just once a week and are increasing their use of shopping lists so that more of their purchases are planned ahead. Time constraints on the working man and woman shopper make the actual site of purchase a poor classroom for teaching nutritional balance. Consequently, AMI feels that a piecemeal approach to product information is not the answer. We agree with the agencies' statement that "labeling is only a part of the system that delivers information about food and educates the public about how to choose wisely." We strongly urge the agencies to fully explore alternative information distribution systems.

We further recommend additional statistically representative research projects that investigate the positive aspects of nutrition information. We feel that following these three recommendations will bring us closer to resolving concerns delineated in the FDA Food Labeling Survey.

The agencies state, "Human health depends on good eating habits." We would add that a prescription for good health includes many other factors. Moderation and variety remain the cornerstones of good eating practices for most Americans. Since specific dietary needs and health concerns are continually evolving, we urge you to be flexible.

We do not need further research to know that today's high inflation rate is cutting into each consumer's dollar, but we do need more information to help weigh the benefits of the specific labeling needs of some consumers against the costs which would be borne by all consumers. We urge caution. What looks good in 1980 should work well in 1990.

TABLE A.—MAJOR AREAS OF CONCERN WITH FOOD LABELS [1]

[In percent]

	Hearings and comments	Food labeling survey	
		Open question [2]	Semidirect question [3]
Ingredient list	85	3	20
Nutrition label	52	2	8
Open dating information	45	2	3
Quantity of contents information	12	1	3

[1] Percentages are based on all respondents in the survey and the commenters in the hearings and written views.
[2] The question titled "open" asked respondents what problems, difficulties, concerns they have with foods.
[3] The question titled "semi-direct" asked respondents what information on the food label needed improvement.

TABLE B.—LABEL CHANGES MOST DESIRED [1]

[In percent]

	Hearings and comments	Food labeling survey	
		Open question [2]	Semidirect question [3]
Quantify the ingredient list	35	1	4
Give ingredients of all products	35	1	3
List all ingredients	32	1	5
Give amount of sugar	27	1	2
Give amount of salt	25	1	1
Give nutrition information on all products	10	1	1
Give source of fats and oils	9	1	1
Give drained or fill weights on cans	8	1	2
Use larger print on labels	6	1	2
Simplify the ingredient list	1	1	4

[1] Percentages are based on all respondents in the survey and the commenters in the hearings and written views.
[2] The question titled "open" asked respondents what problems, difficulties, concerns they have with foods.
[3] The question titled "semi-direct" asked respondents what changes or additions they would like on food labels.

TABLE C.—NUTRITION INFORMATION MENTIONED AS IMPORTANT[1]

[In percent]

	Hearings and comments	Food labeling survey	
		Number	All participants[2]
Calories	62	55	35
Vitamins/minerals	39	48	30
Fats	28	32	22
Cholesterol	24	11	7
Carbohydrates	22	22	19
All nutrition information	21	9	6
Protein	20	36	22
Serving size	10	3	1
Number of servings	6	1	.....

[1] Percentages are of those who named the types of nutrition information they consider important or valuable.
[2] Table A–28 FDA Food Labeling Survey.

TABLE D.—SUBSTANCES THAT RESPONDENTS OR COMMENTERS REPORT AVOIDING[1]

[In percent]

	Hearings and comments	Food labeling survey	
		Number	All participants[2]
Sugar	47	50	24
Salt	43	26	13
Artificial colors	33	10	6
Fats and oils	23	23	10
Artificial flavors	23	6	3
Chemicals	19	8	3
Preservatives	17	21	12
Seasonings	13	5	2
Artificial things	6	18	10
Starch	2	5	2
MSG	2	3	2
Artificial sweeteners	1	6	3

[1] Percentages are of those individuals who reported avoiding one or more substances.
[2] Table A–14 FDA Food Labeling Survey.

TABLE E.—PREFERRED METHOD OF QUANTIFYING THE INGREDIENT LIST[1]

[In percent]

	Hearings and comments	Food labeling survey
By percent	85	78
By weight	15	22
Total	100	100

[1] Percentages are of those who specified a preference for percentage versus weight listing.

TABLE F.—PREFERRED SYSTEM OF OPEN DATING[1]

[In percent]

	Hearings and comments	Food labeling survey
Pack date	25	15
Pull (sell-by) date	23	23
Quality assurance (best-if-used-by) date	14	22

TABLE F.—PREFERRED SYSTEM OF OPEN DATING[1]—Continued

[In percent]

	Hearings and comments	Food labeling survey
Expiration (use-by) date	38	40
Total	100	100

[1] These specific percentages could not be changed on the basis of the information in the FDA 1978 Food Labeling Survey Review published October 1979. A complete tabulation of the data is needed, but at no time do these figures represent more than 20 percent of all the consumers in the survey.

[Reprint from Family Circle, Mar. 11, 1980]

How To Serve Your Family the Nutrition They Need

Sure—your family gets enough to eat. But are they getting all they need of the important nutrients they should have every day? Or are they overnourished on protein, fats and extra calories that strain your good budget? Here is the key to understanding what nutrients your family needs every day. It is also a guide for putting those nutrients on the table through knowledgeable meal planning, with the help of "Family Circle's Pocket Nutrition Counter" beginning on page 136—Judith S. Stern, Sc. D.[1]

UNDERSTANDING RDA'S

The best way to shop for good nutrition is to become very familiar with the nutrient values of foods. Such awareness will pay off, both by making you able to serve your family interesting and varied menus plus helping you provide the best nutrition for your food dollar. Family Circle's Pocket Nutrition Counter helps you do this by telling you how much of the various nutrients specific foods contain. You can also check nutrition content on the labels of foods.

To be an effective "nutrient shopper," you should also understand how much of each nutrient each member of your family needs daily. For this, consult the table of selected Recommended Dietary Allowances on the back of the Pocket Nutrition Counter.

Recommended Dietary Allowances (RDA's) are established by the Food and Nutrition Board of the National Academy of Sciences. The RDA for a given nutrient is the amount that should be consumed daily for good health. Because the allowances are designed to meet the known nutritional needs of practically all healthy people, they represent a generous allowance. This means that if you occasionally don't meet your RDA for a nutrient it doesn't matter much, but if you consistently fall below, you run the risk of becoming deficient in that nutrient. On the other hand, if you consistently go above your RDA for calories, protein and fats, you run the risk of being over nourished and gaining unwanted and unnecessary weight.

Our nutritional needs change as we go through life. In the Recommended Dietary Allowances, you'll see that the allowances are given for 17 groups of people, from newborns to the aged; for boys, girls, men and women; for pregnant women and nursing mothers. Also, as research provides new information and the life-styles of Americans change, the RDA's have also changed. The selected RDA's given here are the most recent, published in December 1979. It's important to note changes from previous RDA listings. For example, there is a decrease in caloric intake reflecting a more sedentary way of life. There are increases in allowances for vitamins C and B_6, reflecting new research findings. It is also important to note that the American diet tends to be high in calories, proteins and fats and low in fiber, vitamin A and (for women) iron. Keep these facts in mind as guidelines when you plan your family's menu.

UNDERSTANDING FOOD LABELS

Food labels do not list Recommended Dietary Allowances for specific nutrients. Instead, they list the percentage of the U.S. Recommended Daily Allowances the food provides. These allowances are based on the highest RDA of a specific nutrient for males and nonpregnant females four or more years of age. The percentages on food products now in your grocery are based on 1968 figures, so don't be concerned

[1] Dr. Stern is Associate Professor of Nutrition at the University of California, Davis, and co-author of "The Fast-Food Diet," Prentice-Hall, 1980.

if they don't agree exactly with the 1979 RD(Dietary)A's given in our Nutrition Counter. In any event the RDA's and USRDA's are intended as a helpful general guide. You do not need to figure out your nutrient intakes down to the closest milligram each day.

NUTRITION GUIDE TO DAILY MENU PLANNING

Foods	Recommended number of daily servings	Examples of a serving
Meat, poultry, eggs, seafood	Two servings	2–3 ounces of lean, cooked meat, poultry or seafood without bone; one egg is equivalent to one ounce meat.
Milk and milk products	Children under 9: 2–3 servings; Children 9–12: 3 servings; Teens: 4 servings; Adults: 2 servings; Pregnant women: 3 servings; Nursing mothers: 4 servings.	1 cup milk, 1 cup yogurt. Milk equivalents: ¾ cup milk = 1 ounce Cheddar or Swiss cheese. ½ cup milk = 1-inch cube cheese, 1 ounce process cheese food, 2 tablespoons Parmesan cheese, 1 cup cottage cheese. ⅓ cup milk = ½ cup ice cream or ice milk.
Vegetables	Three servings	½ cup.
Fruit and fruit products	One serving	½ cup or typical portion such as one orange or ½ grapefruit.
Breads, cereals, pasta, rice and other grains.	Four servings	1 slice bread. ½–¾ cup cooked cereal, pasta or rice. 1 ounce ready-to-eat cereal.
Miscellaneous foods (including fats and condiments).	As calories permit	

Basically, the tables are useful to you as a guarantee that each member of your family is getting an adequate amount of the major and minor nutrients, and is not being under or over nourished. It also can clue you in on foods that provide good quality nutrition at lower cost.

HOW TO USE THE NUTRITION COUNTER IN MEAL PLANNING

The golden rule of good nutrition is to eat an adequate amount of a variety of different foods. In giving you the nutrient values of more than 300 common foods, the Pocket Nutrition Counter can help you select those that provide the best nutrition within your calorie needs. It can also help you take into account possible dietary restrictions such as a low-fat or low-salt diet. What's more, the Counter will give you some surprising nutritional facts about the foods you eat. For example, you will find that a serving of broccoli is not only a good source of calcium but also gives you almost as much vitamin C as a serving of orange juice. A serving of liver provides you with protein (19.7 grams) and iron (6.6 grams) and your entire day's supply of vitamin A. Study the Counter to ascertain other unexpected nutritional bonuses.

For ease in meal planning, we have divided the foods into five basic groups, plus a section on miscellaneous foods which include items such as nuts and cooking oil.

Here are the ways you can use this nutritional information practically and effectively as you plan, shop and cook nourishing meals for your family.

MEAT, POULTRY, EGGS, AND SEAFOOD

These are the foods Americans usually rely on for their daily protein supply. (For daily protein allowances, see the back page of the Nutrition Counter.) Protein is used for growth and for body maintenance and repair of muscles, skin, organs and other tissue. It is not burned to supply the energy needed for activity unless energy from sugars, starches and fats is depleted. You should be mindful that the protein allotment must be supplied every day because protein is not stored.

But note that the Recommended Dietary Allowances for protein are relatively low—56 grams for men, 44 grams for women—while Americans on the average consume 100 grams a day. What's also important to realize is that one's protein allowance need not come from the meat, poultry, eggs, seafood group alone, which

most people consider to be the prime protein sources. Milk and milk products, grains, rice, beans, nuts and certain vegetables are also fine sources of this nutrient.

Two servings a day from the meat-poultry-egg-seafood group are usually adequate. (A serving is two to three ounces of lean cooked meat, poultry or seafood without bone; one egg is equivalent to one ounce of meat.) And of course you get other nutrient benefits besides protein from these foods. For example, foods of animal origin are the only natural source of vitamin B_{12}, which is needed for blood formation and for nerves.

You also get other necessary vitamins as well as minerals by eating a variety of foods in this group. Of those foods, fish and poultry are relatively low in calories. And like eggs and the less expensive cuts of meat, they are nutritionally equivalent to expensive steaks and chops.

Because many foods in this group tend to be among the more highly priced of all food-stuffs, you can use less expensive proteins throughout your menus. As a substitute for a one-ounce serving of meat, use one egg; ½ to ¼ cup cooked dry beans, soybeans or lentils; 2 tablespoons peanut butter; or ¼ to ½ cup nuts, sesame seeds or sunflower seeds. Pasta and milk products can also be considered inexpensive protein sources. An exceptional protein bargain: dried beans and peas. By combining these legumes with grains, nuts, seeds and cereals, such as rice, you get a good quality protein and the entire day's requirement for a budget-stretching 60¢ to 80¢ a day.

MILK AND MILK PRODUCTS

Milk is an important source of calcium—a major mineral needed for bones and teeth and other body parts—and also for protein, vitamin B_2 and vitamin D (which is added). See the listing for suggested servings per day (for adults, two servings are recommended; pregnant women and nursing mothers require more). Skim and low-fat dry milk have about the nutritive equivalency of whole milk except for fats, and they are often more economical. For those who can't tolerate milk, calcium also is available in various vegetables and fruits and in meats, seafood, cheese and eggs. The vitamin B_2 in milk is destroyed by exposure to light; therefore, store milk in an opaque container. Dieters should note that ice cream has 28 percent more calories than ice milk and twice as much fat—but also twice as much vitamin A (a fat-soluble vitamin). Dieters, be aware that yogurt with fruit contains 260 calories per cup—nearly three times the amount in a cup of skim milk!

VEGETABLES

Try to eat three servings daily from this group. A serving is ½ cup or a typical portion, such as a wedge of lettuce, 6 asparagus spears and so on. The foods in this group typically supply vitamins A and C (dark leafy green or dark yellow vegetables are the best sources) and fiber. Vegetables are usually low in fat and contain no cholesterol.

Some of the major minerals and a variety of trace elements are found in vegetables. Spinach, dandelion greens and tomato juice are rich sources of iron. And as there are many trace elements for which dietary allowance is not yet known, eating a variety of vegetables helps assure getting these minerals.

Vegetables are an important source of fiber—diet bulk—as well.

FRUIT AND FRUIT PRODUCTS

Though fruits vary considerably in their nutrient content, they, too, belong with whole grains, tend to be a very good source of fiber. The champion in this category is blackberry (2.9 grams of fiber a serving) with the less costly watermelon not far behind (2.7 grams) in supplying this need. These amounts can represent over half the daily fiber intake for most Americans.

At times when citrus fruit is expensive, one can substitute one-half cup of cantaloupe in the daily menu. It supplies an equivalent amount of vitamin C. This way you can also save calories and get over 130 percent of your RDA for vitamin A at the same time.

At least one serving of fruit a day is suggested, and this should be a high-vitamin C fruit. But because of their vitamins, minerals and fruit-sugar content, fruits are an especially healthful and economical snack for growing children, teenagers and dieters.

BREADS, CEREALS, PASTA, RICE, AND OTHER GRAINS

The complex carbohydrates—grains, rice and other cereals—are a source of starch, which is readily converted in the body to blood sugars that can be burned for quick energy. You also get other nutrition bonuses. For example, whole-grain cereals, including bran, are excellent sources of fiber, iron B vitamins (including niacin)

and trace minerals; 40 percent bran flakes have 1.4 grams of fiber compared to .2 grams for cornflakes.

Although your protein needs for the day are fixed—you need so much and no more—your needs for calories vary depending on the activities you perform. When planning menus you may find you need to add calories for a growing child, a sports-addicted teenager or an adult who does heavy work. Add calories from this group, the foods the body uses to fuel activity.

Also note: If a cereal is enriched it should supply approximately 25 percent of the USRDA for the various vitamins and minerals. Those that supply 100 percent or more end up as an expensive vitamin pill. Also, when buying ready-to-eats, check the label and be sure you are not buying sugar instead of cereal. One cup of sugar-coated cornflakes, for example, has 155 calories compared with 95 calories for plain cornflakes, while the nutrient content is similar in all other ways.

MISCELLANEOUS FOODS

Fats—other than butter—are listed in the miscellaneous foods. They include salad oil, margarine and nuts. Peanut butter and mayonnaise are also fat-rich foods. Some fats are needed in the diet, but, in general, Americans consume a higher than recommended percentage of their calories in fats (over 40 percent). Why? They often don't realize how many hidden calories are in their favorite foods—pastries, meats, milk products and so on. Look for the fat content in the Nutrition Counter when you select your foods from other groups. Nutritionists suggest a balance of unsaturated (vegetable) and animal fats. One should consume no more than 30 percent of one's calorie intake in fats, and no more than 10 percent in saturated (animal) fats.

OTHER NUTRIENTS

The Nutrition Counter lists, along with calories and fiber, the major nutrients—protein, carbohydrates, fats, calcium, iron, vitamins A, C, B_1, B_2 and niacin. It also lists the sodium and potassium content of foods. These two listings, in particular, fill a special need. Many people are on a low-sodium diet and must restrict salt intake, while others take water pills that leach out their potassium, which must be replenished.

Understanding this, along with the other nutritional guidelines, will help assure that each member of the family is receiving the nutrition he or she needs.

SAMPLE MENU PLAN

Here is a day's menu plan based on foods listed in the "Pocket Nutrition Counter." The menu meets the nutritional needs for any family member over the age of three. The basic menu provides 1700 calories. This fills the calorie need of most weight-watching women. There are options to supply extra calories (for teenagers and adult males and very active women) and extra milk for growing young people. To guide you on planning your own nutritious menus, here are some of the special nutritional features of this plan:

Protein: The 1700-calorie menu provides 36 grams of animal protein; children who drink extra milk get 46 grams. The total protein (beans, nuts, grains are also protein sources) is 79 grams, which more than fills any individual needs but is far below the more than 100 grams in the average American diet.

Fats: The menu is low in animal fat—and total fat is about 30 percent calories.

Fiber: Fiber—from bran, beans, nuts, fruits, vegetables—is high, approximately 12 grams. With optional snacks, it is close to 15 grams.

Calcium: Calcium content too is high—teenagers get over 1200 milligrams, young children, 1000 milligrams. Note that low-fat milk is higher in calcium by volume than whole milk; cheese also provides calcium.

Iron: The menu provides over 18 milligrams—the complete daily iron need of women. Note that bran is enriched; bread is enriched; the beans and red meat also provide iron.

Sodium: Nothing on the menu is salted, yet the menu includes 2300 milligrams of sodium. Those who need not watch sodium intake can salt to taste.

Vitamin C: The menu provides 140 milligrams of this vitmin—considerably above the requirement, but as individual needs for this vitamin may vary, more in this case is better than too little.

Vitamin A: Over 5000 International Units—more than adequate for all family members.

SAMPLE MENU

1,700 calories (see options for added calories for active teenagers and adult males and added milk for young people)

Breakfast

½ fresh pink or red grapefruit
1 cup bran flakes with raisins
1 cup milk (2% fat). Put some on cereal, drink the rest.
1 slice whole-wheat toast with
½ ounce (1 tablespoon) cream cheese
Coffee or tea for adults (optional)

Lunch

Mixed bean salad (*serves one*)
Combine:
¼ cup cooked kidney beans
¼ cup cooked navy beans
½ cup cooked cut green beans
½ cup mung bean sprouts
½ tomato, coarsely chopped
1 teaspoon minced onion
½ tablespoon chopped fresh parsley
½ tablespoon salad oil (preferably corn or safflower)
1 teaspoon cider vinegar
Dash of fresh prepared mustard
⅛ teaspoon dry tarragon
Pepper to taste
Serve on bed of lettuce, garnish with:
1 ounce cubed Swiss cheese
1 slice whole-wheat bread with
½ tablespoon margarine
1 fresh orange
Option (for anyone seven years of age or older—except adult women on 1700 calorie diet)
2 chocolate chip cookies

Dinner

Nibbles (*serves one*):
Slice julienne (in strips) or cut bite-size:
½ cucumber
½ green pepper
1 carrot
3 ounces (raw weight) flank steak, broiled, sliced
Rice pilaf (*serves one*):
¾ cup cooked long-grain rice. Cook rice according to directions, add to cooking water:
1 tablespoon chopped onion
1 dash powered tumeric
When rice is cooked, add
¼ cup frozen peas
1 tablespoon raisins.
Steam till peas are tender.
Garnish with 1 tablespoon slivered toasted almonds.
½ cup steamed cauliflower
1 slice gingerbread, served with
½ cup sweetened applesauce
Coffee or tea for adults (optional)
For 11 to 18 year olds, 1 cup milk (2% fat)
Options (as calories permit)
2 slices of pineapple in its own juice
1 banana, sliced (with breakfast cereal)
1 slice bread with ½ tablespoon margarine at dinner
Do-it-yourself Trail Mix (*not* for weight-watching)
Combine:
¼ cup dates, cut up
1 fig, cut up
¼ cup coarsely chopped walnuts
⅛ cup shredded coconut

FAMILY CIRCLE'S POCKET NUTRITION COUNTER

This guide includes more than 300 foods, listed according to food group, with their protein, fat, carbohydrate, and major vitamin and mineral content. Take this counter with you when you shop; keep it handy for meal-planning. It will help you select the most nutritious foods for yourself and your family.

RECOMMENDED DIETARY ALLOWANCES

Category and age	Weight	Height (inches)	Calories	Protein (grams)	Calcium (milligrams)	Iron	Vitamins					
							A	D	B_1	B_2	NIA	C
							i.u.	m.g.	m.g.	m.g.	m.g.	m.g.
Infants:												
Birth to 5 mo	13	24	95–145	kg×2.2	360	10	2,100	400	0.3	0.4	6	35
5 mo to 1 yr	20	28	80–135	kg×2.0	540	15	2,000	400	0.5	0.6	8	35
Children:												
1 to 3	29	35	1,300	23	800	15	2,000	400	0.7	0.8	9	45
4 to 6	44	44	1,700	30	800	10	2,500	400	0.9	1.0	11	45
7 to 10	62	52	2,400	34	800	10	3,500	400	1.2	1.4	16	45
Males:												
11 to 14	99	62	2,700	45	1,200	18	5,000	400	1.4	1.6	18	50
15 to 18	145	69	2,800	56	1,200	18	5,000	400	1.4	1.7	18	60
19 to 22	154	70	2,900	56	800	10	5,000	300	1.5	1.7	19	60
23 to 50	154	70	2,700	56	800	10	5,000	200	1.4	1.6	18	60
51 and over	154	70	2,400	56	800	10	5,000	200	1.2	1.4	16	60
Females:												
11 to 14	101	62	2,200	46	1,200	18	4,000	400	1.1	1.3	15	50
15 to 18	120	64	2,100	46	1,200	18	4,000	400	1.1	1.3	14	60
19 to 22	120	64	2,100	44	800	18	4,000	300	1.1	1.3	14	60
23 to 50	120	64	2,000	44	800	18	4,000	400	1.0	1.2	13	60
51 and over	120	64	1,800	44	800	10	4,000	400	1.0	1.2	13	60
Pregnant			+300	+30	+400	(1)	+1,000	+400	+0.4	+0.3	+2	+20
Nursing			+500	+20	+400	(1)	+1,000	+400	+0.5	+0.5	+5	+40

[1] Consult your doctor.

Note.—IU—International units; g—grams; kg—kilograms (1 kilogram = 2.2lbs); mg—milligrams. From recommended dietary allowances revised 1979, Food and Nutrition Board, National Academy of Sciences, National Research Council, Washington, D.C.

Food and amount	Cal.	Pro.	Fat	Cho.	Fib.	Ca.	Fe.	Na.	K	Vitamins A	Vitamins B_1	Vitamins B_2	Vitamins Nia.	Vitamins C
		g	g	g	g	mg.	mg.	mg.	mg.	i.u.	mg.	mg.	mg.	mg.
Beaf, raw:														
Chuck stew meat—4 oz	291	21.2	22.2	0	0	13	3.1	74	339	45	0.09	0.19	5.1	0
Corned beef—4 oz	332	17.9	28.3	0	0	10	2.7	1,474	68	.....	.03	.17	1.9	0
Flank—4 oz	163	24.5	6.4	0	0	15	3.6	86	392	13	.10	.22	5.9	0
Hamburger, lean—4 oz	202	23.4	11.3	0	0	14	3.5	82	374	20	.10	.21	5.6	0
Hamburger, reg.—4 oz	303	20.2	24.0	0	0	11	3.1	71	323	40	.09	.18	4.9	0
Heart—3½ oz	108	16.9	3.7	0.7	0	9	4.6	90	160	30	.58	.89	7.8	6
Liver—3½ oz	136	19.7	3.2	6.0	0	7	6.6	86	325	43,900	.26	3.33	13.7	31
Roast with bone:														
Rib—8 oz	836	30.9	78.0	0	0	19	4.6	108	494	155	.14	.28	7.4	0
Rump—8 oz	584	33.5	48.7	0	0	20	5.0	118	536	95	.14	.30	8.0	0
Steak with bone:														
Chuck—4 oz	399	18.3	35.6	0	0	10	2.7	64	294	70	.08	.16	4.4	0
Club—8 oz	722	29.4	66.0	0	0	17	4.4	103	471	130	.12	.26	7.0	0
Round—8 oz	431	44.2	26.8	0	0	26	6.5	155	708	55	.19	.39	10.6	0
Sirloin—8 oz	658	35.5	56.1	0	0	21	5.2	125	569	110	.15	.31	8.5	0
T-bone—8 oz	798	30.0	74.5	0	0	16	4.4	103	478	150	.12	.27	7.1	0
Tongue—4 oz	179	14.1	13.0	0.4	0	7	1.8	63	170	.....	.10	.25	4.3	0
Chicken:														
Fried—¼ bird	232	22.4	13.6	3.1	0	18	1.8	80	242	230	.07	.16	9.7	0
Raw—¼ bird	167	22.2	7.9	0	0	16	1.6	86	352	0	.17	.36	22.4	0
Breast, fried—4 oz	232	26.8	11.9	3.1	0	19	1.3	.....	.....	460	.07	.10	10.2	0
Breast, raw—3½ oz	104	23.3	.5	0	0	14	1.1	90	370	0	.07	.09	10.5	0
Leg, fried—1½ oz	64	10.5	5.3	1.5	0	9	1.0	.....	.....	161	.04	.11	2.4	0
Leg, raw—1½ oz	56	10.3	1.4	0	0	8	.9	40	163	0	.10	.24	5.6	0
Roasted—3½ oz	198	28.3	8.6	0	0	20	2.1	.....	.....	0	.08	.18	9.0	0
Livers—2 lg	141	22.1	4.0	2.6	0	16	7.4	.....	.....	32,200	.20	2.46	11.8	20
Canadian bacon—1 sli	65	6.2	4.2	3.0	0	4	.....	442	91	0	.18	.03	1.1	0
Ham, baked—2½ oz	231	16.7	17.7	0	0	7	2.1	599	187	0	.38	.14	2.9	0
Ham, boiled—1 oz	66	5.4	4.8	0	0	3	.8	.....	.....	0	.12	.04	.7	0
Ham, canned—4 oz	219	20.8	13.9	1.0	0	13	3.0	1,248	386	0	.60	.22	4.3	0
Picnic, baked—3 oz	275	19.0	21.4	0	0	9	2.5	680	213	0	.44	.17	3.4	0

Food and amount	Cal.	Pro.	Fat	Cho.	Fib.	Ca.	Fe.	Na.	K	Vitamins A	B_1	B_2	Nia.	C
		g	g	g	g	mg.	mg.	mg.	mg.	i.u.	mg.	mg.	mg.	mg.
Pork, fresh:														
Loin, raw—4 oz	266	15.2	22.2	0	0	9	2.3	65	265	0	0.74	0.17	4.0	0
Picnic, raw—4 oz	271	14.8	23.0	0	0	9	2.3	65	265	0	.72	.17	3.9	0
Spareribs, raw—8 oz	488	19.6	44.8	0	0	11	2.9	95	388	0	.95	.23	5.1	0
Sausage, cooked:														
Bologna—1 sli	66	4.4	4.8	1.1	0	3	.7	390	69	0	.05	.05	.8	0
Frankfurter—1	124	7.0	10.0	1.0	0	3	.6	542	108	0	.08	.09	1.2	0
Liverwurst—1 sli	79	5.0	6.2	.5	0	3	1.6	...	...	1,725	.05	.34	1.4	0
Luncheon meat—1 sli	81	4.6	6.8	.5	0	6	.4	...	...	0	.11	.05	1.1	0
Pork—1 link	94	3.5	8.8	0	0	2	.4	...	...	0	.10	.05	.6	0
Salami—1 sli	130	7.0	11.0	0	0	4	1.0	...	...	0	.10	.07	1.5	0
Vienna—1 link	39	2.8	3.0	0	0	2	.4	...	...	0	.02	.02	.6	0
Shellfish:														
Clams, hard, raw—5–10	80	11.1	.9	5.9	0	69	7.5	205	311	90	.08	.15	1.1	8
Clams, soft, raw—4–9	82	14.0	1.9	1.3	0	...	3.4	36	235	...	...	...	...	...
Crab, cooked—3½ oz	93	17.3	1.9	.5	0	43	.8	...	...	2,170	.16	.08	2.8	2
Lobster, raw—1 lb	107	19.9	2.2	.6	0	34	.7	...	...	...	.48	.06	1.7	0
Mussels, raw—1 lb	153	22.2	3.2	7.2	...	...	...	...	...	...	...	...	...	...
Oysters, raw—5–8	66	8.4	1.8	3.4	0	94	5.5	73	121	310	.14	.14	2.5	...
Scallops, raw—3½ oz	81	15.3	.2	3.3	0	26	1.8	255	396	...	...	.06	1.3	...
Shrimp, raw—½ lb	143	28.3	1.2	2.4	0	98	2.5	219	345	...	.03	.04	5.0	...
Shrimp, shelled—3½ oz	91	18.8	.8	1.5	0	63	1.6	140	220	...	.02	.03	3.2	...
Turkey, raw—3½ oz	268	20.1	20.2	0	0	23	3.8	40	320	tr	.09	.14	8.0	0
Turkey, roasted—3 sli	200	30.9	7.6	0	0	30	5.1	...	...	...	.08	.17	9.8	0
Veal, raw:														
Cutlet—4 oz	186	22.1	10.0	0	0	13	3.3	...	...	0	.16	.29	7.4	0
Stew meat—3½ oz	346	27.9	25.2	0	0	11	3.5	87	491	0	.11	.18	7.2	0

Abbreviations: CAL—Calories; PRO—Protein; CHO—Carbohydrates; FIB.—Fiber; Ca—Calcium; Fe—Iron; Na—Sodium; K—Potassium; Vitamin B_1—Thiamine; B_2—Riboflavin; NIA.—Niacin; g—grams; mg—milligrams; i.u.—International Units; oz—ounce; sli—slice; tbsp—tablespoon; lb.—pound; lg.—large; ″—inches; ...—information not available; tr.—trace.

STATEMENT OF G. L. WALTS, EXECUTIVE VICE PRESIDENT, THE NATIONAL TURKEY FEDERATION

Mr. Chairman and other distinguished members of the Subcommittee. My name is G. L. Walts, Executive Vice President of the National Turkey Federation, the national trade association representing producers and processors of turkey and turkey products. NTF and its members welcome this opportunity to express their views on S. 1651, the "Department of Agriculture Nutrition Labeling and Information Act."

Food labels should serve a dual purpose. First labels play a well-recognized and important function in providing consumers with accurate and useful information on which to make fully informed purchasing decisions. Second, and of equal importance, labels serve to establish product identity. NTF believes that neither of these purposes should be compromised in developing tomorrow's food label.

Turkey producers and processors have a vested interest in providing product information in an accurate and cost-effective manner. As an important segment of the food industry, NTF's members are vitally concerned with rising food prices. Consequently, it is particularly important that the Subcommittee conduct a cost/benefit analysis prior to establishing new requirements—weigh the benefits of mandating new labeling information desired by a few consumers against the cost which would be borne by all consumers.

NTF urges the Subcommittee to review the results of the Food and Drug Administration's 1978 Consumer Food Labeling Survey which demonstrates less than compelling need or desire for food labeling changes. Food safety, not labeling, was of real concern to consumers. Nearly 50 percent of those surveyed had no problem at all with food. One-third were concerned about quality, while only 8 percent expressed any dissatisfaction with labeling. Of the 8 percent concerned with labeling, the most commonly cited problem involved the ingredient list, with the major criticism being its complexity. Implementation of certain of the provisions contained in S. 1651 would further complicate the label by requiring the listing of lengthy technical names for colors, spices, and possibly flavors to appear in the ingredient list, by mandating percentage ingredient labeling, and requiring a large amount of new information as part of the nutrition label. NTF seriously questions whether requiring this new labeling information will address the paramount consumer concern of overly complex food labels.

INGREDIENT LABELING PROPOSALS

NTF applauds the voluntary approach taken in Section 3(a) with regard to the labeling of fresh poultry and meat. While the "section by section analysis" attached to the legislation makes clear that any labeling requirements with regard to fresh poultry will be voluntary, NTF urges the Subcommittee to specifically include language to this effect in the bill.

As part of its prior label approval program, USDA currently requires poultry processors to list all ingredients, including mandatory ingredients in standardized products. 9 C.F.R. § 381.118(a). Currently, however, USDA permits spices, colors, and flavors not sold as such to be designated in generic terms. NTF opposes the mandatory listing of specific colors, spices, and flavors. To do so would further complicate the already lengthy ingredient list and in some instances disclose trade secret information. NTF believes specific listing of these ingredients should be required only where the Secretary demonstrates through rulemaking that such information is of public health significance to consumers.

Regulations currently require ingredients to be listed in descending order of predominance. 9 C.F.R. § 381.118. NTF believes most consumers are aware of this. If not, the government should initiate a consumer education program to inform consumers what is on the label. The statement "ingredients are listed in descending order of predominance" would only add to label clutter.

NTF doubts there is substantial consumer interest in mandatory quantitative or percentage ingredient labeling for turkey products. This lack of interest was demonstrated in the FDA survey. Mandatory percentage ingredient labeling might serve to deceive consumers by placing undue emphasis on the quantity as opposed to quality of ingredients present. Such labeling could encourage processors to engage in a costly and meaningless horsepower race. Further, mandatory quantitative labeling will restrict processor use of highly nutritious ingredients in a cost-effective manner. The availability and cost of different poultry ingredients frequently require turkey processors to use different parts in processed products. While these slight changes in ingredient amounts would have no effect on the listing of ingredients in descending order of predominance, it would cause a change in the percentages used.

NUTRITION LABELING

Nutrition labeling should serve an information/education function for the consumer. This world be best achieved through a voluntary program.

NTF believes the nutrition labeling provisions of S. 1651 represent a step in the right direction. Encouraging establishment of nutrient data banks and permitting reliance on this information will go a long way to encourage processors to voluntarily nutrition label.

However, we think that this approach is too slow. The necessary nutrition data is available now. For decades USDA has published and revised its Handbooks containing average values for various foods. In the August, 1979 Forward to Agriculture Handbook No. 8-5, which deals with poultry products, Dr. D. M. Hegsted, Administrator of USDA's Human Nutrition Center points out that:

"Data on nutritive value of foods were first compiled and evaluated in the Department by W. O. Atwater in the 1890's . . . In 1896, the now classic USDA Bulletin No. 28, 'The Chemical Composition of American Food Materials,' by W. O. Atwater and C. D. Woods was published. This document was the first in a long series of food composition tables that have been issued by the Department."

Hegsted confirms that the composition data for poultry published in August, 1979, is the latest in a series of continuing updates on the work started in the 1890's. The data developed by USDA is available. It is the data which the government has relied on in establishing dietary recommendations and food stamp allotments. Packers and processors should be able to rely on this data right now as a basis for their nutrition labels. This will provide an immediate basis for an effective voluntary nutrition labeling program. Rather than require industry to "invent the wheel," let us build on the work which the government has been carrying out for nine decades. If this work by USDA is flawed after all this period of time, industry should not be expected to accept the thankless task of preparing perfect data.

The current nutrition labeling regulations of the Food and Drug Administration have been in effect for seven years. They are an excellent first step and many processors have come to use and follow these regulations. USDA has proposed nutrition labeling regulations, basically similar to the FDA rules, which have been pending as a proposal since 1973. Poultry and meat processors are allowed to follow the FDA pattern and format on USDA regulated products. While the existing programs are an excellent beginning, these programs are far from perfect. USDA has no nutrition labeling regulations. The regulations of FDA require formats which are confusing to consumers, impose compliance burdens which are expensive to processors and fail to allow the use of existing nutrient data bases and simpler labeling formats. In the dairy industry where a nutrition data base is available, voluntary nutrition labeling is widespread. A surge of voluntary labeling on dairy products occurred after FDA make compliance practical and simple.

The barriers to the fullest practical use of nutrition labeling are barriers established by the governmental agencies: the complexity and cost of FDA's program and the uncertainty of USDA's. To make nutrition labeling mandatory will only mask these failures on the part of the government. In the turkey industry we use nutrition to sell our product. If the government will make nutrition labeling attractive, turkey processors will voluntarily use such labeling as a selling tool. But to make this labeling mandatory will be to give the government the perpetual ability to require the superfluous, the unwanted, and the expensive. Therefore, we strongly urge that the best way to get meaningful nutrition information to citizens is to charge the government agencies with the responsibility of administering a practical and attractive nutrition label program, so practical and attractive that voluntary participation will be nearly universal.

Congress should clearly establish that only macronutrient information would be required. Currently, USDA mandates macro and micronutrient disclosures where a nutrition claim is made or the food is fortified. The macronutrient requirements of S. 1651 should not trigger the micronutrient requirements imposed by USDA.

Nutrient and quantitative ingredient information should be based on product as shipped as opposed to in-going formulation or point of purchase. Frequently, a turkey product to which moisture is added as a processing aid before cooking will lose moisture during processing, thereby changing the nutrient profile of the product. Further, processors have little or no control over their product once it leaves the plant and cannot act as guarantors for nutrient values at retail.

OTHER ISSUES

In view of the information/education function of ingredient and nutrition labeling, NTF concurs that criminal penalties would be inappropriate. Further, NTF agrees with Senator McGovern's recent proposal to drop the advertising provisions

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of the bill which would have required FDA and USDA to recommend to the Federal Trade Commission what nutrition information should be included in food advertising.

NTF believes that S. 1651, with the changes recommended herein, represents a responsible effort to improve food labeling. NTF urges the Subcommittee to carefully monitor USDA labeling proposals and policies to ensure that the Department complies with the intent and spirit of S. 1651. USDA should be permitted to promulgate new labeling requirements only if they are consistent with present law, supported by substantial consumer interest and need, and subject to full rulemaking.

STATEMENT OF RICHARD S. SILVERMAN, COUNSEL, AMERICAN FROZEN FOOD INSTITUTE

Good morning. I am Richard S. Silverman, a member of the Washington, D.C. Law firm, Collier, Shannon, Rill & Scott. I am here today testifying on behalf of the American Frozen Food Institute ("AFFI"), a nonprofit national trade association of processors and packers of frozen food. AFFI's members number in excess of 400 companies which account for approximately 90 percent of the country's total production of frozen fruits and vegetables, and a substantial portion of the production of other frozen food products.

AFFI and I appreciate this opportunity to share with you our views concerning S. 1651—The "Department of Agriculture Nutrition Labeling and Information Act of 1979".

As it did with respect to S. 1652—the "Nutrition Labeling and Information Amendments of 1979 to the Federal Food, Drug and Cosmetic Act", AFFI supports the basic aims of this legislation. We concur with the view that the consumer has the right to "accurate, objective, easily understandable nutrition and ingredient information." However, in order to achieve that goal we believe this bill could be improved in several areas, and my brief comments will focus on these suggestions.

Labeling of Colors and Spices.—This legislation would require manufacturers to list on their labels by common or usual name all the spices and colors which they use. AFFI opposes this requirement for the following reasons: First, the listing of the names of these ingredients, (which are used in very small amounts in most foods) would unduly lengthen ingredient statements with long chemical names having no meaning to consumers. Second, the combinations of flavors, colors, and spices used by manufacturers constitute, in many cases, important trade secrets which ought not be sacrificed without compelling reasons. This bill already provides that individual flavorings need not be disclosed unless deemed necessary for the purpose of providing health information to consumers. AFFI believes that this limitation should also apply to colors and spices.

Order of Predominance Statement.—We would eliminate the requirement that every food label bear the statement that "ingredients are listed in the descending order of predominance by weight." In addition to adding to label clutter, this label statement would not be accurate since this legislation provides that any ingredient comprising less than five percent or less of a food need not be listed in such order but, rather, at the end of the ingredient list. We believe consumer education is the appropriate vehicle for advising the public of the way in which ingredients are required to be disclosed on food labels. The food label, in our opinion, is not the proper place in which to convey this information.

Nutrition Information.—AFFI is in full agreement with that portion of the proposed legislation which addresses the basic nutrition information of importance to consumers. We believe that a "shortened format"—wherein only macronutrient information is provided—would adequately serve the consumers' "need to know" while at the same time, encouraging industry to voluntarily label an increased number of foods.

We also concur with that portion of the proposed legislation which authorizes USDA and FDA with the cooperation of academia and private industry, to develop and publish a standarized reference on the nutrient composition of all foods. Industry could then use this nutrient data base in its voluntary nutrition labeling program.

We are confident that a result of the development of such a data base, nutrition would appear on many products not currently nutrition labeled even if this were not mandated.

AFFI is, however, seriously concerned about that portion of the legislation which directs that the standardized reference be based on nutritional value "at point of purchase." This point of purchase requirement would cause substantial problems to the food industry because the nutritional information that we already have is based

on point of pack, not point of purchase. We, therefore, recommend that this legislation be amended to provide that "point of pack" is the appropriate place in the food distribution chain on which to base nutrient value determinations.

Effective Date.—The labeling provisions of this bill would apply to food introduced into or delivered for introduction to interstate commerce two years after enactment of this legislation. This provision is unrealistic because of the lead time required for the promulgation of implementing regulations. We, therefore, recommend that Senator McGovern's suggested modification on this issue, in his testimony of March 19, 1980 on S. 1652, be applied to this legislation.

Preemption.—In order to resolve any doubt as to whether S. 1651 would preclude state and local governments from enacting ingredient or nutrient labeling requirements in addition to or different from federal requirements, AFFI recommends that a specific preemption clause be added to this bill. We suggest that this could best be accomplished by inserting the preemptive language contained in the Meat and Poultry Products Inspection Acts.

Conclusion.—In conclusion, I want to reaffirm the commitment of AFFI and its member companies to work with you in improving our nation's food labeling laws, to the end that the consumer is provided with relevant, understandable information at the least possible cost.

STATEMENT OF CAROLE A. BISOGNI, PH. D., CHAIRMAN, NATIONAL NUTRITION CONSORTIUM FOOD LABELING COMMITTEE, ASSISTANT PROFESSOR, DIVISION OF NUTRITIONAL SCIENCES, CORNELL UNIVERSITY, ITHACA, N.Y.

My name is Carole Bisogni. I am an Assistant Professor in the Division of Nutritional Sciences at Cornell University. My appointment at Cornell involves Extension, teaching, and research in nutrition education and consumer food issues. My prepared statement today is submitted on behalf of the National Nutrition Consortium in my role as Chairman of the Consortium's Committee on Food Labeling.

The National Nutrition Consortium is a nonprofit organization in which ten major professional societies in food, nutrition, and dietetics participate. Its member organizations are the American Institute of Nutrition, American Dietetic Association, American Society for Clinical Nutrition, Institute of Food Technologists, and Society for Nutrition Education. Its liaison organizations are the Food and Nutrition Board of the National Academy of Sciences, Committee on Nutrition of the American Academy of Pediatrics, American Home Economics Association, American College of Nutrition and American Society for Parenteral and Enteral Nutrition. The cumulative membership of these societies represents approximately 80,000 scientists, physicians, educators and dietitians who have training, expertise and experience in nutrition.

The primary objectives of the Consortium are to stimulate the involvement of persons in our member organizations in nutrition policy development and to enhance the coordination of our member organization activities, especially in the areas of public affairs and providing accurate information to the public and policy makers. In keeping with these goals, the National Nutrition Consortium Board has established ad hoc committees to address current food and nutrition issues that require input from the professional community in a timely manner. There are four issue committees established at the present time: Food Labeling, Food Fortification, Dietary Guidelines, and Health Manpower.

Each issue committee is composed of a chairman and members representing the five Consortium sponsor societies. Committee members were selected from nominees submitted by each society based on the individual's recognized expertise in the area of concern. Members of the Food Labeling Committee are:

Dr. Isabel Wolf, Department of Food Science and Nutrition, University of Minnesota.

Dr. George Vahouney, Department of Biochemistry, George Washington University Medical Center.

Dr. Bonita Wyse, Department of Nutrition and Food Sciences, Utah State University.

Dr. Richard Jansen, Department of Food Sciences and Nutrition, Colorado State University.

Dr. Margaret Ross, Waltham, Massachusetts.

Alta Engstrom, R.D., Nutrition Department, General Mills, Inc.

Dr. Hans Fisher, Department of Nutrition, Rutgers University.

As chairman of the Food Labeling Committee, I would like to outline for you our plan of work. We are presently reviewing a compilation of existing positions of our member organizations and documents from federal agencies related to food labeling.

We hope to have completed a set of recommendations for the Consortium Board to review at their meeting on May 1, 1980. Our comments will address S. 1651, S. 1652, H.R. 1537, and the FDA/USDA/FTC food labeling strategy published in the Federal Register on December 21, 1979.

After preparing this initial set of recommendations, we plan to work towards additional position statements on specific labeling issues. Attached is an explanation of how recommendations made by the Food Labeling Committee will be considered by the Consortium Board for adoption as official positions of the National Nutrition Consortium Board.

An important starting point for our Committee deliberations is the content of the Consortium Board's statement submitted as written testimony for the 1978 FDA/USDA/FTC hearings on food labeling. A copy of this statement is attached. Several key points in this statement relate to the bill under discussion today:

1. The Board strongly supported the need for nutrition information on food labels.

2. The Board endorsed the placement of major emphasis on providing consumers with nutrition information for the total diet. The Board recognized that to achieve comprehensive nutrition labeling, the system must be flexible enough to encourage participation by small as well as large food producers and companies.

3. The Board viewed a well-funded and well-designed nutrition education program as critical to the success of nutrition labeling. The Board stated that nutrition labeling should be part of, but not a substitute for, nutrition education and that complementary nutrition education programs were needed for persons over a wide range of literacy, motivation, health consciousness, and familiarity with food and nutrition concepts.

4. The Board supported the evaluation of alternative formats and contents for nutrition labeling through well-designed programs of consumer research. Cited as examples of the alternative systems that should be explored were: (a) use of graphics such as bar or wedge charts; (b) use of nutrient density format; (c) elimination of some or all information on certain nutrients and retention of primarily calorie, protein and fat information; and (d) addition of information on other nutrients such as sugar and sodium.

Thank you for the opportunity to speak here today and to share with you the interest and plans for the professional food and nutrition community.

POSITIONS AND STATEMENTS OF THE NATIONAL NUTRITION CONSORTIUM BOARD

The National Nutrition Consortium is a non-profit organization comprising the major professional societies in food, nutrition and dietetics. The cumulative membership of these societies totals approximately 80,000 scientists, physicians, educators and dietetians who have education, expertise and experience in nutrition.

Policy and programs of the Consortium are determined by a board composed of three voting delegates from sponsor society and one non-voting delegate from each liaison society. Board members serve for a three year term. New members to fill expiring terms are nominated by their member organizations and elected by the current Board at the meeting prior to July 1 of each year.

Positions are taken and statements made by the Board of the National Nutrition Consortium. Official statements must be approved by two voting members from each of the sponsor societies. Liaison organizations do not vote on Board positions. Board statements and positions are not approved by the governing councils of the member organizations but they are communicated via the Board members to all member organizations. Board statements on a particular topic take into consideration existing positions of member organizations when such are available.

As a Consortium of organizations, there are no individual members of the National Nutrition Consortium. The Board of the Consortium meets regularly to review staff and committee activities, to initiate new programs and to determine Consortium policy.

The President and Executive Officer of the Consortium are authorized and encouraged to communicate with the public and policy makers on matters related to foods and nutrition.

Sponsor organizations

American Dietetic Association.
American Institute of Nutrition.
American Society for Clinical Nutrition.
Institute of Food Technologists.
Society for Nutrition Education.

[Reprint from the American Journal of Clinical Nutrition, September 1979]

EDITORIAL—NUTRITION LABELING STATEMENT—THE BOARD OF THE NATIONAL NUTRITION CONSORTIUM

The views expressed in this statement are those of the governing board of the National Nutrition Consortium.[1] The National Nutrition Consortium is a nonprofit organization in which eight major professional societies in food, nutrition, and dietetics participate. Its member societies are the American Institute of Nutrition, American Dietetic Association, American Society for Clinical Nutrition, Institute of Food Technologists, and Society for Nutrition Education. Its liaison societies are the Food and Nutrition Board of the National Academy of Sciences, Committee on Nutrition of the American Academy of Pediatrics, and Food and Nutrition section of the American Home Economics Association.[2] The cumulative membership of these societies represents approximately 80,000 professionals with training in nutrition.

CURRENT SYSTEM 5 YEARS OLD

The Consortium Board concurs with the Food and Drug Administration (FDA) that it is appropriate at this time to reevaluate the existing system of nutrition labeling. Before commenting on possible modifications and improvements, we would like to commend the FDA for developing the first nutrition labeling system in the world. Because of the complexity of delivering useful information to consumers via food labels and the dearth of previous efforts to accomplish this goal, it is only reasonable to expect that the need for improvements in the system has become evident as government, consumers, nutrition professionals, industry, and others gained 5 years of experience with the system initially adopted.

THE LABELING CONCEPT

The Board of the National Nutrition Consortium strongly endorses the need for nutrition labeling. Although many consumers continue to use "food guides" in planning their diets, an increasing number of people understand the terminology of nutrients and desire this type of information on food labels.

Available and meaningful information can provide the foundation for nutrition education programs and for allowing consumers the opportunity to plan a nutritionally balanced diet. A well-designed information delivery system can complement the effort of nutrition professionals and make our work easier.

NURTITION EDUCATION SUPPORT FOR NUTRITION LABELING

Nurtition labeling should be a part of, but not a substitute for, nutrition education. Any nutrition labeling program must be complemented by well-funded and well-designed nutrition education programs for persons over a wide range of literacy, motivation, health consciousness, and familiarity with food and nutrition concepts.

Nutrition labeling can only have a major effect when used as a tool of nutrition education. The most effective program must integrate nutrition education and nutrition labeling into an overall plan that is designed to *(1)* provide information, *(2)* support education for the use of such information, *(3)* motivate concern for the need for such information.

The Consortium Board supports improvements in nutrition labeling, but we caution that the impact of better nutrition labeling, although real, can only be significant if it is coupled with professionally created and adequately funded education programs to increase the number of people who read, understand, and use the information provided.

BROAD COVERAGE

It is critical that nutrition information be available to consumers for as much of the food supply as is realistically possible. The Consortium Board agrees with the FDA statement made before the House Agriculture Subcommittee hearing regard-

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[1] Policy and programs of the National Nutrition Consortium are determined by its Board composed of three voting delegates from each sponsor society and one nonvoting delegate from each liaison society. Official statements of the Board must be approved by two members from each of the sponsor societies. Board statements and positions are not approved by the governing councils of the member organizations but they are communicated via the Board members to all member organizations. Board statements on a particular topic take into consideration exisitng positions of member organizations when such are available.

[2] The American College of Nutrition and American Society for Parenteral and Enteral Nutrition became liaison members in early 1979.

ing the importance of providing the consumer with nutrition information for the total diet.

It is important to improve continuously nutrition labeling but it would be futile to concentrate on perfecting a system that covers only part of the diet. Major emphasis must be placed on providing nutrition information for the total diet.

While comprehensive labeling is indeed important, any changes in the system must be flexible enough to encourage participation in the program by small as well as large food producers and companies.

CONSUMER RESEARCH

The Consortium Board urges the FDA, USDA, and FTC to utlize well-designed consumer research in developing proposals for chages in the current system. Specific dissatisfactions with the existing system should be identified, the degree of dissatisfaction among the general population should be quantified, the cause of each problem should be determined, and alternative ways of minimizing each dissatisfaction should be tested on a broad spectrum of consumers.

The existing research data regarding nutrition labeling should be complied and reviewed. An analysis of these date should facilitate subsequent FDA deliberations and those of other groups.

The consumer research currently being conducted by the FDA should provide additional valuable insights into consumer demands and perceived needs for nutrition and food information. It would be futile to make major changes in the existing nutrition information panel format until these data have been analyzed and optimal approaches thoroughly discussed.

Changes that should be evaluated include: *(1)* addition of graphics such as bar or wedge charts; *(2)* change to a nutrient density format; *(3)* removal of some or all information about individual nutrients, retaining primarily calorie, protein and fat information; *(4)* adding information about other nutrients such as sugar and sodium.

OBJECTIVE OF NUTRITION LABELING

All suggestions for changing the label must be weighed against two major criteria: Nutrition Labeling should allow for comparisons between products to aid consumer choice; Nutrition Labeling should allow for cumulative intake calculation to aid in overall dietary planning and evaluation.

Consideration must be made of both consumer requests for information and professional opinions of what information should be considered in diet planning.

Until consumer research data are available the Consortium Board suggests the following criteria for nutrition information programs. Labeling should provide nutrition information that: *(1)* is of value in diet planning for the average consumer; *(2)* is in a form useful to the consumer when shopping; *(3)* is available without significantly increasing cost of food to the consumer; *(4)* is in a form that allows calculation of total dietary intake of nutrients; *(5)* if followed and used, will actually lead to a balanced diet; *(6)* is in a uniform manner and allows the consumer to make dietary comparisons; *(7)* provides scientifically valid nutrient content information; *(8)* is quanitifiable in order to allow for inforcement and flexible enough to encourage participation.

The Consortium Board encourages the FDA to weigh two sets of objectives. If the format is too simplified, it will aid in comparison but not in diet planning. If the format is too complicated, it becomes difficult or impossible to use in point-of-purchase comparisons.

SUMMARY

The National Nutrition Consortium Board commends the FDA for its efforts to provide nutrition information to the consumer.

We emphasize the necessity of supporting this system with a comprehensive nutrition education program.

The system should lend itself to providing as much information as is possible about the total food supply.

Changes in the current system must be based on well-designed and carefully analyzed consumer research data.

We have stated our opinion of the primary objectives of nutrition labeling.

1978 Board of Directors

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STATEMENT OF ROSEMARY MUCKLOW, EXECUTIVE DIRECTOR, PACIFIC COAST MEAT ASSOCIATION, INC., SAN FRANCISCO, CALIF.

These comments are submitted on behalf of the Pacific Coast Meat Association (PCMA), a regional trade association located in San Francisco, California. PCMA has approximately 130 regular members located primarily in California and neighboring states. All are engaged in meat boning, fabricating, processing, and the manufacturing of specialty sausage products. Almost all PCMA members are small independent and privately owned businesses, many of them second and third generation family operations. Many of PCMA's members are too small to afford the luxury of technical and regulatory experts to decipher and implement the myriad of ever-changing federal regulatory requirements, particularly with regard to food labeling. Consequently, the PCMA staff is regularly called upon to assist these firms in complying with federal labeling requirements.

PCMA welcomes this opportunity to comment on provisions of S. 1651. PCMA objects to the imposition of new mandatory labeling requirements unless compelling evidence is brought forth demonstrating the need for and desirability of placing such additional information on the label. The increased complexity which would result from new mandatory label information as well as the added costs to processors and ultimately consumers may outweigh perceived benefits. Alternative information/education vehicles such as ingredient and nutrition handbooks should be considered.

Mechanically deboned meat

To illustrate PCMA's concern with the myriad of new labeling requirements being considered by the Congress as well as U.S. Department of Agriculture, it will be useful to review USDA's recent disastrous attempt to regulate the production and labeling of a highly nutritious product known as mechanically deboned meat. 9 C.F.R. § 319.5 and .6. In 1977, USDA, without any logical rhyme or reason, proposed to call mechanically deboned meat "tissue from ground bone," a term so loaded with emotional misrepresentation that over 5,000 consumers commented they did not want to eat bone instead of meat. It was an unparalleled maligning of a product with good protein and nutrient quality. MDM was maligned despite an inter-agency panel report establishing that the product was healthful, nutritious, and safe. Rulemaking went forward to highlight the aesthetic objections held by a few individuals to MDM's organoleptic characteristics as well as its rather modest level of calcium derived from bone.

The production and marketing of mechanically deboned meat is today effectively banned because of the disparaging qualifying phrases required on the label by the current regulation; mechanically processed (species) product—contains up to . percent powdered bone. Because of this regulation, over 600 million pounds of high protein, nutritious meat is currently going to rendering instead of being utilized in a wide variety of processed meat products. While government and academic economists disagree as to the total economic impact of expanded use of MDM, it is quite certain that a realistic labeling policy will result in a significant reduction in the price of meat. This comes at a time when food price inflation is skyrocketing.

Consumers are "turned off" by the negative and disparaging labeling required for mechanically deboned meat. Because the regulations provide that the presence of the ingredient MDM be "red flagged," the qualifying phrases must appear adjacent to the name of the finished product (such as frankfurters or chili) even though the mechanically deboned ingredient may not be more than 16 percent of the total product. Further, the name mechanically processed (species) product, must be repeated in the ingredient statement. For a product such as canned chili con carne where mechanically processed (species) product may be less than 8 percent of the total product, the label would still bear the bold and disparaging phrases in prominent type.

As a consequence of these labeling requirements, meat processors have been unwilling to risk marketing a product which they feel certain will be rejected by consumers because of the labeling. Thus, this healthy and nutritious meat source remains untapped.

The regulation of mechanically deboned meat had been a disaster; a disaster for consumers and a disaster for processors. Proposed new labeling requirements must not, as in the case of MDM, be based on the views of a few vocal consumer groups as opposed to the overall needs and desires of the American consumer.

Labeling proposal

PCMA believes new labeling requirements should be imposed only upon a demonstration of compelling evidence to support the need for and desirability of such changes. Further, alternative systems of disseminating this information should be considered prior to requiring it to appear on the already crowded, little understood food label.

A. *Ingredient labeling.*—PCMA opposes provisions of Section 3 which would require the specific identification of spices, colors, and flavors. Consumers, as reported in the FDA's Food Labeling Survey, were extremely distressed and confused with the complexity of the ingredient list. Requiring the specific identification of spices, colors, and flavors, all of which carry highly technical names, would only serve to further complicate the ingredient list. PCMA believes these ingredients should be specifically identified only upon a showing by USDA, through rulemaking, that a significant public health concern exists.

Mandatory quantitative or percentage ingredient labeling, even limited to "characterizing ingredients", would be extremely ill-advised. PCMA opposes mandatory percentage ingredient labeling for a variety of reasons. First, it will cost additional money to make labeling changes and for percentage verification. Second, it will restrict flexibility. If you formulate a sausage with 600 pounds of pork, 300 pounds of beef, and 100 pounds of other non-significant ingredients, the label would indicate pork—60 percent and beef—30 percent. If the price of beef drops and the price of pork goes up, it may be more economical to formulate with 45 percent pork and 44 percent beef. Under current rules, the label would be correct since the ingredients would be listed in descending order of predominance, but not accurate if percentages are shown on the label. A second example further illustrates the negative effects of mandatory percentage ingredient labeling. If you label for beef and beef fat at 75 percent and 15 percent respectively, but your beef turns out to be less lean than you expect so you increase the beef to 80 percent and reduce the fat to 10 percent to produce a consistent product, the label will be out of compliance. It is difficult to understand how mandatory percentage ingredient labeling in this case will serve the consumer's needs. Third, a small meat processor will be hurt by mandatory percentage ingredient labeling, not the big one. Large processors with large buying power and resources can demand raw materials and compliance with buying specifications. Huge machines operating with controlled computers assure standard product. The small processor still uses the art and skills of a sausage maker or processor to blend ingredients and produce unique, high-quality products. Their survival depends on repeat sales and the fact that consumers have found their product acceptable on a repeat basis. Mandatory percentage ingredient labeling could dramatically increase the costs for these processors.

B. *Nutrition labeling.*—PCMA believes that S. 1651 represents a step in the right direction with regard to nutrition labeling. It is about time the government realized that nutrition labeling will be greatly facilitated by permitting processors to base nutrition information on average data contained in data bases. PCMA urges Congress to pass legislation which permits processors to immediately base nutrition labeling information on Handbook 8 figures.

PCMA believes that the information/education function of nutrition labeling will be best facilitated through a voluntary program. Efforts to require nutrition labeling only tend to deter processors. A more innovative and potentially successful approach would be to speed up development of nutrient data banks and restrict enforcement efforts to permit the marketplace to selectively favor those products which carry the nutrition label.

Elimination of criminal penalties for violations of the ingredient nutrition labeling requirements is laudable. The emphasis should be on information and education, not compliance and enforcement.

Conclusion

PCMA urges the Subcommittee on Nutrition to investigate why USDA has not done more to encourage the production and marketing of mechanically deboned meat. The agency's failure to amend its current labeling requirements for this highly nutritious product in the face of repeated requests from PCMA, is doing a great disservice to the American consumer and the President's anti-inflation program.

Attached for inclusion in the record is a copy of PCMA's Statement before the Food and Drug Administration, USDA, and Federal Trade Commission on Food Labeling "Tentative Positions." Also attached for inclusion in the record is a recent article dealing with the question of national uniformity for labeling requirements. PCMA urges the Subcommittee on Nutrition to encourage its counterparts on the

Subcommittee on Health to include a national uniformity provision in the Food, Drug and Cosmetic Act.

STATEMENT OF ROSEMARY MUCKLOW, EXECUTIVE DIRECTOR, PACIFIC COAST MEAT ASSOCIATION ON FOOD LABELING "TENTATIVE POSITIONS" BEFORE THE FOOD AND DRUG ADMINISTRATION, USDA, AND FEDERAL TRADE COMMISSION, MARCH 4 AND 5, 1980

My name is Rosemary Mucklow. I am the Executive Director of the Pacific Coast Meat Association, a regional trade association located in San Francisco, California. I am also a member of the USDA's Advisory Committee on Meat & Poultry Inspection. Pacific Coast Meat Association has close to 130 regular members primarily located in California and a few in neighboring states. All are engaged in meat boning, fabricating, processing and the manufacturing of specialty sausage products. Almost all members are small independently and privately owned businesses, many of them second and third generation family operations.

In the course of my duties, I visit many meat plants and I am personally acquainted with the physical operations of a substantial majority. These small firms operate with a small number of management persons who must have a broad knowledge of all aspects of the business. I and my small staff frequently serve as a resource for plant level information on inspection and labeling matters.

Five members of the Pacific Coast Meat Association have mechanical deboning equipment. An additional three use such equipment solely for the purpose of separating lean bull meat from sinew after the bones have been removed by hand. As an organization, Pacific Coast Meat Association has been especially aware and concerned at the way in which a nutritious and economical product known in world markets as "Mechanically Deboned Meat" has been regulated virtually out of existence for manufacture and use in the United States. I am here to urge that USDA, FDA and FTC not proliferate and emulate in their new labeling proposals the disaster which has been imposed on mechanically deboned meat.

In 1977, USDA, without any logical rhyme or reason, proposed to call mechanically deboned meat "Tissue From Ground Bone" a term so loaded with emotional misrepresentation that 5,000 consumers commented they did not want to eat bone instead of meat. It was an unparalleled maligning of a product with good protein and nutrient quality that compares well with other mechanically handled fruit, nuts, fish and poultry, none of which bear such a degradingly descriptive term. MDM was maligned despite an interagency panel report establishing that the product was healthful and nutritious. Rulemaking went forward to highlight the aesthetic objections held by a few individuals to MDM's rather modest level of calcium derived from bone.

I am here today to urge that those responsible for the public food policy not repeat, the terrible mistakes that prevent the marketing of over 600 million pounds of additional red meat a year which would save consumers overall as much as 4 cents per pound on average meat costs. Because of the current MDM regulation, the 600 million pounds of high protein, nutritious meat goes to rendering or is thrown out. Even an undergraduate in his first economics class will tell you that if you can increase the meat yield from each animal, you will decrease the average cost per pound. Looked at another way, if we only ate the fillet and New York Steak from each beef animal, and discarded the remainder of the animal, think how much those superior cuts would cost!

Mechanically deboned meat is effectively banned because of the disparaging qualifying phrases required on the label: Mechanically Processed (Species) Product—Contains up to . percent Powdered Bone. I have personally listened as consumers react to these terms. They are, not surprisingly, "turned off." Because the regulations provide that the presence of this ingredient be "red flagged," the qualifying phrases are required to appear adjacent to the name of the finished product (such as hot dogs) even though the mechanically deboned ingredient may not be more than about 16 percent of the total product (the regulatory limit is 20 percent of the meat ingredients). The name MP(S)P must be repeated in the ingredients statement. In a product such as canned chili con carne, the mechanically processed species product may be less than 8 percent, but the label would still bear the bold and disparaging phrases in prominent type. The many small businessmen that I have spoken to believe that such labeling would cause product suicide and are unwilling to take a risk in marketing a product which they feel certain will be rejected by consumers with this labeling.

The regulation of mechanically deboned meat has been a disaster: a disaster for consumers and a disaster for processors. As you consider your comprehensive recommendations to require more and more label information that may well be less and

less understandable, I urge you to learn from experience with Mechanically Processed (Species) Product and avoid the pitfalls that have been evident there.

First, in your Federal Register notice and request for comments, you have stated that the three agencies intend to go ahead with their tentative positions unless "compelling arguments or substantial new evidence against them is presented." This is frighteningly similar to the letters that Pacific Coast Meat Association has received from USDA stating that the Mechanically Processed (Species) Product regulation will not be changed unless there is a presentation of "compelling evidence" regarding consumer perceptions and economic needs. If the test for amending the MDM regulation is "compelling evidence," then the three agencies should be required to meet the same test in support of the proposed labeling changes. Here, time after time as one reviews the FDA Consumer Survey, it becomes evident that you have taken the wishes of two or four percent of the population and interpreted that as a compelling mandate for extensive label change. At the same time, the tentative positions of the agencies ignore the most compelling consumer interest of all, that labels be made simpler and more understandable.

As the government proceeds to propose and implement regulations, there can be no double standard as to the necessary basis for establishing such regulations. The government simply cannot set an easier standard for itself and for its favorites than it establishes for the public at large. If the appropriate standard is "compelling evidence," then none of the changes recommended by the agencies should be proposed. As the FDA survey demonstrates, only 8 percent of those interviewed believed food labels needed to be significantly changed. That is clearly less than "compelling evidence."

Second, with mechanically deboned meat, USDA has persistently refused to admit the economic disaster which it has created. The MP(S)P regulation was promulgated in June of 1978. Today, nearly two years later, this product is more effectively banned than most of the dangerous narcotic drugs which the government is mandated to prohibit. The three agencies should carefully and dispassionately project and analyze the total economic cost of the changes which are being proposed. This is an area where the burden should clearly be on the government to come forward with compelling evidence regarding the precise economic cost and impact of the recommended positions. The regulation of mechanically deboned meat is contributing to inflation in careless disregard of the interest of consumers. Here the government agencies are proposing a whole variety of new labeling provisions. The government, consistent with Executive Order 12044, must bear the burden of demonstrating the cost of proposing and implementing these positions and it should do this for the total package—not on a piece by piece basis.

Third, a final lesson which can be learned from the debacle of regulating mechanically deboned meat is that the government must be consistent about its claims of health significance. With MP(S)P the disparaging statement "contains up to percent powdered bone" must be included on the label to warn consumers who may wish to avoid increased calcium intake. USDA has not accepted the suggestion that information regarding the calcium content of meat products might be better provided by a disclosure of the calcium content of the product than by a disparaging reference to powdered bone. Despite USDA's expressed concern about relatively low levels of calcium in mechanically deboned meat, there is no mention of calcium hazard or the need for special calcium labeling in the tentative positions document.

With MP(S)P, the regulatory officials placed the emphasis upon negative aesthetics by requiring a paranthetical statement on the presence of powdered bone. Had they placed the priority on nutrition, a positive reference to calcium would have prevailed. Just last month, I was reminded of the importance of calcium in the diet. Dr. Louis Avioli, the noted endocrinologist and bone specialist at the Washington University School of Medicine in St. Louis, said that of all the minerals found in the human body, calcium may be the one in which Americans are most deficient and to prevent curvature of the spine, he urged daily calcium dietary supplement on a regular basis.

The American food supply is nutritious and healthful. Food labeling should not imply otherwise. In a recent interview in Business Week Magazine, Commissioner Goyan suggests that the three agency food labeling program will be effective because cigarette labeling has been effective in reducing the number of smokers. Whether or not it is the cigarette label which has caused the decline in smoking, the analogy between food labeling and cigarette labeling is appalling. I see no similarity in the warning on cigarette packages and the information which should be placed on food labels. As I understand it, the three agencies do not intend to discourage eating.

In summary, please do not repeat the type of policy formulation for food labeling that has denied the production and marketing of mechanically deboned meat. Please come forward with the same quality of compelling evidence which you expect of the public. Please identify coldly and harshly the economic costs of the total recommendations. And please be consistent about the health significance of foods and nutrients or be silent on the subject. The members of the Pacific Coast Meat Association have trouble enough learning and complying with the constantly changing details of today's food labeling requirements. As a nation, we simply cannot afford to regulate small meat packers and sausage makers out of existence.

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Food Labeling— The Case for National Uniformity

By RICHARD L. FRANK

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FOOD COMPANIES, distributing or selling products in more than one state or jurisdiction, have an obvious interest that labeling, packaging, notice and ingredient requirements be as uniform as possible. The consumer interest in uniformity is more subtle but equally important. Differing state labeling requirements wastefully burden interstate commerce, aggravate food price inflation, and tend to confuse and mislead the general public.

The additional costs imposed by differing food labeling requirements, all of which must be borne by consumers in the form of higher food prices, are literally incalculable. To the extent that two or more jurisdictions require different labels, there are the direct costs of printing the additional labels. But the indirect costs of maintaining two or more separate product and label inventories, imposing separate distribution and recordkeeping requirements and the necessity for entirely different advertising, to name just a few, are far greater. Each minor label change in the future means, as a practical matter, multiple changes in all of the labels required to be used in each of the various jurisdictions involved. Thus, consumers are paying millions of dollars each year, in the form of higher food prices, as the direct and immediate result of different food label requirements.

Permitting individual states to impose labeling requirements that differ would not only have an adverse impact on the free-flow of goods in interstate commerce, but would also dramatically alter and complicate the regulatory responsibilities of the United States Department of Agriculture (USDA) and the Food and Drug Administration (FDA). Since processors would be required to meet a variety of

state labeling standards, federal Food and Drug investigators may be required to monitor the labeling of thousands of additional packages to ensure they conform with each relevant state standard and are not misbranded within the meaning of those standards. Similarly, under Section 7 of the Federal Meat Inspection Act, as amended,[1] Department of Agriculture officials would be obligated to review and approve, in advance of their use, all labels required for all meat and poultry products. This program would be greatly complicated if packages contained new and different material required by any state electing to fashion its own regulatory plan.[2] In essence, the federal government would be expending its major efforts administering a wide variety of state requirements rather than enforcing its own uniform and pervasive regulatory framework.

In 1973, the Assistant Secretary of Agriculture responsible for supervising meat and poultry inspection testified before the House Committee on Agriculture on the problem of inconsistent label requirements imposed by the states:

> Just looking at labels alone and ignoring all the other six areas, we processed about 181,000 labels this last fiscal year at a cost of something over $400,000, an average of a little better than $2 per label. If the interstate meatpacking firms had to process label changes every time a State changed its label regulations, this 181,000 would end up being many, many hundreds of thousands, depending on the number of States that had regulations that were different from the Federal. Of course, it would have an obvious impact on our processing of all those label changes as well as premises, equipment, and so on. The cost to the Federal meat inspection program is inestimable, but is bound to be a very significant factor, and we think it is totally unjustified. It obviously serves as a trade barrier too.[3]

The need for and benefits of uniformity in food labeling regulation have been stressed by virtually every organization which has examined the problem. In 1966, the National Commission on Food Marketing urged that "a concerted effort should be made to effect uniformity among state regulations that obstruct trade in foods across the state lines."[4] Similarly, the 1969 White House Conference on Food, Nutrition and Health urged "uniform application of all regulatory

[1] 21 U. S. C. Sec. 607.

[2] 9 CFR Sec. 317.4 (1978). It is unclear whether USDA would approve a label which contains information "in addition to and different than" that required under the Wholesome Meat Act.

[3] Hearings on H. R. 1752 Before the Subcommittee on Livestock and Grains of the House Committee on Agriculture, 93rd Cong., 1st Session at 10, 11 (1973).

[4] *Food from Farmer to Consumer: Report on the National Commission on Food Marketing*, p. 112 (1966).

requirements throughout the nation, enforceable by federal, state and local officials."[5]

The Association of Food and Drug Officials (AFDOUS), whose membership includes regulatory officials from all of the states and a large number of local jurisdictions, has consistently decried the lack of regulatory uniformity. In 1941, for example, the Association's president criticized "trade barriers that force many producers and manufacturers to live under the virtual dictatorship of localized bureaucracy" and urged state food officials to "[d]iscourage the enactment of laws that make it impossible for legitimate industry of one state to engage in trade in another under conditions which are fair and equitable."[6] That year, the Association's members adopted a resolution expressing "disapproval of the tendency toward the enactment of legislation which constitutes definite barriers to Commerce between the states . . . ."[7] Since 1941, the Association has repeatedly adopted resolutions urging enactment of uniform food and drug legislation.[8] Nonetheless, as recently as 1973, the Association's members passed a resolution acknowledging (and disapproving) "a growing trend that . . . some States and local agencies are passing laws, regulations, or ordinances which are inconsistent with the principle of uniformity to which AFDOUS is committed . . . ."[9]

Federal Statutory Provisions

As to food products regulated by federal statutes, uniformity of labeling and packaging requirements among the states and local jurisdictions may be achieved through inclusion of express preemptive language in those statutes. Even where a federal statute includes no explicit preemptive language, it will nevertheless preempt state and/or local requirements in each of the following instances: (1) federal regulation is so pervasive so as to preclude state action; (2) the nature of the subject matter demands national uniformity of regulation; (3) a direct conflict exists between state and federal regulation; and (4) the state requirements stand as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.[10]

The Supreme Court has specifically ruled that the area of "readying foodstuffs for market has always been deemed a matter of peculiarly

[5] 1969 White House Conference on Food, Nutrition and Health, *Final Report*, Recommendation 8, p. 117.

[6] 5 AFDOUS Quart. Bull. 2 (1941).

[7] 5 AFDOUS Quart. Bull. 8 (1941).

[8] *See, e.g.*, 31 AFDOUS Quart. Bull. 73 (1967) and 33 AFDOUS Quart. Bull. 46-47 (1969).

[9] 37 AFDOUS Quart. Bull. 19 (1973).

[10] *See De Canas v. Bica*, 424 U. S. 351 (1976); *Florida Lime and Avocado Growers, Inc. v. Paul*, 373 U. S. 132 (1963); *Campbell v. Hussey*, 368 U. S. 297 (1961); *Hines v. Davidowitz*, 312 U. S. 52, 67 (1941); *McDermott v. Wisconsin*, 228 U. S. 115 (1913).

local concern" and that the "[S]tates have always possessed a legitimate interest in the protection of [their] people against fraud and deception in the sale of food products at retail markets within their borders."[11] Compliance with a state regulation is not required however, where "compliance with both federal and state regulation is a physical impossibility for one engaged in interstate commerce."[12]

Currently, the Federal Meat Inspection Act ("Meat Act"),[13] the Poultry Products Inspection Act ("Poultry Act"),[14] and the Egg Products Inspection Act ("Egg Act"),[15] contain explicit preemption provisions which in essence prohibit any state or local jurisdiction from imposing a labeling, packaging, notice or ingredient requirement "in addition to or different than" those under the federal statute. The Fair Packaging and Labeling Act contains an extremely narrow provision that preempts state net weight laws "which are less stringent than or require information different from the requirements" of that Act.[16] The Federal Food, Drug, and Cosmetic Act ("FD&C Act") contains no preemptive language, and therefore, preemption under that statute is governed by the principles enunciated in *Hines v. Davidowitz, supra,* and *Florida Lime and Avocado Growers v. Paul, supra.*

The recent decision of the Supreme Court in *Jones v. Rath Packing Co.*[17] contains an analysis of the express preemptive provisions of the Meat Act and the Fair Packaging and Labeling Act and implied preemption under the FD&C Act and provides valuable guidance as to the effect given to the wording of statutory provisions relating to the uniformity of federal and state requirements for products distributed in interstate commerce. In *Rath Packing,* the Supreme Court reviewed two decisions of the Ninth Circuit Court of Appeals holding that California's net weight labeling enforcement program was preempted, as it applied to bacon, by the Meat Act[18] and as it applied to flour, by the Fair Packaging and Labeling Act.[19]

The Supreme Court unanimously accepted the reasoning of the Ninth Circuit, that the language of the Meat Act clearly and explicitly preempted additional or different net weight requirements imposed by California on bacon, a federally inspected meat product.[20]

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[11] *Florida Lime and Avocado Growers, Inc. v. Paul,* 373 U. S. 132, 144 (1963).

[12] *Id.* at 142-143.

[13] 21 U. S. C. Sec. 678.

[14] 21 U. S. C. Sec. 467e.

[15] 21 U. S. C. Sec. 1052.

[16] 15 U. S. C. Sec. 1461.

[17] 430 U. S. 519, 97 S. Ct. 13 (1977).

[18] *Rath Packing Co. v. Becker,* 530 F. 2d 1295 (CA-9 1975).

[19] *General Mills, Inc. v. Jones,* 530 F. 2d 1317 (CA-9 1975).

[20] Since the preemptive language of the Poultry Act, 21 U. S. C. 476e, is nearly identical to that used in the Meat Act,

(Continued on the next page.)

Earlier, in *Armour & Co. v. Ball*,[21] the Sixth Circuit, interpreting the preemptive language of the Meat Act, held that a Michigan ingredient requirement for sausage was preempted because it established a standard for sausage different from that established by USDA. In both *Rath Packing* and *Armour* the state requirement was "different from or in addition to" an existing federal requirement.[22]

It could be argued that other language in the Meat Act would permit requirements "in addition to" federal standards:

> . . . but any State . . . may, consistent with the requirements under this chapter, exercise *concurrent jurisdiction* with the Secretary . . . for the purpose of preventing the distribution for human food purposes of any such articles which are adulterated or misbranded . . . This chapter shall not preclude any state . . . from making requirement or taking other action with respect to other matters regulated under this chapter.[23]

In *Armour* however, the court fully analyzed the effect of this language which permits "concurrent" state actions with respect to "other matters regulated under this chapter." The court held:

> By permitting state action "with respect to any other matters regulated under this chapter," Congress is unmistakably ordaining that a state may not take action with reference to "marking, labeling . . . or ingredient requirements in addition to, or different than, *those made under this chapter . . .*"
> [I]n view of its unambiguous language, Section 408 [21 U. S. C. § 678] reflects unequivocal legislative purpose to make the Federal Act preemptive [with respect to *all* labeling.][24]

The *Armour* decision clearly demonstrates that the "in addition to" language preempts state regulations which are over and above existing federal requirements in a particular area. It casts some doubt however, as to whether the "in addition to" language preempts state regulations in areas subject to federal regulation, but where the federal government has failed to act. It could be argued under Section

(Footnote 20—continued)
the rationale of the *Rath Packing* decision is equally applicable to poultry products.

[21] 468 F. 2d 76 (CA-6 1972); *cert. den*, 411 U. S. 981 (1973).

[22] The exact meaning of "in addition to" is unclear. Three distinct possibilities exist. First, "in addition to" could refer to a labeling requirement over and above an existing labeling requirement. For example, a hypothetical federal regulation requires non-perishable food products to bear the day and month the product was packed while a hypothetical state regulation requires the year packed as well. A second possible meaning of "in addition to" would be a state requirement in an area not yet directly regulated by the federal government but within the statutory authority of the federal government to regulate. Continuing with the open-date labeling example, the federal government has no open-date requirements while a state requires a pack date. The third possible meaning would be to apply to both of these interpretations.

[23] Emphasis supplied) 21 U. S. C. Sec. 678.

[24] (Emphasis supplied) *Armour & Co. v. Ball, supra* at 84-85.

408 to the Meat Act and *Armour* that federal preemption extends only to state requirements in addition to or different than ". . . those *made* under this chapter."[25] While attractive on its face, this interpretation ignores the expressed intention of Congress to establish a uniform and consistent labeling system. The legislative record is replete with statements clearly demonstrating that Congress intended to create a uniform national system of labeling. For example, the House Subcommittee Report on H. R. 12144 (which ultimately became the Wholesome Meat Act) summarizing Section 408, provides in part:

"States would be prohibited from regulating federally inspected plants whose operations are governed by Title I. Any recordkeeping and related requirements proposed by States for federally inspected plants must be in conformance with the Federal Meat Inspection Act. *States could not impose marking, labeling, packaging, or ingredient requirements in addition to or different from Federal requirements for products prepared under Federal inspection.*" (Emphasis supplied.)[26]

Similarly, the Senate Report provides that:

"Section 408 would exclude States, territories, and the District of Columbia from . . . imposing marking, labeling, packaging, or ingredient requirements in addition to or different than those under the Federal Meat Inspection Act for articles prepared under inspection in accordance with Title I of the Act, *but would permit them to impose recordkeeping and related requirements with respect to such plants if consistent with the Federal requirements* and to impose requirements consistent with the Federal provisions as to other matters regulated under the act."[27]

Thus, Congress made its intent clear to limit state regulation in this area to record keeping requirements and only where they are consistent with federal requirements. To permit states to construct unique labeling requirements in areas where the federal government has authority, but has failed to act, would clearly frustrate Congressional intent and stand as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.

Further, unique state labeling requirements for meat and poultry products could make compliance with both federal and state requirements impossible even where the federal government has failed to act. All USDA inspected products must be labeled in accordance with applicable USDA regulations.[28] No label may be used on any meat or poultry product until it has been approved by USDA.[29] Thus, in cases where a state regulation requires a label statement not required by USDA, it is unclear whether the label would be approved.

[25] *See, e.g. Corn Products Refining Co. v. Eddy*, 249 U. S. 472 (1919).

[26] (Emphasis supplied) H. R. Rep. No. 653, 90th Cong., 1st Sess. at 7 (1967).

[27] (Emphasis supplied) S. Rep. No. 799, 90th Cong., 1st Sess. at 22 (1967).

[28] 9 CFR Parts 316 and 317 (meat) and 9 CFR Part 381 Subpart N (poultry).

[29] 9 CFR Secs. 317.4 and 381.132.

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The Supreme Court in *Rath Packing* also sustained the Ninth Circuit's holding that the application of California's statute to flour was preempted by federal law, but rejected the Court of Appeals' reasoning. The Ninth Circuit, although recognizing that the Fair Packaging and Labeling Act grants greater labeling flexibility to states and local jurisdictions than does the Meat Act, concluded that the California net weight statute was preempted because it was "less stringent" than applicable federal requirements. The Supreme Court, in rejecting this analysis, concluded:

> The meaning of the statutory preemption of laws that require "information different from" the federal net weight labeling provisions, like the meaning of the phrase "less stringent," is unclear.... *The legislative history, however, suggests that the statute expressly preempts as requiring "different information" only state laws governing net quantity labeling which impose requirements inconsistent with those imposed by federal law.* Since it would be possible to comply with the state law without triggering federal enforcement action, we conclude that the state requirement is not inconsistent with federal law.[30]

The Supreme Court did find preemption, however, after determining that the California net weight statute would frustrate the accomplishment and execution of the purposes and objectives underlying the Fair Packaging and Labeling Act—to facilitate value comparisons among similar products.

As pointed out by the dissent, the scope and general application of the Supreme Court's decision regarding General Mills' flour and other food products subject to the Fair Packaging and Labeling Act and FD&C Act is far from clear.[31] What is made clear, however, is that the FD&C Act contains no preemptive language and that uniformity under the Fair Packaging and Labeling Act appears to be limited to net weight requirements, assuring only that state and/or local requirements are not inconsistent with federal requirements.

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[30] (Emphasis supplied) *Jones v. Rath Packing Co.*, 430 U. S. —, 97 S. Ct. at 1316. The language of Sec. 1461 as adopted was originally contained in the House bill. The Senate bill, by contrast, provided for preemption of state and local requirements which "differ from" those under the Fair Packaging and Labeling Act. S. Rep. No. 1186, 89th Cong., 2d Sess. 38 (1966). The conference committee accepted the House language and the House committee's explanation that "preemption would take place to the extent that State laws or State regulations with respect to the labeling of net quantity of contents of packages impose inconsistent or less stringent requirements than those imposed under Section 4 of this legislation." H. R. Rep. No. 2286, 89th Cong., 2d Sess. 11 (1966).

[31] Justice Rehnquist joined by Justice Stewart remarked "(I) am unable to agree, however, with the implicit preemption the Court finds with respect to flour. The latter preemption is founded on unwarranted speculations that hardly rise to that clear demonstration of conflict that must exist before the mere existence of a federal law may be said to preempt state law operating in the same field." 430 U. S. —, 97 S. Ct. at 1318.

Implied Preemption

In the most recent interpretation of implied preemption under the FD&C Act, the Eighth Circuit in *Cosmetic, Toiletry and Fragrance Association, Inc. v. Minnesota,*[32] affirmed "on the basis of the district court's well-reasoned opinion" the issuance of a preliminary injunction against the enforcement of a Minnesota statute requiring a chlorofluorocarbon warning label. The district court held there was a substantial likelihood of success on the issue of preemption based on several grounds.[33]

In *CTFA* a non-profit trade association for the cosmetic industry and three cosmetic manufacturers, sought to enjoin the enforcement of a Minnesota statute governing display of warning labels on pressurized containers employing a saturated chlorofluorocarbon propellant. Plaintiffs argued that although the warnings required by the FDA and the Minnesota statute were identical in content, they differed in terms of the placement on the label of the warning. The FDA regulation required the warning to "appear on an appropriate panel with such prominence and conspicuousness as to render it likely to be read and understood by ordinary individuals under normal conditions of purchase."[34] The Minnesota statute required the warning to appear on the front panel.

The court in *CTFA* articulated four key factors to be considered in determining whether preemption of a particular area of regulation has occurred:

(1) intent of Congress to occupy the field;

(2) pervasiveness of the federal regulatory scheme;

(3) the nature of the subject matter regulated and whether it is one which demands exclusive federal regulation in order to achieve uniformity vital to national interests; and

(4) whether the particular state or local law stands as an obstacle to the full purposes and objectives of Congress.[35]

Concerning the first factor, the district court noted that the FD&C Act contained neither express preemptive language, nor at the time of enactment, preemptive intent. The court noted, however, that all recent federal consumer labeling legislation included express preemption language.[36] The court suggested that this pattern would be fol-

[32] 575 F. 2d 1256 (CA-8 1978).

[33] *Cosmetic, Toiletry and Fragrance Association v. Minnesota, supra* at 1220. F. Supp. 1216 (D. Minn. 1977).

[34] 42 *F. R.* 22033 (April 26, 1977).

[35] *Cosmetic, Toiletry and Fragrance Association v. Minnesota, supra,* at 1220.

[36] *Id.* at 1221-22. *See,* the Federal Hazardous Substances Act, 15 U. S. C.

(Continued on the next page.)

lowed today with respect to preemption under the FD&C Act if Congress were "to legislate with regard to food, drug and cosmetic products."[37] On this basis the court found that Congressional preemptive intent exists at the present time with respect to labeling under the FD&C Act:

> Thus, although these [federal labeling] statutes [containing preemption procedures] are by no means controlling, they weigh heavily in the court's analysis of the preemption question.[38]

As to the other three factors, the court concluded that federal regulation appears to have occupied the field since three federal agencies coordinated their efforts in arriving at the regulatory action. The court also noted that given the national distribution of consumer products, the nature of consumer product labeling requires national uniformity "once the federal government has acted with regard to the interest sought to be furthered by the [state]."[39] Finally, the court found the Minnesota statute to be an obstacle to achieving the "national goal of the most effective warning at the least possible cost." Thus, although the court seemed to acknowledge that the Minnesota statute would merely be supplementary to, and not in direct conflict with, the federal regulation, its extra cost and deviation from the federal goal of purchase awareness and its frustration of the federal goal of the most effective warning at the least possible cost, rendered it "an obstacle to full effectuation of the federal purpose."[40]

The district court in *CTFA* distinguished an earlier Supreme Court case which addressed the preemption question in the context of the

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(Footnote 36—continued)
Sec. 1261 *et seq.* (1970) and the Consumer Product Safety Act, 15 U. S. C. Sec. 2051 *et seq.* (1972). Under both statutes, state regulations which are in addition to or different than federal requirements are permitted if the responsible federal agency determines that the state regulation offers a greater degree of protection at a reasonable cost which is not unduly burdensome on interstate commerce.

[37] *Id.* at 1222. *See also,* H. R. 10358 (95th Congress); S. 2540 (95th Congress).

[38] *Id.*

[39] *Id.* at 1223-24. Relying on statements made by the Commissioner of FDA, the court concluded:

> These statements supported the common sense notion that in an economy where goods are distributed on a national level, a subordinate unit of government should not be able to require that an interstate producer create special packaging or manufacture a special product for a limited distribution area once the federal government has acted with regard to the interest sought to be furthered by the subordinate entity's action. That is, the benefit to be derived from the subordinate's regulation is minimal relative to the costs of segregating and specially treating products bound for the limited geographical area. *Id.*

This statement however, tends to further support the argument that there would be no preemption in areas where the federal government has failed to act.

[40] *Id.* at 1224.

1906 Food and Drugs Act.[41] *Corn Products Refining Co. v. Eddy, supra* involved a challenge to a Kansas Board of Health regulation requiring all proprietary foods to bear percentage ingredient labeling. The Supreme Court held that the regulations were not preempted because Congress had not required any specific form of ingredient labeling, thus leaving it to the states. The district court distinguished *Corn Products,* concluding that the FDA had acted with respect to the problem of ozone deterioration.

The arguments which the district court found persuasive in concluding that there was a "substantial likelihood of success" on the issue of preemption necessary to sustain the preliminary injunction against enforcement of the Minnesota chlorofluorocarbon labeling requirement in *CTFA,* should be equally helpful in challenging state and local labeling requirements which differ from federal requirements under the FD&C Act. For example, the court held that although the FD&C Act contained no express preemptive language, Congressional preemptive intent existed with respect to consumer labeling, since most recent federal statutes contain express preemptive language. Similarly, nearly all federal statutes which pertain to food labeling enacted after the FD&C Act contain express preemptive language. Further, legislation introduced during the 94th and 95th Congress would have amended the FD&C Act to provide for national uniformity.[42]

The Court in *CTFA* also noted that federal action with regard to chlorofluorocarbon labeling had occupied the field since the federal regulation was the product of three agencies' concerted action in exercising their concurrent jurisdiction in this area. Federal regulation of food labeling is equally pervasive. Both FDA and USDA have jurisdiction with respect to food labeling and Federal Trade Commission (FTC) has jurisdiction with respect to advertising.

The provisions of the FD&C Act together with the voluminous and detailed labeling regulations promulgated and administered by the FDA to enforce that statute, constitute a nationally-applicable body of food labeling standards so pervasive as to preclude additional or different regulations by state and/or local government. Recently, the FDA, USDA, and the FTC held five hearings focusing on seven current issues involving food labeling.[43] The avowed purpose of the hear-

[41] *Corn Products Refining Co. v. Eddy,* 249 U. S. 427 (1919).

[42] S. 641 (94th Congress), H. R. 10358 (95th Congress), and S. 2540 (95th Congress).

[43] *See* 43 *F. R.* 25296 (June 9, 1978).

ings was to obtain public opinion and views on these issues which "will in turn provide a basis for development of a comprehensive strategy aimed at providing consumers with useful nutrition-oriented information on the labels of all food products."[44] It can be argued that such concerted action by three federal agencies and the already pervasive and comprehensive nature of federal regulation of food labeling has "occupied the field" and excludes any state action in this area.

In both *Rath Packing* and *CTFA* the courts sustained preemption theories under the FD&C Act in the absence of express preemptive language or a direct conflict in implementing or enforcing both the federal and state requirements on the basis that the state regulation was an obstacle to Congressional purposes and objectives. These decisions appear to indicate a willingness on the part of at least two courts to find that preemption exists when confronted by demonstrable economic loss or inconvenience in compliance for those affected by both a federal and state regulatory scheme, particularly where the state has had difficulty demonstrating that significant advantages result from its regulatory system. In both of these cases, however, the preempted state regulation addressed matters covered directly by federal regulations. The state regulations were an obstacle to the effectuation of an express Congressional purpose in precisely the same area. As discussed previously, it is unclear how the courts would view a state regulation in an area not addressed by the federal agency.

Although recent cases establish that state and/or local labeling regulations may be challenged as impliedly preempted under the FD&C Act, the absence of express preemptive language should be remedied. The proliferation of unique state labeling requirements continues. For example, the Commonwealth of Massachusetts recently enacted an open-date labeling regulation applicable to *all* perishable, frozen, and non-perishable foods.[45] To date, there are no federal open-dating requirements for frozen or non-perishable foods. Similarly, the State of Wisconsin has sought to impose labeling requirements for foods containing cheese substitutes which differ from federal requirements.[46]

[44] *Id.*

[45] Section 101.19 of the Massachusetts Department of Public Health Labeling Regulations. This regulation is being challenged in the Massachusetts Supreme Judicial Court by the Grocery Manufacturers of America, the American Frozen Food Institute and ten companies doing business in Massachusetts. *Grocery Manufacturers of America, et al. v. Massachusetts Department of Public Health* (Civil Action No. 73-180).

[46] *See, Anthony J. Pizza Food Corp. v. Wisconsin Department of Agriculture,* (W. D. Wisc. Civil Action No. 77C101).

Recent Efforts to Provide National Uniformity Under the FD&C Act

S. 641, the "Food Surveillance" legislation passed by the Senate but not the House during the 94th Congress, contained a provision which would have preempted state and local labeling requirements "in addition to, or different from," information required under the labeling provisions of the FD&C Act. The S. 641 preemption provision contained an exception allowing states to promulgate additional or different labeling requirements by applying to the Secretary of HEW and demonstrating that the additional or different law or regulation involved would promote the interests of consumers in the applicant's state. Applications for exemptions would have been published for comment in the *Federal Register* pursuant to the notice and comment procedures of 5 U. S. C. Sec. 553, and the Secretary would have been required to grant proposed exemptions if he found that the law or regulation involved would likely promote the interests of consumers within the applicant's jurisdiction without unduly burdening interstate commerce or otherwise adversely affecting the interests of all consumers.

The preemptive language contained in S. 641 is consistent with other recent Congressional enactments. Although this type of statute does not provide for the broad and predictable uniformity available under the Meat and Poultry statutes, it is more extensive and predictable than the uniformity provided by the preemptive language of the Fair Packaging and Labeling Act.

S. 2540, which is virtually identical to S. 641, was introduced by Senator Donald Riegel (D. Mich.) during the 95th Congress. Like its predecessor, S. 2540 would have amended the FD&C Act to prohibit all labeling requirements enacted by state and/or local jurisdictions which are "in addition to or different than" applicable labeling requirements promulgated under the misbranding provisions of the FD&C Act. This bill was never actively considered by the Senate.

In the House, former Congressman Paul Rogers (D. Fla.) introduced H. R. 10358 which would have amended the FD&C Act to preempt state and/or local labeling requirements "different from or in addition to" applicable labeling requirements under the FD&C Act. Following extensive hearings, during which industry groups uniformly endorsed the proposed preemption provision, the House Health and Environment Subcommittee approved a substantially revised preemptive provision.[47] The marked-up bill would have rendered nugatory

[47] *See* H. R. 13967 (95th Congress).

the federal preemption provision in H. R. 10358 by adding a provision authorizing the states, upon application to the FDA, to impose "experimental" food labeling requirements for a period of up to three years, regardless of their justification, cost, or impact on interstate commerce. Moreover, the states would be specifically authorized to establish or continue in effect open-date labeling requirements until the FDA promulgates such a regulation. This provision would have encouraged, rather than deterred, nonuniform labeling requirements.

Conclusion

In the wake of the Supreme Court's *Rath Packing* decision, it is clear that food processors who are interested in uniformity among the states cannot rely on the implicit preemptive effect of the Food, Drug, and Cosmetic Act or the specific, but equivocal preemptive language of the Fair Packaging and Labeling Act. The Federal Meat Inspection Act's and Poultry Products Inspection Act's preemption of additional or different requirements provides a degree of predictable uniformity among the states, but this uniformity does not necessarily extend to every detail of state enforcement programs. The preemptive provisions of newer statutes such as the Consumer Products Safety Act (as amended), may provide a lesser degree of uniformity than the Meat and Poultry Inspection Acts, since the administering agency can allow exceptions to uniform national requirements. However, these statutes do provide a high degree of certainty and predictability regarding the extent of uniformity among the states, since any exceptions are a matter of federal public record, permitting interested persons the opportunity to comment.

The need for national uniformity under the FD&C Act is widely recognized and long overdue. Legal challenges to the myriad of unique state and local labeling, ingredient, notice and packaging requirements do not represent a realistic approach to the problem. Federal legislation correcting this obvious deficiency in the FD&C Act is sorely needed.

[The End]

STATEMENT OF THE INTERNATIONAL FOODSERVICE MANUFACTURERS ASSOCIATION

Introduction

The International Foodservice Manufacturers Association ("IFMA") submits these comments on S. 1651, the Department of Agriculture Nutrition Labeling and Information Act of 1979. We wish to present a perspective on this legislation for several reasons:

1. IFMA wishes to ensure that the quite specific concerns of the foodservice sector are considered as these proposals move through the legislative process.

2. IFMA is expressly interested in assuring that the involved regulatory agencies (USDA, FDA and the FTC) meet their stated goal to reduce the inconsistency of current labeling requirements.

3. IFMA wishes to express general support for a voluntary as opposed to a mandatory labeling program. It should be noted, however, that the question, raised at the April 1 hearing, as to whether industry could support this bill were it to be shifted to a voluntary program, will have to be held in abeyance until it is possible to see any new legislative language.

4. IFMA wishes to ensure that any legislative provisions that might represent potential problems to member companies are pointed out at this early stage of the proceedings.

It seems appropriate at the outset to describe the Association to clarify its particular perspective. The International Foodservice Manufacturers Association represents some 300 of the nation's leading companies engaged in the manufacture and distribution of food, equipment and supplies to the institutional, away-from-home market. IFMA members, often divisions of major companies, sell, customarily in bulk or case packages, to schools, airlines, hospitals, and restaurants. The market for the products of IFMA member companies and the "consumer" of those products, is very different from the case of the purchase of food for preparation and use at home. The ultimate consumer almost never comes in contact with our products in such a fashion as to derive any benefit from percentage or ingredient labeling on institutional packages.

The institutional consumer, on the other hand, applies to his purchasing decisions the specific requirements of his particular setting (the hospital cafeteria, the school purchasing program, etc.) and a professional background that often includes some training in nutrition or food technology. He brings a degree of sophistication to his food purchases that the typical retail customer lacks; indeed, this lack is one of the reasons behind the current labeling initiatives. Frequently, as we indicated in our appearance before the tri-agency hearings, it is the IFMA customer, who has significantly greater "buying power" than individual consumers, who asks for and gets the technical and nutritional information he requires about his food purchases. In the highly competitive foodservice market it does not require federal initiatives to produce the information consumers want; if a foodservice customer does not receive the information he wants from a foodservice supplier there is another competitive supplier who will readily produce it.

The foodservice perspective

Given the nature of the foodservice market, foodservice companies have, under current regulations, been able to avoid a costly and extraneous requirement for nutrition information on labels that consumers will never see by simply not availing themselves of the option of making voluntary nutritional claims; or, where such claims are made, by providing nutritional information directly on a current basis to foodservice purchasers.

This sensible pattern is open to the foodservice sector because current regulations of the Food and Drug Administration recognize the logic of exempting foodservice companies from nutritional labeling requirements. Present regulations require nutritional labeling if a company makes nutritional claims or fortifies a food product. However, the regulations exempt "food products containing an added vitamin, mineral, or protein, or for which a nutritional claim is made on the label or in labeling or in advertising, which are supplied for institutional use only." 21 C.F.R. § 191.9(h)(9). The exemption requires only that the manufacturer or distributor provide the nutritional information to institutions on a current basis.

At the time this exemption was written into the regulations, the FDA Commissioner explained its inclusion by the recognition:

"* * * that many products are manufactured only for use in institutional feeding, and that under these circumstances the ultimate consumer would not have an opportunity to see the label. In certain instances, *e.g.,* hospitals and school lunch programs, the persons responsible for planning menus and purchasing food may have special training and be aware of the nutritonal qualities of the foods, or may

even establish nutrition specifications for certain food products being purchased." 38 Fed. Reg. 6951, 6957–6958 (March 19, 1973).

We feel that an institutional or foodservice exemption is reasonable and deserves to be retained. We continue to believe it would be illogical and costly to impose nutritional labeling requirements on institutional products in packages which are never seen by the final consumer. And we believe this position to be underscored in a time of inflationary crisis and intense national concern with the economic impact of incremental government regulation.

Meeting expressed objectives

As more than one commenter has noted over the two years during which these labeling proposals have evolved, the long history of food safety and labeling regulation has created a complex set of food labeling rules that, because of the differing statutes which FDA and USDA administer and enforce and their differing regulatory responsibilities, reflect an unacceptable degree of duplication and inconsistency. IFMA urges that language be added to the existing exemption provision at Section 3(c) to spell out a foodservice exemption, or direct the Secretary of Agriculture to propose a USDA regulation as part of any new labeling proposals, that would parallel the existing FDA exemption. The language at Section 3(c) itself contains an argument that would support a foodservice exemption under USDA regulation:

"To the extent that compliance with the requirements of subsection (b) of this section is impracticable, would result in unfair competition, *or is not necessary to provide health information to consumers, the Secretary may prescribe exemptions from such requirements* (emphasis added).

It is not at all clear that USDA staff will give their provision for exemptions created by the Secretary a straight-forward interpretation. There is a tendency in the USDA to view the foodservice customer—the restaurant, hospital, or other away-from-home eating institution—as the consumer of the food. They reason that labeling by foodservice manufacturers is necessary to inform these "consumers" of foodservice products.

We believe that this reading of "consumer" is contrary to the thrust of the labeling proposals being discussed here today. These hearings have underscored the desirability of providing nutritional information to the ultimate consumer—the person who actually eats the food. This objective is surely not advanced by the imposition of requirements for labeling on packages the ultimate consumer will never see.

Moreover, failure by the USDA to align its policy with that of the FDA with respect to the foodservice exemption will also undermine one of the stated objectives of the FDA/USDA/FTC task force on labeling: to reduce inconsistency and to rationalize current labeling requirements. If the USDA and FDA continue to maintain their respective positions, foodservice nutrition labeling will depend on an accident of jurisdiction rather than upon a rationally articulated labeling policy.

The possibility of a voluntary program

Because of the potential importance of the proposed labeling requirements to its members, IFMA also wishes to respond to a possibility raised by Senator McGovern in the April 1 hearing on S. 1651. At that time Senator McGovern posed the question to witnesses as to whether industry could support this bill were it to be recast in the form of a voluntary labeling program. While IFMA reserves the right to comment on any legislative changes in forthcoming versions of the bill, and to express disapproval of certain provisions presently proposed, the Association would welcome the lifting of the mandatory cast of the current proposals. To frame a consistent and equitable voluntary labeling program would put nutritional labeling squarely where it belongs: in the market place. Companies that provided nutritional labeling would maintain a competitive edge if consumers wanted that information. And if consumers wanted such information, the requirements of the voluntary program could ensure that it was both accurate and presented in a form that consumers could understand.

Special foodservice concerns

Obviously the legislation is not yet responsive to the voluminous record of the legislative hearings and, more especially, the tri-agency hearings on these issues March 4–5 and what is likely to be extensive written comment on the tri-agency position paper published in the Federal Register December 21. IFMA wishes to ensure the consideration of several omissions which to some extent reflect an inadequate awareness of the special concerns of the foodservice segment of the industry.

1. *The portion control market.*—For example, one type of foodservice product, which is unusual in the respect that it reaches consumers in the package in which the foodservice manufacturer packs it, is food in the rapidly growing "portion control" market. Portion control products are familiar to virtually every consumer; they are the ketchup, salt, pepper, jellies or coffee creamer which come in small packages containing an individual serving. We believe that while, in theory, it might be desirable to require these products to bear nutritional labeling, in practice the small size of the package creates a physical barrier to meaningful nutritional labeling.

As we understand it, the problem relates not only to the small area available even for the presently required label information but also to the almost hand-crafted and costly nature of the machinery for making these packages.

2. *The rapidly changing technology of foodservice.*—The arguments many food groups have put forward for the retention of a voluntary nutritional labeling program are supported, to some extent, by the very nature of the foodservice market. A mandatory system, with a structure of requirements and specific exemptions, is by its nature less flexible than the industry it attempts to regulate. For instance, portion control, referred to above, represents an estimated $150 million foodservice market, yet was of only minimal importance as little as 10 years ago. Frozen foods are marking their fiftieth year in the marketplace; yet, accustomed as we are to that aspect of the foodservice market, the language of S. 1651 at Sec. 3(8)(c) and elsewhere referring to defining nutritional value at point of purchase ignores some of the difficulties affecting processors of frozen food, whose product is extremely vulnerable to distribution and point of sale handling problems. Since nutritional values are thus virtually impossible to ensure at point of sale, a more reasonable approach for such product would be to define nutritional value at the point of packaging.

As this legislation is being developed, so are new foods, packaging processes, distribution methods and marketing concepts. IFMA urges the labeling legislation to embody the greatest possible flexibility to accomodate the rapidly changing foodservice industry to the degree such flexibility is consonant with the bill's goals and objectives. IFMA continues to follow the developments in this area with interest and will comment on such additional foodservice specifics as legislative developments require.

Additional specifics

IFMA briefly would like to voice its support—or opposition—to specific legislative provisions.

1. *Sanctions.*—IFMA concurs with Senator McGovern's position that nutrition labeling "is on a totally different plane from that of regulating toxic substances in our foods. . . we have overregulated this matter by overemphasizing the classic compliance aspect of food regulations." We applaud S. 1651's abandonment of unrealistic criminal penalties and hope this eventually will find a parallel in the companion (FDA) bill.

2. *Mandatory percentage labling.*—IFMA opposes this proposal as it applies to predominant ingredients and particularly to the listing of specific spices and colorings and to quantitative percentage labeling of certain foods. The physical limits of the label and the restraint on manufacturer flexibility argue against the provisions. More important, such requirements potentially encroach upon proprietary formulations and should not be required of manufacturers in a market where such information is so competitively sensitive.

3. *Demonstration projects.*—IFMA supports the authorization of demonstration projects in Section 5 that would determine the most effective approach to delivering information via the label format. We would urge that advisory boards be set up to develop, cooperate with, and monitor such projects and that the foodservice perspective be represented in such endeavors.

4. *Industry cooperation and the public interest.*—The hearings to date and, indeed, the wide outreach of the proceedings focused on the evolving labeling initiatives, represent a significant industry-government-consumer joint venture. IFMA appreciates the opportunity to take part in that process and would be pleased to assist in providing any additional food-service data which may be helpful.

STATEMENT OF THE RETAIL BAKERS OF AMERICA BEFORE THE FOOD AND DRUG ADMINISTRATION ON TENTATIVE LABELING PROPOSALS—MARCH 5, 1980

My name is Gerard P. Panaro. I am General Counsel to the Retail Bakers of America. On behalf of the nation's retail baking industry and its 20,000 or more members, I thank you for allowing us to be heard.

My testimony will address the tentative position of the Food and Drug Administration on:

1. Requiring specific declaration of colors, spices and flavorings;
2. Requiring quantitative ingredient labeling on more foods;
3. Requiring naming specific sources of fats or oils when they equal 10 percent or more of the food;
4. Requiring nutrition labeling on all foods, even those for which no nutritional claims are made or to which no nutrients have been added;
5. Requiring quantitative labeling of sugars; and
6. Requiring open dating.

Our concern here is that were these amendments to existing laws and regulations made to apply even to foods in intra-state commerce, then retail establishments would have to be exempted. Otherwise, retail bakeries, related lines of commerce and consumers will be adversely affected:

1. Compliance will be virtually impossible in retail bakeries;
2. Compliance will destroy the retail baker's most important characteristic—the creation of hundreds of varieties of fresh, hand-made, fancy and unique bakery foods;
3. Compliance will not afford consumers any greater protection or information;
4. Substantial weakening or elimination of the retail baking industry will lessen competition, reduce consumers' freedom of choice, and impact on farmers, suppliers and related businesses;
5. Compliance would increase costs of bakery foods to consumers by as much as 20 or 25 percent.

To understand the reasons for our concern, it is first necessary to understand our industry. Retail baking is different from the wholesale baking industry, the biscuit and cracker manufacturing industry, and from other kinds of food processing generally.

Retail bakeries are not huge food "factories". They do not mass-produce millions of identical products using the technology and methodology of the assembly-line. Retail baking is largely a hand-craft operation. Literally hundreds of different products are made each day and in the course of the year.

Ingredients in a retail bakery are measured and combined in a far more approximate way then is the case with mass-produced baked goods. Quantities of each ingredient are not automatically dispensed in predetermined units as raw materials move along a conveyor belt. In retail baking, the ingredients are weighed by the baker using his personal judgement. This, of course, does not mean that goods produced in a retail bakery are inferior to those produced by machine, any more than a hand-built Rolls Royce automobile is inferior to an assembly-line passenger car. But it does mean that no two finished products will be exactly alike.

Baking is done fresh every day in a retail bakery. Depending on the product, the season, the weather, the locale, customer preference and even the time of day, a baker will produce from several hundred to a few score to only one or two of each item he bakes that day. Unlike wholesale bakery plants which box, pack and distribute their products to a multitude or re-sellers in a several-state area, the great majority of retail bakers produce only for their own outlets. They carefully estimate their day's run so as not to have anything left over at the end of the day. There are exceptions, of course, since some retail bakeries also do a certain amount of wholesale business.

Retail bakeries do not prepackage most of the foods they make and sell. Most products are carried on trays directly from the oven to display cases in the retail portion of the bakery, where they are offered for sale unwrapped. Some items, such as brownies or breads, may be wrapped in plain shrink-wrap for display on top of the counter. The same holds for "multi-unit" operators—bakers who own two or more retail outlets—who usually do all their baking at a central location and deliver the finished foods unwrapped in boxes or trays, to each of their outlets.

Retail bakeries sell directly to the ultimate consumer. Most retail bakeries do a wholly intra-state business in a market often no wider than the neighborhood, the city or the area within a few miles' radius of the bakery. Bakeries located near state borders may do a negligible amount of "interstate" business. Most bakery foods are bagged or boxed only after sale to the consumer.

Retail bakers plan the next day's product mix the night before. They buy supplies only a few weeks or perhaps a month ahead of actual use and in relatively small quantities. They have little storage capacity. They buy from a variety of suppliers, depending on price, availability and other factors, such as strikes or special needs or opportunities. Even the same ingredient—flour, for example, or fruits for toppings—will have different compositions if from different suppliers. Virtually all baking done in a retail shop—75 to 90 percent or more—is done "from scratch"—that is,

combining the ingredients according to the baker's own formula or recipe. Several such formulas are appended to my statement.

In short, were we to seek a model for the typical retail bakery, we could almost compare it to one's own kitchen at home. Retail bakeries are engaged in a commercial enterprise, to be sure, but the typical one is a small, family-owned business in which the owner and his spouse and relatives work side by side with the other employees. Most retail bakeries have between five and twenty employees only and have from $250,000 to $500,000 gross sales per year. It is in this sense that we liken the retail bakery to a big home kitchen.

Perhaps it will now be obvious why we believe it is unnecessary, impractical or impossible to apply many of these proposals to the retail baking industry.

Requiring us to provide quantitative ingredient and sugar labeling, to specifically identify sources of fats and oils, and to provide nutrition labeling for everything we sell regardless of whether the foods are packaged or not, moved in interstate commerce or not, or the subject of nutritional claims or not, would force many retail bakeries right out of business. This is because most of them cannot afford to pay the hundreds of thousands of dollars it will cost to have everything they make analyzed for nutrition and/or ingredient information. On the other hand, were they to stop making all but a relatively few kinds of basic, standard foods, they would lose the very thing—a marvelous variety of freshly-made, one-of-a-kind creations—which sets them apart as retail bakers. At the same time, putting the baker to such choices will add nothing toward further protecting the retail bakery customer's health or right to know.

Laboratory analysis of a sample product to determine nutrient information alone is quite expensive. Such an analysis, depending on the number of nutrients tested and the methodology used, could cost several hundred or a thousand dollars and might take three or four weeks to do. At an average cost of $600 per sample, it would cost a retail bakery $120,000 to have 200 products analyzed and close to $200,000 to have 300 products analyzed. Nor would this be a one-time cost only, since the analysis will have to be repeated regularly and performed initially with new recipes. To a baker doing only a half a million dollars of business a year, the one figure is as unaffordable as the other. Where will the money come from? The government has already said it will not foot the bill.

Aside from cost, there are other inherent limitations in laboratory analysis which make us question whether even this much could satisfy FDA:

1. The baker must still do the necessary calculations to determine the percentage of each ingredient in his product. He could have the lab do this as well, but that would cost perhaps a few hundred dollars more per product. Figuring the percentage of ingredients involves not only calculating their proportions from a formula, but also weighing the raw mass before and after baking to determine moisture loss, then multiplying this factor by the original proportions obtained in order to get the percentage for the finished food. But the typical retail baker cannot do these things—he is too busy, baking!

2. Moreover, the analysis would still fall short in certain respects. For example, such analysis can distinguish coconut oil from lard, but might not be able to determine very well the percentage of oil and the percentage of lard.

3. Results of a sample analysis will not necessarily apply to other pieces of the same product. If the dough out of which a sample bun was cut, for example, was worked or allowed to stand for a shorter period than other dough out of which other buns were made, the composition of each would differ. This is because as dough is kneaded or let stand, the yeast in it burns sugar and this changes the character of the dough. The longer the dough stands, the more sugar is consumed by the yeast.

4. The baker frequently must substitute one ingredient for another in the same product. A fruit-topped danish, for example, may be topped with strawberry, lemon, apple or some other kind of fruit. Which topping is chosen and exactly how much is put on by hand will of course affect not only the ingredient list but also the ingredient percentage of every single piece of danish. The baker may spontaneously decide to substitute lemon for apple topping in the middle of doing a single batch. He may do so for variety, color, taste, an unexpected exhaustion of his apple topping supply—and may put a few more grams or less on each danish. If the baker has only labels listing apple topping and he puts them on lemon-topped danish, he is guilty of misbranding. Requiring percentage ingredient labeling in situations like these is equivalent to requiring Detroit to paint cars only one color or to ordering utility companies to ration water by the drop.

5. Requiring a laboratory analysis of every product will slow the introduction of new ones and increase the losses on those which fail. As we have seen, the retail baker produces day to day; competition from wholesalers, grocery stores and supermarkets is intense. Ninety percent of consumers now buy their bakery foods from

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supermarkets. The retail baker survives and maintains his distinctive advantage against other competitors chiefly through his ability to offer a wide variety of custom-made products. Part of this capacity comes from the ability to test new product ideas right away, and either capitalize on a success immediately or cut a loss quickly if the product fails. Having to wait weeks for an analysis will deprive the retail baker of this advantage.

For these same reasons, we believe that requiring retail bakeries to declare specific colors, spices and flavoring, to declare specific sources of fats and oils and to provide quantitative sugar labeling is equally impractical, burdensome and unnecessary. Such requirements would virtually eliminate entirely the flexibility the retail baker, perhaps more than any other food processor, must have to vary ingredient amounts and to substitute one ingredient for another, depending on price, availability and supplier. And here too, we submit, such penalty would be exacted of the baker without conferring any corresponding benefit on the consumer.

The retail bakery customer is always able to ask the man who made the product himself—the baker—about what is or is not in any item in the bakery. If the baker is not immediately available on site, he is at most a telephone call away. Or, the information can be obtained from his formula book by one of the sales clerks. What can elaborate labeling regulations, in truth intended for a wholly other kind of large-scale commercial enterprise, add to this? How can such a regulatory system improve on it?

Do small quantities of a huge number of products made, sold and usually eaten all on the same day need to be labeled with a "use" or "sell" or "not good after" date?

If there be any consumers for whom the lack of printed labels on a food is a fatal flaw, such people need not buy their bakery foods from a retail shop. But if there be consumers for whom the thought and taste, sight and smell of so many home-made, freshly baked delicacies, each a special creation, have no substitutes, and if you take away their prime source of satisfaction—the retail bakery—then to whom shall these consumers go and who will there be to protect their right to choose and their right to have expectations fulfilled?

On these grounds, we respectfully, but forcefully, urge you not to try to make these proposals applicable to the retail bakers of America.

Statement of the American Heart Association

The American Heart Association commends the Congress for helping the consumer choose healthier diets through proper nutrition and ingredient labeling and appreciates the opportunity to comment on the Nutrition Labeling and Information Amendments of 1979 to the Federal Food, Drug, and Cosmetic Act (S. 1652).

Food labels should supply the purchaser with information that (a) has a real use, (b) is presented in an intelligible manner, (c) has a cost commensurate with its benefit. Reexamination of labeling regulations to determine how well present practices are fulfilling these requirements is desirable.

The existing regulations and practices are useful to the consumer in selecting between brands of a particular food item; however, the consumer has not been successful in applying this information in the formulation of a total diet. Accomplishing this is simply not a matter of selecting between brands, but rather of developing a diet pattern that encompasses several days. The intake of an individual nutrient is not determined by a single food item, nor is it determined by the foods eaten at one meal, or even within a single day. Rather, it is the total balance of nutrients that is realized over a period of several days. Admittedly, labeling alone cannot fill this need; it is only one of many sources of information that the American consumer uses in formulating the total diet. However, in developing regulations it should be recognized that dietary goals of the purchaser need to be related to several days' intake and not to the relative nutrient content of a single food item. Consequently, each section of the bill and the resulting regulations need careful consideration as to whether that proposal will meet the consumer requirement to develop a total balanced diet.

The information that is conveyed (Sec. 5:a) and the aim of consumer education (Sec. 6:a) should have, as their goal, the dissemination of information that will allow the consumer to develop a total satisfactory diet and not simply to select among brands. Only information that is needed by and is useful to the purchaser should be a part of the label. Too much information can discourage the use of labels by the consumer. We do, therefore, support the demonstrations and evaluations as described (Sec. 5:a(1) and (2)).

Ingredient function (Sec. 5:a(2)) is the type of information that will be of use to the consumer, only if the function of an ingredient affects the health. In this

respect, (Sec. 5:a(2)) labeling protein, fat, carbohydrate, sodium and cholesterol will be of potential benefit to the population in aiding the selection of dietary constituents consistent with the American Heart Association diet recommendations which are designed to reduce one of the risks of coronary heart disease.

Nutrient content of a food is expressed quantitatively on the label. This is an appropriate method for the presentation of such information. However, advertising is not an appropriate method for conveying the considerable amount of information that is needed for meaningful evaluation of a food (Sec. 7(a)). On the other hand, advertising can have an important role in supplying more generalized nutrition information. By contrast, this type information would not be appropriate to a food label. Thus we encourage the use of both labeling and advertising for conveying appropriate nutrition information to the American public.

We are most grateful for your interest and the time you have given us to comment on this very important subject. We respectfully urge you to take our recommendations under careful advisement.

STATEMENT OF JOHN B. HORNOR, PRESIDENT, NATIONAL ASSOCIATION OF MEAT SEASONING MANUFACTURERS

The National Association of Meat Seasoning Manufacturers, which represents organizations manufacturing a large percentage of the spice and flavoring blends used in meat and food products, is extremely concerned about a provision in pending nutrition labeling legislation (S. 1651, S. 1652 and H.R. 5137) that would require "the common or usual name of each ingredient, including color additives and spices, in the descending order of its predominance by weight . . .".

Our organization supports the present method of declaring spices and flavors. We oppose the above language for the following reasons:

1. *It would endanger trade secrets.*—Being required to list each spice or flavoring by name would make it difficult to protect seasoning formulations. Competition in the marketplace is largely decided by the particular "taste" a sausage or other product has. That taste is generally attributed to that product's seasonings. Requiring this information to be divulged would make it easy for other companies to duplicate the formulations of the more successful products. This would be especially damaging to smaller meat and food processors and to smaller seasoning manufacturers whose success has resulted from producing specific recipes which others have been unable to readily duplicate. Many meat and food manufacturing companies jealously guard and vigorously protect the formulation that gives their product that unique taste. Frequently seasoning manufacturers must sign a "letter of confidentiality" before they can work with and produce seasonings for a meat or food manufacturing company. Label disclosures would endanger trade secrets and company business.

2. *It would clutter the label, confuse consumers, and provide little useful information.*—Meat food products contain between four and forty different spices and ingredients. Listing all of these—many of which consumers may not be familiar with, such as alkanet, capsicum, cassia, chervil, fenugreek, tarragon, turmeric, and more—would clutter the label and detract from the identification of other key ingredients. Consumers would be confused, not enlightened. Attached are examples of seasoning blends as they might be received by the meat or food products manufacturer. He must add all of this to his present label along with the other ingredients he uses in the manufacture of his meat or food product. This could add from four to twenty or more ingredients to his label—yet, each ingredient in the seasoning, except for salt, contributes less than 1 percent of the total weight of the meat or food product. Even with salt, the total weight of the seasoning is generally 3½ percent or less of the total weight of the meat or food product.

3. *It would increase food costs.*—Meat processors and seasoning manufacturers would be unable to modify essentially condimental ingredients and/or the spice formulations to adjust to changing tastes or less expensive items. Having to alter a label each time a minor change is made would result in additional costs which would ultimately be passed on to the consumer in higher prices.

It is not unusual for a single seasoning company to have 5,000 to 10,000 different, active formulas, each of which has been specifically blended to meet the needs of particular meat or food processors. To destroy existing labels and redo them all would be extremely costly . . . to the seasoning manufacturer, to the meat processor, and to the consumer. It is just not worth it.

4. *It would give an unfair advantage to the user of "flavors" over the user of natural "spices".*—The oils and oleo resins of spices are "flavors" and as such can be grouped under the word "flavors". The ground spice user would have to list each

spice and thus disclose his formula, to his disadvantage, vs the oils and oleo resins user.

For the above reasons, we strongly favor continuation of the present labeling system for spices and flavorings. However, should any spice or flavoring be determined to be a significant health hazard or allergen, at the level present in a meat or food product, we are most willing to list it separately on the ingredient statement.

We appreciate your consideration of our comments and would be pleased to respond to specific questions or requests for more information.

OHIO ASSOCIATION OF MEAT PROCESSORS, INC.,
Jefferson, Ohio, April 17, 1980.

ANNIE JOHNSON,
Executive Secretariat, Food Safety and Quality Service,
USDA, South Agriculture Building, Washington, D.C.

DEAR MS. JOHNSON: While voluntary nutritional labeling has many merits, the Ohio Association of Meat Processors representing two hundred small businesses throughout the state views the proposed mandatory nutritional labeling as ruinous to its members.

The ultimate cost to the consumer for initiating and maintaining such a proposal must be given priority during your consideration. Specific cost figures are a vital element in making any decision in today's faltering economic environment. We in the meat industry do not and can not make financial decisions based on vague cost estimates—neither should our government!

During recent meetings with officials at the Ohio Department of Agriculture it was brought to our attention that even Ohio State University does not have the facilities to handle this type of analysis. The cost of purchasing a small lab for private use would be $75,000 to $100,000. Analysis fees of $600 per item by independent laboratories is not feasible either.

Under closer scrutiny it becomes quite apparent what an inflationary effect this legislation would have on the meat industry in particular, and the nation as a whole. We need help in curtailing inflation, not perpetuating it.

Respectfully submitted.

LINDA NECZEPORENKO,
Executive Secretary.

STATEMENT OF STEPHEN F. KRUT, AMERICAN ASSOCIATION OF MEAT PROCESSORS, ELIZABETHTOWN, PA.

We are writing pursuant to the Food Labeling proposal as outlined in the December 21, 1979, Federal Register (Vol. 44, No. 247) to comment on the potential action by the USDA, FDA, and the FTC, in the area of nutritional labeling.

As an organization representing nearly 1,400 predominantly small, family-owned meat plant operations, we are vitally concerned that a well-thought-out, understandable and affordable (to the consumer and the manufacturer) system be developed. The American Association of Meat Processors (AAMP) believes that the implementation of a half-baked nutritional labeling scheme at this stage would seriously jeopardize its long range reception by both the consuming public and the industry.

AAMP strongly supports the concept of nutritional labeling and believes in the right of the consumer to know the composition of the food he or she is purchasing. AAMP also believes it impossible to determine the parameters for a nutritional labeling system until it can be demonstrated that consumers have a consensus on what they want, what the cost will be to obtain it, and whether they are willing to pay for it.

The first step, then, is to determine exactly what it is that consumers want. We have seen scores of theories posed as to the information that should be included on the nutritional label, but no more than 1 percent of the consumers surveyed agree on any single format. Certainly to help foster a meaningful consensus, the consumer should be shown various labeling concepts and advised of the costs to implement each. That in itself is a key step that the agencies seem to have ignored.

Several years ago, AAMP commented that the three agencies involved should "get their act together" in the area of nutritional labeling, meaning that three different agencies should not be out promoting three different labeling schemes, but rather should work to develop a consensus. That consensus labeling format should be administered by one agency, not two or three.

AAMP believes it is premature to go any further at this time than to strive for a degree of uniformity for a voluntary nutritional labeling system. In this effort, by

exposure to differing nutritional labeling formats through the open marketplace, shoppers will determine through their purchases which labeling format they find most acceptable and most understandable. To do anything beyond maintaining a voluntary system and developing guidelines aimed at some degree of uniformity would be to impose on the consumer a nutritional labeling system that he or she may neither want, understand or be able to afford.

This organization's membership has repeatedly complained about the release of government reports on the "marketing spread" in which the difference in food prices between what the farmer is paid and what the consumer pays is attributed to processing, handling and distribution charges, all brought about by those nebulous "middlemen." Such reporting has already spurred efforts to eliminate those middlemen and spend taxpayers money to support farm-to-consumer marketing and ultimately reduce other competition. The nutritional labeling program would directly impact that "marketing spread" and it should be openly explained to consumers in that fashion. AAMP believes it incumbent upon the three agencies to prepare a meaningful economic impact statement on the proposal. The industry and the public have been offered "two o'clock in the morning" and "seat of the pants" estimates, but none that any responsible official of any agency wants to be held to for future reference.

The economic impact of the proposal would certainly fall harder on small plant operations, such as those represented by AAMP. But, we would dare say that it bears tremendous implications for other areas in plant operation that the agencies have never mentioned publicly. What, for example, would a mandatory system require in label approval and review staff? What would be the new turnaround time for approval?

We must also focus sharply on the means for enforcement of a mandatory system. How would enforcement be accomplished, or in other words, how will anyone be assured that what the nutritional label says the product contains is in fact true and for what period of time is it true? Some contend that the point of product packing should be the measure of nutritional value, others say the point of purchase. Still others want it measured at the point of consumption (whenever that may be). Again, no consensus exists. But in terms of enforcement, it would mean a sampling and testing program that would be required of every product manufacturer.

AAMP has seen suggestions that large plants can check nutritional quality as part of the manufacturing process and that small plants can share laboratory costs or facilities. Such simplistic solutions are total nonsense. Small plants don't have labs to share and the agencies have failed to even indicate what equipment and types of tests would be required, let alone compile a list of the equipment and supply costs, or the fees for laboratory personnel. Mandatory nutritional advocates toss out a figure of "about $1,000 a year or close to it" for compliance testing costs for individual plants, but yet fail to explain how such a figure is determined.

Agency and legislative advocates of a mandatory system do not even offer an explanation of what foods would be covered and under what circumstances. Some contend that processed foods would require mandatory nutritional labeling, but fail to define processing. To some a steak need not be nutritionally labeled, unless it is processed by freezing. In the meat industry, processing can be anything from cutting to freezing to wrapping to fabricating product, all without changing its nutritional value. But mandatory labeling advocates do not address this issue in any meaningful way.

AAMP's disapproval of a mandatory nutritional labeling system at this stage should not be misunderstood. Of all the foods that would be encompassed under nutritional labeling, meat would be outstanding in nutritional value and quality and the consumer would choose it over other less nutritionally valuable items. AAMP and the meat industry are proud of the nutritional content of meat and have nothing to hide in that regard. We are simply asking for a degree of uniformity, economy, efficiency and understandability to be built into any nutritional labeling program and maintain that such characteristics can best be obtained through the supply-demand, trial-error, continuous improvement and exposure factors in the open marketplace. No regulatory agency employee or team should presuppose what every consumer wants, needs or is willing to finance. The implementation of a mandatory nutritional labeling system would lend a false sense of legitimacy to such ill-founded and baseless presumptions.

The membership of this Association resents implications by certain individuals that the industry doesn't want nutritional labeling and that the only way to obtain it is through a mandatory program. AAMP further objects to public statements by officials of USDA and FDA that an agency panel would be created to establish guidelines and priorities for such a system, excluding industry and consumer representation. If the agencies and nutritional labeling advocates are serious in their

desire to bring about a meaningful, affordable, and understandable system that will serve the needs of the majority of consumers, then a joint agency, industry, consumer, and scientific task force should be created to bring the best resources of all concerned to bear on this important issue. Such a task force could undertake pilot tests, studies and research that seek open answers and develop solutions to nutritional labeling questions and problems. In the past, too many forces have attempted to reinforce preconceived nutritional labeling ideas with slanted surveys, questions, and studies.

AAMP wholeheartedly endorses the concept of a joint task force in this area and believes that all parties who have a stake in nutritional labeling could muster their forces to create the best and most usable system attainable.

In summation, AAMP must reject the mandatory nutritional labeling proposal as suggested and outlined in the Federal Register as being too incomplete, too ill-defined, too needlessly expensive and not based on actual needs and wants that are balanced with a willingness to be financed through increases in the food shopping budget. A task force approach to attain superior nutritional labeling standards through a cooperative, voluntary approach is AAMP's recommendation and one that should merit fullest consideration.

AMERICAN MEDICAL ASSOCIATION,
Chicago, Ill., March 26, 1980.

Hon. GEORGE MCGOVERN,
Chairman, Subcommittee on Nutrition, Committee on Agriculture, Nutrition and Forestry, Dirksen Senate Office Building, Washington, D.C.

DEAR CHAIRMAN MCGOVERN: The American Medical Association takes this opportunity to submit its statement for the record of hearings on the captioned bills, the "Department of Agriculture Nutrition Labeling and Information Act of 1979" and the "Nutrition Labeling and Information Amendments of 1979 to the Federal Food, Drug, and Cosmetic Act." These bills would clarify and expand the authority of the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA), working in concert with the Federal Trade Commission (FTC), to require nutrition and ingredient labeling for foods under the jurisdiction of each agency.

We would suggest that the Subcommittee not go forward with this legislation at this time. We believe that it would be preferable for the Subcommittee to wait for the specific requests for legislation from FDA, USDA, and FTC that the agencies have announced will be forthcoming very soon. These agencies have been engaged in a thorough analysis of current and proposed food labeling requirements for almost two years. To a great extent the agencies have conducted their inquiries and analyses in public forums and have had the benefit of literally thousands of public comments in shaping their tentative plans. These plans, announced in the Federal Register of December 21, 1979, and the subject of public discussion at March 4–5, 1980, hearings called by the three agencies, include the development of agency requests for authorizing legislation in a number of areas. We believe the Subcommittee should suspend activity on S. 1651 and S. 1652 until it has the benefit of the proposals from each of these agencies as to what each believes is essential legislation. In this regard, we note that the agencies do not intend to address these issues in the same manner as do these bills.

We have enclosed for the Subcommittee's consideration a copy of AMA's full statement of March 5, 1980 presented at the administrative hearing on the food labeling issues under discussion. We trust that the Subcommittee shares our concern that Congress and the agencies should act in concert in revising and updating the food labeling laws. Such cooperative action can better assure that consumers are presented food label modifications and education programs that will enhance their ability to make intelligent and, in some cases, medically necessary food selections from among the vast variety of foods available today.

Sincerely,

JAMES H. SAMMONS, M.D.,
Executive Vice President.

Enclosure.

STATEMENT OF THE AMERICAN MEDICAL ASSOCIATION TO THE U.S. FOOD AND DRUG ADMINISTRATION, FEDERAL TRADE COMMISSION, AND U.S. DEPARTMENT OF AGRICULTURE—MARCH 5, 1980

The American Medical Association is pleased to submit its comments concerning issues relating to food labeling in response to the captioned agencies' notice request-

ing comments from the public in the December 21, 1979, Federal Register (44 F.R. 75990). AMA's comments will address the following subjects:

Ingredient labeling; Nutrition labeling; Composite data base for use in nutrition labeling; Labeling of sugars; Sodium and potassium labeling; Fatty acid and cholesterol labeling; Fiber labeling; Food fortification; and Use of the terms "Natural" and "organic" in food labeling claims.

Information contained in food labeling can be a valuable aid to physicians who prescribe, and to patients who must adhere to, a medical regimen that restricts, eliminates or enhances the consumption of certain substances found in foods. Food labeling information has become especially important since the contents of modern prepared foods may vary significantly from traditional recipes. The AMA is, therefore, pleased to cooperate in this important endeavor to review and revise the food labeling laws and regulations of the Food and Drug Administration (FDA), U.S. Department of Agriculture (USDA) and the Federal Trade Commission (FTC).

INGREDIENT LABELING

Labeling of ingredients in foods having a "Standard of Identity"[1]

FDA has stated that it will seek legislation to amend the Federal Food, Drug, and Cosmetic Act (the Act) to require that ingredients that must be included in foods for which there is a "Standard of Identity" be declared on product labels. (USDA regulations already require such declarations.) Pending such a change in the Act, FDA will revise pending Standards of Identity to require the declaration on a label of all optional ingredients, including the form of the mandatory ingredients where more than one form is available for use.

The AMA believes that the ingredients in standardized foods should be disclosed on the label and supports the efforts of the FDA in this regard. There are well documented reports of metabolic or allergic intolerances to specific food constituents. Ingredient disclosure on food labels is important for persons who have such intolerances.

Label identification of colors, flavors, and spices

The agencies have announced that they will seek authority to require that all colors and spices be declared by their common names on food labels. Although the incidence of intolerance to specific minor components of food such as colors, flavors or spices appears to be less well documented at this time than the incidence of intolerance to other components of food products, the frequency and, in some instances, the nature of reported intolerance to such minor ingredients indicates the need for continued research and monitoring in this area. On a more practical level, we believe that the identification of colors added to food products should be encouraged because of the relatively small number of food colors in use. Where statutory exemptions now exist (i.e. exempting a food product from a requirement to identify an added color), they should be repealed.

Natural spices and flavors, and many of their artificial counterparts, on the other hand, consist of a large number of flavor substances. Ingredient labeling that would require separate listings of individual flavor components would, therefore, be impractical. Where there is an identified intolerance to a flavor component (including a spice) that has occurred among a significant number of consumers, we would agree that identification of the substance on the product label is important.

We note that in this regard our concerns are similar to those expressed by the regulatory agencies. We concur in their view that it would be difficult and impractical to require identification of all flavors fully on food labels. We also concur, however, in the view that flavor substances known to cause health problems should be declared on food labels. We look forward to assisting in the task of identifying and evaluating health problems that may be associated with the consumption of flavoring substances.

Quantitative ingredient labeling

The agencies have stated that they will continue their efforts to encourage or require the use of quantitative ingredient labeling on foods. Specific proposals include:

expansion of the use of "percentage labeling" (listing of valuable and characterizing ingredients in terms of percent of the whole) for both standardized and non-standardized foods;

publication of guidelines for voluntary quantitative ingredient labeling; and

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[1] FDA has, by regulation, established "recipes" for certain common food products (i.e. ice cream) that dictate what primary ingredients or characteristics a food must have to be marketed under the common name.

support for legislation that would authorize the agencies to require quantitative ingredient labeling and give them access to a company's product formulas, quality control records and related documents to assure that quantitative ingredient labeling is accurate and truthful.

We believe that listing of primary ingredients in foods in descending order of predominance provides useful information to consumers. We do not, however, believe that it is necessary to require labeling to reflect the percentages of ingredients contained in a food product. Listing of ingredients present in small quantities as percentages of the whole would result in a long and confusing label that would convey little useable information to consumers. Moreover, such labeling would give the consumer no information about the actual amount of a substance consumed per serving.

In addition, "percentage labeling" of ingredients for products that are to be combined with other foods would provide no quantitative information about the actual amount of ingredients consumed per final serving. Thus, any requirement to provide quantitative information for the product as purchased would provide little meaningful information to consumers about the product as consumed.

There is another potential problem that may be anticipated with the use of "percentage labeling." Processed products can have the same nutrient content, but significantly different composition. In such a case, quantitative labeling of ingredients for two differently manufactured products could lead to incorrect inferences being drawn by consumers (i.e. that one product is superior to another) when such is not the case.

The purpose of current efforts to revise food labeling requirements is to encourage the conveying of nutrition information in terms useful for consumers' purposes. Any mandatory information that is potentially misleading, such as "percentage labeling," should not be required.

In our view, when the agencies' published "decision matrix" is used to evaluate the desirability of quantitative ingredient labeling, only one (of more than thirty) criteria may be said to justify an affirmative decision by the agencies to require such labeling—namely, that there may be a segment of the public that will find such labeling desirable. Other criteria (i.e. health implications, industry acceptability, legal considerations, economic implications, and probable effectiveness) would probably mandate that such a labeling requirement not be promulgated.

Statutory authority to require the "percentage labeling" of ingredients should not be sought unless information derived from carefully conducted studies demonstrates that such labeling serves an identifiable health purpose, or other compelling need, and that no deception of consumers or unreasonable increases in food prices would result.

Listing ingredients by order of predominance

FDA and the USDA have announced that they will propose amendments to their current regulations to require that food labels bear a statement to the effect that ingredients are listed in descending order of predominance. We agree that all label declarations, whether for standardized or nonstandardized foods, should be required to list ingredients in the descending order of predominance. Where practical, a readily understandable prefatory statement to the effect that foods are so listed could be a useful adjunct to the reading of food labels. We do recommend consumer testing of various alternative label statements, such as, "Ingredients are listed by weight from most to least." This alternative to the FDA's phrase, "Foods are listed in descending order of predominance," might be more readily understood by consumers. In cases where exemption to such ingredient labeling or labeling format would be permitted, such exemptions should be authorized only for minor ingredients and not for those ingredients that are major components of a food product.

Use of "and/or" labeling to declare the source of fats and oils

FDA and the USDA have announced that they will also propose amendments to their current regulations to require that foods containing 10% or more total fat on a dry weight basis declare on their labels the specific source of the fat or oil (e.g., "vegetable oil (may contain cottonseed oil, soybean oil and/or palm oil")). The agencies base this policy, in part, on the current regulation that prescribes voluntary fatty acid and cholesterol labeling for foods that contain 10% or more fat on a dry weight basis and at least 2 grams (g) fat per serving.

We are familiar with the history of the "10 percent dry weight basis" standard for fatty acid labeling. The use of this threshold permits the physician to guide the food choices of his patient and enables the patient to make intelligent selections from among those foods that supply the bulk of dietary fat. The consumer's ability to make such informed selections is of particular importance since the success of a fat-modified diet requires modification of the entire diet as well as control of the

primary sources of dietary fat and cholesterol. We believe that this standard may serve better than the "2 g fat per serving" standard as an appropriate threshold for requiring label declaration of a specific source of a food's fat or oil.

Although we appreciate the agencies' concerns in this matter, we believe that no change from the current standard should be made until appropriate studies have confirmed that the level of 10 percent fat on a dry weight basis is as appropriate for specific source oil labeling as it is for fatty acid and cholesterol labeling.

Functions and names of ingredients

The agencies have stated that they will explore the feasibility of creating an "ingredient dictionary" for the public. We commend the agencies for adopting this innovative idea. It could prove to be a practical solution to the problem of providing general ingredient information via a common vocabulary to the industry, the agencies and the consuming public.

NUTRITION LABELING

Label information reflecting the nutrient content of food can assist consumers in making meaningful and medically necessary food selections. In devising regulations regarding the declaration of certain nutrient information, the agencies must be careful to ensure that the required information is presented in an understandable and useful manner to the consumer. We believe that the use of simple language, clearly presented, can help assure that information provided on food labels is useful. Consumer education programs can also enhance the effectiveness of such labeling.

Mandatory versus discretionary or voluntary nutrition labeling

The agencies have stated that they will seek legislation clarifying their authority to require nutrition labeling for all foods. USDA has also announced that it will propose regulations that would require nutrition labeling where nutrition claims are made for a product or where certain nutrients have been added to a product, thereby making USDA regulations on mandatory nutrition labeling similar to the current regulations of the FDA.

The agencies have also indicated that they plan to form a task group to develop criteria to determine which foods should bear nutrition labeling. The primary agency criteria developed to date would require consideration of the importance of the food in the diet, the potential for misleading the public when a food does not have nutrition labeling, and other matters of public health significance and consumer concern.

The AMA has supported, and continues to support, voluntary efforts to increase public awareness of the composition and nutritional value of foods. We agree that legislation to clarify the agencies' authority to require nutrition labeling for all foods is desirable. In the interim, we believe that the decision of the agencies to design their nutrition labeling regulations to be more uniform is a wise one. Uniformity of label information presented is helpful if consumers are to become knowledgeable about nutrition labeling and routinely use the label information to make informed purchases.

Nutrition labeling format

The agencies propose to retain the present nutrition labeling system pending the outcome of research to be undertaken to determine what label format consumers find most useful and convenient and to determine what changes in current requirements, if any, are appropriate. The agencies plan to establish a task force to work with industry and consumers to develop proper experimental designs for these studies and appropriate criteria for evaluating the data generated by these inquiries. We look forward to working closely with the task group that will be convened to develop the experimental protocols and the criteria for evaluating this necessary research.

Among the label formats that should be tested is a simplified nutrition label that lists information needed to make medically important food selection decisions. A sample label reflecting a simplified format recommended by AMA is attached.

In most instances, the information needed to make important nutritional distinctions can be provided by combining ingredient listings and certain information regarding the nutrient composition of the product. For example, a food label should include:

1. serving size;
2. servings per container;
3. calories per serving;
4. carbohydrates (g/serving);
5. protein (g/serving);
6. fats (g/serving);

7. fatty acid content per serving (g-polyunsaturated fatty acid, g-saturated fatty acid);
8. cholesterol (mg/serving); and
9. sodium and potassium (mg/serving).

The above information in combination with ingredient declarations would provide consumers a sound basis for both medically necessary food purchase selections and those decisions motivated by personal dietary preferences. We urge that such a format be given priority examination by the agencies.

Mandatory information for nutrition labeling

The agencies propose to continue their current policies regarding declaring nutrients that must be included on certain food labels, i.e., protein, carbohydrates, fat, certain vitamins and minerals, calories and information pertaining to serving size and servings per container. (USDA will continue to permit the use of an abbreviated format consisting of carbohydrates, protein, fat and other information deemed essential to consumers.) USDA has also announced that it will propose nutrition labeling regulations that would be the basis for providing information on calories, carbohydrates, protein, fat sugars, cholesterol, sodium and other nutrients of public health concern.

The AMA is vitally interested in the nature of the information that agencies currently require as part of their nutrition labeling programs. We have indicated above the information that we consider important. We have also previously indicated that within that framework other information, too, could be included that would serve consumers well. On the other hand, some information (i.e., declaration of vitamin/mineral content) may not be as necessary or useful. We suggest, therefore, that when no nutrition-related claims are made on a food label and no vitamins and minerals have been added to that food, a simplified nutritional label format should be evaluated. Such a label could include only: serving size; servings per container; calories per serving; protein (g/serving); fat (g/serving); carbohydrates (g/serving); and sodium and potassium (mg/serving).

COMPOSITE DATA BASE FOR USE IN NUTRITION LABELING

FDA and USDA propose to maintain their current policy that requires products to be labeled to reflect their composition and that places on the manufacturer responsibility for assuring the validity of nutrient claims on a food's label. The agencies have gone further in this notice and have included a statement of policy concerning the use of nutrient data bases. The effect of this statement is to preclude, for the time being, any experimentation with established (analytical) data base information on the nutrient content of food products.

AMA's interest in this area, i.e., with respect to the type of analysis used and degree of accuracy required for nutrition information, extends over many years. In 1972, for example, the AMA recommended to FDA that:

". . . average values for labeling purposes be derived for each natural product (e.g., an updated USDA Handbook 8), under conditions of minimal processing, i.e., canning or freezing. The agreed upon average values would be used for nutritional labeling."

We further stated at that time:

". . . for commodity-type products which are not fortified and are not promoted for any special nutritional qualities, adequate compliance could be assured with an average value supported by adequate analyses over a period of more than one season."

Thus, in AMA comments on earlier FDA proposals concerning the nutrition labeling of foods, we have urged the agencies to consider the use of years of experience and accumulated data about food composition for the purpose of providing label information. We note with interest that although previous documents have not encouraged discussion of these concerns, such concerns have been raised by other commentors. We believe our earlier recommendations merit active consideration by the agencies at this time.

Consideration must be given to determining what methods are appropriate for obtaining the information to be used to label nutrients. The present nutrition labeling regulations require repetitive and costly analytical confirmation to assure that the amounts of nutrients stated on the label are present, with minimal variation from stated values permitted. These costs are, of course, being passed on to the consumer. In our view, the current requirements may be unnecessary and undesirable in that they deter some in the food industry from undertaking nutrition labeling.

For years, health professionals have confidently calculated the nutritional value of diets using published statistical data (i.e., mean values). Variations between

published values and actual analytical values are not considered to be significant to health professionals because serving sizes also vary. With the variety of foods in the average diet, nutritional deficiencies or imbalances resulting from minor error in the estimation of the nutrient content of any one food item are highly unlikely to develop.

We recommend that, prior to the agencies establishing any mandates regarding nutrient labeling, consideration be given to the following concerns:

1. the need by health professionals and consumers for the precise data on nutrient content in food labeling that is currently required;
2. the need for extensive, repetitive and costly nutrient analyses as is currently required to validate food labeling claims; and
3. the practical value to consumers of precise information on the nutrient content of a product as compared to label information that reflects the average amounts of nutrients likely to be encountered in a product.

To help reduce the costs of nutrient labeling, consideration should be given to the use of mean values for nutrients in those food commodities and food products that receive minimal processing and are not fortified (since they should not deviate significantly in nutritional composition). It should be possible to establish mean values for these minimally processed products or product classes as an alternative to existing procedures. For fortified foods or formulated foods that are subject to significant changes in formulation, current requirements may still be appropriate.

This suggested "mean value" or composite data base system for the labeling of nutrient content would provide consumer information regarding the approximate values for nutrients that he or she is likely to encounter in a given product. For example, under present regulations (21 CFR § 101.9(3)), should calories, carbohydrate or fat be declared, the label may state an amount that is larger than the amount actually present in the product as determined by analysis. It is likely, therefore, that foods only occasionally contain the precise amount of a substance stated on the label. Would it not be desirable instead that the label state the amount likely to be encountered by the consumer, i.e., the mean value of a nutrient in any such product? Furthermore, existing good manufacturing practice regulations, quality control procedures and appropriate periodic analyses can assure that products are labeled in compliance with our suggested "mean value" labeling.

We consider it imperative that the agencies incorporate research into the use of composite data base information for nutritional labeling as a part of their new food labeling initiatives. Moreover, differing types of composite data base information systems must be evaluated. Certainly, the use of composite data base information compiled by an individual processor on its own products should be evaluated as a base for that firm's food labeling claims.

Serving sizes

FDA proposes to publish final serving size regulations for some beverage products, cereal products and meal replacements. The agencies will propose regulations to establish serving sizes for additional product classes and/or types of food on an "as needed" basis. We agree that serving size information is important in conveying nutrition information to consumers and that a reasonable and uniform serving size for labeling purposes can be established for many product classes.

Labeling of sugars

FDA and the USDA have stated that they will propose amendments to the existing nutrition labeling regulations to require quantitative declaration of total sugars as part of nutrition labeling. The agencies are also seeking information on the amount of sugars (in terms of grams per serving or percentage by weight) that warrants such a label declaration. They have established a task group to develop criteria for determining the level of sugars that should require a label statement. USDA and FDA further propose to seek legislation providing them explicit discretionary authority to require quantitative labeling of sugars on the basis of public health concerns (i.e., the contribution of sugar to dental decay). The agencies also intend to conduct an education program to increase consumers' understanding of how sugars are declared on food labels.

The debate about whether, and how, to appropriately label simple sugars in food products is complex. It involves not only documented public health concerns, but also the perceived dietary concern about sugar in the mind of the public.

In our view, it is, therefore, premature for the agencies to speculate as to what level of sugar in a food should "trigger" a label declaration of sugar content, public health concerns notwithstanding. We believe the agencies must first show that there is a level of sugar in the diet that, irrespective of other variables, impacts on a person's health. Then the agencies can properly seek the discretionary authority they desire and properly invoke the demonstrated public health concerns.

The AMA is not, however, opposed to optional listing of a food's carbohydrate contents, either in terms of total carbohydrates, total simple sugars, or total complex carbohydrate. We agree with the agencies' view that a declaration of sugar content should be based on the total amount, rather than the added amount, of sugar. A label statement reflecting only added sugar would not provide adequate information to consumers on the total content of all sugars in a food—a matter of some importance since the body cannot differentiate between indigenous and added sugars.

We recommended, therefore, that the multi-agency task force first establish whether there are characteristics of a food that can be used to predict its cariogenicity. We further recommend that dental health professionals should serve as public advisors to this interagency task force.

Sodium and potassium labeling

FDA has announced its intention to propose amendments to its nutrition labeling regulations to require the declaration of total sodium and potassium content of foods. The USDA has also announced its intention to require sodium labeling as part of nutrition labeling and is considering including potassium labeling in its proposal.

The AMA is pleased to note the agencies' intention regarding labeling to indicate the sodium and potassium content of foods. The medical profession has had long-standing concerns in this regard. Many patients on restricted sodium intake diets currently have difficulty making informed purchases since label information rarely reflects the sodium content of foods. Standard diet therapy for the restriction of sodium often involves limiting sodium intake to 1000 to 2000 milligrams a day. Clinical conditions that require control of dietary sodium also frequently require control of potassium content in one's diet as well (e.g., for patients who are taking certain diuretics). Consequently, labeling that states the amount of total sodium and potassium present in a food would be useful in guiding consumers on a special medical regimen.

We support the agencies' efforts to obtain explicit statutory authority to require quantitative labeling of total sodium and potassium content for foods. We submit for the agencies' consideration an AMA draft bill (attached) that would accomplish this end.

Fatty acid and cholesterol labeling

FDA proposes to continue requiring that the cholesterol or fatty acid content of a food be included in nutrition labeling when any claim about these substances is made. FDA also proposes to amend the fatty acid/cholesterol regulation to require (1) fatty acid labeling whenever cholesterol is declared and (2) cholesterol labeling whenever fatty acids are declared. Finally, FDA will propose a regulation to define the terms "low cholesterol," "reduced cholesterol," and "cholesterol free," and will consider promulgating regulations to govern label claims regarding fatty acid content.

USDA will propose regulations to require cholesterol labeling as part of nutrition labeling, and both FDA and the USDA will seek legislation to provide them explicit discretionary authority to require cholesterol/fatty acid content labeling as needed to respond to public health concerns.

The AMA has long been interested in the accurate labeling of the fatty acid content of foods. The AMA's interest in labeling that provides information on the fat, fatty acids and cholesterol content of foods arises from the need for such information in the medical management of those patients who must make dietary modifications because they have, or are at risk of developing, coronary heart disease. In response to a 1965 proposal by the FDA to label the fatty acid content of foods, the AMA's Council on Foods and Nutrition offered to carry out a study in order to assist in the preparation of more meaningful regulations. FDA accepted the proposal and endorsed the objective of the study. After receipt of the results of this AMA study in May 1967, FDA republished its proposal and adopted the AMA recommendation that labels of foods that contain 10 percent or more of the dry weight as fat be permitted to state the fatty acid composition of the contained fat. In addition, AMA urged FDA to eliminate any unnecessary restrictions on the sale of alternative food products that could replace products high in saturated fat content.

We support the agencies' decision to continue to require that the cholesterol or fatty acid content of a food be included in nutrition labeling when claims about these substances are made. Furthermore, we support FDA's announced intention to require fatty acid labeling when cholesterol is declared and to require cholesterol labeling when fatty acid is declared. We note FDA's expressed intent to attempt to define the terms "low cholesterol," "reduced cholesterol," and "cholesterol free,"

and we look forward to working with the agency to assure that any proposed definitions are meaningful and useful.

Fiber labeling

The agencies have stated that they do not plan to require fiber content labeling as a part of nutrition labeling until: (1) there is a clearer consensus on a definition of dietary fibers; (2) methods of analysis are developed; and (3) the significance of fiber in the diet is better understood.

We concur in the agencies' view in this matter. We recommend that nutrirtion label statements reflecting fiber content of food items remain optional until the questions discussed above have been resolved.

Disease-related claims on food labels

FDA and USDA propose to maintain their present policy of not allowing claims in labeling that a food is effective for the prevention, cure, mitigation or treatment of a disease or symptom. We concur in this decision. We also endorse the Federal Trade Commission policy of challenging such claims in food advertising.

FDA has stated, however, that it will promulgate regulations covering "medical foods" (i.e., foods for use under medical supervision), thereby permitting the use of appropriate therapeutic claims for such foods in the labeling. The AMA has, for some time, been interested in specialized products for use under medical supervision that can be of assistance in the management of medical conditions, such as defined-formula diets or foods used in the management of phenylketonuria. For this reason, we look forward to working with FDA in developing appropriate "medical foods" regulations.

Food fortification

FDA and the USDA have stated that they intend to seek legislation giving them explicit discretionary authority to control the fortification of a food when exercise of such control is deemed necessary for public health reasons. FDA has already published a policy statement on food fortification.

The AMA has provided leadership in food fortification activities for many years. Working with FDA, we have succeeded in developing a significant level of national interest in, and public awareness of, this subject. We continue to be actively involved in this ongoing discussion and believe that:

mechanisms need to be established so that food fortification can be used to remedy nutritional deficiencies in well-defined populations;

certain nutrients should not be added to certain foods when the food in question is not an appropriate vehicle for such additions;

nutrients lost in storage, processing or handling of foods should be restored when such losses result in a significant alteration of the original nutrient profile of the food item;

foods that replace other foods in the diet should be adequate replacements, both functionally (e.g., an entree for another entree) and nutritionally;

formulated meal replacers should have a balanced nutrient content and caloric content suitable to the intended conditions of use (e.g., a product used for weight control); and

any false or misleading promotion of foods, including fortified foods, does not benefit the public.

The American Medical Association is actively participating in discussions that center on these, and the many other concerns, surrounding food fortification. We would be pleased to assist FDA, the USDA and the FTC in developing updated policies on nutrient restoration and fortification practices.

Label identification of manufacturer, packer or distributor

FDA and the USDA have stated that they will continue their present policy of requiring declaration of the name and address of the manufacturer, packer, or distributor on food labels. The agencies have indicated that the potential cost of a change in this labeling policy would outweigh the projected benefits to consumers.

We concur generally in this view, but would point out a potential problem when a food's label bears only the distributor's name. In some instances, a consumer may need to know specific ingredient information—information that in all likelihood a distributor does not have readily available (i.e., in order to manage a problem of intolerance to a food component). We are hopeful that efforts underway to expand label declarations for foods' ingredients will satisfy such consumer need for ingredient information where it does not now exist and that current requirements regarding the identification on a label of the manufacturer or packer will not need to be changed.

Natural and organic claims

FDA and the USDA have stated that, for the present, they will continue their respective policies for regulating claims of "natural" or "organic" contents—pending further evaluation of the FTC's rulemaking efforts related to the use of such claims in advertising. We perceive that all three agencies agree that because it is false and misleading to claim that foods described as natural or organic are inherently superior in nutrient content or safety, such claims should be prohibited.

In our view, there are many difficulties inherent in the use of the terms "natural" or "organic" in food labeling. The terms are used arbitrarily. Their meaning to a consumer is influenced by factors that the government cannot control. Hence, efforts by government agencies to try to appropriately define such terms, and then limit their use in advertising or label claims only to those products that meet that definition, will do little to resolve the problems and confusion caused by use of these terms. Moreover, for the government to sanction the use of these terms would only serve to perpetuate the myths surrounding these words when they are used to describe foods. Such government action would only divert attention from the basic truth—namely, that the words "natural" and "organic" have no meaning that relates to a food's nutrient content or safety. In our opinion, they should not be granted official recognition because scientific support for their use is lacking and their connotation to lay persons is so widely divergent.

SAMPLE.—*Nutrition information per serving*

Serving size (ounces)	[1] 2
Servings per package	10
Per 2 oz. serving:	
Calories	150
Protein (grams)	5
Carbohydrates (grams)	27
Fat (grams)	2
Polyunsaturated	
Saturated	
Cholesterol	[2]
Sodium	
Potassium	

[1] Approximately 2 slices.
[2] Less than 5 milligrams.

Ingredients: (listed in descending order from most to least) Enriched flour (barley malt, ferrous sulfate (iron), niacin (a "B" vitamin), thiamine monitrate (B_1), riboflavin (B_2), water, corn syrup, lard, yeast, salt, soy flour, calcium sulfate, sodium steroyl-2-lactylate, mono- and di-glycerides, whey, monocalcium phosphate, calcium carbonate, polyglycerate 60 (ethoxylated mono- and di-glycerides), hydroxlated lecithin, soy and whey protein, potassium bormate, calcium propionate (to retard spoilage).

[Attachment A]

A BILL To amend Section 403 of the Federal Food, Drug, and Cosmetic Act, as amended, to require that foods for human consumption be labeled to show the amount of sodium and potassium in mgs. per average serving.

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled,

SECTION 1. Section 403 is amended by adding at the end thereof the following new subsection as follows:

"(q) If it is a food for human consumption and in package form, unless its label bears information showing the total amount of sodium and potassium in milligrams per serving: *Provided, however,* That those foods subject to this subsection shall not be required to bear the label information specified herein upon a determination by the Secretary that—

"(A) a food or class of foods does not contain sodium or potassium; or

"(B) the public would be appropriately informed concerning a food or class of foods total sodium or potassium content by the posting of a notice in close proximity to the point of final sale of such food that contains the information specified in this subsection."

SEC. 2. The Secretary of Health, Education, and Welfare shall promulgate and publish regulations to implement the foregoing provisions within six months after they become law, which regulations shall not be of the order currently required for nutrition labeling (i.e., 21 C.F.R. § 101.9), but shall be of the order requiring the

evaluation and creation of a system that is both cost effective and responsive to the needs of the public, such as one permitting the use of "mean values" for a food or class of foods that may be maintained in and obtained from an officially sanctioned data bank.

STATEMENT OF JERRY GORDON, EXECUTIVE DIRECTOR, MEAT & POULTRY ASSOCIATION OF HAWAII, HONOLULU, HAWAII

As expressed by the American Meat Institute, a period of inflation is no time to install a costly new federal labeling system.

AMI Consumer Affairs Director Jane Anderson testified at a joint hearing on labeling that further research is needed on food information, including alternate delivery systems. She said research should seek positive ways to distribute food information.

"In view of the increasing hardship inflation is causing at the checkout counter, we believe that no new, extensive labeling system should be implemented without a clear and compelling case that it is needed," Anderson said. "We believe that such a case has not been made by the three agencies."

Anderson also noted that the federal meat inspection program requires that all meat product labels receive pre-market clearance and that labels provide full ingredient listings. We agree, as she said, the government should "test market" new labeling proposals before making them compulsory.

Anderson's testimony referred to an omnibus labeling proposal announced December 21, 1979 by the U.S. Department of Agriculture, Food and Drug Administration and the Federal Trade Commission.

On test marketing Anderson said: "Historically, when business has every possible incentive to make its investment in new product development work for their customers, there are still many failures. Why then propose the exchange of one labeling format for another without new product testing." We also ask this question.

Anderson termed the reading of labels in stores "a poor classroom for teaching nutritional balance." Consequently, as AMI feels that a piecemeal approach to product information is not the answer. We also strongly urge the agencies to fully explore alternative information distribution systems, other than labels.

"AMI believes the agencies have yet to make a compelling case for their proposed food label rule making," Anderson said. "Indeed the agencies' data clearly indicates the lack of a mandate for massive label changes . . . it highlights the significant gap between the views of special interests and those of the general public."

Citing cost and the inflationary period, Anderson said, "AMI requests that an economic impact statement on the total tentative labeling positions of the agencies be issued before any individual labeling proposal is made."

SUMMARY

We want to go on record of endorsing the position on the "Nutritional Food Labeling" as expressed above.

We urgently request that the agencies involved that have the power of making compulsory decisions listen to the voices of the industry it effects.

As for the Meat Industry, it has always been the goal to give the consumer the most wholesome product at the least cost. During the runaway period of inflation, it is a challenge, and the most help can come from cooperation from all branches of the government to cooperate among themselves.

AMERICAN FARM BUREAU FEDERATION,
Washington, D.C., April 1, 1980.

Hon. GEORGE MCGOVERN,
Chairman, Subcommittee on Nutrition, Committee on Agriculture, Nutrition and Forestry, U.S. Senate, Washington, D.C.

Dear Senator McGovern: On behalf of the 3.2 million member families of the American Farm Bureau Federation, we wish to submit this letter for the hearing record on S.1651, the "Department of Agriculture Nutrition Labeling and Information Act of 1979."

The voting delegates of the member State Farm Bureaus to the most recent annual meeting in Phoenix, Arizona, adopted the following policies related to food labeling and nutrition:

"We support proper labeling of foods, fibers, and other agricultural products.

* * * * * * *

"We deplore the attacks made by various health groups, and special government bodies and high government officials against wholesome foods such as meat, milk and eggs. No committee, agency or person should be permitted to dictate the foods that should or should not be eaten. Tax money should not be spent to control the diets of American people.

"A viable educational program based on sound, scientifically proven nutritional standards which are complemented by the various food service programs will help shape our eating habits."

We believe that before Congress enacts broad, new and costly ingredient and nutrition labeling requirements, such as those portrayed in S. 1651, there should be a determination made that consumers want, need, or will use and understand them.

According to a study of consumer attitudes and behaviors conducted by Yankelovich, Skelly, and White, Inc., in 1978:

"One problem with nutrition labeling now is that it is too technical for nearly half of all consumers Who Do Read Labels."

In a statement of tentative positions published in the December 21 Federal Register, USDA, FTC, and FDA announced that only about 8 percent of the persons surveyed during a consumer food labeling survey in October and November of 1978 mentioned specific food labeling problems in response to the following question: "Aside from prices, please tell me about any particular problems, difficulties, or concerns which you have with food these days."

In response to a similar question in the same survey which asked persons if they were satisfied with the kind or amount of information available on food packages or cans, only 8 percent said nutrition labeling should be improved. This survey certainly does not signal a massive outpouring of consumer need for mandatory or voluntary nutrition labeling.

We support the concept that any processor who voluntarily chooses to make a nutrition claim on a product label must do so accurately. We know that many processors already make many nutrition claims as part of their marketing strategy, and we believe that if the consuming public demands additional nutrition labeling in the marketplace, the food industry will respond to the demand.

We believe that allowing consumers to exercise their right to seek nutrition information through voluntary choice in the marketplace is preferable to a Congressionally mandated nutrition labeling requirement.

Considerable progress is being made to develop a nutrition data base which could provide vast amounts of information with regard to the nutritive composition of foods. We urge this Subcommittee to give consideration to a demonstration project to determine whether consumers can and will make use of the nutrition data when it is completed.

We believe that, especially during these times of burgeoning inflation and when there is a concerted effort to balance the federal budget, legislation to impose new, unnecessary regulatory burdens on food producers is inappropriate and would be counterproductive to the best interests of American consumers.

In summary, we support the initiation of a two or three-year demonstration project which would allow for voluntary participation and would attempt to answer such basic questions as (1) can and will consumers use nutrition labeling, (2) what will nutrition labeling cost, (3) are consumers willing to pay the increased cost for the additional information they are buying, and (4) what are the most effective ways of delivering nutrition education.

Before actions are taken to implement the results of this project they should be presented to Congress for review and to industry for consideration, analysis, and comments.

We would not support a mandatory approach to implementing the results of this demonstrative project.

Thank you for considering our views.

Sincerely,

VERNIE R. GLASSON,
Director, National Affairs Division.

STATEMENT OF R. F. ANDERSON, EXECUTIVE DIRECTOR, AMERICAN BUTTER INSTITUTE-NATIONAL CHEESE INSTITUTE, INC., CHICAGO, ILL.

Comments on a number of specific questions on labeling policy were requested by FDA/USDA/FTC in Docket No. 78N-0158. The American Butter Institute and the

National Cheese Institute, have urged individual members to comment on those issues affecting their operation.

You should know there is general industry agreement with the present voluntary use of nutrition information, open dating, and ingredient labeling provisions. This system of providing consumer information is being voluntarily applied where appropriate, on many butter and cheese labels. We recommend this voluntary system be retained and encouraged, we do not object to the listing of ingredients in standardized foods or open dating.

The following comments are addressed to a crucial issue that should be considered basic to future government food policy. The question is whether government agencies are for or against food standards of identity. Neutrality or benign neglect toward standards, is disruptive, and should not be the answer. In our opinion, major factors of the proposed policy detailed in Docket No. 78N–0158, can only be formalized if there is a strong and enforced food definition and standards program. Consumer use of nutrition information, ingredient statements and product nomenclature, would be hampered if standardized foods are not readily available for comparison. Standardized foods are a bench mark the consumer uses to evaluate the value of a non-standardized, but similar product. We are concerned the new proposed government food policy does nothing to strengthen the standards program and seems to depreciate its usefulness.

Prior to enactment of the Federal Food, Drug, and Cosmetic Act in 1938, and until the food standard writing provisions of the Act were begun in the late 1940's the consumer did not have a large selection of standardized foods. Butter was one of the very few standardized foods and that took an Act of Congress. The butter standard meant, however, it could be purchased with confidence any place in the country. The other non-standardized foods followed their own traditional recipe with occasional technical innovation and formula experimentation.

The question then as now, was how to provide for these technical changes and at the same time, assure a safe wholesome food supply. So in 1935, President Roosevelt addressed the Congress on the need for a revised federal food and drug code. The President called on the food industry to adhere to the simple principle of honesty without fear of penalty. He pointed out that the various qualities in food require judgement on the part of consumers and, as the food industry's technology becomes more complex, these judgements, in his view, were more difficult to make. Therefore, government sponsored regulations must be established to protect the consumer. Specifically, the President called for the establishment of standards of identity and quality, the exclusion of all adulterated products from the market place, and the establishment of controls to regulate labeling.

The 75th Congress enacted Public Law 717, and on June 25, 1938, the FD&C Act became law. Congress has amended the Act several times, but the basic purpose to protect the consumer remains foremost.

In the late 40's and early 50's, the National Cheese Institute participated in a series of public hearings and in more recent years, formal petition gave technical assistance to the FDA in the preparation of these standards of identity. We support the 73 cheese definitions and standards of identity now promulgated and believe the consumers and the cheese industry have benefited from them.

Now to the problem. In 1969, President Nixon called The White House Conference on Food Nutrition and Health, and since that time there has been a noticeable effort by persons, in and out of government, to minimize the importance of food standards of identity. Those who support this position contend the standards are outmoded, inhibit new product innovation, and the procedure for amending existing standards or issuing new standards is too cumbersome.

The alternative to standards is presumably for the consumer to assume the task of reading and interpreting the label in lieu of reliance on government standards. This seems to return the consumer to the position which existed in the 1930's before standards of identity were adopted, only with more words to read on the label. We believe a more prudent approach would be to earnestly study and update the present procedures to find where the system impedes the development of standards. Then FDA should make indicated changes to revitalize the standards program.

We favor strong standards of identity, because they work. The cold, hard facts show a close correlation between the advent of cheese standards and the increased awareness of cheese by the consumer. We believe the phenomenal growth in cheese consumption was aided by consumers being confident a cheese with a standard name could be compared with any other cheese with the same name. As with butter, for example, cheddar cheese may be purchased with confidence any place in the country with assurance the product is what the name on the label states. Further, standards encourage competition within the industry as each cheese maker must abide by the same acceptable reasonable regulations.

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The principle difference between an FDA standardized and non-standardized food are the "name" and how ingredients are listed. FDA standardized foods must list any suitable optional ingredients used, but need not list mandatory ingredients. Whereas, non-standardized foods may be formulated from a number of suitable ingredients provided the ingredients used are listed on the label.

As stated previously, we have no objection to listing the ingredients in butter and cheese. The ingredient line for both is straight forward and many firms voluntarily list all ingredients. Our concern is the integrity of the name. Government policy must firmly reestablish and reinforce the integrity of standardized names. Words such as, "imitation" or "substitute" affixed to a standard name should not become the permanent name of a food.

The March 16, 1979 National Cheese Institute petition for the standardization of Emarine, describes a method for providing the consumer and the industry the information needed to identify a cheese analog. A similar standardization procedure could work for other fabricated foods. We submit FDA inaction on the NCI proposal has and continues to cause confusion in the market place for both the consumer and the food industry.

A condition of caveat emptor could prevail if the integrity of definitions and standards of identity is not protected. All consumers, not only those with a particular interest in a specific ingredient, will be required to read and understand every label, and somehow determine if the food is standardized or non-standardized, and finally judge which of the approximately 8,000 grocery products available in the supermarket meet expectations. Further, if the difference between a standard and non-standard food is blurred and food names become meaningless, why should anyone in the food industry conform to a standard?

We believe the present standards system, if it were more effectively used, with trained competent government food technicians acting on behalf of the consumers, is the best way to serve the interests of the consumer and the food industry.

One of the more popular suggestions put forth during the FDA/USDA/FTC hearings and by some of the legislators is, for the development of a national nutrition data bank. It is reasonable to project that standardized foods could easily be included in such a data bank. ABI and NCI voluntarily provided nutrition information to the revised Agricultural Handbook No. 8. The more popular cheese varieties and butter are included in that book. Many butter and cheese firms include this nutrition information on their labels.

However, what if a food is not standardized and any number of ingredients or different formulations are used to make similar products for local or regional distribution? A data bank could conceivably have page after page of data for similar but nutritionally different foods. Each time a non-standardized food changed formula, the particular page assigned that product could be obsolete. So, if a nutrition data bank is a good idea, then standards of identity should be encouraged not discouraged.

In conclusion, we have concentrated on what we perceive to be a government policy harmful to the future of standards of identity. Instead of planning to discard, or weaken, or disregard them—the government policy should keep them, use them, inform the consumer about them, and reestablish a more efficient program to amend or publish them.

Finally, the government should begin again to enforce standards of identity in accordance with the purpose of the law to protect the consumer under a system whereby, the food industry can continue to adhere to the simple principle of honesty without fear of penalty as recommended some forty-five years ago.

Thank you for this opportunity to comment on this most vital part of your proposed food labeling policy.

STATEMENT OF STEPHEN A. BROWN, VICE PRESIDENT AND GENERAL COUNSEL, GROCERY MANUFACTURERS OF AMERICA, INC.

The Grocery Manufacturers of America, Inc., (GMA), is the trade association of the nation's leading manufacturers of food and grocery products. Both S 1652 and its counterpart, S 1651, affect the majority of GMA's membership. GMA therefore appreciates the opportunity to review the nucleus of the proposed legislation with you: its provisions for mandatory nutrition labeling, and for the development and use of a nutrient data bank as a foundation for nutrition labeling.

First, we re-emphasize; GMA's support for the conveyance of useful and meaningful information about foods to consumers. Labeling can be a valuable adjunct to food and nutrition education.

Indeed, informative food labeling can be as valuable to industry as it is to consumers. Recognizing this, GMA has supported full ingredient labeling for seven

years and helped FDA develop and implement its current voluntary nutrition labeling system. Moreover, GMA has been actively involved in the tri-agency (FDA, USDA, and FTC) review of federal food labeling policy initiated in 1978, most recently through testimony presented to the three agencies on March 5, 1980.

The drafters of S 1652 are to be commended for recognizing the urgent need for a nutrient data bank system. However, since the purpose of a nutrient data bank is to facilitate the provision of nutrient information to consumers through labeling, any legislation providing for the use of a data bank must also specify how it is to be implemented. Without specific legislative guidance, the implementing agencies could easily frustrate the purpose of the program.

The agencies continue to ignore the fact that manufacturers could significantly reduce the cost of nutrition labeling if they were permitted to rely on existing common sources of quantitative nutrition information, such as U.S. Department of Agriculture Handbook 8.

According to the agency plan outlined in meetings with Congress and industry, companies wishing to use a data bank would be required to underwrite the bulk of its cost—estimated to be $100 million—by performing initial chemical analyses. Then, in order to be certified to use it, manufacturers would have to perform identical analyses to prove that each of their products falls within the data bank values. Recertification, dependent again upon the same expensive analyses, would be required on a yearly basis.

Thus, under the agency plan, a device originally intended to facilitate industry participation in voluntary nutrition labeling programs would become counterproductive. Industry costs would not be reduced but rather would be greatly increased without concurrent benefits. Discouraging the use of nutrient data banks discourages nutrition labeling.

Moreover, the tri-agency Tentative Positions document demonstrates that consumers do not want changes in the current food label, especially if such changes would increase the cost of the product. Only 8 percent of the respondents to FDA's 1978 Consumer Food Labeling Survey had problems with food labeling.

However, the fact that consumers do not want any change in the current food label is not conclusive evidence that the current label cannot be improved. If consumer research ultimately justifies it, a comprehensive blueprint should be developed. Until that time, the current label format, including voluntary nutrition labeling, should be retained.

No need has been shown for mandatory nutrition labeling. In fact, a recent FDA study demonstrated that over 50 percent of all food products are now nutrition labeled, under the current voluntary system. Rather than increasing the costs of food labeling by making nutrition labeling mandatory, Congress and the federal agencies could significantly increase the number of nutrition labeled products by making nutrient data banks the foundation for nutrition labeling.

GMA does not support mandatory nutrition labeling, but GMA continues to support the current voluntary nutrition labeling system. GMA also supports the development and use of a nutrient data bank system making maximum use of existing data until it is replaced with improved data. Legislation providing for a nutrient data bank system should include appropriate guidance to the agencies. Use of a nutrient data bank system, including existing data, would increase participation in voluntary nutrition labeling.

Thank you for the opportunity to present our views.

II

96TH CONGRESS
1ST SESSION

S. 1651

Entitled the "Department of Agriculture Nutrition Labeling and Information Act of 1979.".

IN THE SENATE OF THE UNITED STATES

AUGUST 2 (legislative day, JUNE 21), 1979

Mr. MCGOVERN (for himself, Mr. RIEGLE, Mr. KENNEDY, Mr. LUGAR, Mr. LEAHY, Mr. WILLIAMS, Mr. JAVITS, and Mr. METZENBAUM) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

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A BILL

Entitled the "Department of Agriculture Nutrition Labeling and Information Act of 1979.".

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. This Act may be cited as the "Department of Agriculture Nutrition Labeling and Information Act of 1979".

DECLARATIONS AND FINDINGS

SEC. 2. Congress finds that:

(1) Consumers need accurate, objective, and easily understandable nutrition and ingredient information on the foods they eat in order to help them choose healthier diets at reasonable cost.

(2) The ability of consumers to select a more nutritious diet is a critical factor in preventing disease and promoting health because diet is a risk factor in six of the ten leading causes of death, and is a causative factor in obesity and dental caries.

(3) More optimal diet selection can help slow mounting medical care costs because healthier people need less medical attention.

(4) The requirements for nutrition labeling need to be altered to reflect better the significant impact on our health of the consumption of the macro-nutrients—protein, fats, and carbohydrates—as well as such other significant dietary components as sodium and cholesterol.

(5) In altering labeling requirements, special attention must be placed on improving labeling formats to convey more effectively needed information in a readily understandable fashion to the average consumer.

(6) In order to achieve maximum benefit from label modifications, consumers must be educated on the use of the nutrition information that is provided.

(7) Nutrition labeling should be an information function that allows for appropriate flexibility on the part of producers, and that also protects and enhances the right of consumers to know what is in the food they select so that they can make informed choices.

INGREDIENT AND NUTRITION LABELING INFORMATION

SEC. 3. (a) The Secretary, after consultation with the Secretary of Health, Education, and Welfare, shall develop and implement a nutrition labeling and information system for meat, meat food products, and poultry, and poultry products, capable of use as human food.

(b) The Secretary shall prescribe, in order to provide health information to consumers, that the labels and labeling of meat food products, and poultry products, capable of use as human food, shall include at least the following:

(1) unless a standard name is required under sections 1 or 7 of the Federal Meat Inspection Act, or 4(H)(7) of the Poultry Products Inspection Act, the common or usual name (if any);

(2) the common or usual name of each ingredient, including color additives and spices, in the descending order of its predominance by weight, except that (A)

any ingredients that individually comprise five percent or less of a food need not be listed in such order but shall be named at the end of the ingredient list, and (B) any flavorings that are not sold as such shall be designated as artificial flavorings or natural flavorings, as the case may be, without naming each flavoring, unless the Secretary requires that the common or usual name of a flavoring be on the label for the purpose of providing health information to consumers;

(3) a declaration that ingredients are listed in the descending order of predominance by weight;

(4)(A) a declaration of the quantity or percentage (as determined by the Secretary) of any specified ingredient (other than a flavoring) or class of ingredients if the Secretary determines that such ingredient or class has a significant bearing on the quality, consumer acceptability, or cost of a meat food product or poultry product, capable of use as human food;

(B) the Secretary may not require that an ingredient that comprises 5 per centum or less of a meat food product, or poultry product, capable of use as human food, be declared under clause (A) of this paragraph unless, in addition to the determination under such paragraph, he determines that the absence of such dec-

laration is likely to result in consumer deception or confusion;

(5) the total number of calories per serving;

(6) the amount per serving of protein, fats, and carbohydrates in terms of caloric content;

(7) the amount per serving of sodium unless the Secretary determines that providing such information is not necessary to provide health information to consumers; and

(8) the amount per serving of cholesterol unless the Secretary determines that providing such information is not necessary to provide health information to consumers.

(c) To the extent that compliance with the requirements of subsection (b) of this section is impracticable, would result in unfair competition, or is not necessary to provide health information to consumers, the Secretary may prescribe exemptions from such requirements.

(d) The Secretary, for purposes of subsection (b), and after consultation with the Secretary of Health, Education, and Welfare, shall allow to the maximum extent feasible and appropriate, the use of nutrition data bases that indicate representative (weighted) nutritional value at point of purchase.

(e) The Secretary may, where appropriate, prescribe a system of symbols, figures, or other devices that will enable

consumers to comprehend readily the nutrition information that is or may be required to be placed on labels or labeling by subsection (b) of this section.

(f) This section shall only apply with respect to meat food products, and poultry products, capable of use as human food, that are introduced or are delivered for introduction into interstate commerce two years after the date of enactment of this Act.

JURISDICTION AND ENFORCEMENT

SEC. 4. (a) The United States district courts, the District Court of Guam, the District Court of the Virgin Islands, the highest court of American Samoa, and the United States courts of the other Territories, are vested with jurisdiction specifically to enforce, and to prevent and restrain violations of this Act, and shall have jurisdiction in all other kinds of cases arising under this Act.

(b) This section shall only apply with respect to meat food products, and poultry products, capable of use as human food, that are introduced or delivered for introduction into interstate commerce two years after the date of enactment of this Act.

DEMONSTRATIONS AND EVALUATIONS

SEC. 5. (a) The Secretary may approve proposals to undertake demonstrations to ascertain the most effective methods of organizing the information on labels and labeling of

meat, meat food products, and poultry and poultry products, capable of use as human food in order to convey to consumers the information that is or may be required to be placed on labels and labeling under section 3 of this Act—

(1) with particular emphasis on the following methods of conveying such information:

(A) nutrient density;

(B) serving size or standard unit of measure; and

(C) ingredient function; and

(2) with particular emphasis on conveying information on:

(A) protein, fats, and carbohydrates;

(B) sodium;

(C) cholesterol; and

(D) vitamins and minerals.

(b) Proposals to undertake demonstrations shall state the specific objectives of the demonstration and the information that will be provided from the demonstration in order for the Secretary to evaluate its effectiveness. Upon completion of a demonstration under subsection (a) of this section, the Secretary shall prepare a written evaluation of any such demonstration within one hundred and eighty days of receipt of information from such demonstration.

(c) The Secretary may waive from the requirements of any applicable statute, under such terms and conditions, and for such periods of time as the Secretary prescribes, any meat, meat food product, and poultry, and poultry product capable of use as human food, that is engaged in demonstrations approved under subsection (a) of this section.

STANDARDIZED REFERENCE ON THE NUTRIENT COMPOSITION OF FOODS

SEC. 6. (a) The Secretary may, in cooperation with the Secretary of Health, Education, and Welfare, the land-grant colleges and universities (those institutions eligible to receive funds under the Act of July 2, 1862 (12 Stat. 503–504, as amended; 7 U.S.C. 301 through 305, 307, and 308), or the Act of August 30, 1890 (26 Stat. 417 through 419, as amended; 7 U.S.C. 321 through 326 and 328, including the Tuskegee Institute)), and other appropriate public and private entities, develop and publish a standardized reference on the nutrient composition of all foods.

(b) The standardized reference to be developed under subsection (a)(1) of this section shall indicate representative (weighted) nutritional value at point of purchase, and (2) when developed, can serve as the basis for the information that is or may be required to be placed on labels and labeling under section 3.

(c) For the purpose of this section, there are authorized to be appropriated $1,000,000 for the fiscal year ending September 30, 1981, $2,000,000 for the fiscal year ending September 30, 1982, and $1,000,000 for the fiscal year ending September 30, 1983.

NOTIFICATION TO AND REPORT BY THE FEDERAL TRADE COMMISSION

SEC. 7. (a) The Secretary shall notify the Federal Trade Commission of the nutrition information that is to be used on labels or in labeling pursuant to section 3 of this Act and recommend to the Commission which (if any) of such information should be required by the Commission under the Federal Trade Commission Act to be included in the advertising of meat, meat food products, and poultry and poultry products, capable of use as human food.

(b) The Chairman of the Commission shall report two years after the date of enactment of this Act and biennially thereafter to Congress on (1) any recommendations made to the Commission by the Secretary under subsection (a) of this section, (2) in those situations where the Commission accepts a recommendation, a description of any action taken to implement such recommendation, and (3) in those situations where the Commission fails to accept, in whole or in part, a recommendation, a description of the reasons for such failure.

UNIFORM RETAIL QUALITY GRADE STANDARDS

SEC. 8. (a) The Secretary, after consultation with appropriate public and private entities, shall develop and promulgate a system of retail quality grade standards for meat, poultry, dairy products, eggs, and fresh fruits and vegetables expressed in a uniform nomenclature.

(b) The Secretary shall establish the manner in which the system of retail quality grade standards shall be displayed and disseminated to the public. Such dissemination shall specifically include a program of consumer education to make retail quality grade standards widely known to consumers.

(c)(1) In developing and updating retail quality grade standards, the Secretary shall consider, where appropriate, the nutritional quality, of meat, poultry, dairy products, eggs, and fresh fruits and vegetables, as well as the acceptability of the products.

(2) To the extent consistent with paragraph (1) of this subsection, grading methods in use prior to the enactment of this Act may be used by the Secretary in establishing the system of retail quality grade standards for meat, poultry, dairy products, eggs, and fresh fruits and vegetables.

(d) Any meat, poultry, dairy products, eggs, and fresh fruits and vegetables sold after the implementation of the retail quality grade standards developed under this section shall either be conspicuously labeled in accordance with such

standards or shall be conspicuously labeled "not quality graded by the United States Department of Agriculture".

(e) The retail quality grade system authorized under this section shall be implemented two years after the date of enactment of this Act.

DEFINITIONS

SEC. 9. For purposes of this Act,

(1) the term "capable of use as human food" has the same meaning as is assigned to that term by section 4(v) of the Poultry Products Inspection Act (21 U.S.C. 453(v), and section 1(k) of the Federal Meat Inspection Act (21 U.S.C. 601(k));

(2) the term "commerce" has the same meaning as is assigned to that term by section 1(h) of the Federal Meat Inspection Act (21 U.S.C. 601(h));

(3) the term "label" means a display of written, printed, or graphic matter upon the immediate container (not including package liners) of any article;

(4) the term "labeling" means all labels and other written, printed, or graphic matter (a) upon any article or any of its containers or wrappers, (b) accompanying such article or (c) displayed at point of purchase of such article;

(5) the term "meat food product" has the same meaning as is assigned to that term by section 1(j) of the Federal Meat Inspection Act (21 U.S.C. 601(j));

(6) the term "poultry" has the same meaning as is assigned to that term by section 4(e) of the Poultry Products Inspection Act (21 U.S.C. 4539(f));

(7) the term "poultry product" has the same meaning as is assigned to that term by section 4(f) of the Poultry Products Inspection Act (21 U.S.C. 453(f));

(8) the term "Secretary" means the Secretary of Agriculture or the Secretary's delegated agent.

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