

Y4
Ag 8/1

1070

9174
Ag 8/1
P 69/8

P 69/8 PLANT VARIETY PROTECTION

GOVERNMENT
Storage

RECEIVED

JUN 31 1970

THE LIBRARY
KANSAS STATE UNIVERSITY

HEARING

BEFORE THE

SUBCOMMITTEE ON DEPARTMENTAL OPERATIONS

OF THE

COMMITTEE ON AGRICULTURE HOUSE OF REPRESENTATIVES

NINETY-FIRST CONGRESS

SECOND SESSION

ON

**H.R. 13424, H.R. 13631, H.R. 13658, H.R. 13901,
H.R. 14332, and H.R. 15226**

JUNE 10, 1970

Serial BB

Printed for the use of the Committee on Agriculture



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1970

46-999

KSU LIBRARIES

ET500E 006TTV

COMMITTEE ON AGRICULTURE

W. R. POAGE, Texas, *Chairman*

JOHN L. McMILLAN, South Carolina,
Vice Chairman
THOMAS G. ABERNETHY, Mississippi
WATKINS M. ABBITT, Virginia
FRANK A. STUBBLEFIELD, Kentucky
GRAHAM PURCELL, Texas
MASTON O'NEAL, Georgia
THOMAS S. FOLEY, Washington
ELIGIO DE LA GARZA, Texas
JOSEPH P. VIGORITO, Pennsylvania
WALTER B. JONES, North Carolina
G. V. MONTGOMERY, Mississippi
B. F. SISK, California
BILL ALEXANDER, Arkansas
BILL D. BURLISON, Missouri
ALLARD K. LOWENSTEIN, New York
JOHN R. RARICK, Louisiana
ED JONES, Tennessee
JOHN MELCHER, Montana

PAGE BELCHER, Oklahoma,
Ranking Minority Member
CHARLES M. TEAGUE, California
MRS. CATHERINE MAY, Washington
WILLIAM C. WAMPLER, Virginia
GEORGE A. GOODLING, Pennsylvania
CLARENCE E. MILLER, Ohio
ROBERT B. MATHIAS, California
WILEY MAYNE, Iowa
JOHN M. ZWACH, Minnesota
THOMAS S. KLEPPE, North Dakota
ROBERT D. PRICE, Texas
JOHN T. MYERS, Indiana
KEITH G. SEBELIUS, Kansas
MARTIN B. McKNEALLY, New York
WILMER D. MIZELL, North Carolina

JORGE L. CORDOVA, Puerto Rico
Resident Commissioner

Mrs. CHRISTINE S. GALLAGHER, *Chief Clerk*
LACEY C. SHARP, *General Counsel*
HYDE H. MURRAY, *Associate Counsel*
L. T. EASLEY, *Staff Consultant*

SUBCOMMITTEE ON DEPARTMENTAL OPERATIONS

ELIGIO DE LA GARZA, Texas, *Chairman*

THOMAS G. ABERNETHY, Mississippi
WATKINS M. ABBITT, Virginia
GRAHAM PURCELL, Texas

THOMAS S. KLEPPE, North Dakota
ROBERT B. MATHIAS, California
KEITH G. SEBELIUS, Kansas

CONTENTS

H.R. 13631, a bill to encourage the development of novel varieties of sexually reproduced plants and making them available to the public, by making protection available to those who breed, develop, or discover them, thereby promoting progress in the useful art of agriculture-----	Page 67
Statement of:	
Babcock, George B., general manager, Grower Seed Association-----	28
Blum, John C., Deputy Administrator for Regulatory Programs, Consumer and Marketing Service, U.S. Department of Agriculture-----	2
Brown, Clarence J., a Representative in Congress from the State of Ohio-----	53
Delta & Pine Land Co-----	59
Fortmann, Dr. Henry R., regional coordinator, Northeast Association of Agricultural Experiment Stations-----	37
Horton, Hon. Frank, a Representative in Congress from the State of New York-----	53
House, Thomas B., president, American Frozen Food Institute-----	58
Klein, Andrew R., Synnestvedt & Lechner, patent lawyers-----	43
Loden, Dr. Harold D., director of research, ACCO Seed, Anderson, Clayton & Co-----	25
Mahon, Hon. George H., a Representative in Congress from the State of Texas-----	2
May, Hon. Catherine, a Representative in Congress from the State of Washington-----	52
McKenna, Richard W., senior vice president, Ferry-Morse Seed Co-----	24
Neeley, Dr. J. W., director of research, Coker's Pedigreed Seed Co-----	29
Purcell, Hon. Graham, a Representative in Congress from the State of Texas-----	51
Reeve, Eldrow, vice president for vegetable research, Campbell Institute for Agricultural Research, a division of Campbell Soup Co-----	57
Reid, Hon. Charlotte T., a Representative in Congress from the State of Illinois-----	54
Renner, Victor A., representing the O. M. Scott & Sons, Co-----	33
Rogers, John S., secretary-treasurer, National Council of Commercial Plant Breeders-----	20
Scott, Dr. Walter O., Illinois Crop Improvement Association-----	35
Smith, J. Ritchie, assistant director of research, National Cotton Council-----	39
Stark, Paul C., senior vice president, Stark Brothers Nurseries-----	32
Talcott, Hon. Burt L., a Representative in Congress from the State of California-----	55
Walker, George Rea, president, Stoneville Pedigreed Seed Co-----	34
Washington Association of Wheat Growers-----	55
White, Allenby, chairman, Breeders' Rights Study Committee, American Seed Trade Association, Inc-----	6
Correspondence submitted to the subcommittee:	
Bullard, Edgar, president, Texas Seedman's Association, letter of June 10, 1970-----	64
Campbell, J. Phil, Under Secretary of Agriculture, letter of June 10, 1970, report on H.R. 13631-----	1
Conlee, Doug, president, Texas Certified Seed Producers, Inc., letter of June 10, 1970-----	64
Klein, Andrew R., Synnestvedt & Lechner, patent lawyers, letter of June 16, 1970-----	45
Husbands, Fred H., executive vice president, National Cottonseed Products Association, Inc., letter of June 17, 1970-----	65

Correspondence—Continued

	Page
McLain, Marvin L., legislative director, American Farm Bureau Federation, letter of June 10, 1970-----	61
McLaughlin, Foil W., director in charge, North Carolina Crop Improvement Association, Inc., letter of June 8, 1970-----	61
Strayer, George M., secretary, Associated Hybrid Producers Cooperative Service, Inc., letter of June 8, 1970-----	63
Sutherland, John I., executive vice president, American Seed Trade Association, Inc., letter of June 15, 1970-----	62
Walker, John H., executive director, Society of American Florists and Ornamental Horticulturists, letter of June 19, 1970-----	65

PLANT VARIETY PROTECTION

WEDNESDAY, JUNE 10, 1970

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON DEPARTMENTAL OPERATIONS
OF THE COMMITTEE ON AGRICULTURE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m. in room 1302 Longworth House Office Building, Hon. Eligio de la Garza, chairman of the subcommittee, presiding.

Present: Representatives de la Garza, Purcell, Kleppe, Mathias, and Sebelius.

Also present: Mrs. Christine S. Gallagher, chief clerk; Lacey C. Sharp, general counsel; Hyde H. Murray, associate counsel; John A. Knebel, assistant counsel; L. T. Easley, staff consultant; and Fred T. Ward, assistant staff consultant.

Mr. DE LA GARZA. The committee will come to order.

We are considering today H.R. 13631 and related bills.

(See page 67 for text of bill.)

(The departmental report on H.R. 13631 follows:)

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D.C., June 10, 1970.

Hon. W. R. POAGE,
*Chairman, Committee on Agriculture,
House of Representatives*

DEAR MR. CHAIRMAN: This is in reply to your request of September 10, 1969, for a report on H.R. 13631, a bill "To encourage the development of novel varieties of sexually reproduced plants and making them available to the public, by making protection available to those who breed, develop, or discover them, thereby promoting progress in the useful art of agriculture."

This Department supports the objective of H.R. 13631.

We believe that it is desirable to provide incentive for private enterprise to undertake the research and development required to produce novel varieties of sexually produced plants. The proposed legislation would provide such incentive.

The Department is not prepared at this time to comment on the specific provisions of H.R. 13631. The Administration has under consideration a number of important changes to the laws protecting proprietary rights in the United States. This review will have implications for programs such as the one proposed here. We wish to reserve further comment on the provisions of H.R. 13631 until we have had an opportunity to evaluate them in the light of the findings of this Administration review.

The Bureau of the Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

J. PHIL CAMPBELL,
Under Secretary.

Mr. DE LA GARZA. We have the chairman of the Appropriations Committee, the distinguished gentleman from Texas, who has to attend a hearing of his committee. So, in deference to his very trying circumstances, and with the permission of the other witnesses, we will now hear from Chairman Mahon.

STATEMENT OF HON. GEORGE H. MAHON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. MAHON. Mr. Chairman, thank you for letting me appear. shall I say, out of order. I think it would be appropriate to place my remarks after the remarks of Mr. Purcell.

I simply wanted to appear here today to evidence strong support of the objectives of H.R. 13631. I realize that your committee will have a hard look at all of the phraseology and provisions, and you may or may not want to make changes, but I am convinced that something along the lines provided for in the bill is necessary, not just in the interest of the producers and developers of seed, but in the general interest of the farmer and the general interest of agriculture.

I have here today with me, Mr. George Babcock of my home town of Lubbock, Tex., and I understand he is scheduled to be one of the witnesses at the proper time.

All I wanted to do was to show interest in this matter and to thank the committee for the hearing which you have provided.

Mr. DE LA GARZA. Thank you very much, Mr. Chairman. We are very happy to have you here, and we will insert your prepared statement after the statement of the author of the bill.

Mr. MAHON. Thank you very much. I do not feel a further statement from me is necessary. The committee will, I am sure, fully explore all the aspects of the proposed legislation.

Mr. DE LA GARZA. We will now hear from the Department of Agriculture.

The witness testifying for the Department will be Mr. John C. Blum, accompanied by Mr. Martin G. Weiss, Mr. Rubin Hoffman, and Mr. Stanley F. Rollin.

We shall be very happy to hear from you, Mr. Blum, or any of your colleagues who wish to testify.

STATEMENT OF JOHN C. BLUM, DEPUTY ADMINISTRATOR FOR REGULATORY PROGRAMS, CONSUMER AND MARKETING SERVICE, U.S. DEPARTMENT OF AGRICULTURE; ACCOMPANIED BY MARTIN G. WEISS, ASSISTANT TO DEPUTY ADMINISTRATOR FOR FARM RESEARCH, AGRICULTURAL RESEARCH SERVICE; RUBIN HOFFMAN, OFFICE OF THE GENERAL COUNSEL; AND STANLEY F. ROLLIN OF THE GRAIN DIVISION, CONSUMER AND MARKETING SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Mr. BLUM. Thank you, Mr. Chairman.

I appreciate the invitation to appear before your committee and present the views of the Department of Agriculture on H.R. 13631. We have submitted an official report on this bill to the chairman of the House Committee on Agriculture.

The bill is designed, in the words of its preamble:

To encourage the development of novel varieties of sexually reproduced plants and making them available to the public, by making protection available to those who breed, develop, or discover them, thereby promoting progress in the useful art of agriculture.

The Department supports this objective of the bill.

We believe that it is desirable to provide incentive for private enterprise to undertake the research and development required to produce novel varieties of sexually produced plants. The proposed legislation would provide such incentive.

However, the Department is not prepared at this time to comment on the specific provisions of H.R. 13631. The administration has under consideration a number of important changes to the laws protecting proprietary rights and technical innovations in the United States. This review will have implications for programs such as the one proposed here. We wish to reserve further comment on the provisions of H.R. 13631 until we have had an opportunity to evaluate them in the light of the findings of this administration review.

Although I am unable to comment on policy aspects of the proposed bill, I have with me members of the Department's technical staff who would be glad to assist in answering any questions you may have concerning the technical aspects of the bill.

I will introduce the men accompanying me:

On my right is Dr. Martin Weiss, of the Agricultural Research Service; on my other side is Mr. Rubin Hoffman, of the Department's office of general counsel; and in the audience behind me is Mr. Stanley Rollin, who heads up our seed branch and our seed work in the Consumer and Marketing Service.

That concludes my statement, Mr. Chairman.

MR. DE LA GARZA. Thank you very much, Mr. Blum.

Are there any questions of Mr. Blum and his associates?

MR. KLEPPE. I do not have any now, but I wonder if you will be here through the rest of the hearing this morning.

MR. BLUM. I was planning not to be, myself, but the other men who are with me will be here, who are thoroughly knowledgeable, and I will be available if I need to be called back.

MR. KLEPPE. The reason I ask is that Mrs. May, one of the co-sponsors of this legislation, does have some questions she would like to have presented to representatives of the Department, and she is not here, nor do I know her questions. So, if someone would be around a little later, maybe we could call them back to the stand for questioning later on in the hearing.

MR. BLUM. We will have responsible officials of the Department here. I think they can answer the questions. If not, I will be glad to come back.

MR. KLEPPE. Thank you.

MR. DE LA GARZA. Mr. Sebelius?

MR. SEBELIUS. No questions.

MR. DE LA GARZA. Mr. Purcell?

MR. PURCELL. Mr. Blum, the Department has submitted a report addressed to the chairman of the Agriculture Committee on this bill?

MR. BLUM. That is right. I think it came up just this morning. It has been submitted.

Mr. DE LA GARZA. If the gentleman will yield, we have a letter dated June 10, signed by J. Phil Campbell, Under Secretary, and, without objection, it will be made a part of the record.

Mr. PURCELL. In this letter you say the Bureau of the Budget advises there is no objection to the presentation of this report from the standpoint of the administration's program.

Mr. BLUM. Yes, sir.

Mr. PURCELL. Does that mean they approve it or disapprove it?

Mr. BLUM. They approve our report.

Mr. PURCELL. Are they going to let you have any money to run the bill with?

Mr. BLUM. That is a question for the future, I believe.

Mr. PURCELL. I had gotten word, as so often is the case, that the Bureau of the Budget this year is not approving anything Agriculture wants. I have been told that they had disapproved the bill from their standpoint. I am glad to see they state they approve of your report, whatever that report is.

Mr. BLUM. The report is to support the objectives, and defer final comment on the specifics. So, I think there are unanswered questions in the area you were asking about, Mr. Purcell.

Mr. PURCELL. As I understand your statement, the Department says it is studying this matter.

Mr. BLUM. Not the Department, but the administration is studying the general question of proprietary rights. This is being done on an interagency basis. The Department of Agriculture is not directly involved. However, it does relate to the content of this bill.

Mr. PURCELL. Is there some big, high-powered commission appointed to do this study, or is it just a question of the hired folks down there studying it?

Mr. BLUM. I am not aware of any commission. I think the personnel of the various departments are making the review.

Mr. PURCELL. I am trying to get at, is there any likelihood of this legislation being held up, if the administration can hold it up, because they have some further study going on?

Mr. BLUM. I do not know about the progress of the legislation. I think the situation is that the Department's report and the administration's position on the details of this bill are being held up until this review is completed. Hopefully, it would be a matter of weeks rather than months to get this job completed.

Mr. PURCELL. Is it the belief of the Department, or at least of you, that there are benefits to American agriculture to be derived from this bill or legislation of this kind?

Mr. BLUM. Yes, sir.

Mr. PURCELL. Do you feel that the general public will be benefited by this legislation or similar legislation?

Mr. BLUM. We do.

Mr. PURCELL. That is all I have, Mr. Chairman.

Mr. DE LA GARZA. Thank you very much.

Have you some questions now, Mr. Kleppe?

Mr. KLEPPE. Let me ask Mr. Blum one question that has been expressed by Mrs. May. If you cannot answer it, maybe one of your associates could answer.

Do you feel that the 5-year challenge provision is adequate to protect the interest of all those who would be affected by this bill? For

example, the experiment stations. Would the Department object to or have any recommendation regarding an amendment to strengthen or tighten up this provision to provide more safeguards such as exempting experiment stations entirely from the prohibitions of the bill?

Mr. BLUM. There are two parts to the question. I think we might comment on the first part. I am not sure we can comment on the second at this time.

I would like to defer to one of my colleagues on the first part of that. Dr. WEISS.

Dr. WEISS. The 5-year period was specifically put in because of the possibility that public agency or industry varieties might be purloined by unauthorized persons. That is why this long period has been put into the bill. We believe that it is adequate at the present time.

Mr. KLEPPE. You believe it is adequate?

Dr. WEISS. Yes; I believe that it is adequate.

Mr. KLEPPE. On the second part of the question, what is it that makes it difficult for you to answer or that you do not have the position on, asking whether you have any objection to an amendment relating to this provision?

Mr. BLUM. I suppose it is related in part to Dr. Weiss' comment, that it does involve questions that we have not considered at this point, and I would hesitate to give a final departmental view at this time.

Dr. WEISS. May I interject. I do not believe that it would be advantageous to permit public agencies to ignore protection granted other public agencies or private industry. After all, these varieties can be used in further breeding programs. That is provided specifically in the act. Therefore, we do not believe it would be advantageous to exempt public agencies or anyone else from the provisions of variety protection.

Mr. DE LA GARZA. Thank you very much, Mr. Blum.

I might say that we will take at face value your statement saying that the Department supports the objectives of this legislation. We consider you the administration. As to the specifics of the legislation, if some further study is made, then we will see later, but at this time we will accept your statement and proceed accordingly, that the Department supports the objectives of this legislation.

Mr. BLUM. That is correct.

Mr. DE LA GARZA. Thank you very much for being with us. We appreciate your cooperation.

Mr. BLUM. Thank you.

Mr. DE LA GARZA. Trying to hurry up the hearing, we just had a group of 4-H members here from North Carolina, and I was to introduce them, but they have left before we had the opportunity to do so.

To the rest of the witnesses, let me state briefly that we understand the Senate is trying to accommodate all the out-of-town witnesses by hearing your legislation tomorrow. We had scheduled originally today and tomorrow for this legislation. In order to accommodate you, we will try to finish today. Therefore, we would very respectfully ask of you that if you have a prepared statement and you wish to submit the prepared statement, we will take it and submit it for the record for you. If you would like to be identified and make a brief—and I mean

brief—statement in conjunction with your prepared statement, we can do that. If you insist on reading all of your prepared statements, then we have tried to cooperate with you to get you over to the Senate tomorrow, and if you do not get there in time, then it will not be our lack of cooperation with you. We will ask you to conduct yourselves accordingly.

We shall now be very happy to hear from Mr. Allenby White, chairman of the breeders' rights study committee, American Seed Trade Association, accompanied by other gentlemen whose names appear on the witness list.

STATEMENT OF ALLENBY WHITE, CHAIRMAN, BREEDERS' RIGHTS STUDY COMMITTEE, AMERICAN SEED TRADE ASSOCIATION, INC., ACCOMPANIED BY RICHARD McKENNA, PRESIDENT; D. D. WALKER, FIRST VICE PRESIDENT; LOUIS ROBERTSON, LEGAL COUNSEL; DALE PORTER, LEGAL COUNSEL; AND JOHN SOUTHERLAND, EXECUTIVE VICE PRESIDENT

Mr. WHITE. Thank you very much, Mr. Chairman.

My name is Allenby L. White. I am chairman of the American Seed Trade Association's Breeders' Rights Study Committee, and vice president for research and market development for Northrup, King & Co., a Minneapolis State company selling, developing, and producing many kinds of seed.

The American Seed Trade Association represents over 450 seed companies, 41 State and regional associations, and, we believe, the seed industry at large. The association headquarters are located in the Executive Building, 1030 15th Street, N.W., Washington, D.C.

The American Seed Trade Association strongly supports H.R. 13631, and related bills, sometimes called the "Plant Variety Protection Act," because of a profound belief that this legislation will benefit not only plant breeders but will bestow even greater benefits on American agriculture and the community at large. In the following testimony, we shall attempt to provide the substance for this belief.

THE BASIC PRINCIPLES OF LEGAL PROTECTION

Article 1, Section 8, of the United States Constitution says:

The Congress shall have the power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

Congress acted on this constitutional mandate by enacting some patent legislation as early as 1790. Thus, it may be observed, the U.S. Patent System is an institution nearly as old as the Nation itself.

Much of the vigor and enterprise of the United States, both culturally and industrially speaking, can be attributed to its patent system. Abraham Lincoln once said that the American Patent System, "supplied the fuel of incentive to the fires of genius," thereby paying tribute to the innovators and creators of our Nation.

On May 23, 1930, the Townsend-Purnell Plant Patent Act was enacted into law. This legislation provided, for the first time in our history, the discoverer or originator of certain asexually-reproduced plant varieties with the right to legal protection for his developments.

Senate Report 315, dated April 2, 1930, cited the reasons for this legislation and stated, in part:

The purpose of the bill is to afford agriculture, so far as practicable, the same opportunity to participate in the benefits of the patent system as has been given industry, and thus assist in placing agriculture on a basis of economic equality with industry—

Today the plant breeder has no adequate financial incentives to enter upon his work. A new variety, once it has left the hands of the breeder, may be reproduced in unlimited quantity by all. The originator's only hope of financial reimbursement is through high prices for the comparatively few reproductions that he may dispose of during the first two or three years . . . Today, plant breeding and research is dependent, in large part, upon government funds to government experiment stations, or to the limited endeavors of the amateur breeder. It is hoped this bill will afford a sound basis for investing capital in plant breeding and, consequently, stimulate development through private funds.

Unhappily, this excellent law, even with its later amendment, provided legal protection only for certain asexually reproduced species. It left without legal protection varieties of those species which comprise the bulk of the Nation's total crop.

In Europe, meanwhile, certain nations, increasingly concerned with their agricultural productivity, began to perceive that one important solution to this basic national problem lay in spurring their plant breeding community to produce better, higher-yielding varieties, and enacted laws providing plant breeders with legal protection.

A number of European countries, having seen the benefits of such a law, came together to develop a convention which, when ratified by a majority of the cooperating countries, would come into force and provide the framework upon which national "breeders' rights" laws would be based. This convention is now in force and most Western European nations now either have new laws offering legal protection to plant breeders, or have such laws in late stages of development.

But, in the United States today, plant breeders still have no law protecting their innovations except as to the limited area of asexual (non-sexual) reproduction. If today's situation continues to persist, the American breeder and American agriculture will face an ever-growing disadvantage, not only in the international marketing of seed, but in the food, feed and fiber crops produced from it, since the productivity of such crops is determined in no small measure by the yield potential built into the varieties from which such crops are produced.

That the principle of legal protection for plant varieties is a sound one seems beyond dispute. This belief, in the principle of providing plant breeders with protection, seems amply supported by the U.S. Constitution; by the foresight of Congress, as elucidated in the quoted Senate Report No. 315, and by the fact that the Western European nations, and other nations, have accepted this principle to the extent of entering into regional conventions and enacting national laws codifying the basic principle.

THE BENEFITS OF LEGAL PROTECTION FOR PLANT VARIETIES

The benefits derived through provision of legal protection for plant varieties have been amply demonstrated in Western Europe where such protection has led to a great flowering of plant breeding, with the concomitant benefits of a more productive national agriculture and improved agricultural export. In the United States, where legal pro-

tection for plant varieties is not now available, we believe all of the following benefits may be expected from providing such protection:

1. It will greatly stimulate private plant breeding.
2. It will allow our Government agricultural experiment stations to increase their efforts on needed basic research.
3. It would permit public expenditures for applied plant breeding to be deviated to important areas which industry may not pursue.
4. It will give farmers and gardeners more choice, and varieties which are better in yield or in quality, and so forth.
5. It will make American agricultural products more competitive in world markets.
6. Consumers and other purchasers of crops will benefit: in some instances by improved quality, in others by aiding the production needed to serve them.

An explanatory word or two on these foreseen benefits may be in order.

The new law will definitely stimulate plant breeding. Experience in England provides a good case history. Prior to the enactment of its Plant Varieties and Seeds Act 1964, little plant breeding was done in England by private companies, and not much was done by government agencies. Since the new law came into effect, there has been a great upsurge of plant breeding, and a once moribund seed industry is now showing signs of great new vitality.

And we can, to some extent, draw on our own experience in reaching the conclusion that legal protection will stimulate private plant breeding. Prior to the Plant Patent Act of 1930, there was very little private plant breeding done aside from that performed by a handful of amateurs or hobbyists. Since then, some 2,700 plant patents have been issued, largely to commercial breeders. It is difficult to estimate the total value of the fruits, nuts, cut flowers and ornamentals deriving from patented varieties, but some insight into the value of this commerce may be obtained by considering the case of roses. It is estimated that 50 million rose plants, over 80 percent of which are from patent varieties, are sold to home gardeners in the United States each year. These plants have an estimated wholesale value of \$35 million. Additionally, there are some 20 million rose plants grown in U.S. greenhouses. More than 90 percent of these are of patented varieties and the flowers produced from them are estimated to have a commercial value in excess of \$50 million.

The availability of legal protection for plant varieties will allow our Government experiment stations to concentrate more of their efforts on greatly needed basic research. Plant breeding is becoming an ever more sophisticated science. If we are to continue to keep pace with developments elsewhere, our scientific institutions must constantly search out the new genetic techniques and properties which can be incorporated into the overall American plant breeding effort. Private seedsmen cannot afford to do this kind of research. The public institutions are well equipped for such investigations.

The availability of protection for plant breeders should increase the benefits from public expenditures where they continue to be used for applied plant breeding. Many public institutions today spend sizable sums of money on the development of finished plant varieties. Once released, these experiment station varieties are made available to all. Advertising and marketing such varieties is often not attractive.

Within a short time, many of those which are marketed disappear from the market because those who handle them learn they cannot make the kind of return on their investment needed to allow them to continually handle such varieties. This is a phenomenon well known to agricultural experiment station directors, and it is one reason, we believe, that these officials now look favorably on protection for plant varieties.

Legal protection for plant varieties will give American farmers the choice of more and better varieties. As pointed out, many experiment station varieties are short lived on the market. This knowledge has tended to discourage public institutions from applied plant breeding. The result is that farmers today are not being offered enough choices and not enough work is being done on some of our most important crops. Soybeans, one of our biggest crops, provides a good example of a crop that could and would be more productive as a result of the more and better varieties which would be made available as a result of legal protection for plant varieties. Other major U.S. crops, like cotton, wheat, barley, oats, and rice, for example, now largely ignored by the private researchers, would almost certainly benefit greatly from the impact of a competitive, private plant breeding effort.

Legal protection for plant varieties should make U.S. agricultural products more competitive in world markets. Higher crop yields help reduce per unit costs of the finished product, be it meat, milk, food, or fiber. Clear examples of this may be seen by noting the dramatic increase in yields of just two crops—corn and sorghum—which, as a result of their adaptation to hybridization, have been the object of keen competition among private plant breeders of this country. One hesitates to speculate what our position in the world market of these two crops might be if our breeders had not found it worth their while to solve the genetic riddles involved in unlocking greater yields of these important feed grains.

Although the foregoing statement has emphasized benefits to farmers, it is important to realize that all consumers and intermediate purchasers of farm products share in these benefits. To illustrate this we need only ask what would now be the cost to the consumer of almost any farm-derived product, if a farmer could only produce as much per acre as he did in 1930. In addition, it is primarily the consumer who benefits from those new varieties which provide the consumer with improved quality.

ACTIVITIES IN CONNECTION WITH LEGAL PROTECTION FOR PLANT VARIETIES

The American Seed Trade Association has long been aware of the lack of legal protection for sexually reproduced plant varieties, alive to the resulting inattention to the breeding of such varieties aside from those which could have biological protection because hybridized, and concerned about the continuing consequences both to the seed industry and to American agriculture. In 1961 the association appointed a Breeders' Rights Study Committee to investigate ways and means of providing legal protection for plant varieties.

The committee explored several means of accomplishing its objective. At one time it was decided that of all the alternatives considered, a simple amendment to the Plant Patent Act would be a practical solution.

The proposed amendment to the act called for insertion of the words, "or sexually" in sections 161 and 163 of the act, the net effect of which would be to permit the patenting of sexually reproduced, as well as asexually reproduced, varieties. This amendment failed in the standing Subcommittee on Patents, Trademarks, and Copyrights of the Committee of the Judiciary, but in referring to this proposed amendment, Senator McClellan, chairman, said in part:

The Subcommittee has received testimony both supporting and opposing an extension of protection to include sexually-reproduced varieties of plants. I have been impressed by the efforts of those who are seeking to develop new varieties of plants. These research activities should be encouraged by the granting of appropriate incentives. A significant difference of opinion exists as to the feasibility of accomplishing this objective through the plant patent statute. I understand that representatives of the American Seed Trade Association, the National Cotton Council, and other interested parties, plan to explore this subject further during the next few months with representatives of the Department of Agriculture and Patent Office. I hope that these conversations result in agreement as to a feasible course of action as to provide protection either within the patent system or by some other appropriate mechanism.

Attempts to reach agreement on the proposed amendment to the Plant Patent Act failed, and faults in that approach were recognized, so the American Seed Trade Association next undertook to develop a statute more carefully suited for plant variety protection. This effort resulted in a prototype of the legislation we are endorsing here today.

During the course of its attempts to develop a method for protecting plant varieties, the American Seed Trade Association has conscientiously consulted public and private bodies with any interest in this problem. Among those groups consulted are the U.S. Department of Agriculture, Agricultural Research Service and Consumer and Marketing Service; the Agricultural Experiment Station Directors, Experiment Station Committee on Policy; the Association of Seed Control Officials; the Association of Official Seed Certifying Agencies; the National Cotton Council; and other such organizations. Valuable counsel was received from all, the result of which was a number of new draftings all designed to make the best possible use of the new provisions or amendments urged upon us by our conferees.

Since the consultations referred to above had been held individually with the public groups just referred to, and since, therefore, there remained the possibility that changes suggested by one group might not be acceptable to another, it was decided to convene a conference during which experts of all the cited public agencies or organizations would have an opportunity, after agency-study of the then latest draft, to participate in such a meeting with the necessary directives and authority.

Accordingly, on March 25-26, 1969, a meeting was convened in Washington, D.C., which included representation from:

United States Department of Agriculture, Agricultural Research Service.

United States Department of Agriculture, Consumer and Marketing Service.

State agricultural experiment station directors.

Association of Seed Control officials.

Association of Official Seed Certifying Agencies.

The National Council of Commercial Plant Breeders.

The American Seed Trade Association.

During the course of this meeting, the proposed legislation was examined on a point-by-point basis and many significant amendments were made, most of which, in one way or another, were concerned with the public interest, including especially that of the farmer.

But, also raised during this meeting was the question of whether there should not be another method of protecting plant varieties. The seed certification group and the agricultural experiment station directors had both been directed by their constituents to support the principle of plant variety protection as laid down in the proposed act, but to also request that seed certification provide still another, and separate, means of protecting plant varieties. This directive raised the basic question of the wisdom of having two separate plant variety protection laws and a corollary question of legal prosecution of the right granted since, in one instance, the injured party would rely on civil court action for redress and, in the other, violations would be criminal acts, the prosecution of which would be conducted by the Federal Government.

It was decided there need not be two separate laws but, rather, that both forms of protection could be provided under the proposed Plant Variety Protection Act with an appropriate amendment to the Federal Seed Act. This solution, it was believed by the group, would satisfy the desires expressed by both industry and public organizations; would simplify the whole question of plant variety protection, and would give the individual applicant the option of obtaining either kind of protection through one basic source.

Very briefly, Mr. Chairman, that is a summary of the actions the American Seed Trade Association has taken to consult with public bodies; to assure that the public interest would be served by the proposed legislation, and to shape the legislation we are here today to endorse. We shall not attempt to describe for you the countless informal meetings we held with interested State and Federal workers; the specific ways in which these discussions have modified both the word and thrust of the proposed legislation, or the splendid spirit of cooperation which has characterized all these meetings. We sincerely believe that the product of these many discussions—the proposed Plant Variety Protection Act—represents a real testimonial to the efficacy of sincere Government-industry dialog.

COMMENTARY ON SALIENT PROVISIONS OF THE PLANT VARIETY PROTECTION ACT

The Plant Variety Protection Act is designed to provide legal protection for sexually reproduced plant varieties, a class for which legal protection has heretofore been unavailable.

In the commentary which follows, some salient features of the act are examined in the light of their meaning and purpose.

CHAPTER I, SECTION 1. ESTABLISHMENT

Section 1 established a bureau, to be known as the Plant Variety Protection Office, in the Department of Agriculture.

Those participating in the development of the proposed legislation examined at great length whether this bureau should be more properly

in the Department of Commerce. Not without some remaining disagreement, it was concluded it should be placed in the Department of Agriculture primarily on the basis that the expertise found in this Department would in any case be needed to determine the eligibility of candidate varieties.

CHAPTER I, SECTION 3. OFFICERS AND EMPLOYEES

Section 3 calls for the appointment of a Commissioner, an Assistant Commissioner and an appropriate staff. The Commissioner would be appointed by the Secretary of Agriculture. The Secretary is authorized to fix the compensation of each staff member at not in excess of the maximum scheduled rate provided for positions in level V of section 5316 of title 5, United States Code.

This section was included as presumably necessary for establishing a suitable office for administering the act. However, in conferring with technical experts of the Department of Agriculture we have learned that there is a belief that the organization of the Plant Variety Protection Office should be left more completely to the Secretary of Agriculture. This association has no objection to deleting section 3. It is observed that section 1 contemplates an office devoted solely to administration of this act, and that is deemed important for public confidence in the Office, lest there could appear to be some conflict of interest.

CHAPTER I, SECTION 7. PLANT VARIETY PROTECTION BOARD

A Plant Variety Protection Board will be established under the act which will be made up of individuals competent to review applications with approximately one half its members being drawn from the government or public sector, which could include a seed-consuming farmer representative, and the other half from the private or seed industry sector, which could include a seed-producer farmer representative, all serving without compensation. The Board will be advisory in nature. Among its most important functions, it will advise the Commissioner on:

1. Adoption of the rules and regulations.
2. Appeals from the findings of the examiner, and
3. Whether and how a protected variety should be declared open to the public.

The makeup of the Plant Variety Protection Board will require careful study. In order to provide an insight into its thinking and, possibly, to serve as later guidelines, the American Seed Trade Association offers the following proposals:

1. The Board shall consist of nine members: four from the seed industry, four from the public sector, and the Commissioner who shall serve as chairman.

2. The members shall be competent in the field of plant breeding and shall, insofar as possible, be selected in such a way as to collectively embrace knowledge of breeding of the overall array of species likely to be presented for plant variety protection.

3. In cases where the Board questions its competence to fairly adjudge an appeal, the Board may elect to empower additional voting members, but only in the ratio of its industry-Government makeup.

4. Since the Board is advisory, and its findings are therefore not binding on the Commissioner, the Commissioner shall neither vote nor inveigle, but, rather, shall assume the role of a hearing officer.

CHAPTER 3, SECTION 31. PLANT VARIETY PROTECTION ACT

The proposed basic fee for plant variety protection would be \$100 per application. This fee would, however, be increased by the cost of appeals, for extra copies of certificates, late filing, and in several other ways, all of which could mean the average income per application would be close to \$175.

The American Seed Trade Association does not oppose the concept of establishing a schedule of fees, even though substantially higher than those proposed, which would place this agency on essentially the same footing as the U.S. Patent Office with regard to the relationship between income and expenses. We understand the Patent Office covers some 60 percent of its expenses with its income. It is questionable that plant breeders should assume a greater responsibility than this, however, since, because there are fewer plant breeders than industrial inventors, even a 60:40 ratio would result in a far higher cost per application than would be true of those for industrial patents or for asexual plant patents. And, in this connection, we feel obliged to point out that the higher fees called for in meeting the U.S. Patent Office ratio of expense to income tends to favor financially stronger breeders and discourage the small or amateur breeder or the breeding of crop varieties for which the sales potential may be small but the need critical.

In conference with Government technical experts we find there is a view that the fees set are too low and should be left to the Secretary of Agriculture. The association has no objection to this. The consideration of public interest previously mentioned can be considered by him.

CHAPTER 4, SECTION 42. RIGHT TO PLANT VARIETY PROTECTION; PLANT VARIETIES PROTECTABLE

This section states that any sexually reproduced plant may be protected (but calls attention to section 45 which excludes fungi, bacteria, and hybrids) unless the variety was found not novel. Specific examples of nonnovelty are covered by subsections (a), (b), (c), and (d) of this section.

CHAPTER 4, SECTION 43, RECIPROCITY LIMITS

The essence of this section is that the protection afforded by this act will be available to foreign breeders but (in the absence of treaty) only to the extent their respective countries offer legal protection to American plant breeders. "Breeders' Rights" laws of the different foreign countries contain certain exclusions with regard to species and certain benefits available only to "convention countries". It is the intention of the authors of this bill that these same exclusions would be applied to foreign applicants with the eventual hope that, in time, the reciprocity limits would be broadened or, hopefully, eliminated.

CHAPTER 4, SECTION 44. PUBLIC INTEREST IN WIDE USAGE

This section gives the Secretary the right to declare a protected variety open to public usage, for a period of 2 years, when he determines that such action is "necessary in order to insure an adequate supply of fiber, food or feed in this country and that the proprietor is not supplying the public needs at a price which may reasonably be deemed fair."

CHAPTER 5, SECTION 52. CONTENT OF APPLICATION

Section 52 lays down the basic provisions for the content of the application including the name of the variety and its description.

And, of great importance, this section and section 81(d) require that the applicant deposit a viable sample of the basic seed necessary for the repropagation of the variety in a public repository. The basic purpose of this provision is to insure that the variety will continue to be available to the public even when it is no longer protected and whether or not the former proprietor continues to produce it.

CHAPTER 5, SECTION 56. CONFIDENTIAL STATUS OF APPLICATIONS

The contents of applications shall be kept in confidence by the Plant Variety Protection Office and by others who have access to such applications, with certain noted exceptions. The Commissioner shall, however, be empowered to publish the kind and variety name stated in applications. The underlying purpose of this is to notify other potential applicants that certain names are thenceforth unavailable for their varieties.

CHAPTER 6, SECTION 61. EXAMINATION OF APPLICATION

This section provides for examination of applications, and issuing of a notice of allowance of plant variety protection. A question has been raised of the possibility of conflict with an application for plant patent. Although this possibility may be largely theoretical, this association has no objection to an appropriate amendment. There could be an insertion after the comma in line 18 of page 22 reading, "and subject to conferring with the Patent Office as to possible conflict with an application filed by another person for a plant patent on the same variety." A related suggestion is mentioned in connection with section 92.

CHAPTER 6, SECTION 62. NOTICE OF REFUSAL; RECONSIDERATION

This section provides for the refusal of applications; outlines the Commissioner's responsibility in such cases, and states the time applicant has for his response. The provision for an extra 3 months, by paying a small fee, primarily saves the Office from numerous time-consuming petitions which would otherwise result. There are other provisions under which the Commissioner could avoid prolongation of prosecution.

CHAPTER 6, SECTION 63. INITIAL APPEAL

Upon refusal by the examiner the applicant may appeal to the Commissioner who, in turn, must seek the advice of the Plant Variety Protection Board on all appeals, before deciding the appeal.

CHAPTER 7, SECTION 71. APPEALS

This provides the applicant whose appeal has been rejected within the Plant Variety Protection Office to make further appeal under the Federal Rules of Appellate Procedure. The Court of Customs and Patent Appeals, without limitation to that court, is given jurisdiction.

CHAPTER 7, SECTION 72. CIVIL ACTION AGAINST COMMISSIONER

The applicant dissatisfied with the decision of the Commissioner under sections 63 or 91 of the act may, as an alternative to appeal, have remedy against the Commissioner in the U.S. District Court for the District of Columbia. This court may upon review adjudge that the applicant is entitled to a certificate of plant variety protection.

CHAPTER 7, SECTION 73. APPEAL ON CIVIL ACTION IN CONTESTED CASES

This section further provides the applicant with the right to civil action against another party in cases where the Commissioner adjudges two applications from two breeders are based on the same variety.

CHAPTER 8, SECTION 83. CONTENTS AND TERM OF PLANT VARIETY PROTECTION

This section describes the nature or content of the two forms of legal protection offered to applicant. The certificate of plant variety protection excludes others from selling the variety, or offering it for sale, or reproducing it, or importing it, or exporting it, or using it in producing a hybrid or different variety except as otherwise provided in the act. The certificate conveys a right to the proprietor, which right he must ordinarily defend through appropriate civil action.

Section 83 also offers protection of the variety through certification and provides, in the United States, seed of the variety shall be sold only by variety name as a class of certified seed and, further, shall conform to the number of generations designated by the proprietor. This form of protection may be had in addition to that provided by the certificate of plant variety protection but not in lieu of it. As stated elsewhere, under interstate infringements on the protection offered by this certification, provisions would make available prosecution under the Federal Seed Act. The term of protection presently provided by the act is 17 years from the date of issue of the certificate regardless of kind or class of plant variety.

Finally and in the public interest, this section provides that the proprietor must maintain a supply of viable seed in a public repository to assure the continued availability of the variety in case of abandonment by the proprietor or to serve as a means of making the variety publicly available upon the expiration of the proprietor's legal protection.

CHAPTER 9, SECTION 91. REEXAMINATION AFTER ISSUE

Section 91 provides that within 5 years after a certificate issues, anyone may submit to the Commissioner facts showing that the certificate should not have been issued. This is to minimize expensive litigation and to reduce the danger that invalid certificates would stand. Any danger of abuse or hardship to proprietors is minimized by repeated use of the word "may" which gives the Commissioner full discretion as to reexamination. Section (c), in providing that the Commissioner may permit the submitter of facts to offer testimony in proof of them, represent no intention that the submitter of facts will remain a party beyond the stage of providing the necessary proof.

CHAPTER 9, SECTION 92. PRIORITY CONTESTS

Section 92 provides for priority contests, although such contests are expected to be extremely rare. The Commissioner is given the widest possible discretion as to how such conflict will be handled, so that he can choose the best possible method according to varying circumstances, and may profit by experience.

Because the association has encountered some concern with the theoretical possibility of conflict with a plant patent application, the following addition to section 92 is offered:

(c) In case of a priority conflict between an application under this act, certified or not, and an adversely owned plant patent for the same variety or an application therefor, the statutes governing each shall govern it irrespective of the other. However, no protection shall be available merely for determining that a variety already reproduced by another by one of the two ways (sexually or asexually) can be reproduced the other way. In the event of such conflict, if there should be valid protection under both statutes, each protection shall be confined to its own kind of reproduction.

CHAPTER 10, SECTION 102. OWNERSHIP DURING TESTING

The final evaluation of certain yield, quantity and processing characteristics of a new variety often requires production of the variety not under the direct control of the breeders. This section is intended to provide for the evaluation of the new variety, under notice, without jeopardizing the rights of ownership of the variety. This provision protects the breeder from the unscrupulous individual who may obtain seed during testing and provides that the rights of the lawful owner will not be lost.

The rights of a breeder who may be confronted with loss of a variety in these testing phases, and a dishonest attempt to protect this variety, is further protected by the 5-year period during which an issued certificate may be reexamined.

CHAPTER 11, SECTION 111. INFRINGEMENT OF PLANT VARIETY PROTECTION

Section 111 defines infringement quite broadly, but is all subject to the opening words "Except as otherwise provided." This refers especially to important exemptions found in sections 112 to 116.

CHAPTER 11, SECTION 112. RIGHT TO SAVE SEED

It is not the intent of this legislation to prevent a farmer from saving seed for growing a following crop. This section assures farmers that right. He cannot, however, as brought out in section 111, sell seed from his production or use it in producing (as distinguished from developing) a hybrid or different variety, without the authority of the owner of the variety.

CHAPTER 11, SECTION 115. RESEARCH EXEMPTION

Since the philosophy of the bill is, in part, to assure the farmers of a continuous source of improved varieties, it is not the intent of the bill to prevent the use of the germ plasm of a protected variety for plant breeding or other bona fide research. This section assures the research worker the privilege of transferring genetic characteristics from a protected variety without being held responsible for infringement of the protection provided the original breeder.

CHAPTER 12, SECTIONS 121 TO 126

Section 121 provides the essential remedy by civil action in case of infringement; and the following sections are mainly necessary collateral provisions for defenses, injunctions, damages, recovery of attorneys' fees in exceptional cases (such as lack of good faith), and a statute of limitations.

CHAPTER 12, SECTIONS 127 AND 128. FALSE MARKING; LIMITATION ON DAMAGES; MARKING AND NOTICE

Section 127, in addition to usual provisions for using the notation "U.S. protected variety," encourages distribution of a valuable new variety before a certificate has (been) issued by permitting honest use of the words "Propagation prohibited." Various safeguards are found in section 128.

CHAPTER 13, SECTIONS 131 AND 132. INTENT, SEVERABILITY

Sections 131 and 132 provide maximum certainty of constitutionality whether under the "authors and inventors" clause or the "commerce" clause.

CHAPTER 14, SECTION 141. EFFECTIVE DATE

By providing that the act takes effect upon enactment, unnecessary delay in achieving its benefits for agriculture and the public is avoided.

CHAPTER 14, SECTION 142. AMENDMENT OF FEDERAL SEED ACT

This is the language necessary to implement the optional provision providing for the limitation of sale of seed by variety name only as a class of certified seed as provided in section 83. With the enactment of the plant variety protection bill, section 142 will become title V of the Federal Seed Act.

CHAPTER 14, SECTION 143. AMENDMENT OF JUDICIAL CODE

This section merely coordinates the Judicial Code provisions for the U.S. Court of Customs and Patent Appeals with appeal provisions of this act.

SOME OPPOSITIONAL VIEWS AND SUMMARY

This committee will almost certainly be hearing some views opposing the proposed legislation in whole or part. We should like to comment briefly on some of the more common of these objections.

First, the objection: "The bill would create a breeders' monopoly and result in higher prices for seed."

It must be observed that, today, breeders have two forms of varietal protection available to them: The Patent Act offering legal protection for asexually produced plant varieties and, secondly, biologic protection arising from the utilization of hybridizing techniques.

Most rose varieties offered today are patented. These rose plants are normally reproduced not only by the developer but by others. And they are sold by sales outlets of all kinds including discount stores of one kind or another. The breeder cannot and does not determine the price, the natural result of which, of course, is that prices for a given variety vary widely. The purchaser may choose the price he is willing to pay. An examination of the rose industry will disclose as a result, and despite its ability to legally protect its product, the rose industry is a highly competitive industry no more profitable than most and less profitable than many.

The hybrid corn industry deals in a biologically protected product. A survey of 1970 prices for hybrid seed corn of the same genetic class and kernel grade, shows a difference of about 17 percent between the published high and low prices of some of the major companies. If other inducements, such as discounts, prizes and incentives, are considered, the spread becomes even greater. And, it is not uncommon to see price differences of up to 50 percent.

On the basis of these examples and others which could be enumerated, we in the American Seed Trade Association see no justification for the fears that the enactment of this bill into law would result in either a breeder monopoly or in higher farmer prices.

Second, the objection: "The bill would interfere with the free flow of germ plasma."

The concern here seems to stem from the belief that public breeders would retain their valuable breeding materials in the hope of financial gain and that this would slow the overall pace of varietal development. Whether this happens or not will be determined by the policy of the individual experiment station. We do not believe the enactment of this bill into law would materially alter present experiment station policy. We base this conviction largely on the basis of the fact that it has not happened in the case of hybrid corn and hybrid sorghum, for example, even though with these and other hybrid crops, the public breeder has a biological protection mechanism available to him which, by any evaluation, must be considered as even more certain and theftproof than legal protection.

Third, one group, the Washington Wheat Commission, has expressed a concern that: "The Plant Variety Protection Act would result in the release of wheat varieties which could threaten the quality of the Northwestern wheat crop."

Representatives from the American Seed Trade Association met with the Commission and others to explain that this objection was in no way linked to the Plant Variety Protection Act. Wheat varieties will be bred for and released in this region whether or not the proposed law is enacted. We propose, that if this concern is considered a valid one, that the Washington Wheat Commission sponsor legislation in the State legislature which would require that any new wheat variety must meet certain predetermined quality standards before sale would be permitted in that State. Such a law, obviously, would act to prevent the sale of both protected and nonprotected varieties of wheat—a possibility that would not be available through the amendment of the proposed Plant Variety Protection Act.

And, finally, there has been the objection: The Plant Variety Protection Act would not be self-financing.

In framing the proposed act, we in the American Seed Trade Association took the view that the act should be essentially self-financed.

In summary, we in the American Seed Trade Association believe that the enactment of the proposed Plant Variety Protection Act into law will bestow important benefits of American agriculture among which the following are the more important:

1. It will greatly stimulate private plant breeding.
2. It will allow our Government agricultural experiment stations to increase their efforts on needed basic research.
3. It would permit public expenditures for applied plant breeding to be deviated to important areas which industry may not pursue.
4. It will give farmers and gardeners more choice, and varieties which are better in yield or in quality, and so forth.
5. It will make American agricultural products more competitive in world markets.
6. Consumers and other purchasers of crops will benefit: In some instances by improved quality, in others by aiding the production needed to serve them.

The authority for establishing the financing provisions of this law have not been dealt with by ASTA.

That concludes my statement, Mr. Chairman.

Mr. DE LA GARZA. Thank you very much, Mr. White.

Are there any questions of Mr. White?

Mr. PURCELL. I tried to listen carefully to your statement. What opposition is there to this bill of which you are aware, other than the Washington Wheat Commission?

Mr. WHITE. None that I am aware of. I think this is the only opposition that I am aware of, but I would like to defer to my colleagues to see if they have any further comments.

Mr. SOUTHERLAND. As far as we know, that is the only opposition to this legislation.

Mr. PURCELL. Thank you, Mr. Chairman.

Mr. DE LA GARZA. Thank you very much. We are very happy to have you here, Mr. White.

As stated, your prepared statement will appear in the record rather than your extemporaneous statement of today, and the same is true of all other witnesses who have a prepared statement. Your prepared statement will appear in the record, rather than your extemporaneous remarks of today.

We will now be very happy to hear from Mr. John Rogers, Secretary-Treasurer, National Council of Commercial Plant Breeders.

STATEMENT OF JOHN S. ROGERS, SECRETARY-TREASURER, NATIONAL COUNCIL OF COMMERCIAL PLANT BREEDERS, ACCOMPANIED BY JOHN SUTHERLAND, EXECUTIVE VICE PRESIDENT

Mr. ROGERS. Thank you very much, Mr. Chairman.

My name is John S. Rogers. I am speaking on behalf of the National Council of Commercial Plant Breeders in support of H.R. 13631, which is a bill to provide plant variety protection.

I served as president of NCCPB during 1962-63, and have been the Secretary-Treasurer of this organization since that time.

My present employment is as director of research for the Asgrow Seed Co., which has its headquarters in Orange, Conn. Our primary business is the development, production, and distribution of vegetable and agronomic seeds in both the domestic and international markets. Our company has been a member of NCCPB since its beginning and strongly supports the NCCPB's position on this legislation.

The National Council of Commercial Plant Breeders was founded in Memphis, Tenn. in 1954 to represent the interests of private American plant breeders at home and abroad, to promote cooperation and understanding between public and private plant breeders, and to encourage the development of high professional and ethical standards in American private plant breeding.

Since our beginning in 1954, we have grown to a membership of more than 40 firms, representing a major part of the private plant breeding being conducted in the United States. A recent survey shows that member firms employ over 300 professional workers, which include 100 Ph. D. scientists and an equal number of M.S. degree personnel. Over \$10 million is expended annually by member firms in their research programs.

Private plant breeding has enjoyed significant growth during the past two decades, particularly in crops such as corn, sorghum, alfalfa, wheat, cotton, and certain vegetable species, where technological developments giving natural protection have made recovery of research expenses and profits possible.

A most significant accomplishment of NCCPB has been to bring together into one organization most commercial plant breeding interests in the United States. Through this association of representatives working in many diverse crops, it has been possible to review common opportunities and problems and to establish common goals and ethical standards for commercial plant breeders.

A major objective since the inception of the council has been the development of a system of voluntary plant variety protection for the private developer, or inventor, of plant improvements, in order that said developer can capitalize on his improvement if he wishes and have incentive to develop further improvements. It is the conviction of the NCCPB that developers (inventors) of plant improvements are entitled to the same kind of voluntary protection that is available to inventors in other fields.

During the past few years the major activity of NCCPB has been to work cooperatively with American Seed Trade Association to achieve legislation providing appropriate protection for individuals or firms engaged in plant breeding. In developing potential legislative approaches for plant variety protection, both NCCPB and ASTA

have worked closely with appropriate personnel from the U.S. Department of Agriculture and the land grant universities. Considerable time and effort have been devoted to this objective of plant variety protection for the past few years, and there has been a conscious and continuing effort to consider all possible interest in the development of any legislation.

The present Plant Variety Protection Act, represents the culmination of these several years of effort by the various organizations and personnel involved. We sincerely believe that the proposed bill represents both an equitable and practical approach to the subject of plant variety protection, as well as providing an incentive for the developer and the opportunity for public benefit.

I will not go into detail on the various sections of the bill, but I would like to make three specific statements which I believe provide the primary basis for justification of this particular legislation:

1. Developers of plant improvements are entitled to the type of voluntary protection that is now available to inventors in other fields. In this legislation, what we are asking for basically is the right of ownership to the product developed by the plant breeder. Considerable investment in time and money is required for the development of varieties, and it appears only equitable that the organization or individual developing the variety should be entitled to the rights of ownership. The present bill provides this right to the developer, or owner.

2. Through plant variety protection, which permits ownership of the variety by the developing firm or organization, considerable stimulus should be provided for investment in further plant breeding efforts. Significant investment is now made in both the private and public area for plant breeding, and the contributions from these research efforts have truly been outstanding in the terms of new and improved varieties.

Progress in the hybrid crops such as corn, sorghum, onion, cucumber, and cabbage has been particularly significant where the technological developments permit recovery of research expenses and the possibility of profits. The degree of private investment in corn and sorghum research during the past few decades is ample testimony to the fact that considerable investment will be made where (due to some form of protection) profitable opportunities exist in plant breeding. With the enactment of a Plant Variety Protection Act, we can expect additional private investment in plant breeding programs for all important crops.

3. Significant public benefits will result from the enactment of a Plant Variety Protection Act which stimulates development of new and improved varieties. Technically speaking, there is ample evidence that significant improvements can be made in any crop species where adequate investments are made for plant variety improvement. The main restriction to date has been the amount of investment being made in the field of plant breeding, whether private or public.

A stimulus to private investment in plant breeding through a Plant Variety Protection Act is certain to result in the development of improved varieties in many of our important crops. For example, crops such as soybeans, wheat, cotton, rice, and many others would represent greatly improved opportunities for private investment with an adequate Plant Variety Protection Act.

We are presently witnessing a dramatic breakthrough in plant breeding in the "green revolution" taking place in many of the developing nations of the world. This progress has been primarily possible through the development of improved cereal varieties which are much more productive. The development of better yielding varieties of all food and feed crops is especially significant at this period of history when population in many areas is surpassing our ability to produce food.

I would like to close my statement on a personal note. It has been my privilege to be engaged in either plant breeding or plant breeding administration for more than 30 years. During this time I have spent approximately one-half of my career in the public service, while the remainder, and more recent years, have been devoted to private plant breeding. On the basis of my experience, I would like to emphasize that plant breeding does provide a rewarding and meaningful career, and I have indeed appreciated the opportunity of working in this field for such a period of years.

As a result of this experience, it is certainly my personal conviction that plant breeding has made and can continue to make significant contributions both domestically and internationally. I also firmly believe that enactment of the Plant Variety Protection Act will encourage investment in and, therefore, accelerate progress in the field of plant breeding.

We have the opportunity, therefore, through enactment of this legislation, to insure the development of improved varieties which will, in turn, contribute to the public welfare through their usage.

Mr. DE LA GARZA. Thank you very much.

Are there questions?

Mr. KLEPPE. Mr. Rogers, Mr. White testified that the hopes and aspirations of this legislation were to be immediately self-financed. How do you look at this? Do you look at this as something which would primarily finance itself?

Mr. ROGERS. I believe that is the general approach we have; yes, sir.

Mr. KLEPPE. I want to compliment you on your statement. It seems to me the thrust of this legislation is so different and so one-sided in favor of it that it would be awfully hard for anybody to criticize it, because it is fair. The only question, it seems to me, that could come up, other than the one that has been raised by the Washington State Wheat Commission, is the question of financing. I don't have before me the costs of running the U.S. Patent Office as an example, but we are talking about something here which would be fair to plant breeders, comparable to what it is in industry. It would seem to me that this is a competitive aspect of our life, and because of that it could be self-financing.

I was curious; do you know of anybody who objects to this legislation?

Mr. ROGERS. No, sir; I do not.

Mr. KLEPPE. As far as you are concerned, you see that it would be, and should be, primarily self-financing, with the possible exception of some administrative costs in setting it up?

Mr. ROGERS. Our viewpoint is substantially that stated by Mr. White. Perhaps Mr. Sutherland has something to add.

Mr. KLEPPE. I think he commented previously. That is fair enough. Thank you very much.

Mr. MATHIAS. Mr. Rogers, I have some questions for you.

In your organization, how many people are involved in plant breeding? Have you any idea?

Mr. ROGERS. We made a recent survey. There are around 350 what we call professional people engaged in plant breeding. There are a little over 100 Ph. D. personnel and somewhat over 100 master's degree, graduate-type personnel.

Mr. MATHIAS. If this bill were enacted, do you see any increase in that number?

Mr. ROGERS. I think there is absolutely no question that with the enactment of legislation of this type, there would be considerable expansion in the number of technical professional personnel employed in the field of plant breeding in private industry. I am confident of that. The exact number, of course, would be difficult to project, but it would be significant. I think we are talking about an increase of, say, 50 percent or more.

Mr. MATHIAS. The same would go for the money contribution. That would be increased, also?

Mr. ROGERS. That is correct. The first effect would be the additional investment which would be attracted to this area. We have had excellent evidence of this in the areas where it has been possible to protect proprietary rights through technical techniques such as hybrid corn and hybrid sorghum. There have been significant investments made there, and we anticipate there would be in this instance.

Mr. MATHIAS. What organization did the most in the development of grain sorghum?

Mr. ROGERS. I do not know that I would be qualified to comment specifically on that, sir. A number of experiment stations of the USDA in the public area and a number of private firms all contributed to that development. I would hate to single anyone out at this point. There was a significant contribution in both the public and private area in the development of hybrid grain sorghum.

Mr. MATHIAS. Would it be rather difficult, if three or four different organizations came up with exactly the same seed on grain sorghum, to give a patent to one organization and not to the others when they had developed exactly the same seed? Is that possible?

Mr. ROGERS. We are getting into a technical area, sir. The likelihood of independent breeding programs coming up with exactly the same product is almost impossible. The number of genetic combinations possible are infinite.

In separate breeding programs, there would be some differences expected in the material developed and in the products that would result from the separate programs.

Mr. MATHIAS. In other words, after 50 or 100 years of breeding, there are still possibilities.

Mr. ROGERS. Unlimited, sir. The germ plasm available within each particular species has been explored to a fairly limited extent. With the introduction of additional techniques and knowledge whereby we could introduce new germ plasm, quite extensive work is being done, for example, in sorghum in the collection of new material throughout the world. There are tremendous opportunities and possibilities for new types to be developed.

Mr. MATHIAS. Thank you very much.

Mr. DE LA GARZA. Further questions?

Thank you very much, Mr. Rogers. We are very happy to have you.
Mr. ROGERS. Thank you.

Mr. DE LA GARZA. We will now hear from Mr. Richard W. McKenna, representing the Ferry-Morse Seed Co.

**STATEMENT OF RICHARD W. McKENNA, SENIOR VICE PRESIDENT,
FERRY-MORSE SEED CO., MOUNT VIEW, CALIF.**

Mr. McKENNA Thank you, Mr. Chairman.

Mr. Chairman and committee members, my name is Richard W. McKenna. I am the senior vice president of Ferry-Morse Seed Co., a wholly owned subsidiary of Purex Corp., Ltd., a California corporation.

Our company develops, produces, and merchandises vegetable, field, and flower seeds for national and international distribution. In our research, we are primarily concerned in increasing productivity and quality of product.

I am interested in the passage of a Plant Protection Act that provides for voluntary participation by the originator. I refer in particular to H.R. 13631 and related bills.

Speaking on behalf of the American Seed Trade Association, and also speaking for our company, I strongly support the Plant Variety Protection Act which is being recommended by the membership of the association and many other agricultural groups. It is my considered opinion that developers of plants requiring sexual reproduction for maintenance should have the encouragement of the opportunity to benefit from their efforts in a manner similar to that granted to developers of products covered under the Patent Act.

There are at the present time many important areas that we cannot justify expenditures in research and development because of lack of legal protection. It is our intention to materially increase expenditures in research, providing protection is made available to the seed breeder.

The governments of several European countries, in particular West Germany, Holland, Austria, Denmark, England, and France, have already seen the need for and have made available in their respective countries a form of plant variety protection to developers of sexually reproduced plants.

It is my opinion that H.R. 13631, and related bills, would provide an effective and equitable system. It would be voluntary and protection would be based on novelty, distinctness, uniformity, and stability of the variety. It places responsibility for the defense of the protection granted on the owner of the rights, at his expense. The system would be available to any originator or developer of a new sexually reproduced plant variety. It would not interfere with the free flow of information and breeding materials among plant scientists and it would allow any farmer the right to reproduce seed for his own planting.

We are just now beginning in agricultural research to unlock and understand some of the mysteries of plantlife. We must exploit new discoveries as rapidly as they become known in order to establish unique and more stable germ plasm in the form of superior and novel varieties.

Applied agricultural research must be encouraged and expanded, particularly in the private sector, if the economy of our country is to reach its full potential. There is no question in mind but that a Plant Protection Act will stimulate greatly increased activity and investment by business in the research needed for better food products. Such activities by private enterprise will enable Government to apply its agricultural research expenditures to the best possible use with concentration in much needed basic research.

I am confident that a Plant Protection Act will encourage a more open exchange of germ plasm between public and private researchers. Certainly, there must be a close and unselfish rapport between all scientists if we are to succeed in reaching mutual goals which are of benefit to the public.

Your favorable action on H.R. 13631, and related bills, will be greatly appreciated.

Mr. Chairman, I do appreciate having the opportunity to present my views on this important matter.

Mr. DE LA GARZA. Thank you very much for your cooperation.

Are there any questions of Mr. McKenna?

Thank you very much. We are very happy to have you.

Mr. McKENNA. Thank you, sir.

Mr. DE LA GARZA. We shall now hear from Dr. Harold D. Loden, director of research, ACCO Seed, Anderson, Clayton & Co., Belmond, Iowa.

**STATEMENT OF DR. HAROLD D. LODEN, DIRECTOR OF RESEARCH,
ACCO SEED, ANDERSON, CLAYTON & CO., BELMOND, IOWA**

Dr. LODEN. Mr. Chairman, my name is Harold D. Loden. I am director of research for ACCO Seed, Division of Anderson, Clayton & Co., Belmond, Iowa. Our company develops, produces, and distributes proprietary corn and sorghum hybrids and proprietary varieties of cotton.

We strongly support H.R. 13631, and related bills, which would provide legal protection for the developers of new sexually reproduced plant varieties.

This proposed legislation may appear to be designed to improve the lot of the commercial plant breeder, however, we state without fear of contradiction that the real recipient of the benefits inherent in this legislation will be the American farmer and indirectly the consumer of the products of American agriculture.

H.R. 13631 will provide a basis of protection to the developer of new sexually produced plant varieties and further establish the incentive for increased effort in plant variety development by creating the possibility of recovering funds expended for plant breeding research. New plant varieties are of no value to the developer unless he can profitably produce and sell them; his only market is the farmer who in turn is motivated to buy a new variety because he expects increased profit to result from its use. We must accept the fact that legislation providing plant variety protection will afford benefits, not only to the farmer who buys planting seed, but also to the agribusiness economy into which the products of the farmer must ultimately be sold and consumed.

A look at the commercial plant breeding firms presently maintaining research programs for the development of field crop varieties shows it to be dominated by firms producing hybrid seed. Crops in which practical first generation hybrids can be produced have "built-in genetic variety protection." It is obvious that a workable form of variety protection is available to developers of hybrid varieties in which the breeder retains control of the parental seedstocks. This built-in genetic basis for variety protection has provided the necessary economic base and incentive for investment of private funds in development of hybrid varieties.

Commodity groups have recognized the value of variety protection in improving not only the per acre production but also product quality. During the last session of the Texas Legislature, a bill was passed requiring use of the certification tag as proof of varietal identity of varieties accepted for certification when such seed are sold in trade channels. This legislation provides the basic mechanism for protection of developers of cotton varieties accepted for certification in Texas. The basic reason for passage of this legislation was the inherent improvement of the quality of the Texas cotton crop which will result from use of genetically pure planting seed.

It is not necessary to dwell at length on the contribution of the hybrid corn and hybrid sorghum industries to the agricultural economy of the United States. Available statistics on increased per acre yields, and therefore farm income, prove without a doubt that the major beneficiaries of the developments of commercial hybrids of corn and sorghum have been, and will continue to be, the American farmer and the consumer of the products he produces in increasing quantities and at continually lower per unit costs. The vast majority of today's corn and sorghum hybrids are the result of investment of private funds in variety development research. The hybrid, field seed industry has shown the capacity and willingness of the seed industry to invest corporate funds for applied research when recovery of funds invested and reasonable profits can be expected because of built-in genetic protection.

I recently made a survey of seed firms having research programs for the development of proprietary field crop varieties to determine if they would expand their research program to include soybeans when a legal system of plant variety protection was available. Soybean varieties, with few exceptions, have traditionally been developed by public funds; one of the compelling reasons being that as a self-pollinated crop the "right" to a soybean variety is lost upon first sale of seed of a new variety. The survey showed that all firms having production and research facilities in soybean producing areas would initiate soybean variety development programs, or expand present efforts, when variety protection becomes a reality. This survey proved without a doubt that legal variety protection will result in a tremendous increase in private research effort directed toward soybean variety development, the benefits of which will accrue directly to the soybean farmer and the American soybean economy.

I would like to illustrate the "other-side-of-the-coin" in research for soybean variety development by an experience of our company. About 20 years ago we initiated a program designed to encourage soybean production in West Texas. One phase of our effort was directed toward variety development. After more than 10 years of

breeding research, we donated all of our soybean breeding stocks and records to the High Plains Research Foundation, a private research institution supported by voluntary contributions. This was done since we recognized that without variety protection, continued investment in this phase of our research program could not be expected to return a profit.

The current interest of private research organizations in wheat breeding research provides a dramatic example the willingness of private firms to invest funds in variety development with a reasonable possibility of obtaining a profitable return. Until a few years ago only two private firms in the United States maintained significant wheat breeding programs. The developments which have made wheat hybrids a possibility, even though not yet a proven practical reality, have resulted in at least twelve private firms employing more than thirty professional researchers in wheat breeding programs. This increase in research efforts for wheat variety development could have been generated by legal variety protection as well as by the possibility of having built-in genetic protection. The primary beneficiary of this additional research, supported by nontax funds, will be the American wheat producer.

The passage of H.R. 13631 will offer benefits and opportunities for the small seedsmen to probably a greater degree than to larger firms. Many small breeding firms are engaged in the development of varieties of very specialized crops with relatively small sales volume; examples are petunias, tomatoes, and other floral and horticultural crops. In these specialized areas of variety development expenditures for research will usually represent a larger percentage of the sales dollar than for large volume field seed crop varieties. Another example of the type of benefits afforded the small seedsmen would be the availability of protection to those individuals who make significant discoveries of new crop varieties such as combine type grain sorghum by W. P. Martin or the original stormproof stripper cotton variety by H. A. Macha. These two men are examples of the many who have advanced American agriculture in the introduction of significantly improved crop varieties who, due to lack of variety protection, were not adequately rewarded for their contributions. The existence of more than 300 small specialized seed breeding firms in Germany, which has a system for variety protection, is considered indicative of the type of growth of small seed breeding companies we could experience in the United States with the passage of H.R. 13631.

The absence of any form of legal protection for the originators of new plant varieties which reproduce sexually has forced many companies to forgo comprehensive research programs, this is particularly true for those firms who are engaged primarily in the production and distribution of crops in which production of first-generation hybrids is either not possible or practical. The enactment of legislation providing for plant variety protection would result in the initiation of private research programs for the entire spectrum of crop varieties—the missing link to significantly increased efforts in plant variety development is a system of legal protection such as sought by H.R. 13631.

Our firm, as a member of the private plant breeding industry, feels that the passage of H.R. 13531 will provide a method for the continued expansion of the free enterprise system and that an unbridled and

protected plant breeding industry could make major contributions to agriculture, not only in the United States, but also aid in our Nation's commitments to aid in feeding and clothing the underdeveloped nations of the world. We look forward with anticipation to the opportunity of participating in the new, exciting, and competitive plant breeding efforts such legislation will generate. We are convinced that the additional investment and competition generated by H.R. 13631 will serve the best interests of American farmers, and of greater importance it will be in the general public interest and will strengthen our total agricultural economy.

We urge passage of H.R. 13631, and appreciate the opportunity to present our views on this very important matter.

Mr. DE LA GARZA. Thank you very much, Dr. Loden.

Are there any questions of Dr. Loden?

There being no questions, we appreciate your cooperation, sir.

Now we shall be very happy to hear from Mr. George B. Babcock, general manager, Grower Seed Association, Lubbock, Tex.

**STATEMENT OF GEORGE B. BABCOCK, GENERAL MANAGER,
GROWER SEED ASSOCIATION, LUBBOCK, TEX.**

Mr. BABCOCK. My name is George B. Babcock. I am general manager of Growers Seed Association in Lubbock, Tex. Growers Seed is a regional federated cooperative with a membership of 179 cooperatives located primarily in west Texas, southwestern Oklahoma, and eastern New Mexico.

Our association develops and produces cotton planting seed and hybrid grain and forage sorghum seed for distribution to our membership.

Our board of directors has endorsed and supports H.R. 13631 and related bills. This endorsement has come after careful consideration and evaluation of the bill. For purposes of pointing out the significance of this board decision, I would like to call your attention to the organization and structure of our board. Each of our member cooperatives names a representative to serve on our board of directors. Presently our board is composed of 179 men representing a like number of local communities. The combined number of cotton and sorghum farmers who own and direct these local cooperatives is conservatively estimated at approximately 25,000.

Mention has been made of the recent passage by the Texas Legislature of a bill offering protection to the developers of cotton varieties in Texas. Our association opposed the first attempt at passage of this bill. The reason for opposition was simple. The bill offered the plant breeder "breeder's rights," but in our opinion omitted "farmer's rights." We believe that H.R. 13631 in section 112 guarantees adequate protection for farmers. This section allows farmers the right to save seed for their own use.

Another concern of our association, and one which has been carefully considered, was whether some seed companies who have large sums of capital available for research would be willing to enter into royalty bearing contracts with cooperatives or smaller seed companies for the right of reproduction of their privately developed varieties. Our feeling, after discussing this particular point with several companies, and after actually entering into contract with two companies,

is that no company, no matter how large, will be able to supply all the planting seed requirements of American farmers.

Section 112 becomes important here in that it offers farmers the means to directly influence the decisions and practices of seed companies in the allocation and distribution of the supply of seed of non-hybrid varieties. If the developer of a variety is not willing to make available its variety in adequate supply and at a reasonable price, the farmer can increase seed of the variety for his own use. We believe that all developers of varieties will be willing to cooperate on a reasonable basis with others to insure that an adequate seed supply is available to meet demands of farmers.

Many cooperatives and small seed companies have relied on the public research agencies to develop and release advanced breeding material and new plant varieties. H.R. 13631, in section 115, provides for a research exemption, whereby the use and reproduction of a protected variety for plant breeding or other bona fide research shall not constitute an infringement of the protection provided under the bill.

Most public agricultural experiment stations operate on a limited budget. In our opinion, H.R. 13631 will provide the mechanism for the public research agencies to increase their income and thereby make available additional funds for an accelerated plant variety research program. This can be accomplished by the agricultural experiment stations offering their new varieties for sale and/or entering into royalty bearing contracts with seed companies for the right of reproduction and sale of seed of protected varieties developed by these public agencies.

I will be the first to admit that commercial plant breeding companies will greatly benefit from the protection afforded by the passage of H.R. 13631. I would like to point out, however, that farmers and the public at large stand to gain much more as a result of increased yields and lower per unit costs.

Next to the soil, seed is the foundation of American agriculture. Farmers that own our association recognize the importance of applied research in the development of new varieties. Applied research for variety development is a slow and costly process. An organization engaged in variety development is entitled to a fair return on its research investment. If America is to continue to be the agricultural leader of the world, more must be done by both the private and the public sector in developing new and better crop varieties.

Mr. Chairman, I will be happy to respond to any question which you or any member of the committee may have.

Mr. DE LA GARZA. Thank you very much.

Are there any questions of Mr. Babcock?

There being no questions, we appreciate your cooperation.

Mr. BABCOCK. Thank you very much.

Mr. DE LA GARZA. We shall be happy to hear now from Dr. Jim W. Neely, director of research, Coker's Pedigreed Seed Co. Dr. Neely.

**STATEMENT OF DR. J. W. NEELY, DIRECTOR OF RESEARCH,
COKER'S PEDIGREED SEED CO., HARTSVILLE, S.C.**

Dr. NEELY. Mr. Chairman and committee members, my name is J. W. Neely. I am vice president of Coker's Pedigreed Seed Co. of Hartsville, S.C.

My company has been the breeder of varieties of several Southern field crops for 68 years. We strongly support the bill H.R. 13631, and related bills.

One of these crops is soybeans. Over a period of 4 years we have spent several hundreds of thousands of dollars to develop a variety, Hampton 266, that is now being widely grown in the Southeastern United States. At least 83 percent of the soybean acreage of South Carolina is planted in this variety, according to a report of the South Carolina Crop & Livestock Reporting Service of the U.S. Department of Agriculture and Clemson University. A significant part of the soybean acreage in other Southeastern States is planted with seed of this variety.

The adoption and growing of this variety has been one of the important reasons for the marked increase in the acreage planted to soybeans and in the improvement of the quality of the crop.

My company has lost hundreds of thousands of dollars in its soybean business. At the same time, by all known standards, our business is recognized as being conducted in a sound and efficient manner.

While we have been losing money with this soybean item, many seed growers, good friends of ours, have been increasing seed of our variety that were purchased from us, and most of them have had a profitable business based upon the production and merchandising of seed of Hampton 266.

We feel that we should have legal protection so that we may receive a deserved share of the total income from the sale of seed of varieties developed by us as a result of our expensive research program. We know that if the Congress passes legislation providing for plant variety protection we, along with other plant breeders, can assure farmers of continued service of high-quality seed of high-performing varieties.

I am very grateful to you, Mr. Chairman, and to the other members of the committee, for the opportunity of presenting my views relative to this proposed legislation.

Mr. DE LA GARZA. Are there any questions?

Mr. KLEPPE. Yes, Mr. Chairman.

You have made a very interesting statement about the experience of your company in this one variety, I think. Do you understand this legislation will give you the protection that, as a company, you would need down the line? For example, if I might develop the question, you develop this variety and sell it to a farmer. The farmer raises this and, in turn, decides it is a pretty good variety and he is going to sell it to his neighbors. The responsibility for enforcing that would be yours under this legislation, as I understand it.

Dr. NEELY. That is right.

Mr. KLEPPE. Do you believe this legislation provides that protection?

Dr. NEELY. Yes, sir.

Mr. KLEPPE. The difficulty would be eliminated by being able to control your patent rights?

Dr. NEELY. Yes, sir.

Mr. KLEPPE. Thank you.

Mr. MATHIAS. I am curious as to what kind of contract you would make with other people if you have this right.

Dr. NEELY. We have in mind fairly definitely the type of contract we would make. It is not specific yet. I think it would vary with

different crops and breeders. We would probably have something that amounts to charging a royalty for seed that are produced from seed supplied by us. There are several ways in which that could be handled. The royalty base is more or less an example of the type of arrangement that we would have.

Mr. MATHIAS. Would you establish your royalty on the amount of money you spend on research?

Dr. NEELY. That is right, what we consider a reasonable profit.

Mr. MATHIAS. This would actually raise the cost of the seed to the user.

Dr. NEELY. No, sir, it should not. We do not anticipate that. In some of our anticipation, we can see why the cost of seed would be less. I know that seems rather strange to a person who is not in the seed business, but that can be arranged along this line: We spend a tremendous amount of money developing a variety before we release it. As soon as we release that variety, as you have indicated you understand, it becomes public property and it is increased and people who increase the seed independent of us profit from them. That means in only a short time we are able to recoup our costs. So, the price of seed, by necessity, could be higher in the short length of time we are able to sell them without competition.

Mr. MATHIAS. I am still not clear. You would sell so many thousand pounds to a farmer. If this bill becomes law, then, this farmer could not keep this seed and grow his own seed for years to come?

Dr. NEELY. Not without an arrangement with us. He could sow his own seed but he could not sell it.

Mr. MATHIAS. Say the second year, then, he would keep the seed for his own use—would he have to pay a royalty on that?

Dr. NEELY. No, as long as he plants it on his own premises for his own use. The law clearly states that he will not be liable for infringement even without an arrangement with the breeder.

Mr. MATHIAS. So initially the cost would be more to the farmer, the first year?

Dr. NEELY. In comparison to what?

Mr. MATHIAS. In comparison to the cost of it without the royalty.

Dr. NEELY. If he were going to increase his seed that is possible; yes, sir.

Mr. MATHIAS. You don't anticipate that the royalty would be so high that—

Dr. NEELY. No, sir. The word "reasonable" has been regularly used in words and in serious intent.

Mr. PURCELL. Doctor, to follow up what Mr. Mathias was inquiring about—first, when you sell seed to a farmer now you try to sell it at a price you can make some money, do you not?

Dr. NEELY. That is right.

Mr. PURCELL. There is no royalty connected with your selling your seed to farmer A, Smith, Jones, or anybody else. If he sells seed that he grew, but because of your variety it was a valuable seed, you would expect, then, to get a reasonable royalty, as we will call it, because of his using your product to become commercial wheat for seed purposes?

Dr. NEELY. That is right.

Mr. PURCELL. I wanted that clear.

I do not think I am arguing with Mr. Mathias, but it seems to me that even if—and I do not think it will—the seeds of farmers 2, 3, and

4, after they buy your seed variety from farmer No. 1, if they are a little higher, that is what the whole thing is about. I want to be sure that at least I am on the record as saying that if you have developed a seed it would be just like getting a patent on a mousetrap. As far as I am concerned if it is your mousetrap everybody who sells it should have to pay you a little money for it.

Dr. NEELY. That is right.

Mr. PURCELL. That is what we are getting at here.

Mr. KLEPPE. If the gentleman would yield for one observation. It seems to me that the spirit of competition is what comes into play here. If you develop a better seed and the farmers want to buy it, fine, they will pay a little higher price for it. If they will not pay that price for it they will not buy it, so we are getting right back to the spirit of competition which is really the basis for our whole system of life in the United States. I think that is what is involved here.

I think Mr. Mathias asked a very leading question about how this will move from the standpoint of protection between farmer and farmer.

I thank the gentleman for yielding.

Mr. MATHIAS. I was not objecting to it. I was curious regarding the mechanism and how it worked.

Mr. PURCELL. That is why I did not think we were arguing about it.

If we have time I would like to ask a question.

Mr. DE LA GARZA. Let us continue with the other witnesses. If you have a question of a witness who already has testified and he is available we will be happy to ask him to return.

Thank you very much, Dr. Neely.

We will now hear from Mr. Paul C. Stark.

STATEMENT OF PAUL C. STARK, SENIOR VICE PRESIDENT, STARK BROTHERS NURSERIES, LOUISIANA, MO.

Mr. STARK. Mr. Chairman, I am here to testify in favor of the passage of H.R. 13631 and I hope Congress will pass it this session. However, I wish to further state that I am definitely opposed to combining this proposed Plant Variety Protection Act for sexually reproduced plants with the successful 40-year-old Plant Patent amendment to the patent law covering asexually reproduced plants. This has been discussed off and on for 4 years. This is the first time we have all gotten together and I believe this is the time to act.

I am speaking personally in support of this bill based on my continual observation and connection with this over-all problem and situation. It has been difficult in the past 40 years to get the various interests, public and private, to agree on a program of action that will fit the characteristics of sexually reproduced plants.

In the past several years, many dedicated individuals, committees, and agencies have worked and cooperated in bringing this proposed legislation to its present form. The seed trade, the U.S. Department of Agriculture, State Agricultural Experiment Stations, and many others have cooperated in achieving this result.

It has been 40 years since the plant patent bill for asexually reproduced plants was passed and it has been in successful operation all these years.

The present interested groups do not want to further delay the encouragement for improving sexually reproduced plants.

This bill, H.R. 13631, is the result of long careful study and planning by many different groups and agencies, both private and governmental—all desiring the passage of legislation to give this encouragement and protection to the plant breeders and plant discoverers of new improved plants.

The benefit of this legislation to the general public in coming years is emphasized by the added food and plant product requirements of our increasing national and world population.

This bill will further stimulate industry to participate in research in improved types of sexually reproduced plants for the benefit and happiness of the public.

Mr. MATHIAS. A statement to Mr. Stark. I have had the pleasure of eating some of his real fine apples. You do a great job in developing apples. They are great.

Mr. STARK. Thank you.

Mr. DE LA GARZA. We will be happy to hear from Mr. Victor Renner.

STATEMENT OF VICTOR A. RENNER, REPRESENTING THE O. M. SCOTT & SONS CO., MARYSVILLE, OHIO

Mr. RENNER. My name is Victor A. Renner, I represent the O. M. Scott & Sons Co., Marysville, Ohio. Presently I am serving in the capacity of consultant. Prior to 1970, I served the company for 25 years in the area of research and development; the last 10 years as vice president and director of research.

Our company supports H.R. 13631. We are in the business of serving the needs of the American public in developing and maintaining lawn and turf areas. Green lawns and turf areas are recognized for their contribution to the enjoyment of all in providing esthetic beauty as well as a carpet for outdoor recreation of all types.

In our own research and development work, the patent system has been recognized as essential to securing the results of efforts devoted to research and development for meaningful utilization by the company. Without the incentive of securing rights for a limited time, it questionable whether efforts devoted to research and development would have been as extensive as they have been in the past 25 years.

As a result of progress in the science and technology of development of plants of all kinds, more and more effort has been devoted to developing new strains of grass and other ground covers by genetic modification. Unlike developments in the chemical or mechanical fields, an adequate system for securing rights of new developments has not been available. As a result of our own corporate research and development endeavors as well as those of others in this area, we visualize that benefits to the American public will be in the form of plants which will provide better performance with greater efficiency.

Recent concern on the quality of our environment has focused attention on the potentials of plants, including turfgrasses and ground covers, to contribute to improvement of our environment. The control of erosion, as well as pollution, by establishment of a thick cover of grasses is self-evident to those having observed erosion in the form of clay and silt particles polluting our streams. Recent investigations have shown that turfgrasses also tend to stabilize plant

nutrients to a much higher degree than other crops. Plant nutrients such as nitrogen and phosphorus have been suspected of upsetting the balance in our streams and lakes.

Of even greater benefit, the regenerative capacity of grasses and plants on our atmosphere has heretofore not been considered of significance. With the concern of atmospheric pollution, an assessment of the potential capacity for plants to regenerate oxygen and to purify the atmosphere by removal of toxic substances emitted in our modern-day living is assuming ever greater importance.

As more and more emphasis will be placed on the quality of life in America, the need for more green areas, including turf grasses and plants of all kinds, will increase. Development of ever better, more efficient plants, both with respect to maintenance as well as effectiveness in all areas of performance, will be required.

In the long-range future, we visualize development of plants that will have all the desirable plant attributes—esthetic value, serve as a living carpet or cover, aid in pollution control, serve as an air or atmosphere regenerator and serve as a source of food—for use outdoors as well as in enclosed systems for human habitation.

It is our position that the development of these benefits will be enhanced by providing the proper incentive in the form of limited rights to industry and others as provided in the bill.

MR. DE LA GARZA. Thank you very much, sir.

Questions?

(No response.)

MR. DE LA GARZA. I appreciate very much your contribution. You made a point that I have been trying to impress on people regarding this pollution business—that the administration, the Senators, and everyone else who has been interested in pollution, and I do not question their sincerity about it, but everyone is going to the more popular aspects. Everyone is worried about the atmosphere, and even in the President's message to Congress he hardly touched soil erosion and ground cover. The basis of the pollution of many areas is because of the deterioration of the soil. I am very happy to see someone thinking along the same lines as I am and not going to the more spectacular aspects of pollution.

MR. RENNER. Thank you.

MR. DE LA GARZA. We will now be happy to hear from Mr. George Rea Walker.

**STATEMENT OF GEORGE REA WALKER, PRESIDENT OF THE
STONEVILLE PEDIGREED SEED CO., STONEVILLE, MISS.**

MR. WALKER. Thank you, Mr. Chairman. My remarks are rather short so I shall proceed with my statement.

My name is George Rea Walker. I am president of Stoneville Pedigreed Seed Co., Stoneville, Miss., and our company developed cotton varieties planted on over 25 percent of the U.S. acreage and 85 percent in the lower Rio Grande Valley of Texas.

We strongly support H.R. 13631 and related bills which will provide plant variety protection to the developers of new varieties.

We support this legislation because it will stimulate private plant breeding, give farmers a wider choice of varieties which will be better in yield and quality and of greater importance, will improve the

competitive position of U.S. farm products particularly cotton in world markets.

Our firm maintains one of the major cotton breeding research programs in the United States, however, it is relatively small when compared to research programs of large companies involved in a wide range of crop varieties. In our company if legal plant variety protection afforded by this legislation becomes a reality, we will immediately increase our research expenditures for cotton by more than 50 percent. We will further increase our research expenditures if the fruits of this expanded research program finds acceptance in the marketplace.

We would also expand our plant breeding research programs to include other crops grown in the areas in which our seed are now distributed. The crop which would receive first attention would be soybeans.

We strongly support this legislation since it will improve the lot of the American farmer and improve the overall position of our total agricultural economy. We strongly support this legislation and appreciate this opportunity of presenting this testimony.

Mr. DE LA GARZA. Questions of Mr. Walker?

(No response.)

Mr. DE LA GARZA. Thank you very much, Mr. Walker. We are happy to have had you.

We will now be pleased to hear from Dr. Walter O. Scott.

STATEMENT OF DR. WALTER O. SCOTT, ILLINOIS CROP IMPROVEMENT ASSOCIATION, URBANA, ILL.

Dr. SCOTT. Mr. Chairman and members of the committee, I appreciate the opportunity to express the support of the Association of Official Seed Certifying Agencies for the principle of plant variety protection as proposed in H.R. 13631 and related bills.

The AOSCA is an organization of seed certifying agencies. There are 43 member agencies in the United States. In most States the College of Agriculture, the Agricultural Experiment Station or the Extension Service is responsible for the seed certification program. In many of these States a grower organization is delegated the responsibility to carry on the program. In a few States a division or a section of the State Department of Agriculture is responsible for seed certification. Some of these also have active grower organizations that aid in the promotion of good seed.

In 1969 about 24,000 certified seed growers produced certified seed on over 2 million acres. Many of the certification agencies have two classes of membership, active and associate. Active members are those that are actively engaged in the certification of seed and associate are those not directly involved in seed certification but who support the principle and promote the use of good seed. There were almost 9,000 associate members among the 43 agencies in 1968.

Seed certification, briefly defined, involves the use of seed production and processing standards in combination with a system of recordkeeping, field inspections, and seed inspection to protect the genetic purity and maintain the genetic identity of crop varieties.

In the absence of this legislation anyone may legally reproduce and sell seed of varieties of the seed propagated crops. Some will argue

that this is not an undesirable situation. However, as long as this situation exists, the cost of variety development in most self-pollinated crops will have to be borne by the U.S. taxpayer because private industry has little opportunity to protect and recover its research investment. In addition the number of people working in variety development in the self-pollinated crops will be confined to the number that can be committed to this type of research in public institutions such as the U.S.D.A. and at our land-grant agricultural colleges.

This legislation will provide private industry with the opportunity to greatly increase its commitment of money and personnel to variety development. Industry will accept this opportunity and American agriculture is sure to benefit.

One of the important features of this bill is that it provides a choice in methods of protecting new varieties. The developer and/or owner may elect to exclude others from reproducing and selling his variety. If he elects to do this, the protection of the right to exclude others is his responsibility through the civil courts.

On the other hand the owner may elect to specify that only certified seed of his variety may be sold in the United States. One of the advantages of this form of protection is that violations involving seed moving in interstate commerce would be criminal acts and subject to prosecution by the Federal Government.

Many people associated with variety development and the commercial seed industry have felt that the seed certification form of protection is desirable because the financial burden of prosecuting violators in the civil courts could be a serious deterrent to the continued involvement of individuals or small relatively poorly financed plant breeding organizations in variety development.

Triumph wheat is one of the notable examples of the contribution of an individual who was interested in variety development as a hobby or avocation. Triumph was developed by a farmer in Oklahoma, the late Joseph Danne. At one time it was grown on more acres than any other wheat variety in the United States. Examples of this type are not numerous but there have been enough to raise the concern that the benefits of plant variety protection should be convenient and available to all who engage in the development of varieties. The concern has been expressed that the efforts of these people would be lost if they were forced to prosecute through the civil courts or to assign their new variety to a large organization capable of financing such action.

American agriculture needs an unending succession of new crop varieties because the hazards to crop production are constantly changing. For instance, as the result of natural hybridization of some fungus disease, new races of the disease develop. A variety of wheat which is resistant to the common races of stem rust when first released may be susceptible to new races which appear later. Insects often develop an appetite for a crop. Most of the insects that now feed on and damage soybeans were originally pests on other crops or weeds. Therefore, the need for new varieties is never satisfied.

By encouraging private industry to increase its commitment, plant variety protection will help assure that the improvement of crop varieties will keep pace with ever changing pests and needs.

Thank you for the opportunity to testify in support of this legislation.
Mr. DE LA GARZA. Thank you very much, Doctor.

If there are no questions, we appreciate your being here, sir.
Now we will be pleased to hear from Dr. Henry R. Fortmann.

STATEMENT OF DR. HENRY R. FORTMANN, REGIONAL COORDINATOR, NORTHEAST ASSOCIATION OF AGRICULTURAL EXPERIMENT STATIONS, AND CHAIRMAN, SEED POLICY SUBCOMMITTEE, EXPERIMENT STATION COMMITTEE ON POLICY, PENNSYLVANIA STATE UNIVERSITY

Dr. FORTMANN. Mr. Chairman, I am Henry Fortmann. I am the regional coordinator for the 14 State agricultural experiment stations in the 12 Northeastern States. For the last 5 years I have had the privilege of being the chairman of the Seed Policy Subcommittee of the Experiment Stations Committee on Organization and Policy.

I have a prepared statement here. I would like to pull out about three points and make them for you.

First of all, the State plant breeders and those concerned with seed multiplication and distribution have had a very excellent opportunity to review this proposed legislation for the last 2 years. We have had the subcommittee, and the members are listed in my statement, and we have held regional meetings attended by the State plant breeders, some USDA plant breeders, seed certification breeders, and anyone else who has been attending, and as a result of this series of meetings I think the proposed legislation has been changed considerably since its inception.

I might list the points where we have had some questions.

- (1) This can be voluntary.
- (2) The system would be open to both public and private plant breeders.
- (3) The system will not unduly restrict the flow of germplasm.
- (4) The system provides for Variety Review Boards.
- (5) The system provides for exemption in order to expedite plant breeding or other bona fide research.
- (6) Provision be made for an individual to save seed and grow the resulting variety for his own use.
- (7) Provision is made for the possible use of certification and limited generations as a part of the variety protection system.

On May 1, 1969, ESCOP approved, in principle, the proposals for variety protection now encompassed in H.R. 13631. This constitutes endorsement of the proposal by the 53 State agricultural experiment stations of the United States.

I am most appreciative for the opportunity of presenting this statement to you today.

That completes my remarks, Mr. Chairman.

Mr. DE LA GARZA. Thank you very much, sir.

Questions?

(No response.)

Mr. DE LA GARZA. Dr. Fortmann, let me ask a question as to what, from your perusal of the legislation, would be your opinion regarding the legal status of producers of seed which is now in the public domain and which is being used now.

Dr. FORTMANN. It is my understanding that these would not be eligible for some company or even the developer and experiment

station or public agency to ask for protection. I think the 1-year provision would be in effect.

Mr. DE LA GARZA. Then it is your opinion that this legislation would commence as of the passage of the legislation and afford the protection within the legislation but it would not go back and pick up anything covered earlier? For example, Hampton 266.

Dr. FORTMANN. I will not prejudge the legal aspects of this. This has been my understanding. Existing varieties, Granger alfalfa, for example, would not be subject to protection. This was a similar question I asked. This would be my understanding.

Mr. DE LA GARZA. I might ask previous witnesses if this is their impression of the legislation.

Mr. SOUTHERLAND. It is my understanding it would go 1 year from date of enactment. In other words, it would not be retroactive 5 years, for example, but it could go back 1 year.

Mr. KLEPPE. Is that the same with regard to any variety developed a year previous to the enactment of this act, that it could be covered?

Mr. SOUTHERLAND. One year.

Mr. KLEPPE. From the enactment of this act?

Mr. SOUTHERLAND. In effect our counsel says it is 1 year of public use.

Mr. KLEPPE. One year of public use. Is it measured from the date of enactment of this bill?

Mr. SOUTHERLAND. Yes, sir.

Mr. KLEPPE. Not from the development of it but from the public use of it. In other words, it would be measured by the first sale of it, I suspect. That would be considered public use. Is that correct?

Mr. ROBERTSON. The same provision there will be 10 years from now—that the application must be filed within 1 year of what we may briefly call public use. In the case of those things which have been used 1 day less than 1 year the application would have to be filed the day after the enactment of the act or the year would be gone.

Mr. PORTER. I am Dale Porter, legal counsel for Pioneer Hybrid Corn Co. One of the reasons we needed that provision in this act is so that companies having new varieties to release during the pendency of this proposal would not hold those varieties up in order to get protection subsequently but would be free to release them while this is under consideration.

It would be very undesirable for a company to sit on a new variety and not release it today in anticipation that this might become law in the future.

I think we need that in there for that reason.

Mr. DE LA GARZA. We appreciate your contribution. I do not suspect there is anyone here opposed to the legislation. I think all of us here now agree that it shall not go back to time immemorial but we shall set a cutoff date to cover from now on with the possible leeway of a year or so.

Thank you, Dr. Fortmann.

Mr. KLEPPE. He is reciting the mood of Congress.

Mr. KLEIN. I am Andrew Klein, of Philadelphia. I sat as chairman, some years, of the National Coordinating Committee on the Patent System. I am now chairman of a subcommittee of the American Bar Association. We reviewed this bill and we presented recommendations to the bar association which is meeting in St. Louis in August.

We have completed our work and we have sent in our report but it is not the report which has been adopted by the patent section nor by the American Bar Association. It does consider several rather serious problems which have been raised by H.R. 13631, and if it would be of any assistance to this committee I would be very glad to mention these briefly although I must admit I knew there would be a hearing only yesterday, and I discovered it by accident because of a telephone call.

MR. DE LA GARZA. Let us continue with the scheduled witnesses and then we will be happy to hear from you.

The next witness will be Mr. Ritchie Smith.

STATEMENT OF J. RITCHIE SMITH, ASSISTANT DIRECTOR OF RESEARCH, NATIONAL COTTON COUNCIL, MEMPHIS, TENN.

MR. SMITH. Thank you, Mr. Chairman and gentlemen.

My name is J. Ritchie Smith and I am assistant director of research for the National Cotton Council of America. The council, with headquarters in Memphis, Tenn., is the central organization of the raw cotton industry, representing cotton producers, ginner, merchants, warehousemen, cooperatives, spinners, and cottonseed crushers.

At their annual meeting in Atlanta last February, our delegates unanimously adopted a policy that the council should:

Recognize the necessity for improving varieties and the quality of cotton planting seed; support legislation to establish an effective, equitable, and workable system of voluntary plant variety protection, provided such system would allow any farmer the right to reproduce seed for his own planting, and would permit free interchange and research use of information, varieties, and other breeding material among plant breeders and other scientists; and continue to cooperate with the Joint Cotton Breeding Policy Committee in efforts to improve variety testing and the breeding, release and distribution of cotton planting seed which will best serve the interest of farmers and the entire cotton industry.

In pursuance of this policy the council supports the bill before your committee, H.R. 13631, with one suggested change. The bill if enacted will provide needed legal protection for the developers of all new plant varieties.

Plant breeding is fundamental to the future welfare of cotton. In its battle against manmade fibers, cotton must compete in quality and in price. Plant breeding is one of the vital keys to strengthening cotton's competitive position in both of these areas. It can give us new varieties which offer higher quality, value, and performance to our mill customers—and to the ultimate consumers. It also can lower production costs—and strengthen the farmer's ability to compete in price—by developing varieties which offer higher yields, better disease resistance, and other improvements which reduce unit costs.

Cotton urgently needs more attention and investment from plant breeders if it is to meet the test of modern competition. Yet the plain fact is that cotton is getting less attention—rather than more attention—from breeders. The reason is obvious: Commercial breeders are losing money on cotton. They have no incentive to put heavy investments into cotton because they are denied the kind of legal protection of their new developments that has long been accorded to other innovators and inventors—including those who develop plants which are reproduced by asexual means.

We recently canvassed the commercial cotton breeding firms to ascertain their expenditures on cotton varietal development and what they expected to be spending in 1975, assuming cotton acreage would remain about as it is now. Ten firms, which account for varieties making up 65 percent of the acreage, reported that their expenditures would at least double if a variety protection system is established. On the other hand, the survey also revealed that expenditures would remain at today's already inadequate level or be lower if the lack of protection continues. Our contacts have also confirmed that the establishment of a variety protection system would bring other firms into the cotton breeding field.

A cotton breeder may devote 10 to 12 years, or more, to development of a new variety. He may spend several hundred thousand dollars—or perhaps a million—on that variety. Then, as soon as he puts his new variety on the market, anyone can come along and use the breeder's seed to reproduce and commercialize on the variety—without making any direct investment in the varietal development process.

Unless this situation is corrected, private investment in cotton plant breeding is assuredly on the wane. Those breeders who are continuing to put heavy emphasis on cotton are doing so in the hope and expectation that they will be provided reasonable legal protection for their investment, and be afforded the opportunity to make a return on that investment.

With the advent of hybrids in corn and grain sorghum—which gave breeders of these plants a built-in genetic protection for their efforts—we have seen vast increases in expenditure for varietal development on these crops by private firms. It has been good business for the firms involved, but producers of these crops and the general public have been the principal beneficiaries. Unfortunately, the hybrid principle cannot be made to work in many crops, including cotton, primarily because of difficulties in pollen transfer.

If we are to attract more private capital into cotton plant breeding, we must have a system of legal protection for the developers of plant varieties—whether reproduced asexually or sexually.

It is our opinion that H.R. 13631 would provide an effective, equitable, and workable system for variety protection. The system would be open and available to any originator or developer of a new plant variety. But it would be a voluntary system; that is, the developer of a variety would not be required to use the system. Those choosing to use the system, however, could secure protection grants only on the basis of proof of novelty, distinctness, uniformity, and stability of the variety. Responsibility for the enforcement or defense of the protection granted is placed on the owner of the right, at his expense. Specific provision is made to permit and foster the free-flow of information and breeding materials among plant scientists.

I want to emphasize also that the bill would allow any farmer the right to reproduce seed for his own planting. And, of course, a farmer or anyone else could sell planting seed of a protected variety without infringement with authority from the owner of the right.

The bill sets 17 years from the date of issue of the protection certificate as the term of variety protection. This term or an even longer one may be necessary for some kinds of crops. For cotton, however, the

term could be shortened—say to 10 or 12 years—without any adverse effects. We suggest, therefore, that different lengths of protection time for different kinds of plants or crops be established, based on specific requirements for each. In our view, this change would not alter the principles or intent of the bill, all of which we support, but it would make the bill sounder and more practical.

We, therefore, urge approval of H.R. 13631 with the suggested change. The bill would extend to all plant breeders protection rights that have long been provided in some form for other innovators. Experience makes it abundantly clear that such protection is in the public interest. The investment and competition it will generate among cotton plant breeders also will serve the best interests of producers and the entire American cotton industry.

Mr. Chairman, we appreciate the opportunity to present the council's views on this important matter.

Mr. DE LA GARZA. Thank you.

Questions?

Mr. KLEPPE. I have a very brief question. Asexually and sexually—what does that mean?

Mr. SMITH. Sexually is a plant reproduced by seed where you have pollen transfer, male and female parts of the plant, whereas asexually is produced in other ways, by cuttings, graftings, and that sort of reproduction.

Mr. MATHIAS. How many USDA research stations do you have doing research on cotton?

Mr. SMITH. I am not with the USDA, sir. I am with the National Cotton Council of America. It is a private cotton industry organization.

Mr. MATHIAS. You must be aware of the USDA facilities in your area?

Mr. SMITH. Yes, sir.

Mr. MATHIAS. Do you have any idea how many stations are in your area?

Mr. SMITH. There is at least one main station in each of the cotton-producing States engaged in cotton research and in genetics research. Many of these main stations also have branch experiment stations.

In addition, the USDA either has its own stations or cooperative work with the State experiment stations in practically every cotton belt State.

Mr. MATHIAS. You feel they have done an adequate job in developing cotton varieties?

Mr. SMITH. I think they have done a good job but I would not say adequate, sir, because we still lack the types of varieties necessary to get the yield, fiber quality, disease resistance, and other economic factors we need in order to cut costs and improve our quality and be able to compete more effectively.

Mr. MATHIAS. Is your home in Tennessee?

Mr. SMITH. Yes, sir; Memphis.

Mr. MATHIAS. How many varieties of cotton do you have in Tennessee?

Mr. SMITH. Probably about four varieties which make up the main part of the crop in Tennessee.

Mr. MATHIAS. Are some areas considered a one-variety area?

Mr. SMITH. Yes; there are. Many areas are one variety, that is on a voluntary basis where there is no legal requirement. The San Joaquin Valley in California is the only area where there is a legal requirement for it to be a one variety district.

Mr. MATHIAS. Do you feel through your company, you can improve on the four varieties in the State of Tennessee to produce more cotton with less wilt, and more yield?

Mr. SMITH. There would be different varieties. The effect of this bill would be that it would generate more investment, more interest, more attention in cotton plant breeding work, and as a consequence of this we would have generally improved cotton varieties available for farmers throughout the cotton belt, whether they are produced by private industry or public agency. That would be the net effect of this.

Mr. MATHIAS. I am for anything that would improve the plight of the cotton farmer and give him more money for his work.

Mr. SMITH. Thank you.

Mr. PURCELL. Why do you want a shorter period than 17 years for cotton?

Mr. SMITH. In the case of cotton many of our members feel—and this is primarily a technical matter—that for all practical purposes everybody understands that a cotton variety will not last 17 years even under the present system. There has been misunderstanding created on the part of some of our producer members that you would have a virtual lockup for 17 years on the cotton variety situation, and psychologically they are against this long period of time.

They have indicated there would be no opposition to the legislation if the period were made shorter. We feel, and I think most other technical experts feel, this would have no practical effect insofar as cotton is concerned. In the first place, most cotton varieties will deteriorate over a period of 4, 5, or 6 years time, either because of field contamination or mixtures in the gin or in other ways. A variety that is acceptable as of this year, for example, will probably be completely outdated short of 12 years from now. Therefore a protection on a variety that has no value would not be worth anything to anybody in the cotton industry.

Mr. PURCELL. But it will not hurt anything. On the other hand what would it hurt?

Mr. SMITH. It would hurt nothing.

Mr. PURCELL. Purely a psychological thing. I don't understand why they would object. If the variety has lived its life and yet it sells at the same price—

Mr. SMITH. I don't think it would hurt anything at all if it were left in at 17 years. We merely made this suggestion in order to satisfy some objection which had been made. As you say, it is primarily psychological.

Mr. PURCELL. You tell them it didn't impress one guy up here.

Mr. SMITH. I am glad to hear that, sir. I told them the same thing but they wouldn't accept my feeling on it.

Mr. DE LA GARZA. Thank you very much, Mr. Smith.

This concludes the list of the scheduled witnesses.

We will now be happy to hear from you, sir. Please identify yourself for the record.

STATEMENT OF ANDREW R. KLEIN, SYNNESTVEDT & LECHNER,
PATENT LAWYERS, PHILADELPHIA, PA.

Mr. KLEIN. I am Andrew R. Klein. I am with the firm of Synnestvedt & Lechner, patent lawyers, Philadelphia.

For many years I was chairman of the national coordinating committee on the Patent System. That was a committee appointed by the National Council of Patent Law Associations.

Mr. DE LA GARZA. For whom are you appearing today, sir?

Mr. KLEIN. I am appearing because I happen to be chairman of the committee of the American Bar Association patent section which was named to investigate and report on this bill, 13631, subcommittee E of committee 103 of the American Bar Association, section on trademark and copyright laws.

Mr. DE LA GARZA. You appear in behalf of them?

Mr. KLEIN. I am not authorized to appear at all.

Mr. DE LA GARZA. This is what I want to clear up. You appear then, as an individual?

Mr. KLEIN. Yes. This is with some qualifications.

Mr. DE LA GARZA. We appreciate that. I am sorry that you did not become aware of this meeting earlier. We posted the necessary number of notices as provided by the Rules of the House and you were missed. Notices were posted and published in accordance with the Rules of the House.

Please proceed.

Mr. KLEIN. The American Bar Association has several times, at least the patent section, expressed its enthusiasm for protection to the discoverers of new varieties of plants. I think this should be cleared before I go into the question of precisely what action the committee is taking at this time.

In 1966 the American Bar Association Patent Section passed a resolution favoring "where practical the application of the principles of the Patent System to all the agricultural arts, including all plants, sexual seed breeding, microorganisms, and animal husbandry." We believe in going the whole way.

In 1968 the patent section approved this principle retaining in the patent statute protection for plants and opposed the recommendation of the President's Commission that a separate form of protection for plants should be devised.

That same year there was another resolution by the patent section which favored broadening the existing plant patent provisions so as to include sexually as well as asexually reproduced plants.

That same year the American Bar Association expressed a wish to delete language from the present statute which excludes protection for tuber-propagated plants.

Again that year the patent section approved by an overwhelming vote the provisions of the McClellan bill, S. 1246, with respect to patent protection for micro-organisms. This is a very practical, down-to-earth approach to the patenting of micro-organisms which requires that one who develops a new micro-organism place a deposit of that culture in an approved depository and maintain it, and its validity is conditioned upon his continuing to maintain it. This is a perfectly practical approach to the plant problem and it is involved in this bill of Mr. Purcell. If you make a deposit of your plant in an approved

nursery you have to maintain it. You have to maintain the available seed if it is the seed you are patenting.

The difficulty which confronts the patent section is the recognition of a significant reason for not protecting these new varieties of plants under the patent system. There is disagreement in our committee as to whether this is good or bad. There is hot debate about it and it is coming up in St. Louis as a matter of philosophical divergence of view. It needs exploration because we have a huge background of case laws in the patent field which would shed much light on problems which are bound to arise in trying to protect exclusive rights in a new plant variety.

We have an area of overlap which is very distressing, and that is the plants patents which are based on asexually reproduced plants covered under the Patent Law as such but when we begin dealing with our neighbors overseas we find that they have gone into a convention, an international union, referred to as the Paris Agreement on the Protection of New Varieties of Plants, 1961. This was drawn up after about 3 weeks of concentrated work by about 12 nations. It was presented in draft form and signed by all of these countries and it was subject to ratification. It was ratified by four countries as being provided that it would come into effect as soon as three had ratified. The fourth came within a month of the third, so in effect it was simultaneous.

The countries which subscribed to this treaty are Great Britain, West Germany, Denmark, and Holland. France has just enacted a law which has not yet been given an effective date but the text of the law has been agreed to by the Senate and House of France. It will be promulgated, which qualifies France to join this convention.

All of these national laws and the convention itself provides that when the country implements the requirement of the treaty by providing protection for a species, and this must be done bit by bit because you cannot handle a whole bunch of new plant varieties, new genuses, and new species by simultaneous enactment of provisions—all the countries recognize this has to be done by stages. However, as soon as any variety is provided for under the New Varieties Act, all other forms of protection cease. Patents we have in the United States are valuable to the people who have taken them out. Many businesses are flourishing on the basis of new variety of roses, peaches, apples, and a whole bunch of other things like that. These are valuable things and they will be lost.

We have the option, as I understand it, to stick to a Patent System or to stick to the new varieties system, but we cannot have both. In Germany now you can no longer patent a variety of rose that is not patentable subject matter under the German New Varieties Act because in Germany they have adopted a system of regulations and criteria by which new varieties of roses are measured under the Plant Breeders Act, and you can no longer obtain a patent in Germany on a rose.

This is a very distressing thing to very large rose growers in this country. They are being robbed blind in continental Europe. The budded stocks they have selected after years of patient work is being bought on the open market, smuggled in Europe and sold hand over fist in all the countries which have subscribed to this convention because in all the countries the same thing applies. This will be equally

distressing with some of the new varieties of fruit. In other words, we have to consider correlating the terminology of our legislative proposals with the requirements of the International Convention.

For one illustration, the minimum term under that treaty is 18 years from the date of grant. We are proposing to make it 17. We are excluding ourselves from an opportunity of reciprocating. My point is that we have to think about this very carefully as to mechanical terminology. It is a valuable thing. Everybody I know of is in favor of protecting a man who creates something new. He should have the right to it. We think it should be accorded to him under the Patent System, or perhaps under a new system. Perhaps this bill is the best system. We will argue that out in St. Louis.

Mr. DE LA GARZA. Thank you very much, Mr. Klein. You have made a most valuable contribution to this hearing.

We will instruct our very able counsel to study this matter very cautiously and wherever possible we will coordinate with international agreements and conventions. Our counsel is already studying parts of your recommendation but we sincerely appreciate your being here in further cautioning us of the adverse effects we might run into if we do not consider other nations involved.

We are deeply grateful to you for being here and we will instruct our counsel to make a thorough study of the matters which you have brought up this morning.

Mr. KLEIN. I will be delighted to be of any assistance if needed.

Mr. DE LA GARZA. I am sure if we have your name and address counsel will be delighted to ask your assistance where necessary.

(Mr. Klein later submitted the following letter:)

SYNNESTVEDT & LECHNER,
Philadelphia, Pa., June 16, 1970.

In re H.R. 13631 (Purcell).

HON. ELIGIO DE LA GARZA,
Committee on Agriculture,
House of Representatives,
Washington, D.C.

SIR: Let me first express my very real thanks for the chance you gave me to discuss this bill. I am afraid that my comments, being quite unpremeditated, were disorganized. I have tried to bring the subject into sharper focus, in the comments which follow.

The most serious problem, it seems to me, arises from the fact that if we enact H.R. 13631 we shall either have to repeal the sections of the patent law which provide for the issuance of plant patents, or we shall have to forego any possibility of subscribing to the International Convention for the Protection of New Varieties of Plants, which was signed in Paris on December 2, 1961, but which did not come into force until August 10, 1968. That treaty provides, in Article 2, that any subscribing country may provide protection for any genus or species under an act to protect plant breeders' rights, or under its patent laws, but it cannot offer protection for the same genus under both systems. The treaty also provides that each ratifying country must first adopt provisions establishing protection for at least five of the genera specified in the treaty, and must undertake to provide protection for the remaining genera, within a stated time schedule, so calculated that within eight years all of the genera named in the treaty must have been provided for. As I read this document, and as the other countries apparently construe it, if we afford protection for any genera under the plant breeders' act, we shall have to eliminate patent protection for each genus so protected. After eight years, no more plant patents could be granted, for all genera specified in the treaty would have been assimilated to the Breeders' Rights Act.

The only way that I can see to establish reciprocity with the treaty nations, and thereby qualify for membership in the treaty group, is to amend the patent act to include all genera, as rapidly as regulations can be adopted to specify controlling characteristics, or else abandon the concept of any protection at all for plants under the patent system. Even if we decide to adopt a plant breeders' act establishing a form of protection which is outside the patent system, it is by no means clear (a) that we shall qualify for membership in the treaty organization, or (b) that we should accept membership at the expense of certain purely fundamental characteristics of our own system of protecting exclusive rights. To illustrate this point:

The treaty provides that protection must endure for a minimum of fifteen years from the grant of the certificate. Where the variety protected, however, is a vine, a fruit tree, a forest tree, or ornamental shrub, the minimum term is eighteen years. The establishment of a seventeen-year term in accordance with H.R. 13631, would automatically disqualify us for reciprocity under this section of the treaty. This provision is found in Article 8 of the Convention.

Each ratifying country must adopt legislation which requires that a "denomination" be supplied for each new variety. That "denomination" is intended to be the generic name for the variety, and its use is mandatory in connection with the advertising or selling of goods of that variety. In addition to the "denomination", the owner of a breeder's rights certificate may, if he wishes, also use a trademark. Twenty words are in H.R. 13631 dealing with this matter, although it occupies many paragraphs within the treaty.

The treaty requires an examination of each request for a certificate of protection, and states that the ratifying countries may require the applicant to produce documents, propagating material, or seed, as may be needed, to establish the characteristics of the new variety and its differences over what was known before. Since the treaty does not require that the depository be a public depository or a certified depository, it may be possible to satisfy the apprehensions of the seed growers in this country by permitting national associations of growers to establish semi-private or semi-public fields and granaries.

There are numerous other points of detail which are spelled out in the treaty, and which I would be glad to amplify if you so desire.

I would like to offer one illustration of the deprivation of right which has arisen through the implementation of this treaty of Paris, 1961. For many years our citizens have been obtaining in West Germany patents on new varieties of plants which are based on patent applications filed in the United States. Under the International Convention of 1883 for the Protection of Industrial Property, the major countries of the world have granted reciprocal rights of priority to nationals of other member states, and the priority of United States plant patent applications has been extended to the corresponding German applications without question. Since Germany enacted its plant varieties act, in the early Summer of 1968, it has refused to grant any priority rights to nationals of this country on the basis of cases filed in the United States.

The same situation will shortly prevail in France, and probably prevails already in Denmark and The Netherlands, although I have not inquired about this.

The government of the United States has made diplomatic protest to the government of the West German Republic against the unilateral abrogation of its obligations under the International Convention for the Protection of Industrial Property. No reply has been received, so far as I know. A German lawyer told me, however, that he sees no basis for objection by the United States, since the treaty referred to expressly provides that a member nation may refuse patent protection to an applicant from another member nation, with respect to subject matter which is not patentable under the laws of the country which refuses the right.

To illustrate: since the Italian law forbids the granting of a patent with respect to any pharmaceutical product, no violation of the treaty obligation occurs when Italy refuses to grant a patent on a new pharmaceutical product to a manufacturer of such product in this country, even though that manufacturer had done all things requisite to qualify his United States application for reciprocal treatment in Italy under the International Convention for the Protection of Industrial Property.

Germany has, in effect, decided that new varieties of roses shall no longer constitute patentable subject matter. Under the circumstances, the United States grower cannot obtain a patent in West Germany for the new variety which he has developed. Most unfortunately, he cannot obtain a certificate entitling him to breeder's rights, either, for the issuance of such certificates is limited, in accordance with the treaty itself, to nationals of the member countries, and to enterprises having their place of business in a member country.

As I pointed out, in the course of my remarks, the Section on Patent, Trademark and Copyright Law of the American Bar Association firmly endorses the principle of protection for those who discover or invent new varieties of plants, whether this is accomplished asexually or not. Past action by the Section is as follows:

In 1966, the Section passed a resolution favoring, "where practical, the application of the principles of the patent system to all the agricultural arts (including all plants, sexual seed breeding, micro-organisms, and animal husbandry)".

In 1968, the Section expressed its approval, in principle, of retaining in the patent statute protection for plants, and opposed the recommendation of the President's Commission that a separate form of protection for plants should be devised.

In 1969, the Section passed a resolution favoring legislation to include sexually as well as asexually reproduced plants. That same year the Section also favored deleting language in the present statute which excludes protection for tuber-propagated plants. Still further, in 1969, the Section approved by an overwhelming vote a resolution relating to the provisions of McLellan Bill S. 2756 (91st Congress), with respect to patent protection for microorganisms.

When H.R. 13631 was introduced, it was referred to Committee 103, and Subcommittee E, of that major committee, was given the task of evaluating Mr. Purcell's proposals. Several of us met in Washington to discuss the matter, and quite a little correspondence exchanged hands. As a result, a committee report has been framed which will be presented to the Patent Section at its annual meeting in St. Louis in August of this year. Several of the subcommittee debate from the majority report, and I think it quite possible that an interesting debate will take place. The majority proposes the following resolutions:

"Resolved, that the Section of Patent, Trademark and Copyright Law reaffirms its position favoring the principle that protection to the discoverers of new varieties of plants, including tuber propagated plants and plants reproducible from seed, should be provided within the ambit of the patent system; Specifically, the Section of Patent, Trademark and Copyright Law disapproves H.R. 13631 (Purcell), 91st Congress, which would establish a system under the aegis of the Department of Agriculture for securing exclusive rights to the discoverers of new varieties of plants not asexually reproduced."

"Resolved, that the Section of Patent, Trademark and Copyright Law disapproves in principle those provisions of H.R. 13631 (Purcell, 91st Congress, relating to sexually reproduced plants) which would mandate the granting of compulsory licenses and which would preserve an administrative remedy against any Certificate of Plant Variety Protection for a period of five years after its issuance, instead of requiring the institution of judicial proceedings."

There are many questions which come to mind in considering the specific divisions of H.R. 13631 and I have therefore prepared a commentary on the Bill which is devoted expressly to that point. I am attaching a copy for your attention, if you wish to consider detailed comment at this stage in the proceedings.

Respectfully,

ANDREW R. KLEIN.

Enclosure.

COMMENTARY BY ANDREW R. KLEIN ON SELECTED SECTIONS OF H.R. 13631 (PURCELL)
91ST CONGRESS

Certain basic philosophical problems are presented by this legislation. One of these is whether it is necessary to duplicate, in the Department of Agriculture, the equipment, housing facilities and organization presently available in the Department of Commerce, for the purpose of protecting plant breeders' rights. One man has, most of the time, been enough to handle all of the prosecution of the plant patent cases in the Patent Office, for over forty years. One reason he could do this is that all of the facilities were already there—floor space, secretarial help, clerical help, and all the rest of it. But no such organization exists in the Department of Agriculture. One would have to be created. In forty years of operation only about three thousand plant patents have been issued. Is there any reason to suppose that new varieties of seeds will generate a greater number of certificates? Is it economically justifiable to invest so much money for so small return?

Many who have questioned the desirability of providing protection for new varieties of plants and seeds under the patent act have done so on the ground that

it is practically impossible to explain in words the long and tedious process of repeated crossing and selection by which new varieties are made. In other words, they feel that if it is to be protected by a patent it must be reinforced by an "enabling" disclosure. This is not necessarily true at all. For the first hundred years of our Patent Office operations it was required that the applicant supply a working model. This was regarded as entirely sufficient to supply the real need, namely, to make available in a public place something from which the inventor's contribution could be surely duplicated when his patent had expired. Proposals for amendment of the patent law for the deposit of cultures containing new forms of micro-organisms have been approved without a moment's hesitation by the bar. Is it so difficult to establish a depository for the safe storage of new varieties of seed?

Others who have hesitated to bring protection of new varieties under the aegis of the patent system have taken the view that unless the result can be reproduced with mathematical accuracy, it can hardly be patentable subject matter. This is not necessarily the case at all. Many quantity production techniques do not produce identical articles. All that is necessary is that the deviations from the norm should be within the range of normal use and operation. This is expressly provided in some foreign laws respecting new varieties of seeds, which recognize that deviations occur with respect to every variety, but so long as those deviations are within commercially acceptable limits for the specific variety under consideration, the "certainty" requirements of the statutory system are in fact fulfilled.

As to the Bill itself:

Chapter 1

Sections 1-11 parallel corresponding sections in Patent Law, except for Section 7, which provides for setting up a Plant Variety Protection Board instead of a Board of Appeals. Several men question the desirability of appointing on such a Board any members of the trade. It is not regarded as wise to permit a man to sit in judgment on his own case. It may be even less wise to permit him to sit in judgment in determining what rights are to be granted to one of his competitors.

Chapter 2

Sections 21-27 are from the Patent Law. Sections 23 and 24 relate to the taking of testimony by deposition in contested cases. Although testimony is frequently required in trademark oppositions, and in patent interferences, the questions which require decision with respect to the priority of applications for breeders' rights certificates would seem to be relatively quite direct and simple, and possibly better adapted to procedures involving confrontation in open court. Some have suggested that no proceeding be instituted in the Plant Variety Protection Office which contemplates that testimony be taken.

Chapter 3

Section 31—The fee schedule appears to be somewhat more reasonable and less difficult to calculate than that provided in the patent act, and this is a boon.

Chapter 4

Section 41, "Definitions"—Subsection (g) seems self-contradictory.

Section 42—Subsection (2) of this section, which permits the introduction of proofs respecting acts done abroad, should raise the same tremendous storm as followed the proposals offered in the Patent Reform Bill—S. 1042—to repeal Section 104 of the patent law and permit proof of acts performed abroad. Efforts to prove that something was or was not done in a foreign country, without benefit of our discovery rules, and without our ready enforcement procedures, have proved to be wholly frustrating to the patent bar. It will probably be even more difficult to discover the facts where perishable plants are involved.

Subsection (3) invalidates a United States application if the foreign application was filed more than one year before the U.S. case. This is too strict. The critical circumstance should be that a certificate issued in a foreign country prior to the filing of the United States application. If the application for the foreign certificate was filed more than one year before the U.S. case, the U.S. application is barred, or, if issued, is invalid. That is to say, issuance of the certificate is what makes the knowledge public, not the mere filing of the application. The filing would be in confidence, under Sec. 56 of H.R. 13631.

Section 43—At first impression, this section is ill conceived and ill adapted to the provisions of the treaty. Should not protection be extended to nationals of other countries who have an established place of business in the United States?

Section 44—This section, which provides for the issuance of a compulsory license by the Secretary of Agriculture, runs counter to the long-established

policy of our patent system. That policy is based on many earnest and bitter debates, extending back over the forty years that I have been in practice. A very large proportion of the patent bar deeply and earnestly believes that one of the reasons our patent system has surpassed all others is the fact that we do not subject our inventors to the uncertainty and unfairness normally associated with compulsory license laws.

Chapter 5

Section 52—There is a procedure currently being followed by the drug industry for the establishment of generic names to identify new drugs and pharmaceuticals. A parallel system should be established for identifying new varieties of plants. The German law provides exactly that, and it is much better to refer problems of nomenclature to a stable and established organization which is determining generic names constantly for the entire industry than it is to leave this important matter to the discretion of private firms, whose personnel cannot possibly have so broad a background.

Section 56—Should provide that confidentiality ceases when the certificate is granted.

Chapter 6

Section 62(b)—Was it really the intention, in the last sentence of this subsection, to require the payment of a delayed "filing" fee? There is a fee for belated payment or other action, specified in Section 31. That amounts to ten dollars. The filing fee is fifty dollars. Paying that much for delayed response to an Office action would seem to be on the excessive side.

Chapter 7

Section 71—What other courts of appeal are supposed to have jurisdiction over decisions made within the Plant Variety Protection Office? This section should establish venue provisions, at the least, unless the words "without limitation to that court" are deleted. We have enough trouble with divergent views as between the Court of Appeals, D.C. and the Court of Customs and Patent Appeals. Let's not let any more courts write conflicting precedents.

Chapter 8

Section 83—The term of protection should be longer, and might desirably vary, in view of the nature of the plant. The provisions permitting waiver of certain rights seem to be somewhat unrealistic, particularly since they require alteration in the form of the certificate.

The last sentence of subsection (b) affords a fertile opportunity for argument, namely, changing the term of a certificate to penalize delay in prosecution.

Section 86—It is very desirable to provide that an error in naming the breeder may be corrected at any time. It is unfortunate that this should be limited by the expression "without deceptive intent", as it is here and also in Section 51(b). The same language appears in the patent act and in Senator McLellan's bill. But the time when correction of the named breeder is most important is when an unscrupulous individual has named himself as the breeder, with 100% deceptive intention. Under those circumstances, the certificate is invalid because issued to one who was not entitled to it, and this issuance will have occurred with deceptive intent, and therefore will be incapable of correction.

Chapter 9

Section 91—One of the most important rights of a patentee or a certificate holder is to come promptly into the possession of a defined and assured right to exclude. The provisions for post-issue attack, by opposition or otherwise, simply delay exploitation of the new variety, because investors will hesitate to buy a right which has not yet been assured. It is subject to attack for five years by any person—which means every person. The right to attack should at least be limited to one who believes himself likely to be damaged by the continued existence of the certificate. Would it not be much more sensible to allow one who was really damaged to pursue a remedy under the principles of general law?

Section 92—Considering the mathematical impossibility of independently duplicating two products of nature, even where it is intended to do so, it is anticipated that determination of priority rights will seldom be required. Under those circumstances, would it not be best to issue a certificate to each, and refer the parties to a civil action for determination of their rights?

Section 93—seems to be somewhat inconsistent, in subsection (a), since it is limited to final judgment on an *application*, and yet requires endorsing the notice

of cancellation on copies of the specifications of the accused plant variety thereafter distributed. Is it the intention that specifications which have been refused protection should be circulated by the Office?

According to subsections (b) and (c), one having a right to challenge priority retains the opportunity to offer his evidence in later litigation, whether he failed to challenge priority during the time allowed (subsection (b)) or suffered an adverse ruling after having challenged priority (subsection (c)). This is analogous to patent practice.

Section 94—sets up a civil action in cases where a certificate has been awarded to two or more different entities with respect to the same variety.

Chapter 10, on ownership and assignment.

Section 101(d)—requires the recording of an instrument affecting title within one month of the date of its execution, in order to prevent a holder in due course without notice from acquiring rights.

Section 102—provides for ownership of propagating material during a testing period, and affords a remedy by civil action against anyone who comes into possession of seed or other sexually reproducible plant material and uses it for any purpose other than testing for the benefit of its owner. Notice by tag or label is specified. Commercial sale by the owner precludes action against the tester.

Chapter 11, deals with infringement, and defines eight different acts, any one of which constitutes an act of infringement.

Subsection (7)—makes it an act of infringement to asexually reproduce the novel variety.

Section 112—provides that one may save seed and grow the resulting variety for his own use, without infringing.

Section 113—establishes a personal defense against a certificate on behalf of one who had developed a variety more than one year prior to the filing date of an adverse application for a certificate with respect to such variety. This is a more sensible provision than the corresponding section of the Patent Act, which gives no alternative but to invalidate the patent.

Section 114—provides that it shall not constitute infringement to save seed for use as food, feed, or manufacture, for distribution through the usual channels. One who diverts seed from such channels for growing purposes cannot plead lack of notice.

Section 115—use of a protected variety for plant breeding or bona fide research does not constitute infringement, nor does the mere transportation, as by common carrier. (Section 116)

Chapter 12, provides remedies for infringement. These are practically identical with those established under the Patent Act.

The defenses stated at Section 122 are parallel to patent defenses. There is, however, a provision in subsection (d) which permits a court to exercise discretion in awarding damages where the defendant planted the accused variety prior to the issuance of the certificate, with innocent intentions.

Section 126—provides the same six-year statute of limitations as does the Patent Act, but shortens it to three years where the proprietor had knowledge of the infringement.

Section 127—is similar to the marking section in the Patent Act. This has always seemed to the writer to be needlessly harsh, in providing that no damages shall be recovered where the holder of the certificate has failed to attach the proper marking. It would seem to be much more realistic to provide that the damages awarded shall be reduced with respect to sales occurring prior to actual notice, where the proprietor had failed to mark. The reasonableness of such an exclusion becomes quite apparent when it is realized that much of the growing which is likely to occur will be done under license, and licensees are notoriously careless about marking.

Section 128—dealing with false marking, gives the commissioner the authority to issue a cease and desist order when satisfied that someone is improperly using such expressions as "U.S. Protected Variety" or "Propagation Prohibited". One who violates a cease and desist order for the purpose of deceiving the public shall be fined not more than ten thousand dollars and not less than five hundred dollars. In addition, a civil action is made available to anyone likely to be injured by the false marking.

Section 129—Foreign entities must name a representative for service of process.

Chapter 13, Usual saving clauses—Intent and Severability.

Chapter 14, Makes the act effective on the date of its passage, and provides an amendment to the Federal Seed Act dealing with the marketing of certified seed.

Section 143—provides "non-exclusive" jurisdiction to the Court of Customs and Patents Appeals to review decisions of the Plant Variety Protection Office.

Mr. DE LA GARZA. Now the main author of the legislation, Mr. Purcell. Do you have a prepared statement, sir, or proceed in any way you wish.

STATEMENT OF HON. GRAHAM PURCELL, REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. PURCELL. After hearing these learned men I don't feel that I can add anything to this hearing. I will just say that certainly with the kind of caution Mr. Klein has issued us here that the bill should be reviewed so we are not prevented from being able to participate or gain advantage from any international agreements.

Other than that it seems to me that the plant and seed breeders in this country deserve this kind of protection. I would hope we can get this passed through the Congress with a minimum of delay.

There are one or two questions I would like to ask one of the witnesses to clear up some matters.

Mr. DE LA GARZA. Very well.

Mr. PURCELL. Dr. Loden, I think I picked you out for this question. Quickly give us a definition of germ plasm.

Dr. LODEN. Germ plasm is that material located in the cell which controls the traits of plants and animals, the genes located on the chromosomes.

Mr. PURCELL. Will you then tell me what protection does any company now have on these hybrid types of seeds? Some of you made some reference and used a term that I either did not hear correctly or did not understand implying that you now had a degree of protection that I am not familiar with. What protection and under what law do you gain protection for those types of operations?

Dr. LODEN. I think many of the statements have reference to built-in genetic protection for hybrids. What we are saying here is that a hybrid is the controlled cross between two or more individual lines and it is a seed produced from this cross, the hybrid sold to the farmer. The farmer cannot save the seed of that hybrid that he plants because it breaks out—

Mr. PURCELL. It is like a mule.

Dr. LODEN. That is right. Our company and other people engaged in the development of hybrids have a company secret, for example, as to which materials make the hybrid. We also develop those materials and they are our exclusive property which we protect and do not let our competitors have. We have a genetic protection as opposed to the legal-type protection of the bill.

Mr. PURCELL. I understood that but I got the idea somebody had legal protection.

Dr. LODEN. There is no legal protection.

Mr. PURCELL. There is no law in any State or jurisdiction anywhere in this country which gives you that protection?

Mr. SOUTHERLAND. There is one law in Texas.

Dr. LODEN. There was a law passed in Texas which gives a legal form of protection to the developers of cotton varieties within that State. The law is not yet operative because we have not had the time to get the new varieties available. It passed the last legislature. It states that only seed of certified varieties may be offered for sale, so this in effect gives the breeder of cotton varieties a measure of control because he can control it.

Mr. PURCELL. There is no legal ground in connection with hybrid varieties?

Dr. LODEN. That is right.

Mr. DE LA GARZA. Thank you very much, Mr. Purcell.

I have further statements and communications I would like to submit for the record if there is no objection.

(The statements, telegrams, and letters follow:)

STATEMENT OF HON. CATHERINE MAY, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF WASHINGTON

I appreciate this opportunity to discuss the provisions of H.R. 13631, the Plant Variety Protection Act. I am a co-sponsor of this bill and fully support its objectives.

The purpose of this legislation is to provide more incentive for private industry to develop new and better varieties of plants, and this, of course, will be of real benefit to U.S. agriculture.

While I would urge the Committee to act favorably on this bill, at the same time I would also urge you to consider carefully several points which I feel are cause for concern.

Some of my constituents in the State of Washington—specifically the Washington Association of Wheat Growers—have raised certain questions with regard to provisions of this legislation which would affect seed wheat.

The Association has indicated in their statement to the Committee that they support the principle of plant variety protection as embodied in this bill, but they request consideration of amendments in two areas.

First, the Association is concerned with the quality of seed wheat and the potential for development of poor quality wheats which would be unsatisfactory to the miller, baker and export trade. Wheat growers have had some bad experiences in the past with poor quality wheat. For example, the release of a Mexican-type hard red spring variety with undesirable dough mixing qualities caused serious problems within the industry. After two years of testing in public and industry laboratories it was placed on the USDA "discount" list and is phasing out, but during the testing period many farmers paid high prices for a variety that was unsatisfactory.

Steps could be taken toward at least a partial alleviation of this problem if H.R. 13631 could be amended to require that at the time of application for protection under the act, a wheat seed developer would have to place on file for public information with the Commissioner, data and information as to milling qualities as well as end use qualities of the new variety.

The specific information required could be established by the Commissioner through an administrative hearing process, but the object would be to set up some sort of objective criteria, or comparative standards by which a new wheat variety could be measured, so that farmers would have access to this important additional information.

The information should be made available to the purchaser at the time of sale, as well as having been on public file from the time of application. Of course, such information would not be a warranty or guarantee, but would simply be for the purpose of providing the farmer with a reasonably accurate, objective comparative analysis of the product, rather than imposing specific quality standards which would have to be met before the variety could be protected.

A second point of concern to which the Association also refers has to do with potential problems relating to security of breeding materials.

With the protections and the additional incentives provided by this bill for private development of plant varieties, public wheat breeders could find themselves in a highly vulnerable position with regard to the potential for theft of their test varieties. Because of the open nature of their work, public wheat developers are already faced with serious security problems which could be intensified by this legislation. And, although the bill does provide a mechanism for challenging a registration, the time and expense involved not only in challenging, but also in simply registering and protecting varieties, will impose additional burdens on already underbudgeted, understaffed public wheat breeders.

I hope the Committee will consider the possibility of amending the legislation to alleviate the potential for these problems.

There are two other points which I hope can also be given special attention.

One relates to basic federal policy on funding of programs of this type. Should it be self-supporting, or should it be financed largely through public funds? It appears that the bill in its present form would require public funding to meet the major portion of program costs.

Such federal programs as the Perishable Agricultural Commodities Act, the fresh fruit and vegetable inspection program, meat and poultry grading for quality, and local administration of federal marketing orders (representing the major portion of total marketing order costs), are largely or fully self-supporting. On the other hand, such programs as cotton and tobacco grading and meat inspection for wholesomeness are public supported.

In addition, the bill specifies the fees which may be charged, and the Committee may wish to discuss the advisability of providing some administrative flexibility for raising as well as lowering the fee levels, irrespective of the Committee's decision on funding.

Pursuing the point of administrative flexibility one step further, the Committee may also want to consider providing more discretionary authority for the Secretary of Agriculture to utilize the existing USDA structure for administration of this program, rather than specifying in the bill the exact type of organizational structure.

It appears to me that in both areas—financing and organizational structure—the Secretary should be provided the flexibility to establish and operate an effective and efficient program in appropriate relationship to overall federal budgetary objectives and parameters.

Thank you for your courtesy in permitting me to share these views with you.

STATEMENT OF HON. CLARENCE J. BROWN, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF OHIO

I wish to speak today in support of a bill I am co-sponsoring, HR 13631—the Plant Varieties Protection Act.

Today our patent and copyright laws extend themselves to cover inventions, the works of artists and writers, and the innovations resulting from scientific research. It seems only fair and reasonable to extend similar protection to those whose investment, effort, knowledge and skill result in the development of new and stronger plant varieties. Existing law does not now provide such protection to private plant breeders and the developers of sexually reproduced plant varieties. This legislation seeks to correct the oversight of that situation.

Such protection seems certain to be an incentive to stimulate the growth of work and research in this area. When, as a result of such research, the yield of a particular variety is increased, or its immunity is strengthened or its harvesting characteristics improved, then a contribution is made to the total agricultural development of the nation. The consumer not only gains as a result of the improved quality of items that are marketed but, less obviously, from the fact that it is to his benefit when an improvement is made in the farmer's supply.

I am co-sponsoring this legislation because I believe it is a most economical and efficacious means to redress the present inequity under which botanists, herbarists, and horticulturists must labor. It would apply to the area of sexually reproducible varieties the same general type of self-help incentive for innovation that has worked well under the patent laws for plants not reproducible sexually. A breeder may now spend years developing a naturally reproduced and valuably useful new plant variety with no more reward than having his name attached to the plant in a trade journal or seed catalogue. Obviously, such a situation is inherently unjust and tends to restrict the initiative of private developers.

STATEMENT OF HON. FRANK HORTON, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF NEW YORK

Mr. Chairman, I am pleased to have this opportunity to testify in support of H.R. 13631, the Plant Variety Protection Act of which I am an original sponsor with Mr. Purcell. As you know, the bill provides legal protection for a limited time for the breeder of a new variety during which time he has control over the sale of seed of the variety.

I sponsored this measure because it promotes an incentive to invest additional funds and efforts toward developing other new and improved varieties. The por-

tection would give the plant breeder the means of recovering the expenditures for developing a farm-accepted variety and a chance for making a fair profit on his investment of money and effort.

I first learned about the need of this legislation from a constituent, Joseph Harris of Harris Seeds in Rochester, N. Y. He stressed that the bill will be in the public interest since it will stimulate new and improved varieties with increased yields, greater disease and insect resistance, increased protein, oil, fibre strength, quality of vegetables, and many other crop improvements unknown to the plant breeders.

This bill is only giving to plant breeders the same protection afforded inventors of machines, chemicals, authors and songwriters. The term of protection runs for 17 years, just like a patent.

The object, of course, is to provide incentives for private enterprise to undertake the research and development required to produce novel varieties of plants.

I was most pleased to learn of the Department of Agriculture's favorable views toward this objective.

Innumerable benefits would result from the enactment of this bill. The breeder of the variety would be assured of being reimbursed for his investment, and would therefore be in a position to make further efforts to rapidly develop better crop varieties.

Since growers of certified seed would be protected from the competition of non-certified seed they could expect increasingly profitable operations.

Seed dealers could give better service to farmers by offering only seed of known pedigree and known performance which had been produced under the auspices of the Crop Improvement Association of his state.

The farmer would be assured of purchasing seed no more than two generations away from the originator of the variety. He would know the seed had not deteriorated through continued reproduction, careless handling or mixing.

Mr. Chairman, I think that all of agriculture would benefit from increased emphasis and effort to develop new and improved varieties. I urge that the committee favorably report this measure.

STATEMENT OF HON. CHARLOTTE T. REID, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF ILLINOIS

Mr. Chairman, as a co-sponsor of H. R. 13631, I appreciate having this opportunity to present a statement in support of the Plant Variety Protection Act.

The Constitution makes recognition available to inventors and discoverers of their work in all segments of industry, including agriculture. Therefore, this legislation is based on the "authors and inventors" clause of the Constitution. It seems appropriate to extend some form of rights to plant breeders of sexually reproduced plants since asexually produced plants are already covered under the existing patent laws.

Just as inventions, writings, and other creative activities are protected and rewarded by patents and copyrights, it is desirable that the same protection be afforded those who create new crop varieties.

A highly satisfactory form of breeders' protection is that which is automatically obtained when hybrids are used as varieties, since the creator or originator has control through exclusive possession or knowledge of the parents. Our bill—H. R. 13631—leaves undisturbed both the automatic protection of hybrids and the present plant patent law. It does extend similar incentive protection to the long-neglected field of sexually reproduced crops, in a form carefully tailored to the nature and needs of this field.

In my judgment, the enactment of H. R. 13631 will benefit both producers and consumers. Farmers will benefit by every successful improved variety which this bill will bring forth by encouraging more commercial breeding research—whether the improvement be in yield, quality of product, or resistance to disease or other causes of crop loss. The consumer benefits directly by any improved quality and indirectly by the other factors which increase the supply or reduce the producers' costs or risks.

It is my hope that the Committee will take favorable action.

STATEMENT OF HON. BURT L. TALCOTT, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. Chairman, and Members of the Committee: H.R. 13631 is a carefully prepared bill resulting from several years of study and effort to encourage greater research to develop better seeds to produce pest resistant plants, greater yields, and better varieties that will reduce production costs and enable the producer to participate more fully in the national economy.

For a number of years seeds of this kind were developed only through Federal State research stations and a very few private research organizations. There is no way that seeds of this kind could be protected under the basic Patent Act. For a number of years the American Seed Association has explored with the United States Patent Office, possible ways of protecting research investments by private organizations. Despite the most careful study by patent attorneys and specialists in the Patent Office, it is evident that the Patent Act cannot be utilized to afford these private research organizations any protection.

About two years ago these organizations and interested Members of Congress approached the Department of Agriculture to see whether there was any way that protection might be afforded such private research firms. The Department of Agriculture and Members of Congress were most interested, because if a way could be found, the Federal research funds now being used could be augmented by thousands of dollars to private research firms.

The bill before you has been carefully drafted and it does provide a means to achieve this purpose. The Department of Agriculture feels that with such authority they can give some protection to private research firms, and we can look forward to increased research in the years to come.

There is obviously a public interest in inducing more research towards the production of plant varieties. Most indirectly stated, the benefits to be derived by the enactment of the bill would be increased yield, greater disease resistance, insect resistance, increased sugar or protein content, improved quality of vegetables, and new strains of flowers.

Plant variety protection is in many respects closely parallel to copyright protection. For example, it is the work which goes into the creation of a new variety that merits protection, rather than any "idea" or unobvious concept. As with copyrights also, the nature of the protection is so narrow that there is almost no chance that one person's protection will interfere with the independent work of another. This, together with the careful wording of the bill I have co-sponsored, leaves almost no chance of harmful abuses, and makes it practicable, as in copyrights, to provide immediate protection by having the statutory rights begin upon distribution with appropriate copyright notice.

I strongly feel that the bill can be completely justified as being in the public interest, and I urge favorable consideration of its provisions as a necessary step which we must take if we are to insure consistent and continuing gains in developing new plants and their products to cope with the demands of the future.

Thank you.

STATEMENT OF WASHINGTON ASSOCIATION OF WHEAT GROWERS, RITZVILLE,
WASH.

Mr. Chairman and Members of the Committee we appreciate the opportunity to present this statement on H.R. 13631.

The Washington Association of Wheat Growers is a voluntary membership organization of wheat producers which has membership in excess of 3400 and maintains offices at 301 West Main, Ritzville, Washington 99169. The goal of the organization is to enhance the business climate in which the Washington wheat producer operates. To this end the Association has, since its inception in 1954, been involved in the development of both domestic and export markets for Pacific Northwest wheat. During the same time it has been involved in the development of wheat varieties having acceptable milling and end-use characteristics as well as acceptable agronomic characteristics. This total involvement has included not only an advisory capacity in the use of public funds but also, through the Washington Wheat Commission, the allocation of producer funds for wheat market and variety development. Since H.R. 13631 relates to and can be expected to generate more active entry into wheat variety breeding by private plant variety developers we are naturally concerned about its provisions.

In this respect our organization on June 9, adopted this policy position:

"This group supports the principle of the Plant Variety Protection Act provided that it is amended specifically for wheat as follows:

1. Improve the language to remove vagueness regarding security of breeding materials.

2. Require a descriptive statement of facts reporting conclusions of the proprietor with regard to certain quality related factors which are to be specified by the Commissioner of Plant Variety Protection.

In absence of the above amendments we recommend that wheat be deleted from the Act."

With respect to item number one: We believe H.R. 13631 as written presents an extreme potential for damage to the PNW wheat industry whose non-captive export market customers are becoming increasingly quality conscious. Our present public breeders show a very high degree of concern for wheat end-use qualities and have been very successful in keeping our producers supplied with a succession of high-end-use-quality wheats to replace those that have become disease ridden and useless. Private breeders have not yet demonstrated this capability although we hope they soon do. Our industry cannot afford to risk damage to the public breeding program until such time as private breeders do demonstrate this capability.

The work of public wheat breeders would be highly susceptible to plagiarism and a subsequent blocking of their development efforts unless this Act gives them greater protection. Being public funded they must annually divulge information concerning lines being developed and must give the public easy access to variety test plots. In essence they are required to point out to an unscrupulous plant breeder exactly which test line seeds he should steal or which unique plant characteristics he should register for dishonest personal gain.

If the required divulgence of information and easy access is terminated then public confidence in USDA-ARS and state funded wheat development efforts will erode with a naturally expected result that public funding will be gradually withdrawn.

If the public breeder must for protection register every new experimental line he develops or if he must continually challenge variety registrations then a disproportionate and unnecessary amount of his development funds will be wasted non-productively. Again confidence would be lost and withdrawal of funding could be expected to result.

We do not oppose a shift from public funded wheat variety development to privately funded development. Neither do we believe that all private plant breeders or companies are so unscrupulous that they would plagiarize the work of public plant breeders. We are concerned however, that adequate protection be given to the work of wheat breeders in public employ until such time as private breeders have demonstrated the same ability for achieving a continuing output of quality wheats as that demonstrated by public plant developers.

To the achievement of this end we request that the Act be amended to state that any wheat variety submitted for registration that has "unique and identifiable characteristics" of no discernible difference from a previously identity-numbered public station developed variety and which is subsequently challenged is presumed to have been first developed by the public experiment station and is not eligible for private registry unless the private breeder can establish to the satisfaction of the Commissioner that his variety was independently developed.

With respect to item number two: As previously indicated, wheat quality with respect to end-use characteristics has increasingly become a very important factor in the export marketing of Pacific Northwest wheat. In 1968 quality factors caused a loss of sales of several million dollars worth of this wheat in the Japanese market. It is therefore imperative that both wheat producers and merchandisers have available to them a reasonably accurate and use-oriented description of the quality of production that might be expected from a specific variety when grown in a specific locality.

The need to co-mingle wheat as it moves through the market channels means that a relatively small amount of visually unidentifiable wheat of poor quality could destroy the end-use quality of a much larger amount of acceptable quality wheat. This does happen now both through design and accident. To minimize this sort of thing both the producer and the merchandiser need to have at hand the best possible description with respect to the end-use qualities of a particular wheat variety.

It is not desired that this description be construed as a warranty, express or implied, or that any registered variety be required to meet specific quality standards prior to registry or release. It is desired that some mechanism be adopted

that would assure reasonable accuracy of the quality description of varieties submitted for variety protection.

It is further desired that the Commissioner of Plant Variety Protection be required to use public hearings as a method in establishing and altering uniform standards for testing, that he establish requirements for comparative description and that the period of testing required not be overly long.

We therefore request that amendments to the Act (which will be submitted) be adopted before the Act is voted out of Sub-Committee.

Much of the economy of the State of Washington and the Pacific Northwest is dependent upon the export acceptability and sales of wheat that is produced within the region. We therefore respectfully request that you give fullest consideration to our requests in respect to H.B. 13631.

STATEMENT OF ELDRON REEVE ON BEHALF OF CAMPBELL SOUP CO.

My name is Eldron Reeve.

I am appearing here as Vice President-Vegetable Research for the Campbell Institute for Agricultural Research, a Division of Campbell Soup Company. We have maintained active agricultural research and plant breeding programs for the past 33 years. During this period, we have released to the public domain 32 varieties of tomatoes in addition to new varieties of several other vegetable crops including potatoes, okra, Scotch peas, peppers, rutabagas and mushrooms.

This testimony stems from a sincere belief that H.R. 13631 would severely impede progress in the development of new varieties of plants. Unprecedented progress has been made under the existing system free of artificial controls and protection. We believe H.R. 13631 is contrary to the best interests of the agricultural community and to the consuming public.

We respectfully submit the following reasons in support of our opposition to the proposed legislation.

1. *The release of new varieties would be delayed.* The success of any plant breeding program depends largely on the store of genetical material or germ plasm available to the plant breeder. For example, our bank of tomato genetical material presently contains 2249 items. These were obtained on a free exchange basis among plant breeders from all corners of the world. This material has provided the basis for the 32 tomato varieties we have developed and released.

As a result of activity in recent years leading up to the present proposed plant variety protection act, there has been a perceptible reluctance among plant breeders to exchange genetical material. We believe enactment of HR 13631 would essentially eliminate exchange of valuable germ plasm and severely curtail the development of new varieties.

2. *Administration of the proposed plant variety protection act would be difficult, if not impossible.* Some varieties are morphologically indistinguishable, but differ in certain nutritional or flavor characteristics. For example, with respect to morphological characteristics (plant habit, fruit size and shape, color) the objective in several of our tomato breeding programs is identical, but objectives with respect to solids, acidity and flavor components are different. To establish uniqueness with respect to solids, acidity, vitamin content and subtle volatile components is extremely time-consuming and requires highly sophisticated equipment and specially trained personnel. Notwithstanding the time—perhaps years—and expense involved, we submit it would be next to impossible for the proposed plant variety protection office to establish uniqueness of such new varieties, and to administer the program.

3. *The cost would be exorbitant in terms of money and professional talent.* Applications for certificates of plant variety protection would be expensive for the proprietor to prepare and for the Commissioner to certify. In case of contested awards and infringement litigation, the cost in terms of money, delay in release of new varieties and unproductive use of professional talent would be enormous. These are costs that eventually must be borne by the consuming public.

4. *The present, voluntary system encourages creativity and affords protection through seed certification and development of F₁ hybrids.* If desired, protection can be achieved through existing seed certification programs and the development of F₁ hybrids. F₁ hybrids provide a built-in protection system, since control of the parental material can be retained by the originator. The present voluntary system rewards creativity, free of the handicaps of an artificial protection system.

For the reasons enumerated above, we respectfully submit that HR 13631 is

not required to provide protection for the development of new plant varieties, but would in fact impede progress and be detrimental to the interests of the agricultural community and the consuming public.

STATEMENT OF THOMAS B. HOUSE, PRESIDENT, AMERICAN FROZEN FOOD
INSTITUTE

The undersigned Thomas B. House, President of the American Frozen Food Institute (formerly National Association of Frozen Food Packers), whose members pack some 90% of the national production of frozen vegetables, fruits, and juices and a large volume of other frozen foods, presents the following statement in behalf of the Institute and the industry it represents in connection with H.R. 13631:

The American Frozen Food Institute (AFFI) opposes H.R. 13631 providing for Certificates of Protection of 17 years duration for sexually reproduced fruit and vegetable varieties. For practical purposes the Certificate has most of the attributes of a patent.

There are many reasons supporting this position.

1. The development and release of new varieties will be delayed.
2. The free exchange of information, germ plasma, and breeding stock will be inhibited or limited.
3. It would be difficult or impossible to apply standards and procedures analogous to patents to sexually reproduced varieties. Sexually reproduced varieties are on the average more variable and unstable from area to area, season to season, and generation to generation than are those asexually reproduced. Thus the existing law as to asexually reproduced plants is not a precedent. The "invention" is in many cases incapable of identification and distinction. In many vegetable categories there are no universal guidelines, only a few people are expert enough to judge, and they are often likely not to agree.
4. Plant breeders generally cannot leap ahead from invention to invention. The many characteristics sought in breeding—such as sugar, acidity, color, solids, seed size, leaf area in relation to fruit yield, etc.—are difficult to measure accurately. Moreover most wanted characteristics are generally achieved bit by bit with barely observable improvements over preceding generations. The proposed law would either stultify this effort by plant breeders as they move ahead inch by inch or lead to continuous expensive litigation and infringement suits.
5. Time will be lost from plant breeding activities. Those gifted individuals now expert plant breeders will be required to devote considerable time to the technical and legal aspects of the Certificate of Protection law and the paper work involved in preparing applications to say nothing of interference and litigation proceedings.
6. The cost is considered prohibitive both to the Federal Government and the plant breeders. It has been estimated that 300 Certificates (patents) would be applied for yearly at a cost to the Department of Agriculture of between \$300,000 and \$400,000. It has also been estimated that the cost of preparing and filing an application for a Certificate (patent) would be about \$1,000 with additional prosecution costs amounting to \$500, assuming no extended proceedings such as an interference or appeal. Actually, there are many hundreds of thousands of varieties of a particular fruit or vegetable which will have to be properly dedicated to the public or certified (patented) by their present owners if the owners wish to safeguard what they already have. The estimate of 300 applications a year is not considered accurate, at least during the initial years. During these years the number of applications may be limited only by the available technical and legal personnel in private industry and their necessary counterparts in the Department of Agriculture.
7. This is in a sense special interest legislation. It establishes a monopoly by Certification as an inducement to further plant breeding when in fact today most sexual plant breeding, in terms of money expended and perhaps results, is already in the public domain or being dedicated to the public through the Federal Government, agricultural colleges, and private corporations which make their varieties available to all without charge. For example, it is estimated that out of a total agricultural research budget in the United States of about \$800,000,000 a year, \$400,000,000 is budgeted by the Department of Agriculture and public institutions and really represents taxpayers' money spent for the benefit of the public generally.

8. Perhaps most important, the proposal is inequitable. Having in mind the volume over many years of fruit and vegetable research by public agencies and private corporations for their own benefit and the public domain, the inequity or windfall from the granting of a particular Certificate of Protection is apparent. For example, it is possible for a plant breeder to cross varieties A and B, which may together represent perhaps fifty man years of genetic research by the Department of Agriculture and one of our great universities. A and B were both in the public domain. C, the result of crossing A and B, can be the subject of a monopoly which to a great extent represents the accumulation of knowledge and breeding by two great institutions achieved over many years.

For these reasons it is respectfully submitted that H.R. 13631 should not be enacted. The Institute has limited its opposition to H.R. 13631 as it applies to sexually reproduced fruits and vegetables. We express no opinion as to sexually reproduced flowers and ornamentals because from the viewpoint of the consuming public aesthetics rather than food is involved and because of the more limited interest of our membership, who are generally not involved in the propagation of flowers and ornamentals. Nor is this Institute opposed, indeed we actively support, the extension and improvement of the traditional seed certification programs, which bear no resemblance to H.R. 13631, and the use by plant breeders of F1 hybrids. Both of these methods afford some protection for plant breeders with minimal disadvantages and costs for plant breeders, farmers, processors, and consumers.

Thank you for affording us the opportunity of presenting our views.

STATEMENT OF DELTA & PINE LAND CO., SCOTT, MISS.

Delta & Pine Land Company is a Mississippi corporation involved in farming and in the cotton planting seed business. This seed business is based on the sale of cotton varieties which have been developed by this company since it began a cotton breeding program in 1915. Our breeding efforts are almost entirely on cotton and are located at our nurseries here at Scott, Mississippi; Lubbock, Texas; and Casa Grande, Arizona. At present our work is limited almost entirely to cotton because we do not feel that the other field crops have a sale potential which would offset the cost of developing new varieties.

We are able to recover our costs in cotton because of our long experience with this crop and our success in developing very popular varieties. The custom of farmers in buying a certain amount of their cotton planting seed requirements from the breeders of these cottons and the difficulty of saving cotton planting seed in a general farming operation have lead to our being successful. The fact is that we are our own worst competitor. In other words, competition with other sources of seed of varieties which we have developed is a bigger sales hurdle than varieties of competing cotton breeders. For example, in 1967 we introduced a new variety, Deltapine 16, which has been very popular. Last year acreage planted to our varieties in the United States increased 7% for a total of 26%. At the same time, however, our own sales of Deltapine varieties decreased 5%. Farmers generally are planting at a lower rate but this by no means accounts for the decline in our seed sales from one year to the next while the acreage planted to our varieties is showing a healthy increase.

The Plant Variety Protection Act would enable us to participate in sales of our varieties based on the success of our research, development, and promotion. This Act would enable us to supervise the quality of seed sold which bears our variety name. We could expand our plant breeding efforts into major (or minor) crops which are grown in our area of production, for examples, soybeans, small grain, forages.

The Plant Variety Protection Act would offer benefits to farmers at the same time.

1. More firms would be interested in working on various varietal problems, so that finding solutions to these problems would be more likely.

2. The supply and quality of a particular variety would be more stable. Needs could be predicted so that present cycles of shortage and surplus seed could be equalized and the quality of these supplies could be much better supervised. At the present time in years of shortage casued by bad weather supplies of seed of very poor varietal purity and germination are being offered for sale. On the other hand in a good seed year the market is flooded so that legitimate seed producers must compete with large volumes of seed offered

for sale by opportunists. It is a characteristic of the cottonseed business that cottonseed is produced as a by-product of the production of lint, so that all producers in a sense are potential producers of planting seed.

3. Prices of cotton planting seed tend to fluctuate rather widely with the supplies so that one year good quality seed may be priced about the same as oil mill seed and another year when there is a shortage seed of questionable quality is sold for very high prices.

4. While a breeder under the Plant Variety Protection Act would be entitled to the benefits of selling his variety, it is specifically written into the Act that nothing would interfere with a farmer's ability to plant seed which he himself has produced.

The seed industry as a whole would benefit from the Act.

1. Trade in seeds of varieties which would tend to be handled by legitimate seed dealers and less of it would be done by the in-and-outers with the result that much more stable quantities, qualities, and prices would prevail.

2. Independent producers and processors would not be forced out of business by seed breeding firms since with many field crops the amount of seed required is so great that no one company could produce and process the seed needed of his variety. The same people who are now growing seed and processing it would continue to do so except that the breeder would have a chance to participate in the success of his variety through licensing fees and to exercise a greater degree of supervision over the quality of seeds bearing his variety name.

3. Better supplies and quality of seed would lead to greater customer satisfaction, both for the seed dealer and the breeder. Farm products are used by a wide range of industries as a basic raw material and many products are used directly or after processing as food. Progress in varietal development encouraged by this law would result in products of better quality at lower cost.

Probable effects of this Act would be:

1. A considerably greater effort by commercial plant breeders to develop improved varieties of seed propagated crops which are not hybrids. Efforts to improve seed crops presently offered by private breeders would be increased since there would be assurance that successful efforts would be rewarded.

2. It is doubtful that an excessive number of proprietary varieties would be developed because the process of variety development is expensive and depends on the efforts of highly trained people over a considerable period of time. About 1960 our company started to develop from scratch a new variety of cotton adapted to the High Plains of Texas. It is expected that such a variety will be ready for growers about 1973, some 14 years after development was started and representing a cost of about \$450,000. The expenditure of this amount of money and time means that these efforts can be made only in cases where there is reasonable expectation that these expenses can be recovered from the sale of the resulting seed.

In designing this bill the authors have thoroughly studied the systems of other countries, have given wide publicity to its provisions, and have revised it to meet the needs of all those who might be affected by it. As a result it has broad support from many diverse groups, all of whom are interested in the improvement of American agriculture.

It is our firm belief that this Act will make possible the strengthening of agriculture with benefits to the seed breeder, the seed dealer, the farmer, and the ultimate consumer.

(Telegrams from the following persons or firms, favoring the proposed legislation were received by the subcommittee:)

Walter Baxter, Walter Baxter Seed Co., Weslaco, Tex.

E. F. Burlingham & Sons, Forest Grove, Ore.

Ed Hefley, sales manager, Niagara Chemical Division, FMC Corp., McAllen, Tex.

C. S. Lankart, Lankart Seed Farm, Waco, Tex.

Oregon Seed Trade Association, Salem, Ore.

Woodrow Rogers, Waco, Tex.

C. H. Warnken, Jr., Wilco Peanut Co., San Antonio, Tex.

Jenks White Seed Co., Salem, Ore.

Irv Willman, manager, Esco Seed Co., Ltd., Pharr, Tex.

AMERICAN FARM BUREAU FEDERATION,
Washington, D. C., June 10, 1970.

HON. W. R. POAGE,
Chairman, House Committee on Agriculture,
U.S. House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN POAGE: The American Farm Bureau Federation is interested in H.R. 13631 and related bills which provide for the Plant Variety Protection Act. Our members are both producers of seed and users of seed and are therefore vitally affected.

In connection with the Plant Variety Protection Board that would be established by the legislation, we would urge that the bill be amended to provide for adequate farmer representation on the Board. As now written, it is unclear as to whether farmers would have any membership on the Board, and as both producers and users of seed, we believe farmers' interests should be represented.

The legislation currently provides for plant variety protection that would expire seventeen years from the date of issue of the certificate. We believe that farmers' interests would be better served by a lesser period of years of plant variety protection.

Many farmers derive substantial income from producing certified seed. Their right to produce certified seed should be protected by limiting the options given to breeders.

We recommend that the legislation be modified in these three respects before it is enacted.

We would appreciate your making this letter a part of the hearing record on H.R. 13631.

Sincerely yours,

MARVIN L. McLAIN, *Legislative Director.*

NORTH CAROLINA CROP IMPROVEMENT ASSOCIATION INC.,
Raleigh, N.C., June 8, 1970.

HON. ELIGIO DE LA GARZA,
Chairman, Subcommittee on Departmental Operations,
Committee on Agriculture, House of Representatives, Washington, D.C.

DEAR MR. DE LA GARZA: The Board of Directors of the N. C. Crop Improvement Association at their last meeting gave consideration to H.R. 13631, a bill to give "Plant Variety Protection" to developers of novel crop varieties of sexually reproduced plants.

The N. C. Crop Improvement Association is the official seed certifying agency in North Carolina and as such is vitally interested in the development and release of improved crop varieties for our agricultural industry. We believe that the basic principle of providing plant variety protection will encourage the development of better crop varieties through expanded development research by private industry. Passage of this legislation will provide the means whereby the developers of a sexually reproduced variety may maintain some control of its seed increases after it has been released to the public. By so doing, the developer may recoup the investment which was made in research. We think this is necessary in order to assure the farmer of better varieties through expanded research by private industry.

The N. C. Crop Improvement Association, therefore, fully supports the basic principles incorporated in H.R. 13631 and urges its favorable consideration for the advantages that will accrue to the farmers who need a continued supply of improved crop varieties.

We would appreciate it if you would include this letter in the record of the hearings on H.R. 13631.

Sincerely,

FOIL W. McLAUGHLIN, *Director in Charge.*

AMERICAN SEED TRADE ASSOCIATION, INC.
 Washington, D.C., June 15, 1970.

Hon. ELIGIO DE LA GARZA,
 Chairman, Departmental Operations Subcommittee,
 House of Representatives,
 Cannon House Office Building,
 Washington, D.C.

DEAR MR. CHAIRMAN: The American Seed Trade Association would like to submit the following comments on H.R. 13631 testimony presented by A. R. Klein, Patent Lawyer, Philadelphia, Pennsylvania. The remarks have been prepared by our legal counsel—

Statement of Louis Robertson, of Darbo, Robertson & Vandenburg, P.O. Box 670, Arlington Heights, Illinois, 60006, Counsel for the American Seed Trade Association.

This statement is primarily to reply to Mr. Andrew Klein's statement.

Although Mr. Klein spoke of actions within the American Bar Association, there should be no assumption that that Association is opposed to these bills. As he mentioned, that Association favors protection in the area covered by these bills, the only question being as to "how". No action within the Association has official standing until approved by the House of Delegates or Board of Governors. However, the last action of the Section of Patent, Trademark and Copyright Law was in August, 1969, at Dallas. A committee report had recommended a resolution reading:

Resolved, that the Section of Patent, Trademark and Copyright Law favors in principle the broadening of the existing plant patent provisions so as to make protection available for new varieties of sexually as well as asexually reproduced plants.

On being advised that a bill of the nature of the present bill was about to be introduced and that the particular wording would seem to prejudice such a bill, the resolution was changed, without dissent, to:

Resolved, that the Section of Patent, Trademark and Copyright Law favors in principle legislation making protection available for new varieties of sexually as well as asexually reproduced plants.

Any prior actions were not in derogation of the present bills because such bills had not been even considered.

It is remarkable really, that Mr. Klein's committee of patent lawyers was only 50-50 in favor of keeping all plant protection in the Patent Office.¹ I doubt that they had been exposed to such comments as those below, nor to the concept that variety protection is more analogous to copyrights than to patents. Patents commonly would be infringed by independent later work. Copyrights never are, as a matter of law. Variety protections almost never are, because the odds against two independent workers deriving the same variety are astronomical.

Mr. Klein mentioned the desire to make use of the great body of patent law precedents. Examination of past decisions under the Plant Patent Act has convinced me that such precedents are so ill suited for plant varieties that they are more likely to lead to bad decisions than to good decisions. For example, consider the decision of the United States Court of Customs and Patent Appeals in the case *In re LeGrice*, 301 F(2d), 133 USPQ 365. The decision was probably sound by patent law precedents, but reached the strange result of letting varieties be patented after they had been offered in British catalogues, and disclosed in them, for 10 years because general patent law precedents require that disclosures be "enabling" disclosures, teaching those skilled in the art how to make the invention. That is rarely possible as to varieties. In the present bill, more appropriate standards have been carefully worked out, in Section 42.

There is no possibility that upon passage of the present bill "all other forms of protection cease" as to the varieties it covers, or that plant patents will even be generally affected. I feel sure Mr. Klein will be surprised at his transcribed words to this effect, and will drastically revise them. If not, they certainly suggest an amazing misunderstanding within his committee.

Even if we were already a party to the treaty, unsolicited rights would be preserved by its Article 37.

Since writing the foregoing, I have discussed with Mr. Klein, by telephone, his statement, and he has authorized me to say that he did not mean any right in the

¹ The statement by Mr. Klein suggests that his committee was considering the question as a philosophical question, probably having no idea that the bill might pass in this Congress. Perhaps no member of his committee would choose a mere hope of expanding the plant patent law in some future year over actual enactment of other protection, such as this bill, now.

U.S. would be lost by an enactment of this bill but that there is a possibility that we would be disqualified from joining the treaty because of Article 2, for some additional reservations as to Article 4. As I point out below, however, it is reasonable to expect that by the time we get around to joining the treaty the problem that bothered Mr. Klein will have been cured by correction of the treaty or its interpretation.

Although Mr. Klein discussed some foreign problems, the present bills clearly would not aggravate such problems at the present time. On the other hand, they would seem to provide a basis for reciprocity to open the laws of many foreign countries to our citizens quite aside from the Paris Convention. The 17 year term of this bill causes no new problem. The general requirement of the Paris Convention is that the term "not be less than fifteen years" (Article 8). There is a strange separate requirement for 18 years for vines, trees, etc., but that is largely the area of our plant patent law which already is at variance because of its 17 year term.

Some of the troubles abroad to which Mr. Klein referred may be based on a strange or too-linguistic interpretation of Article 2 of the Paris Convention.² Because we are not a member of that treaty now, it can cause us no trouble now. By the time we are ready to join it, that strange interpretation may have been abandoned, or the troublesome words corrected. Or we could join it now with a reservation, at least with a reservation against letting that interpretation affect our internal law.

As a "point of personal privilege" I take this opportunity of my only statement for the record to note a strange personal situation. My client, the American Seed Trade Association, has expressed a willingness for fees to be set at a level of full support (meaning high enough to cover the direct cost of the matter for which the fee is paid). It is only because of my position as counsel that I have not vigorously asserted my personal view that the theory that any particular level of support by fees should be achieved is unfair in all instances, and is contrary to the public interest wherever it may decrease the effectiveness of the incentive, e.g. in the case of individuals for whom the total cost of using the incentive system is a severe burden. If and when the question of fees is considered after enactment of a bill (so that I cannot be causing any delay) I would welcome a chance to explain my personal views further. My views have been explained in connection with patents in the 1965 fee bill hearings before the Senate Judiciary Subcommittee on Patents, and in various articles.

In summary, I would add the following:

1. It would appear Mr. Klein does not have thorough knowledge of the contents of H.R. 13631.
2. This bill will not affect the past or future asexual Plant Patent.
3. The 1961 International Treaty for the protection of new plant varieties does not apply since the U.S. has not as yet signed it.
4. Great Britain, West Germany, Denmark, Holland and France now have "New Variety Acts."
5. These new laws are now in effect in Europe and H.R. 13631 more nearly resembles them than patents since these new laws cover sexually reproduced plants.
6. Legal counsels for private companies and the Association have studied the 1961 Paris Convention and H.R. 13631 and do not share Mr. Klein's fears.

We appreciate the opportunity of submitting this additional information.

Very truly yours,

JOHN I. SUTHERLAND, *Executive Vice President.*

ASSOCIATED HYBRID PRODUCERS COOPERATIVE SERVICE, INC.

Hudson, Iowa, June 8, 1970.

Chairman, Departmental Operations Subcommittee, House Committee on Agriculture, Room 1302 Longworth Building, Washington, D.C.

Dear SIR: It is my understanding that on Wednesday, June 10th you are to hold hearings on HR 13631, a plant variety protection act.

² The trouble abroad may be very painful to U.S. citizens losing foreign rights, but our new law will not add to their woes. Article 2 of the Paris Convention (to which we are not a party) provides that if a member state has two types of law "it may only provide one of them" for a given species. Reason would indicate that this was intended to mean: "it is not required to provide them both to be available under the treaty". There may have been a translation difficulty. We are frequently told by a German that we "must not" furnish a certified copy when he means that we need not do so.

I have worked in the seed business all my life, and have observed the working of the plant patent acts in several of the European Countries through a period of years. I have served on the Breeders' Rights Study Committee of the American Seed Trade Association, and both personally and in behalf of this association of hybrid corn producers we want to go on record as supporting HR 13631, and urging your committee to take favorable action toward bringing it to the attention of the Committee on Agriculture and to the floor of the House of Representatives for action. I will not, in this letter, attempt to give the many reasons why this act should be passed, as I am sure these will be brought out in the hearings on June 10th.

Very truly yours,

GEO. M. STRAYER, *Secretary.*

TEXAS CERTIFIED SEED PRODUCERS, INC.,
Waco, Tex., June 10, 1970.

HON. ELIGIO DE LA GARZA,
*House Agriculture Committee,
Subcommittee on Departmental Operations,
Longworth Building, Washington, D.C.*

MY DEAR CONGRESSMAN DE LA GARZA: The Texas Certified Seed Producers, Incorporated, with a membership of more than 300 from all areas of Texas, representing the breeding and production of certified and registered seed of all crops, endorses the statements by the Texas Seedmen's Association and the American Seed Trade Association in support of HR 13631.

This organization had an active part in developing HR 13631, and without reservation believe it is most important that it be enacted into law for the future welfare of the American farmer and the consumer.

Sincerely,

DOUG CONLEE, *President.*

TEXAS SEEDMEN'S ASSOCIATION,
June 10, 1970.

Re public hearing June 10, 1970—HR 13631.

HON. ELIGIO DE LA GARZA,
House Agricultural Committee, Subcommittee on Departmental Operations, Longworth Building, Washington, D.C.

MY DEAR CONGRESSMAN DE LA GARZA: The seed trade in Texas wishes to file the following statement with the House Committee on Agriculture Departmental Operations Subcommittee in support of HR 13631. We request this be made a part of the public hearing proceedings.

This organization has a membership of over 260, with representation in most areas of the state, representing the marketing phase of the seed industry. The Board of Directors voted unanimously to support HR 13631.

American agriculture without question has contributed greatly to the welfare of the American people and to many of our allies. There has been a combination of several factors responsible for this apparent success. Those of us in agriculture are proud to be a part of this great industry. However, as leaders we must accept the responsibilities to continue improving agriculture for the sake of the men and women who till the soil and the Americans who consume and wear the products of the soil in years to come. We know there are many unanswered questions toward a more productive agriculture at a cheaper per unit price, all to the benefit of the American people. We also recognize there are surpluses in some of our crops; but, we question if the rate of technological development is keeping pace with the increase in population. Scientific questions, especially in plant breeding, cannot be solved with any predictable accuracy to increase food production after the demand has been created. These answers must precede our population growth or face possible shortages of food and fiber.

Private and public plant breeders have been doing all within their financial resources to meet the many challenges which only a plant breeder can understand.

Just as in many modern industries, plant breeding has become more complex, more costly, and requires an ever expanding, highly technical research program. The consumers of planting seeds are demanding improved varieties of all crops and forages that reduce the risks of production and reduce the per unit cost of production. Increased yield, disease and insect resistance, plant design for me-

chanical harvesting, fiber qualities to fit textile needs, new sources of human foods, new sources of industrial raw materials are only a few of the many demands of plant breeders.

Sound management dictates that the investment of research funds in any business must be based on the prospect of a reasonable return on the investment, providing the developed products are of value to the consumer. Industrial inventors, authors, composers and artists have long had the right to protect their creations. Plant breeders who are plant innovators and have no protection have contributed, in our opinion, more to this state's economy than many of those who enjoy protection for their creations.

HR 13631 will provide the incentive for those presently engaged in plant breeding to expand their research programs. We would see the development of new plant breeding firms and the hesitancy to invest corporate funds in commercial plant breeding programs would disappear. As a result, the farmer and the consumer will be the principal benefactor.

Plant breeders want to do more for agriculture. They can do more for agriculture provided a vehicle is created that will give them the opportunity. HR 13631, in our opinion, will provide the incentive, and opportunity plant breeders need to be of greater service to American agriculture.

This organization also endorses the statement submitted to the House Committee on Agriculture Departmental Operations Subcommittee on June 10 by the American Seed Trade Association in support of HR 13631.

Sincerely,

EDGAR BULLARD, *President.*

NATIONAL COTTONSEED PRODUCTS ASSOCIATION, INC.,
Memphis, Tenn., June 17, 1970.

HON. ELIGIO DE LA GARZA,
*Subcommittee on Department Operations of House Committee on Agriculture,
 U.S. House of Representatives, Washington, D.C.*

Dear KIKI: At our Board of Directors Meeting on May 14, 1968, I presented a statement of policy with respect to the rights of the breeders of cotton planting seed. On motion duly made and seconded, the Board approved the adoption of this statement as follows:

"The National Cottonseed Products Association reaffirms its long standing practice of supporting efforts for the improvement of varieties and the quality of cotton planting seed; in addition, it supports legislation to establish an effective, equitable and workable system of plant breeders' rights; and it offers to cooperate with other groups, when appropriate, in efforts to improve variety testing and the breeding, release, and distribution of cotton planting seed which will best serve the interests of farmers and the entire cotton industry."

In accordance with the above, I wish to place the National Cottonseed Products Association, Inc. on record with your subcommittee as supporting and endorsing H. R. 13631.

Very truly yours,

FRED H. HUSBANDS, *Executive Vice President.*

SOCIETY OF AMERICAN FLORISTS AND ORNAMENTAL HORTICULTURISTS,
Alexandria, Va., June 19, 1970.

Congressman ELIGIO DE LA GARZA,
*Chairman, Special Subcommittee on Departmental Operations, Longworth House
 Office Building, Washington, D.C.*

DEAR CONGRESSMAN DE LA GARZA: The Society of American Florists, the national trade association for floriculture, wishes to file this written statement for consideration for the record of the hearing on H.R. 13631, the "Plant Variety Protection Act."

The Society supports the concept of H.R. 13631. The vehicle of protection provided for in H.R. 13631 is, in our judgment, long overdue. Agriculture, including floriculture and ornamental horticulture, has benefited immeasurably from the initiative and dedication of developers of new varieties of plants in our country. Up to this time, there has been no Federal law which would provide plant breeders with the right of legal protection for sexually reproduced plants which they develop or discover. Plant breeding represents a vital part of the economy of agriculture.

New and ever-expanding breeding programs will be required to fill the future needs for everyone from the farmer/grower to the consumer. There is no question but what the Plant Patent Act of 1930, which provides patent protection for asexually reproduced plants, has stimulated commercial plant breeding of asexually reproduced plants.

The industry of floriculture and the American public have benefited immeasurably from this increased interest on the part of plant breeders.

There are certain varieties of commercial floriculture products which are sexually reproduced. We feel that if H.R. 13631 were enacted into law, there would be an increased activity on the part of plant breeders to develop new and better varieties for the benefit of the American public and the industry.

We respectfully urge that your Committee act swiftly and favorably on H.R. 13631, the "Plant Variety Protection Act," as we are convinced it is in the best interest of the public, the industry of floriculture, and agriculture in general.

Sincerely,

JOHN H. WALKER, *Executive Director.*

Mr. PURCELL. Is American Farm Bureau Federation for this legislation? If so I want it noted in bold print.

Mr. DE LA GARZA. It says approval of the legislation but with recommended modifications.

Mr. ALLENBY WHITE. I would like to point out that we have had this bill under study for 10 years. During the course of this time we have carefully studied the patent law. During the course of this we have carefully studied the convention at Paris that Mr. Klein referred to. We have carefully considered the interrelationship between the law we are proposing here today and these two other bodies of legislation.

We see no basic conflicts in these things. We believe that the advice we have received from our counsel entitles us to this conviction.

Mr. DE LA GARZA. Thank you very much, sir. I am happy to hear that statement. The committee will nonetheless proceed cautiously and further study the matter so all aspects can be covered.

We wish you gentlemen a good hearing in the Senate tomorrow. With that we stand in recess subject to call of the Chair.

(Whereupon, at 12 noon the hearing was recessed.)

(H.R. 13424 by Mr. Gubser; H.R. 13631 by Messrs. Purcell, Horton, Leggett, Hungate, Teague of Texas, Dorn, Abernethy, Fisher, Talcott, Biester, Hansen of Idaho, Winn, Scherle, Daddario, Mahon, Mrs. Reid of Illinois, Zablocki, Smith of Iowa, Michel, Montgomery, Brown of Ohio, Gonzalez, Teague of California, and Mrs. May; H.R. 13658 by Messrs. Purcell, Reuss, Wyatt, MacGregor, and Quie; H.R. 13901 by Mr. Arends; H.R. 14332 by Mr. Frey; and H.R. 15226 by Mr. McCloskey; are similar bills, the text of which follows:)

91ST CONGRESS
1ST SESSION

H. R. 13631

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 4, 1969

Mr. PURCELL (for himself, Mr. HORTON, Mr. LEGGETT, Mr. HUNGATE, Mr. TEAGUE of TEXAS, Mr. DORN, Mr. ABERNETHY, Mr. FISHER, Mr. TALCOTT, Mr. BIESTER, Mr. HANSEN of Idaho, Mr. WINN, Mr. SCHERLE, Mr. DADDARIO, Mr. MAHON, Mrs. REID of Illinois, Mr. ZABLOCKI, Mr. SMITH of Iowa, Mr. MICHEL, Mr. MONTGOMERY, Mr. BROWN of Ohio, Mr. GONZALEZ, Mr. TEAGUE of California, and Mrs. MAY) introduced the following bill; which was referred to the Committee on Agriculture

A BILL

To encourage the development of novel varieties of sexually reproduced plants and making them available to the public, by making protection available to those who breed, develop or discover them, thereby promoting progress in the useful art of agriculture.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 TITLE I—PLANT VARIETY PROTECTION

4 OFFICE

Chapter	Section
1. Organization and Publications.....	1
2. Legal Provisions as to the Plant Variety Protection Office.....	21
3. Plant Variety Protection and Rights.....	31

1 **Chapter 1.—ORGANIZATION AND PUBLICATIONS**

2 **Section 1. Establishment.**

3 There is hereby established in the Department of Agri-
4 culture a bureau to be known as the Plant Variety Protec-
5 tion Office, which shall have the functions set forth in this
6 Act.

7 **Sec. 2. Seal.**

8 The Plant Variety Protection Office shall have a seal
9 with which documents and certificates evidencing plant
10 variety protection shall be authenticated.

11 **Sec. 3. Officers and Employees.**

12 (a) There shall be in the Plant Variety Protection
13 Office a Commissioner of Plant Variety Protection, one As-
14 sistant Commissioner, and an appropriate staff. The Assistant
15 Commissioner shall perform the duties pertaining to the
16 office of Commissioner assigned to him by the Commissioner
17 and shall fill the office of Commissioner during a vacancy in
18 that office or in the absence of the Commissioner. The Com-
19 missioner of Plant Variety Protection shall be appointed by
20 the Secretary.

21 (b) The Secretary is authorized to fix the per annum
22 rate of basic compensation of each staff member in the Plant
23 Variety Protection Office at not in excess of the maximum
24 scheduled rate provided for positions in level V of section
25 5316 of title 5, United States Code.

1 **Sec. 4. Restrictions on Employees as to Interest in Plant**
2 **Variety Protection.**

3 Employees of the Plant Variety Protection Office, in-
4 cluding the Commissioner and Assistant Commissioner, shall
5 be ineligible during the periods of their employment, to apply
6 for plant variety protection and to acquire directly or in-
7 directly, except by inheritance or bequest, any right or
8 interest in any matters before that office. This section shall
9 not apply to members of the Plant Variety Protection Board
10 who are not otherwise employees of the Plant Variety
11 Protection Office.

12 **Sec. 5. Bond of Commissioner and Employees.**

13 The Commissioner and such other employees as he des-
14 ignates, before entering upon their duties, shall severally give
15 bond, with sureties, the former in the sum of \$10,000, and
16 the latter in sums prescribed by the Commissioner, condi-
17 tioned for the faithful discharge of their respective duties and
18 that they shall render to the proper officers of the Treasury
19 a true account of all money received by virtue of their
20 offices.

21 **Sec. 6. Duties of Commissioner, Regulations.**

22 The Commissioner, who shall report directly to the Sec-
23 retary, shall superintend or perform all duties required here-
24 under, and he shall have charge of property belonging to
25 the Plant Variety Protection Office. He may establish regula-

1 tions, not inconsistent with law, for the conduct of proceed-
2 ings in the Plant Variety Protection Office after consultations
3 with the Plant Variety Protection Board. All regulations
4 issued pursuant to this title shall be subject to the approval of
5 the Secretary.

6 **Sec. 7. Plant Variety Protection Board.**

7 (a) APPOINTMENT.—The Secretary shall appoint a
8 Board on plant variety protection. The Board shall consist
9 of individuals who, as a group, are expert in various areas of
10 varietal development covered by this Act. Membership of
11 the Board shall be drawn approximately equally from the
12 private or seed industry sector and from the sector of govern-
13 ment or the public. The Commissioner or his designee shall
14 act as chairman of the Board without voting rights except
15 in the case of ties.

16 (b) FUNCTIONS OF BOARD.—The functions of the Plant
17 Variety Protection Board shall include:

18 (1) Advising the Commissioner concerning the
19 adoption of Rules and Regulations to facilitate the proper
20 administration of this Act; and

21 (2) Making advisory decisions on all appeals from
22 the Examiner. The Board shall determine whether to
23 act as a full Board or by panels it selects; and whether
24 to review advisory decisions made by a panel. For serv-
25 ice on such appeals, the Board may select, as temporary

1 members, experts in the area to which the particular
2 appeal relates.

3 (3) Advising the Secretary on all questions under
4 section 44.

5 (c) COMPENSATION OF BOARD.—The members of the
6 Plant Variety Protection Board shall serve without compen-
7 sation except for standard government reimbursable expenses.

8 **Sec. 8. Library.**

9 The Commissioner shall maintain a library of scientific
10 and other works and periodicals, both foreign and domestic,
11 in the Plant Variety Protection Office to aid the officers in
12 the discharge of their duties.

13 **Sec. 9. Register of Protected Plant Varieties.**

14 The Commissioner shall maintain a register of published
15 specifications of United States protected plant varieties and
16 a file of such other scientific and technical information as may
17 be necessary or practicable.

18 **Sec. 10. Publications.**

19 (a) The Commissioner may publish, or cause to be pub-
20 lished, in such format as he shall determine to be suitable, the
21 following:

22 (1) The specifications for plant variety protection
23 including drawings and photographs.

24 (2) The Official Journal of the Plant Variety Pro-
25 tection Office, including annual indices.

1 (3) Pamphlet copies of the plant variety protection
2 laws and rules of practice and circulars or other publica-
3 tions relating to the business of the Office.

4 (b) The Plant Variety Protection Office may print the
5 heading of the drawings or photographs for protected plant
6 varieties for the purpose of photolithography and any lithog-
7 raphy to appear on the same page.

8 (c) The Commissioner may (1) establish public facili-
9 ties for the searching of plant variety protection records and
10 materials, and (2) from time to time, as through an informa-
11 tion service, disseminate to the public those portions of the
12 technological and other public information available to or
13 within the Plant Variety Protection Office to encourage inno-
14 vation and promote the progress of the useful arts.

15 (d) The Commissioner may exchange any of the pub-
16 lications specified for publications desirable for the use of the
17 Plant Variety Protection Office. The Commissioner may
18 exchange copies of specifications, drawings, and photographs
19 of United States protected plant varieties for copies of speci-
20 fications, drawings, and photographs of applications and pro-
21 tected plant varieties of foreign countries.

22 **Sec. 11. Copies for Public Libraries.**

23 The Commissioner may supply printed copies of speci-
24 fications, drawings, and photographs of protected plant varie-

1 ties to public libraries in the United States which shall main-
2 tain such copies for the use of the public.

3 **Chapter 2.—LEGAL PROVISIONS AS TO THE PLANT**
4 **VARIETY PROTECTION OFFICE**

5 **Sec. 21. Day for Taking Action Falling on Saturday, Sun-**
6 **day, or Holiday.**

7 When the day, or the last day, for taking any action or
8 paying any fee in the United States Plant Variety Protection
9 Office falls on Saturday, Sunday, a holiday within the District
10 of Columbia, or on any other day the Plant Variety Protec-
11 tion Office is closed for the receipt of papers, the action may
12 be taken or the fee paid, on the next succeeding business day.

13 **Sec. 22. Form of Papers Filed.**

14 The Commissioner may by regulations prescribe the form
15 of papers to be filed in the Plant Variety Protection Office.

16 **Sec. 23. Testimony in Plant Variety Protection Office**
17 **Cases.**

18 The Commissioner may establish regulations for taking
19 affidavits, depositions, and other evidence required in cases
20 before the Plant Variety Protection Office. Any officer author-
21 ized by law to take depositions to be used in the courts of the
22 United States, or of the State where he resides, may take such
23 affidavits and depositions, and swear the witnesses. If any

1 person acts as a hearing officer by authority of the Commis-
2 sioner, he shall have like power.

3 **Sec. 24. Subpenas, Witnesses.**

4 (a) The clerk of any United States court for the district
5 wherein testimony is to be taken in accordance with regula-
6 tions established by the Commissioner for use in any con-
7 tested case in the Plant Variety Protection Office shall, upon
8 the application of any party thereof, issue a subpoena for any
9 witness residing or being within such district or within one
10 hundred miles of the stated place in such district, command-
11 ing him to appear and testify before an officer in such
12 district authorized to take depositions and affidavits, at the
13 time and place stated in the subpoena. The provisions of the
14 Federal Rules of Civil Procedure relating to the attendance
15 of witnesses and the production of documents and things shall
16 apply to contested cases in the Plant Variety Protection
17 Office insofar as consistent with such regulations.

18 (b) Every witness subpoenaed or in attendance shall be
19 allowed the fees and traveling expenses allowed to witnesses
20 attending the United States district courts.

21 (c) A judge of a court whose clerk issued a subpoena
22 may enforce obedience to the process or punish disobedience
23 as in other like cases, on proof that a witness, served with
24 such subpoena, neglected or refused to appear or to testify.

1 No witness shall be deemed guilty of contempt for disobeying
2 such subpoena unless his fees and traveling expenses in going
3 to, and returning from, one day's attendance at the place
4 of examination, are paid or tendered him at the time of the
5 service of the subpoena; nor for refusing to disclose any
6 secret matter except upon appropriate order of the court
7 which issued the subpoena.

8 **Sec. 25. Effect of Defective Execution.**

9 Any document to be filed in the Plant Variety Protec-
10 tion Office and which is required by any law or regulation to
11 be executed in a specified manner may be provisionally ac-
12 cepted by the Commissioner despite a defective execution,
13 provided a properly executed document is submitted within
14 such time as may be prescribed.

15 **Sec. 26. Regulations for Practice Before the Office.**

16 The Commissioner, subject to the approval of the Secre-
17 tary, may prescribe regulations governing the recognition
18 and conduct of persons representing applicants or other par-
19 ties before the Plant Variety Protection Office. The Com-
20 missioner may, after notice and opportunity for a hearing
21 suspend or exclude, either generally or in any particular
22 case, from further practice before the Office of Plant Variety
23 Protection any person shown to be incompetent or disrepu-
24 table or guilty of gross misconduct.

1 **Sec. 27. Unauthorized Practice.**

2 Anyone who engages in direct or indirect practice
3 before the Office of Plant Variety Protection while sus-
4 pended or excluded under section 26, or without being
5 either authorized to practice law where he maintains his
6 office, or authorized by the Commissioner on the basis
7 of having established his ability and character, shall be
8 liable in a civil action for the return of all money re-
9 ceived, and for compensation for damage done by such
10 person and also may be enjoined from such practice.
11 However there shall be no liability for damage if such
12 person establishes that the work was done competently
13 and without negligence. This section does not apply to
14 anyone who, without a claim of self sufficiency, works
15 under the supervision of another, who is thus authorized
16 and is the responsible party; nor to anyone who estab-
17 lishes that he acted only on behalf of any employer by
18 whom he was regularly employed.

19 **Chapter 3.—PLANT VARIETY PROTECTION FEES**

20 **Sec. 31. Plant Variety Protection Fees.**

- 21 (a) The Commissioner shall charge the following fees:
- 22 (1) On filing each application for a certificate of
23 plant variety protection, \$50.
- 24 (2) For issuing each certificate of plant variety

1 protection, \$50 unless the drawing or photograph to be
2 reproduced is in color and in that event, \$75.

3 (3) On appeal under section 63 of this title, for
4 the first time from the examiner to the Plant Variety
5 Protection Board, \$50. In addition, when consideration
6 by the Plant Variety Protection Board is reached, \$50.

7 (4) For certificate under section 85 or under sec-
8 tion 86 of this title, \$15.

9 (5) As available: For uncertified copies of specifi-
10 cation, drawing, and photographs which have been pub-
11 lished, such fees and charges as the Commissioner may
12 establish.

13 (6) For recording every assignment, agreement,
14 or other paper relating to the property in a plant variety
15 protection application, \$10: where the document re-
16 lates to more than one plant variety protection applica-
17 tion, \$1 for each additional item.

18 (7) For each certificate certifying copies of records,
19 \$1.

20 (8) For delayed payment or other action when
21 permitted upon payment of special fee, \$10.

22 (b) The Commissioner may reduce any fees under this
23 section found to be in excess of direct costs.

24 (c) The Commissioner may establish charges for copies

1 of records, publications, or services furnished by the Plant
2 Variety Protection Office, not specified above.

3 **Sec. 32. Payment of Plant Variety Protection Fees; Re-**
4 **turn of Excess Amounts.**

5 All fees shall be paid to the Commissioner, who shall
6 deposit the same in the Treasury of the United States in
7 such manner as the Secretary of the Treasury directs, and
8 the Commissioner may refund any sum paid by mistake
9 or in excess of the fee required.

10 **TITLE II—PROTECTABILITY OF PLANT**
11 **VARIETIES AND CERTIFICATES OF PRO-**
12 **TECTION**

Chapter	Section
4. Protectability of Plant Varieties.....	41
5. Applications: Form, Who May File, Relating Back, Confiden- tiality	51
6. Examination: Response Time, Initial Appeals.....	61
7. Appeals to Courts and Other Review.....	71
8. Certificates of Plant Variety Protection.....	81
9. Reexamination after Issue, and Contested Proceedings.....	91

13 **Chapter 4.—PROTECTABILITY OF PLANT**
14 **VARIETIES**

15 **Sec. 41. Definitions and Rules of Construction.**

16 The definitions and rules of construction set forth in this
17 section apply for the purposes of this title.

18 (b) The term "novel variety" may be represented by,
19 without limitation, seed, transplants, clones, and plants, and
20 is satisfied if there is:

21 (1) Distinctness in the sense that the variety clearly

1 differs by one or more identifiable morphological, physio-
2 logical or other characteristics, as to which a difference in
3 genealogy may contribute evidence, from all prior varie-
4 ties of public knowledge at the date of determination
5 within the provisions of section 42; and

6 (2) Uniformity in the sense that any variations are
7 describable, predictable and commercially acceptable;
8 and

9 (3) Stability in the sense that the variety may be
10 sexually reproduced with its distinctive characteristics,
11 with a reasonable degree of reliability, or to a degree
12 comparable to that of other varieties of the same kind.

13 (c) The terms "United States" and "this country"
14 mean the United States of America, its territories and posses-
15 sions, and the Commonwealth of Puerto Rico.

16 (d) The term "effective filing date," includes the filing
17 date to which an application for plant variety protection is
18 entitled under the provisions of section 55 of this title.

19 (e) The term "effective filing date actually in the United
20 States," means the earliest filing date to which an application
21 for plant variety protection is entitled under the provisions of
22 section 55 (b) of this title, excluding section 55 (a).

23 (f) The term "kind" means one or more related species
24 or subspecies singly or collectively known by one common
25 name, for example, soybean, flax, carrot, or radish.

1 (g) The term "date of determination" means the date
2 when there has been at least tentative determination that the
3 variety has been sexually reproduced with recognized char-
4 acteristics making it a novel variety, whether or not the
5 novelty thereof has been determined.

6 (g) The terms "breeder" and "discoverer" shall each
7 include the other as shall the terms "breed," "develop" and
8 "discover." The breeders or discoverers are those who direct
9 the final breeding, creating the novel variety or discover the
10 novel variety and, in either case, direct the determination
11 required by subsection (f).

12 (h) The term "sexually reproduced" shall include re-
13 peated sexual production through the reproduction system
14 designated by the breeder.

15 (i) The term "proprietor" when distinguished from
16 "breeder" means the employer when the breeder's work was
17 done for hire without contrary agreement, or other owner
18 by assignment or operation of law; but otherwise may in-
19 clude the applicant until his position is taken by his successor
20 in title, after which, the term "applicant" may mean
21 proprietor.

22 (j) The term "basic seed" means the seed planted to
23 produce certified or commercial seed.

24 (k) The term "testing" includes the period during
25 which there is testing of seed or other sexually reproducible

1 plant material, before any sale thereof, even though such
 2 material may be given out, provided the purpose is for ex-
 3 perimental testing on behalf of the proprietor, with observa-
 4 tion by or reported to the proprietor (even though the crop
 5 is used or sold for other than seed).

6 (1) The term "public variety" means a variety in this
 7 country which is known or used, other than by the breeders
 8 and their associates, or on sale; if other than secretly or for
 9 the purpose of experimenting or testing; or as individual
 10 plants not known to be either sexually self-reproducible or
 11 repeatedly producible sexually at will.

12 (m) A variety described in a publication as specified
 13 in section 42 (a) is "effectively available to workers in this
 14 country" if a source from which it can be purchased is indi-
 15 cated in a publication or readily determinable or if the publi-
 16 cation teaches how to produce the variety from source-ma-
 17 terial available to workers in this country.

18 **Sec. 42. Right to Plant Variety Protection; Plant Varieties**
 19 **Protectable.**

20 Whoever is the breeder or the discoverer of any novel
 21 variety of sexually reproduced plant, except as excluded in
 22 section 45, or his successor in title, shall be entitled to plant
 23 variety protection therefor, subject to the conditions and re-
 24 quirements of this title unless one of the following bars exists:

16

1 (1) Before the date of determination thereof by the
2 breeder, or more than one year before the effective filing
3 date of the application therefor, the variety was (A) a
4 public variety in this country, or (B) effectively avail-
5 able to workers in this country and adequately described
6 by a publication reasonably deemed a part of the public
7 technical knowledge in this country which description
8 must include a disclosure of the principal characteristics
9 by which the variety is distinguished.

10 (2) The variety, though not in use or on sale in
11 this country, was in use or on sale elsewhere, other than
12 secretly or for the purpose of experimenting or testing,
13 by or in the knowledge of the applicant or his predeces-
14 sor in title, or their agents or representatives, more than
15 one year before the effective date of the application there-
16 for.

17 (3) An application for protection of the variety
18 based on the same breeders acts, was filed in a foreign
19 country by the proprietor or his privies more than one
20 year before the effective filing date actually in the United
21 States.

22 (4) Another is entitled to an earlier date of de-
23 termination for the variety; provided however, that the
24 benefit of a date of determination can be lost by not con-

1 tinuing a program of development and testing to com-
2 mercialization.

3 **Sec. 43. Reciprocity Limits.**

4 Protection under the Act shall be limited to proprietors
5 who are nationals of the United States, except where this lim-
6 itation would violate a treaty and except that proprietors
7 who are nationals of a foreign state in which they are dom-
8 iciled shall be entitled to so much of the protection here
9 afforded as is afforded by said foreign state to nationals of the
10 United States for the same genus and species.

11 **Sec. 44. Public Interest In Wide Usage.**

12 The Secretary may declare a protected variety open to
13 use on a basis of equitable remuneration to the proprietor,
14 not less than a reasonable royalty, when he determines that
15 such declaration is necessary in order to insure an adequate
16 supply of fiber, food or feed in this country and that the
17 proprietor is not supplying the public needs at a price which
18 may reasonably be deemed fair. Such declaration may be,
19 with or without limitation, with or without designation of
20 what the remuneration is to be; and shall be subject to re-
21 view as under section 71 or 72 (any finding that the price
22 is not reasonable being reviewable), and shall remain in
23 effect not more than two years. In the event litigation is

1 required to collect such remuneration, a higher rate may be
2 allowed by the Court.

3 **Sec. 45. Exclusions From Eligibility for Protection.**

4 Protection under this Act shall not be available for:

5 (a) Fungi and Bacteria,

6 (b) Hybrids.

7 **Chapter 5.—APPLICATIONS: FORM, WHO MAY FILE,**
8 **RELATING BACK, CONFIDENTIALITY**

9 **Sec. 51. Application for Recognition of Plant Variety**
10 **Rights.**

11 (a) An application for a certificate of Plant Variety
12 Protection may be filed by either the breeder or the pro-
13 prietor of the variety sought to be protected. The applica-
14 tion shall be made in writing to the Commissioner, shall be
15 signed by or on behalf of the applicant, and shall be accom-
16 panied by the prescribed fee. An application filed by a per-
17 son not the breeder shall state the basis on which it is filed.

18 (b) An error as to the naming of the breeder, without
19 deceptive intent, may be corrected at any time, in accordance
20 with regulation established by the Commissioner.

21 **Sec. 52. Content of Application.**

22 An application for a certificate recognizing plant variety
23 rights shall contain:

24 (1) The name of the variety except that a tempo-

1 rary designation will suffice until the certificate is to be
2 issued.

3 (2) A description of the variety setting forth its
4 novelty and a description of the genealogy and breeding
5 procedure, when known. The Commissioner may require
6 amplification, including the submission of adequate
7 photographs or drawings or plant specimens, if the
8 description is not adequate or as complete as is reason-
9 ably possible, and submission of records or proof of
10 proprietorship or of allegations made in the application.
11 A proprietor may add to or correct the description at
12 any time, before the certificate is issued, upon a showing
13 acceptable to the Commissioner that the revised descrip-
14 tion is retroactively accurate. Courts shall protect others
15 from any injustice which would result. The Commis-
16 sioner may accept records of the originator and of any
17 official seed certifying agency in this country as evidence
18 of stability where applicable.

19 (3) A declaration that a viable sample of basic seed
20 necessary for propagation of the variety will be deposited
21 and replenished periodically in a public repository in
22 accordance with regulations to be established hereunder.
23 This declaration may be added by amendment.

1 **Sec. 53. Joint Breeders.**

2 (a) When two or more persons are the breeders, one
3 (or his successor) may apply, naming the others.

4 (b) The Commissioner, after such notice as he may
5 prescribe, may issue a certificate of plant variety protection
6 to the applicant and such of the other breeders as may have
7 subsequently joined in the application.

8 **Sec. 54. Death or Incapacity of Breeder.**

9 Legal representatives of deceased breeders and of those
10 under legal incapacity may make application for plant vari-
11 ety protection upon compliance with the requirements and
12 on the same terms and conditions applicable to the breeder
13 or proprietor.

14 **Sec. 55. Benefit of Earlier Filing Date.**

15 (a) An application for plant variety protection for a
16 variety filed in this country by a person who has, or whose
17 predecessor or successor in title has, previously filed an
18 application for plant variety protection for the same variety
19 by the same breeder in a foreign country which affords simi-
20 lar privileges in the case of applications filed in the United
21 States or to citizens of the United States, shall have the same
22 effect as the same application would have if filed in the
23 United States on the date on which the application for plant
24 variety protection for the same variety was first filed in any
25 foreign country, if the application in this country is filed

1 within twelve months from the earliest date on which such
2 foreign application was filed. No application shall be entitled
3 to a right of priority under this section, unless the applicant
4 designates the foreign application in his application or by
5 amendment thereto and, if required by the Commissioner,
6 furnishes such copy, translation or both, as the Commissioner
7 may specify.

8 (b) An application for a certificate of plant variety pro-
9 tection for the same variety as was the subject of an applica-
10 tion previously filed in the United States by or on behalf
11 of the same proprietor, or by his predecessor in title, shall
12 have the same effect as to such variety as though filed on
13 the date of the prior application if filed before the issuance
14 of the certificate or termination of proceedings on the first
15 application or on an application similarly entitled to the
16 benefit of the filing date of the first application and if it con-
17 tains or is amended to contain a specific reference to the
18 earlier filed application.

19 (c) A later application shall not by itself establish that
20 a characteristic newly described was in the variety at the
21 time of the earlier application.

22 **Sec. 56. Confidential Status of Application.**

23 Applications for plant variety protection and their con-
24 tents shall be kept in confidence by the Plant Variety Pro-
25 tection Office, by the Board, and by the offices in the De-

1 partment of Agriculture to which access may be given under
2 regulations. No information concerning the same shall be
3 given without the authority of the applicant or proprietor,
4 unless necessary under special circumstances as may be de-
5 termined by the Commissioner, except that the Commis-
6 sioner may publish the variety names designated in applica-
7 tions, stating the kind to which each applies.

8 **Sec. 57. Publication.**

9 The Commissioner may establish regulations for the
10 publication of pending applications at the request of the
11 proprietor.

12 **Chapter 6.—EXAMINATION, RESPONSE TIME, INI-**
13 **TIAL APPEALS**

14 **Sec. 61. Examination of Application.**

15 The Commissioner shall cause an examination to be
16 made of the application and if on such examination it is
17 determined that the applicant is entitled to plant variety
18 protection under the law, the Commissioner shall issue a
19 notice of allowance of plant variety protection therefor as
20 hereinafter provided.

21 **Sec. 62. Notice of Refusal; Reconsideration.**

22 (a) Whenever an application is refused, or any objection
23 or requirement made by the examiner, the Commissioner
24 shall notify the applicant thereof, stating the reasons therefor,
25 together with such information and references as may be

1 useful in judging the propriety of continuing the prosecution
2 of the application; and if after receiving such notice the
3 applicant requests reconsideration, with or without amend-
4 ment, the application shall be reconsidered.

5 (b) For taking appropriate action after a refusal, an
6 applicant shall be allowed six months, or such other time as
7 the Commissioner in exceptional circumstances shall set in the
8 refusal, or such time as he may allow as an extension. With-
9 out such extension, action may be taken up to three months
10 late by paying a delayed filing fee.

11 **Sec. 63. Initial Appeal.**

12 When an application for plant variety protection has been
13 refused by the examiner, the applicant may appeal from the
14 decision of the examiner to the Commissioner. The Commis-
15 sioner shall seek the advice of the Plant Variety Protection
16 Board on all appeals, before deciding the appeal.

17 **Chapter 7.—APPEALS TO COURTS AND OTHER**
18 **REVIEW**

19 **Sec. 71. Appeals.**

20 From decisions made on appeal within the Plant Variety
21 Protection Office, and also under the provisions of section 92,
22 appeal may be taken under the Federal Rules of Appellate
23 Procedure. The Court of Customs and Patent Appeals shall
24 have jurisdiction, without limitation to that court.

1 **Sec. 72. Civil Action Against Commissioner.**

2 An applicant dissatisfied with a decision under section 63
3 or 91 of this title, may, as an alternative to appeal, have
4 remedy by civil action against the Commissioner in the
5 United States District Court for the District of Columbia.
6 Such action shall be commenced within sixty days after such
7 decision or within such further time as the Commissioner
8 allows. The court may, in the case of review of a decision by
9 the Commissioner refusing plant variety protection, adjudge
10 that such applicant is entitled to receive a certificate of plant
11 variety protection for his variety as specified in his applica-
12 tion as the facts of the case may appear, on compliance with
13 the requirements of this Act.

14 **Sec. 73. Appeal or Civil Action in Contested Cases.**

15 (a) A party to a proceeding under section 92 of this
16 title, dissatisfied with the decision, may take an appeal under
17 section 71 or may have remedy by civil action if commenced
18 within sixty days after such decision or within such further
19 time as the Commissioner allows. A party contemplating ap-
20 peal as provided herein shall notify any adverse party of his
21 intention and such adverse party, not the Commissioner, shall
22 have the right, by notice served within ten days of the notice
23 to him, to elect that any review shall be by civil action. In
24 such suits the record in the Plant Variety Protection Office
25 shall be admitted on motion of either party upon the terms

1 and conditions as to costs, expenses, and the further cross-
2 examination of witnesses, as the court imposes, without prej-
3 udice to the right of the parties to take further testimony.
4 The testimony and exhibits of the record in the Plant Variety
5 Protection Office when admitted shall have the same effect as
6 if originally taken and produced in the suit.

7 (b) Such suit may be instituted against the party in
8 interest as shown by the record of the Plant Variety Protec-
9 tion Office at the time of the decision complained of, but any
10 party in interest may become a party to the action. If there
11 be adverse parties residing in a plurality of districts not em-
12 braced within the same State, or an adverse party residing
13 in a foreign country, the United States District Court for the
14 District of Columbia, or any United States district court to
15 which it may transfer the case, shall have jurisdiction and
16 may issue summons against the adverse parties directed to
17 the marshal of any district in which any adverse party resides.
18 Summons against adverse parties residing in foreign countries
19 may be served by publication or otherwise as the court
20 directs. The Commissioner shall not be made a party but he
21 shall have the right to intervene. Judgment of the court in
22 favor of the right of an applicant to plant variety protection
23 shall authorize the Commissioner to issue a certificate of plant
24 variety protection on the filing in the Plant Variety Protec-

1 tion Office of a certified copy of the judgment and on com-
2 pliance with the requirements of this Act.

3 **Chapter 8.—CERTIFICATES OF PLANT VARIETY**
4 **PROTECTION**

5 **Sec. 81. Plant Variety Protection.**

6 (a) If it appears that the proprietor is entitled to plant
7 variety protection under the law, a written notice of allow-
8 ance shall be given or mailed to the proprietor. The notice
9 shall specify the sum, constituting the issue fee, which shall
10 be paid within one month thereafter.

11 (b) Upon timely payment of this sum, and provided
12 that deposit of seed has been made in accordance with sec-
13 tion 52 (c), the certificate of plant variety protection shall
14 issue.

15 (c) If any payment required by this Section is not
16 timely made, but is submitted with the fee for delayed
17 payment within nine months after the due date, or within
18 such further time as the Commissioner may allow, it shall
19 be accepted.

20 **Sec. 82. How Issued.**

21 A certificate of plant variety protection shall be issued
22 in the name of the United States of America under the seal
23 of the Plant Variety Protection Office, and shall be signed
24 by the Commissioner or have his signature placed thereon,
25 and shall be recorded in the Plant Variety Protection Office.

1 **Sec. 83. Contents and Term of Plant Variety Protection.**

2 (a) Every certificate of plant variety protection shall
3 certify that the breeder or proprietor, his heirs or assignees,
4 has the right, during the term of the plant variety protection,
5 to exclude others from selling the variety, or offering it
6 for sale, or reproducing it, or importing it, or exporting it,
7 or using it in producing (as distinguished from developing)
8 a hybrid or different variety therefrom, to the extent pro-
9 vided by this Act. If the proprietor so elects, the certificate
10 shall also specify that in the United States seed of the variety
11 shall be sold by variety name only as a class of certified
12 seed and, if specified, shall also conform to the number of
13 generations designated by the proprietor. Any rights, or all
14 rights except those elected under the preceding sentence,
15 may be waived; and the certificate shall conform to such
16 waiver. The Commissioner may at his discretion permit such
17 election or waiver to be made after certifying and amend
18 the certificate accordingly, without retroactive effect.

19 (b) The term of plant variety protection shall expire
20 seventeen years from the date of issue of the certificate in
21 the United States. If the certificate is not issued within
22 three years from the effective filing date, the Commissioner
23 may shorten the term by the amount of time attributed to
24 the applicant.

1 (c) The term of Plant Variety Protection shall also ex-
2 pire if a proprietor fails to comply with regulations, in force
3 at the time of certificating, relating to replenishing seed in
4 a public repository: *Provided, however,* That this expira-
5 tion shall not occur unless notice is mailed to the proprietor
6 and he fails, within the time allowed thereafter, not less than
7 three months, to comply with said regulations, paying the
8 delayed fee in section 31 (a) (8).

9 **Sec. 84. Certificate of Correction of Plant Variety Protec-**
10 **tion Office Mistake.**

11 Whenever a mistake in certificating a protected plant
12 variety, incurred through the fault of the Plant Variety
13 Protection Office, is clearly disclosed by the records of the
14 Office, the Commissioner may issue a certificate of correc-
15 tion stating the fact and nature of such mistake, under seal,
16 without charge, to be recorded in the records of plant variety
17 protection. A copy thereof shall be attached to each copy
18 of the application of the plant variety protection and such
19 certificate shall be considered as part of the original certifi-
20 cate of plant variety protection. Every such certificate of
21 plant variety protection shall have the same effect and opera-
22 tion in law on the trial of action as if the same had been
23 originally issued in such corrected form. The Commissioner
24 may issue a corrected certificate of plant variety protection

1 without charge in lieu of and with like effect as a certificate
2 of correction.

3 **Sec. 85. Certificate of Correction of Applicant's Mistake.**

4 Whenever a mistake of a clerical or typographical na-
5 ture, or of minor character, or in the description of the
6 variety, which was not the fault of the Plant Variety Pro-
7 tection Office, appears in certifying a plant variety protec-
8 tion and a showing has been made that such mistake oc-
9 curred in good faith, the Commissioner may, upon payment
10 of the required fee, issue a certificate of correction, if the
11 correction unquestionably could have been made before the
12 certificate issued. Such certificate of plant variety protection
13 shall have the same effect and operation in law on the trial
14 of actions for causes thereafter arising as if the same had
15 been originally issued in such corrected form.

16 **Sec. 86. Correction of Named Breeder.**

17 An error as to the naming of a breeder in the applica-
18 tion, without deceptive intent, shall not affect validity of plant
19 variety protection and may be corrected at any time by the
20 Commissioner in accordance with regulations established by
21 him or upon order of a federal court before which the matter
22 is called in question. Upon such correction the Commissioner
23 shall issue a certificate accordingly. Such correction shall not
24 deprive a breeder of any rights he otherwise would have had.

1 **Chapter 9.—REEXAMINATION AFTER ISSUE, AND**
2 **CONTESTED PROCEEDINGS**

3 **Sec. 91. Reexamination After Issue.**

4 (a) Any person may, within five years after the issu-
5 ance of a certificate of plant variety protection, notify the
6 Commissioner in writing of facts which may have a bearing
7 on the protectability of the variety, and the Commissioner
8 may cause such plant variety protection to be reexamined
9 in the light thereof.

10 (b) Reexamination of plant variety protection under
11 this section and appeals shall be pursuant to the same pro-
12 cedures and with the same rights as for original examina-
13 tions. Abandonment of the procedure while subject to a rul-
14 ing against the retention of the certificate shall result in can-
15 cellation of the plant variety certificate thereon and notice
16 thereof shall be endorsed on copies of the specification of the
17 protected plant variety thereafter distributed by the Plant
18 Variety Protection Office.

19 (c) If a person acting under subsection (a), within the
20 time specified above, makes a prima facie showing of facts
21 needing proof, the Commissioner may direct that the reexami-
22 nation include such interparty proceedings as he shall
23 establish.

24 **Sec. 92. Priority Contest.**

25 (a) If the Commissioner determines that two applica-

1 tions of different breeders or proprietors may be based on the
2 same variety, he may:

3 (1) Initiate a priority contest on his own motion
4 whether or not one of the applications may have been
5 certificated; or

6 (2) Issue a certificate on the application having the
7 earliest effective filing date, with notice to all; or

8 (3) Issue a certificate naming both proprietors as
9 alternative owners, under a single variety name accept-
10 able to both.

11 (b) On request of one proprietor when a certificate has
12 been issued naming another proprietor as an owner or alter-
13 native owner, both having applied for protection on the same
14 variety, the Commissioner shall institute a priority contest.
15 except that a proprietor shall have forfeited his right to assert
16 priority for the purpose of obtaining plant variety protection
17 when an adverse certificate has issued if he fails to make the
18 request within one year of the mailing of notice specified in
19 part (2) above or if he fails to make the request within the
20 period for taking action after refusal of his application on the
21 basis of the adverse certificate.

22 **Sec. 93. Effect of Adverse Final Judgment or of Non**
23 **Action.**

24 (a) A final judgment under section 92 adverse to an
25 application from which no appeal or other review had been

1 or can be taken or had shall constitute cancellation of any
2 certifying on that application, and notice thereof shall be
3 endorsed on copies of the specifications of the protected plant
4 variety thereafter distributed by the Plant Variety Protection
5 Office.

6 (b) Any person who has not proceeded in accordance
7 with the provision of this chapter shall not be foreclosed or
8 in any way prejudiced with respect to the defense of an
9 infringement suit or affirmative relief under declaratory judg-
10 ment proceedings.

11 (c) No person subject to an adverse decision in a pro-
12 ceeding under this chapter shall be foreclosed with respect to
13 asserting comparable grounds in defense of an infringement
14 suit or as a basis for affirmative relief under declaratory judg-
15 ment proceedings.

16 **Sec. 94. Interfering Plant Variety Protection.**

17 The proprietor of a certificate of plant variety protection
18 may have relief against another proprietor of a certificate of
19 the same variety, or in case alternate owners are named, by
20 civil action, and the court may adjudge the question of
21 validity of the respective certificates, or the ownership of the

1 certificate. The provisions of section 73 (b) of this title shall
2 apply to actions brought under this section.

3 **TITLE III—PLANT VARIETY PROTECTION**
4 **AND RIGHTS**

Chapter	Section
10. Ownership and Assignment.....	101
11. Infringement of Plant Variety Protection.....	111
12: Remedies for Infringement of Plant Variety Protection, and Other Actions.....	121
13. Intent and Severability.....	131
14. Temporary Provision and Related Enactments.....	141

5 **Chapter 10.—OWNERSHIP AND ASSIGNMENT**

6 **Sec. 101. Ownership and Assignment.**

7 (a) Subject to the provisions of this title, plant variety
8 protection shall have the attributes of personal property.

9 (b) Applications for certificates of plant variety protec-
10 tion, or any interest in a variety, shall be assignable by an
11 instrument in writing. The proprietor may in like manner
12 grant and convey an exclusive right to use of the variety in
13 the whole or any specified part of the United States.

14 (c) A certificate of acknowledgment under the hand
15 and official seal of a person authorized to administer oaths
16 within the United States, or in a foreign country, of a diplo-
17 matic or consular officer of the United States or an officer

1 authorized to administer oaths whose authority is proved by
2 a certificate of a diplomatic or consular officer of the United
3 States, shall be prima facie evidence of the execution of an
4 assignment, grant or conveyance of plant variety protection
5 or application for plant variety protection.

6 (d) An assignment, grant, conveyance or license shall
7 be void as against any subsequent purchaser or mortgagee for
8 a valuable consideration, without notice, unless it, or an
9 acknowledgment by the assignor, and so forth, that there is
10 such encumbrance, is recorded in the Plant Variety Protec-
11 tion Office within one month from its date or one month prior
12 to the date of such subsequent purchase or mortgage.

13 **Sec. 102. Ownership During Testing.**

14 An owner who, with suitable notice, releases possession
15 of seed or other sexually reproducible plant material for
16 testing retains ownership with respect thereto; and any di-
17 version from authorized testing, or any unauthorized reten-
18 tion, of such material by anyone who has knowledge that
19 it is under such notice, or who is chargeable with notice, is
20 prohibited, and violates the property rights of the owner.
21 Anyone receiving the material tagged or labeled with the
22 notice is chargeable with the notice. The owner is entitled
23 to remedy and redress in a civil action hereunder. No remedy
24 available by state or local law is hereby excluded. No such
25 notice shall be used, or if used be effective, when the owner

1 has made identical sexually reproducible plant material
2 available to the public, as by sale thereof.

3 **Chapter 11.—INFRINGEMENT OF PLANT VARIETY**
4 **PROTECTION**

5 **Sec. 111. Infringement of Plant Variety Protection.**

6 Except as otherwise provided in this title, it shall be an
7 infringement of the rights of a proprietor of a novel variety
8 to perform without authority, any of the following acts in
9 the United States, or in commerce which can be regulated by
10 Congress or affecting such commerce, prior to expiration of
11 the right to plant variety protection but after either the issue
12 of the certificate or the distribution of a novel plant variety
13 with the notice under section 127:

14 (1) sell the novel variety, or offer it or expose it for
15 sale, deliver it, ship it, consign it, exchange it, or solicit
16 an offer to buy it, or any other transfer of title or pos-
17 session of it; except as otherwise provided herein;

18 (2) import the novel variety into, or export it from,
19 the United States;

20 (3) multiply the novel variety as a step in market-
21 ing (for growing purposes) the variety; or

22 (4) use the novel variety in producing (as dis-
23 tinguished from developing) a hybrid or different va-
24 riety therefrom; or

25 (5) use seed which had been marked "propaga-

1 tion prohibited" or progeny thereof to propagate the
2 novel variety; or

3 (6) dispense the novel variety to another, in a
4 form which can be propagated, without notice as to
5 being a protected variety under which it was received;
6 or

7 (7) perform any of the foregoing acts even in in-
8 stances in which the novel variety is multiplied other
9 than sexually; or

10 (8) instigate or actively induce performance of any
11 of the foregoing acts.

12 **Sec. 112. Right To Save Seed.**

13 Except under subsections (3) and (4) of section 111,
14 it shall not infringe any right hereunder for a person to save
15 seed and grow the resulting variety for his own use.

16 **Sec. 113. Private Defense Against Delayed Application.**

17 No plant variety protection under this Act shall abridge
18 the rights of any person who had developed a variety or his
19 successor in business to produce, reproduce or sell his own
20 variety, beginning more than one year prior to the effective
21 filing date of an adverse application for a certificate of plant
22 variety protection.

23 **Sec. 114. Crop Exemption.**

24 It shall not be an infringement to sell seed grown from
25 the protected variety, obtained (for growing) by authority
26 of the proprietor or by saving seed under section 112, for use

37

1 as food, feed, in manufacture or the like, if the sale is bona
2 fide for that purpose, and is in channels which are usual for
3 that purpose and in a manner exclusively for that purpose. A
4 purchaser who diverts such seed from those channels to grow-
5 ing purposes shall not be entitled to any benefit for lack of
6 notice under section 127.

7 **Sec. 115. Research Exemption.**

8 The use and reproduction of a protected variety for plant
9 breeding or other bona fide research shall not constitute an
10 infringement of the protection provided under this Act.

11 **Sec. 116. Intermediary Exemption.**

12 It shall not be an infringement to deliver, ship, consign
13 or other acts of transport or change of possession when per-
14 formed by a mere carrier or other innocent intermediaries, or
15 to offer for sale by an innocent advertising medium.

16 **Chapter 12.—REMEDIES FOR INFRINGEMENT OF**
17 **PLANT VARIETY PROTECTION, AND OTHER**
18 **ACTIONS**

19 **Sec. 121. Remedy for Infringement of Plant Variety Pro-**
20 **tection.**

21 A proprietor shall have remedy by civil action for in-
22 fringement of his plant variety protection under section 111.
23 If a variety is sold under the name of a proprietor's variety as
24 shown in his certificate, there is a prima facie presumption
25 that it is the same variety.

1 **Sec. 122. Presumption of Validity; Defenses.**

2 (a) Certificates of plant variety protection shall be pre-
3 sumed valid. The burden of establishing invalidity of a plant
4 variety protection shall rest on the party asserting invalidity.

5 (b) The following shall be defenses in any action charg-
6 ing infringement and shall be pleaded: (1) Noninfringement,
7 absence of liability for infringement, or unenforceability; (2)
8 Invalidity of the plant variety protection in suit on any
9 ground specified in section 42 of this title as a condition for
10 protectability; (3) Invalidity of the plant variety protection
11 in suit for failure to comply with any requirement of section
12 52; (4) That the asserted infringement was performed un-
13 der an existing certificate adverse to that asserted and prior
14 to notice of the infringement; and (5) Any other fact or
15 act made a defense by this Act.

16 **Sec. 123. Injunction.**

17 The several courts having jurisdiction of cases under this
18 title may grant injunctions in accordance with the principles
19 of equity to prevent the violation of any right hereunder on
20 such terms as the court deems reasonable.

21 **Sec. 124. Damages.**

22 (a) Upon finding for the proprietor the court shall
23 award damages adequate to compensate for the infringement
24 but in no event less than a reasonable royalty for the use

1 made of the variety by the infringer, together with interest
2 and costs as fixed by the court.

3 (b) When the damages are not determined by the jury,
4 the court shall determine them. In either event the court may
5 increase the damages up to three times the amount deter-
6 mined.

7 (c) The court may receive expert testimony as an aid
8 to the determination of damages or of what royalty would
9 be reasonable under the circumstances.

10 (d) As to infringement prior to, or resulting from a
11 planting prior to, issuance of a certificate for the infringed
12 variety, a court finding the infringer to have established
13 innocent intentions, shall have discretion as to awarding
14 damages.

15 **Sec. 125. Attorney Fees.**

16 The court in exceptional cases may award reasonable
17 attorney fees to the prevailing party.

18 **Sec. 126. Time Limitation on Damages.**

19 (a) No recovery shall be had for any infringement
20 committed more than six years (or three years with knowl-
21 edge of the proprietor) prior to the filing of the complaint
22 or counterclaim for infringement in the action.

23 (b) In the case of claims against the United States
24 Government for unauthorized use of a protected variety, the

1 period before bringing suit, up to six years, between the date
2 of receipt of written claim for compensation by the depart-
3 ment or agency of the Government having authority to settle
4 such claim, and the date of mailing by the Government of a
5 notice to the claimant that his claim has been denied shall
6 not be counted as part of the period referred to in the pre-
7 ceding paragraph.

8 **Sec. 127. Limitation of Damages; Marking and Notice.**

9 Proprietors may give notice to the public by physically
10 associating with or affixing to the container of seed of a novel
11 variety or by fixing to the novel variety, a label containing
12 the words "Propagation Prohibited" and after the certificate
13 issues, such additional words as "U.S. Protected Variety."
14 In the event the novel variety is distributed by authorization
15 of the proprietor and is received by the infringer without
16 such marking, no damages shall be recovered against such
17 infringer by the proprietor in any action for infringement,
18 except on proof that the infringer was notified of the in-
19 fringement and continued to infringe thereafter, in which
20 event damages may be recovered only for infringement oc-
21 curring after such notice. As to both damages and injunc-
22 tion, a court shall have discretion to be lenient as to disposal
23 of materials acquired in good faith by acts prior to such
24 notice.

1 **Sec. 128. False Marking.**

2 (a) Each of the following acts, if performed in connec-
3 tion with the sale, offering for sale, or advertising of sexually
4 reproducible plant material, is prohibited, and the Commis-
5 sioner may, if he determines after an opportunity for hear-
6 ing that the act is being so performed, issue an order to
7 cease and desist, said order being binding unless appealed
8 under the Federal Rules of Appellate Procedure:

9 (1) Use of the words "U.S. Protected Variety"
10 or any word or number importing that the material is
11 a variety protected under certificate, when it is not.

12 (2) Use of any wording importing that the ma-
13 terial is a variety for which an application for plant
14 variety protection is pending, when it is not.

15 (3) Use of the phrase "propagation prohibited" or
16 similar phrase without reasonable basis, a statement of
17 this basis being promptly filed with the Commissioner if
18 the phrase is used beyond experimental testing and no
19 application has been filed. Any reasonable basis expires
20 one year after commencement of use of the phrase be-
21 yond experimental testing except as justified thereafter
22 by a pending application or a certificate still in force.

23 (b) Anyone convicted of violating a binding cease and
24 desist order, or of performing any act prohibited in sub-

1 section (a) of this section for the purpose of deceiving the
2 public, shall be fined not more than \$10,000 and not less
3 than \$500.

4 (c) Anyone whose business is damaged or is likely to
5 be damaged by an act prohibited in subsection (a) of this
6 section, or is subjected to competition in connection with
7 which such act is performed, may have remedy by civil
8 action.

9 **Sec. 129. Nonresident Proprietors; Service and Notice.**

10 Every proprietor not residing in the United States may
11 file in the Plant Variety Protection Office a written design-
12 nation stating the name and address of a person residing
13 within the United States on whom may be served process
14 or notice of proceedings affecting the plant variety protec-
15 tion or rights thereunder. If the person designated cannot
16 be found at the address given in the last designation, or if
17 no person has been designated, the United States District
18 Court for the District of Columbia shall have jurisdiction
19 and summons shall be served by publication or otherwise as
20 the court directs. The court shall have the same jurisdiction
21 to take any action respecting the plant variety protection, or
22 rights thereunder that it would have if the proprietor were
23 personally within the jurisdiction of the court.

1 **Chapter 13.—INTENT AND SEVERABILITY**

2 **Sec. 131. Intent.**

3 It is the intent of Congress to provide the indicated
4 protection for new varieties by exercise of any constitutional
5 power needed for that end, so as to afford adequate encour-
6 agement for research, and for marketing when appropriate,
7 to yield for the public the benefits of new varieties. Consti-
8 tutional clauses 3 and 8 of article I, section 8 are both relied
9 upon.

10 **Sec. 132. Severability.**

11 If this Act is held unconstitutional as to some provisions
12 or circumstances, it shall remain in force as to the remainder
13 or with necessary implied limitations as to other circum-
14 stances, except that in no event may a provision, because a
15 stated exemption from that provision is invalid, be effective
16 in the area of that exemption.

17 **Chapter 14.—TEMPORARY PROVISION AND RE-**
18 **LATED ENACTMENTS**

19 **Sec. 141. Effective Date.**

20 The foregoing Act shall take effect upon approval.
21 Applications may be filed with the Secretary and held by him
22 until the Office of Plant Variety Protection is organized and
23 in operation.

1 **Sec. 142. Amendment of Federal Seed Act.**

2 The Federal Seed Act (53 Stat. 1275) is amended as
3 follows:

4 (a) By adding at the end thereof:

5 **“TITLE V—SALE OF UNCERTIFIED SEED OF**
6 **PROTECTED VARIETY**

7 **“Section 501.**

8 (a) It shall be unlawful in the United States or in inter-
9 state or foreign commerce to sell by variety name seed not
10 certified by an official seed certifying agency when it is a
11 variety for which a certificate of plant variety protection
12 under the Plant Variety Protection Act specifies sale only
13 as a class of certified seed: *Provided*, That such seed may
14 be labeled as to variety name when used in a mixture by, or
15 with the approval of, the proprietor of the variety.”

16 (b) By adding at the end of section 102 the following
17 wording: Seed shall be certified only when the basic seed
18 from which a variety was produced was furnished by the
19 originator of the variety, his successor in title, and, when
20 specified, conforms to the number of generations designated
21 by the originator.

22 **Sec. 143. Amendment of Judicial Code.**

23 Title 28 of the United States Code, entitled Judicial
24 Code and Judiciary, is amended as follows:

25 (a) After section 1544 add:

1 **Sec. 1545. Decision of the Plant Variety Protection Office.**

2 The Court of Customs and Patent Appeals shall have
3 nonexclusive jurisdiction to review by appeal decisions of
4 the Plant Variety Protection Office, provided that the deci-
5 sion appealed from is on appeal within the Plant Variety
6 Protection Office, if such appeal is permitted.

7 (b) In section 1338 after "Patents" in the hearing,
8 after "patents" and after "patent" (both occurrences) insert
9 ", plant variety protection."



1. The first section of the first variety protection bill...

2. The second section of the first variety protection bill...

3. The third section of the first variety protection bill...

4. The fourth section of the first variety protection bill...

5. The fifth section of the first variety protection bill...

6. The sixth section of the first variety protection bill...

7. The seventh section of the first variety protection bill...

8. The eighth section of the first variety protection bill...

9. The ninth section of the first variety protection bill...

10. The tenth section of the first variety protection bill...