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# AGRICULTURAL RESEARCH POLICY

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## REPORT

OF THE

## SELECT COMMITTEE ON SMALL BUSINESS

## UNITED STATES SENATE

APRIL 16, 1980

Printed for the use of the Select Committee on Small Business

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U.S. GOVERNMENT PRINTING OFFICE

60-935 O WASHINGTON : 1980

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# AGRICULTURAL RESEARCH POLICY

On July 24 and 25, 1979, the Senate Committee on Agriculture, Forestry, and Nutrition, Subcommittee on Research and General Legislation, and the Senate Select Committee on Small Business held hearings on the agricultural research and extension research policies of the United States Department of Agriculture. The hearings focused on the ways in which these policies have affected the small and moderate sized family farm in the United States. The hearings provided an opportunity for the USDA to respond to criticisms that its research and extension policies have forcused too heavily on facilitating large-scale, capital intensive approaches to agriculture, paying far too little attention to the need to assist small and moderate sized family farmers in maximizing their income and output.

Witnesses at the hearing included representatives from the American Farm Bureau, the National Farmers Union, the Center for Rural Affairs, the Agricultural Marketing Project, the Universities of Missouri and Alabama, Tuskegee Institute, the Control Data Corporation, the National Family Farm Coalition, the Friends Committee on National Legislation, the Community Services Administration, and the Department of Agriculture.

The witnesses all agreed that research and extension programs aimed at improving the efficiency and income of small and moderate sized family farmers have been very successful. While the USDA contended that it is doing all that it can do in this area, most of the other witnesses argued that USDA efforts represent an inadequate response to the problem.

This report will summarize the criticisms made of the USDA and review the Department's response. In making this report, the Committee finds that there is, in fact, considerable unmet potential for research and extension programs aimed at the small and moderate sized family farm, and that the USDA and the Administration should take aggressive steps to assure that a substantially larger percentage of its research and extension efforts are directed at this group of farmers.

## Summary

In recent years, there has been considerable criticism of the agricultural research and extension policies of the USDA. Critics, ranging from academics to the General Accounting Office, and now even the USDA itself, have contended that past policies of the Department have focused on improving farm output by improving the efficiency of large farm units. Implicit in this work has been the assumption that greater efficiency could only be obtained by increasing the scale of production. There was little concern for the needs of the small and moderate sized family farmer, even though the vast majority of farms can be characterized this way, and even though these are the farmers most in need of assistance.

The Subcommittee on Agricultural Research and General Legislation, of the Senate Agriculture Committee and the Senate Select Committee on Small Business held hearings on this question to investigate what steps the USDA was taking to redress this imbalance in research and extension policy and to evaluate the success of non-federal programs in this area. Generally, the Committee found that the USDA has recognized the need to provide an active small and moderate sized farm research and extension program, and has made promises to undertake such an initiative. As of yet, however, the promises have not been backed up by budgetary commitments.

The small farms research program, for instance, was established by Congress in 1974, and, for 1976 through 1979, authorized at a $20 million annual level. The USDA has never recommended funding the program, however, and it was not until 1979 that the program received a modest $3 million appropriation from Congress. According to USDA testimony, other small farm initiatives within the Department have also not been funded, and the total expenditures, for both research and extension specifically for small farm purposes was only $8.6 million, about one percent of the total budget. Greater efforts have been promised in this area, but such promises have been made in the past, to no effect. One small positive step has been taken by Secretary Bergland, who has pledged to review all federal research which needlessly replaces willing labor, damages the environment, or discourages competition—a step the committee strongly endorses.

While the USDA has been reticent about small farm programs, several state and private efforts have had very positive results. The University of Missouri's small farm paraprofessional program helps small farms improve their farm management with a "hands-on" approach and has resulted in substantial gains in net farm income for program participants. Control data has spent $6–7 million on a small farm project with a similar goal. So far, the results have been similarly successful.

These and other programs demonstrate a tremendous potential for small farm research and extension projects, but they are mostly noteworthy in their uniqueness and rarity. Few state or private organizations have the resources—or the commitment—to carry out such programs.

That failure is tragic. Preserving small and moderate sized family farms is a critical national policy—one explicitly affirmed in the 1977 Food and Agriculture Act. These farms are capable of making a substantial contribution to national agricultural production, and their importance can only expand as the cost of oil—on which large, energy, petrochemical intensive farms rely—goes continually higher. Moreover, these farms are the foundation of a sound rural social, economic, and biological environment. Most importantly, however, these farms provide a unique way of life that means a great deal to millions of people—a way of life that is disappearing.

In order to expand the efforts of the USDA to focus on small and moderate sized farm research and extension needs, the Committee recommends that the USDA earmark 25 percent of the research and extension budget for these farms. This goal would be attained gradually, over a period of years. As part of this goal, the small farms research program should be fully funded and a specific amount of extension funds should be set-aside to assure that every state can

establish a Missouri-type small farms program. The Committee also recommends that the USDA report to the Congress on steps taken to implement the Secretary's pledge to step up small farm research and extension program and that the USDA reevaluate the question of farm size and efficiency in light of the total effects of farm size on food production, the environment, and on rural economic and social life.

## OVERVIEW: USDA RESEARCH AND EXTENSION POLICY

USDA research and extension policies are carried out primarily through the Science and Education Administration (SEA). The main functions of SEA are to conduct applied and basic research at the federal level through the Agricultural Research Service (ARS), to support and assist state land grant colleges and state agricultural experiment stations through the Cooperative State Research Service (CSRS), and to support state run extension programs through the Agricultural Extension Service (AES). For this fiscal year, ARS has been appropriated $370,573,000, CSRS $198,484,000, and Extension $274,767,000. Total SEA appropriations came to $860,740,000.

Outside of the ARS, much of the federal activity in agricultural research and extension is carried out through the state land grant colleges and experiment stations. These programs, although federally supported, also received substantial state and private funds, and the states have considerable control over the policies that are pursued there. Overall, the Federal Government provides one-third of all research and extension funds, while the states provide one-half and private sources one-sixth. The USDA, however, can and does influence the policy decisions at this level, and could, if it considered it appropriate, earmark certain of its funds for certain kinds of programs, such as programs aimed at small and moderate sized farms.

The state programs are carried out under three acts—the Morrill Act, the Hatch Act, and the Smith-Lever Act. The Morrill Act (1862, 7 U.S.C. §§301 *et seq.*) established the land grant colleges, the Hatch Act (7 U.S.C. §361(a)–(i), 1887) established the State agricultural experiment stations, and the Smith-Lever Act (1914, 7 U.S.C. §§ 341–9) created the Cooperative Extension Service.

There has been considerable controversy over how these programs have worked. Most of this controversy has been generated by critics who have contended that agricultural research and extension has been primarily of benefit to large farm operations.[1] In this view, research and extension have focused on ways to increase farm efficiency per dollar invested without regard for the effects such a policy might have on farmers themselves. Moreover, the underlying assumption of the research and extension efforts, these critics argue, is that bigger is necessarily better. Proponents of this view contend that only miniscule resources have been devoted to improving the efficiency and income of the vast majority of farmers who do not have large operations.

While this allegation will be discussed in detail in this report, it is sufficient to say at this point that until recently, the response to this criticism from both the USDA and the land-grant colleges has

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[1] Testimony of Pat Madden and Heather Tischbein at Hearings of the Senate Committee on Agriculture, Subcommittee on Research and General Legislation, and the Senate Select Committee on Small Business, on Agricultural Research Policy, 96th Congress, 1st session (hereinafter, "Hearings").

generally been that their research and extension work is scale neutral—available and applicable to all farmers. They point to the enormous productivity of the agricultural sector and the fact that Americans spend less of their disposable income on food than any other nation. Under Secretary Bergland, however, the USDA has agreed that it has, in fact, conducted its research and extension activities without regard for the effect they might have on the structure of farming—the distribution and number of farms of varying size. Bergland has directed the USDA to look into this matter and to propose ways that this policy, as well as the policies of the Department generally, can be shaped so as to retain the diversity of our farm structure.[2]

## LEGISLATIVE INTENT OF THE RESEARCH AND EXTENSION PROGRAM

Secretary Bergland's directive is consistent with the legislative history of at least the acts which established the land grant colleges and the Federal role in supporting research and extension activities carried out through them. In debate on the Smith-Levin Act, for instance, Senator Cummins of Iowa argued that the purpose of the program was "to make the land more productive." But Elihu Root of New York, taking the opposite view in the debate, countered that "the people whom we should most desire to help are the small landholders. It is the small farmer who needs instruction and encouragement." [3] Cummins wanted money for the program to be apportioned on the basis of the amount of land under cultivation; Root on the number of farmers. Cummins received only 16 votes for his position, clearly signalling that the Senate thought this program should be aimed primarily at helping farmers to improve their lot. Making the "land more productive" was subservient to this purpose.

Senator Levin, after whom the act is partly named, summed up its purpose this way:

> The man we desire to reach is the small farmer, the man who does not read the bulletins, the man who has no confidence in book farming, the man who does not take an agricultural paper. We want to reach the little fellow out on the farm who needs the help. (Applause.) [4]

This specific concern for the small farmer in agricultural research and extension policy is echoed in a more general way for all agricultural policy in the 1977 Food and Agriculture Act, which states that "it is the policy and express intent of Congress that no such program be administered in a manner that will place the family farm at an unfair economic disadvantage." Secretary Bergland has been even more precise: "It is the policy of the Department to encourage, preserve, and strengthen the small farm as a continuing component of American agriculture." [5] Given this clear policy, Congress must ask if current agricultural research and extension policy is sufficiently directed at small and moderate sized family farms. Concurrently, Congress, and the USDA, must ask if a redirection of research and

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[2] Secretary Bergland has expressed concern over the effect of agricultural policy on the structure of farming on a number of occasions, the most important of which was his speech before the annual convention of the National Farmers Union in Kansas City on March 17, 1979.

[3] 51 Congressional Record, 63rd Congress, 2nd Session (1914), p. 1826.

[4] 48 Congressional Record, 62nd Congress, 2nd Session (1912), p. 10852.

[5] Secretarial Memo, January 3, 1979.

extension policy towards smaller farms would, as some have contended, result in higher food costs or lowered farm productivity. As this report will make clear, it is the view of the Committee that research and extension policy can and should focus more directly on the needs of the vast majority of farmers who could be defined as small or moderate sized operators, and that while such a refocusing would have no significant impact on food costs or farm productivity, it would improve the quality of rural farm and community life.

## SMALL AND MODERATE SIZED FARMS: THE FOCUS OF CONCERN DEFINED

Up to this point, terms such as "small farm", "moderate sized farm" and "family farm" have been used without specific definition. Most people have intuitive notions of what these terms mean, but they are difficult to define with precision. Until recently, the USDA defined a small farm as one with less than $20,000 annual sales. 70 percent of the farms could be so defined, although they accounted for only 11 percent of total production and 20 percent of the net farm income.[6] The new USDA definition defines a small farm as one in which the family provides most of the labor and management, total farm income from all sources is below the median non-metropolitan family income in the state, and the farm family depends on farming for a significant (10 percent) portion of its income. Under this definition, 38 percent of American farm families are on a small farm (although the rest are not "large" farms—many others would be small, part-time farms which do not meet one of the two criteria).[7]

While no definition for a moderate sized farm has been proposed, farms with $20,000 to $40,000 or $100,000 in annual sales seem to be the parameters generally used.

Definitions of "family farms" abound. The most common is that of the USDA, which defines a family farm as one in which the family provides most of the management and labor (less than 1.5 person/years of outside labor). By this definition, 95 percent of all farms are family farms.

For the purposes of this report, fortunately, the definitions need not be precise. The alleged biases of agricultural research and extension policy are not the kind in which a policy is made to assist only farms with over $100,000 annual sales or only farms with more than 1.5 person/years of outside labor, but rather of the kind that favor large, intensive farming. It is a question of relative emphasis. While it is true that almost all farms in the United States can be defined as "family farms", the real issue here is not how a farm is organized or who provides the labor, but the scale of the farming operation. Thus, the concern here is the small and moderate sized family farm—the farm in which the farm family provides most of the management and labor, receives significant income from the farm, has an income below or around the median income, and has annual sales, at the current time, in the area of $2,500 to $40,000–$60,000.

It is this group that appears most in need of the kind of assistance research and extension could provide, for these people are committed to farming, but are making a good income from it. As Congressional

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[6] USDA, Economic Research Service, "Farm Income Statistics", July, 1977 and "Balance Sheet of the Farming Sector", September 1977, U.S. Department of Commerce, Bureau of the Census, 1970.

[7] Reprinted in "Small Farm Advocate", Fall, 1979, Issue #2.

Research Service agricultural senior specialist Leo Mayer has pointed out, those farmers who are strictly part-time operators with very small farm sales tend to have median incomes above this group, since they have high off-farm income. Those with over $40,000 annual sales, he points out, have above median incomes from farming. The farmers with income problems are those in the $2500 to $40,000 annual sales range. By focusing on those farmers in this category who are doing most of the work on their farms and who receive significant income from their farms, USDA and the land-grant colleges would be reaching the large majority of people who are making a serious effort to, and have a reasonable chance, of deriving a satisfactory living from farming—a group that would include the large majority of all commercial farmers. To the extent that this is not done, a *de facto* policy of encouraging farm consolidation and declining farm numbers and population is enacted.[8]

## THE ROLE OF SMALL AND MODERATE SIZED FARMS IN THE AGRICULTURAL SYSTEM

A large farm emphasis, as we have noted, would be contrary to the stated policy of the Congress and the USDA. There are good reasons for this policy; maintaining a diversified farm structure with a large number of small and moderate sized family farmers makes good sense agriculturally, economically, and socially.

It is sometimes argued that the trend towards fewer and larger farms (the U.S. has gone from 6.8 million farms in 1935 to 2.3 million in 1979) is beneficial—it is a proper reallocation of resources out of agricultural and into other sectors of the economy. According to this view, concentration will result in lower prices for consumers and greater overall economic efficiency. This argument ignores some very essential points, however. First, it assumes that bigger is necessarily more efficient. In fact, according to the USDA, "most efficiencies are attained at relatively modest sizes", as shown by several recent studies. "Society does not get its food more efficiently produced from a few tremendously large farms than from a much larger number of farms, if all are above the minimum efficient size." [9] Although we do not know just what the minimum size is for every crop, the USDA goes on to state that "the available evidence suggests that there are few, if any, gains in resource efficiency or lower food prices to be achieved from further concentration. Thus, the argument must hinge on other indicators of performance and on the welfare of participants." [10]

In fact, further concentration could cause a misallocation of resources. According to a Federal Reserve Bank of Kansas City report, "the very large, industrial-sized farms tend to resist change. Because of their huge capital investments and the contractual arrangements that many of them have with other business institutions, large farms cannot always adopt new methods and techniques very quickly. Over the years, medium-scale family sized farms have been responsible for the rapid diffusion of technological change . . . if family farms are more efficient in promoting and adopting technological change, the

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[8] Leo Mayer, "Farms and Farmers; A Look at 1980", Congressional Research Service, "CRS Review" December, 1979.

[9] J. B. Penn, "The Structure of Agriculture; An Overview of the Issue", USDA, *Structure Issues of American Agriculture*, 1979.

[10] Penn, *op. cit.*, pp. 6–7.

recent trend towards large-scale farming may need to be reversed. Hence, perhaps government policies for agriculture should be redirected toward supporting a mix of farm sizes that will permit the rapid adoption of cost-saving techniques." [11]

The research and extension work aimed at promoting large-scale techniques has not been carefully evaluated to determine its effects on food costs and farm efficiency, but in at least one case—the tomato harvester—development of an expensive technology for use on very large farms (each harvester costs at least $100,000) appears to have increased costs and destroyed jobs. The harvester was developed at the University of California in 1963. Since its introduction, the number of canning tomato farms in the state has dropped from over 4000 to less than 600. The number of harvest time jobs has declined from 50,000 to less than 18,000. Canning tomato prices rose 111 percent, while all other produce rose 74 percent, and the price of the still labor intensive crops, strawberries and lettuce, rose 41 percent and 70 percent respectively.[12]

Moreover, there has been no assessment of whether research and extension directed at smaller scale farming could have produced greater efficiencies on smaller farms had researchers assumed that farm expansion was not desirable, as it appears most did in the post-war period.[13]

As the article by J. B. Penn cited above suggests, however, there are issues other than efficiency on which farm policy decisions must hinge. As Philip Raup points out, only 6 percent of disposable income is spent on the farmer's share of food costs, and the value added on farms is only one percent of the GNP. Since gains in efficiency through further consolidation appear doubtful or marginal, society has little, if anything, to gain from such consolidation. It does, however, have much to lose. Vital rural community life, the availability of rural amenities, more effective soil conservation, and intangible factors such as the opportunity for many thousands of people to pursue a meaningful way of life all depend on a diverse and numerous farm structure.[14] It is not simply naive sentimentalism to urge the preservation of a diverse farm structure—we are, after all, speaking very concretely about people's lives and hopes, and for many people, those lives and hopes center around farming. Any other occupation will not do.

Moreover, very large farms rely on heavy petrochemical and energy inputs. As energy prices rise, the economics of farming may dictate a less petroleum intensive agriculture. Small and moderate sized farms would probably be much better suited to this scenario.

If we are to preserve a diversified agricultural system, the time to act is now. As Penn points out:

> The best evidence currently available suggests that the many forces which singularly and together determine farm

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[11] Federal Reserve Bank of Kansas City, *Economic Review*, September–October, 1979, p. 11.

[12] Prepared statement of Albert Meyerhoff and Raiph Abascal, Hearings.

[13] A recent USDA report referred to "the strong institutional and intellectual commitment of the U.S. agricultural research establishment to large scale-technologies". See USDA, Office of Planning and Evaluation, "Alternative Futures for U.S. Agriculture", published by the Senate Comimttee on Agriculture and Forestry, Sept. 25, 1975, pp. 42–3.

[14] Philip Raup, "The Nature and Magnitude of Changes in Farm Organizational, Occupational and Clas Structure", in Ball, A. G., and Heady, E. O., *Size, Structure, and Future of Farms*, Ames, Iowa, Iowa State University Press, 1972.

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size and structure, if left unchecked, will continue and perhaps accentuate the trends of the past several decades. The result will be fewer and fewer farms of larger size and larger size . . . a bimodal distribution will evolve; a small number of large farms will produce most of the food, and a few medium-sized units will continue to exist . . . As this result would be practically irreversible, now is likely the last time society will have the opportunity to make the choice.

## AGRICULTURAL RESEARCH AND EXTENSION AND THE STRUCTURE OF FARMING

At the hearings, the USDA agreed that, until recently, the Department was "proud of the people leaving the farm." [15] Many critics have argued that USDA research and extension policies helped speed that exodus. In this section, the evidence for this allegation will be reviewed in greater detail.

Essentially, the argument is that research and extension have been dominated by an effort to find ways to increase agricultural production by facilitating large-scale, capital intensive farming. According to this view, the only way that agricultural efficiency can be enhanced is by increasing the scale of agricultural operations and adapting labor-saving techniques to them. Thus, it is continually necessary to reduce the number of people engaged in agriculture.

This conventional wisdom has been challenged recently by people who believe that size and efficiency are not necessarily related, and that it may be that, if adequate research were done, smaller scale farming might prove to have considerable efficiency improvement potential as well. The arguments here are much the same as in the business sector generally—that large business organizations, relying on hired personnel and having substantial commitments to existing patterns of investment, are slower to innovate and adapt and less able to get the maximum effort from their managers than small-sized farms. These critics also contend that even though small farms may not be able to produce quite as efficiently as larger sized units, nonetheless, with proper research and extension efforts, they could be productive, income producing farms for their owners—a development that would be beneficial for them and rural society.

While, as noted above, there appear to be no studies to date to assess whether smaller scale farms could have been made as or more productive than larger-scale units had the same research and extension efforts been devoted to them as have been devoted to large farms, there does seem to be a consensus emerging that, for the variety of other reasons listed above, the USDA and the land-grant colleges have focused too heavily on large-scale farming.

Loren Soth, in a recent article in the *American Journal of Agricultural Economics* was one of the first to identify the problem:

> The land-grant universities continue to devote the overwhelming portion of their research and educational funds to the promotion of agricultural technology and the service of high-income farmers. They have not given anywhere near

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[15] Wood, testimony, hearings.

> the attention in either research or education to the bypassed rural communities that their numbers justify—to say nothing on the basis of need.[16]

The General Accounting Office came to the same conclusion:

> Although the USDA and the land-grant colleges have made some limited efforts to extend training and technical assistance to small-farm operators and have done some research applicable to the problems of the small farm operators, such efforts could be greatly intensified with the objective of creating a better life for many small farm operators and increasing the productivity of the land under their management.[17]

According to the GAO, small-farm oriented programs could have dramatic effects on farm income and production, a conclusion which would receive substantial support from experience at the University of Missouri, which carried out such a program.

In 1977, the Senate Agriculture Committee agreed that more effort was needed for the small farmer:

> Research on problems and technologies specific to small farmers have been virtually unfunded . . . the well-being to these people and their ability to stay on the land are, to a large degree, dependent on appropriate research and extension efforts.[18]

Critics from within the government and the USDA have agreed that Department policy is focused on the large farm. Patrick Madden was a researcher at the Department and was responsible for several now very well-known studies showing that economies of scale in agriculture did not extend beyond the fully-mechanized one or two man farm. Madden testified that the USDA has essentially ignored the small farmer in its research and extension, and that it had done nothing to evaluate the impact its own policies were having on these farmers.[19]

Peggy Wheeler, a CSA official with responsibility for that agency's small farm program, testified that the USDA's research and extension policy had, in effect, guaranteed that large-scale farming and continued farm consolidation would replace a more diversified farm structure:

> If you have a specific research, which over the years has developed certain forms of technology, certain crops which are planted, certain farming practices which are primarily used . . . If you put all your Federal money into that type of research and development you are, in effect, making a statement that that is the type farming you will have.

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[16] Loren Soth, "The End of Agrarianism: Fission of the Political Economy of Agriculture", 52 *American Journal of Agricultaral Economics. 663–5* (*December, 1970*).

[17] General Accounting Office of the United States, "Some Problems Impeding Economic Improvement of Small Farm Operations: What the Department of Agriculture Could Do", August 15, 1975.

[18] Report of the Senate Committee on Agriculture #95–180, 95th Congress, 1st sessson. p. 161.

[19] Madden, testimony, *op. cit.*

The Department testified that it now has come to agree with the thrust of the critique. Although it still believes its research is "scale-neutral" (a contention to be evaluated below), it agrees that, nonetheless, it has been, until now, the express policy of the Department to encourage farm consolidation. Little or no concern was given to the problems of the small farmer, either as an individual or as an agricultural producer.

Anson Bertrand, head of SEA, summarized the policy this way:

> Following WWII until recently, issues such as an assured food supply at reasonable prices, production efficiency, and farm price and income adjustments dominated the Department's agricultural policy. Little was said about the place of the small farm during that period of time.
>
> The major emphasis of the agricultural policy, as reflected in agricultural research and extension programs during that period of time, provided programs that were responsive to agricultural problems in general, *and little attention was paid to whom the benefits accrued during that period of time.* Concern heightened in recent years in this regard (emphasis added).[20]

The statement contains an odd contradiction, in that "agricultural problems in general" are considered separable from the problems of small farmers and the distribution of the benefits of agricultural programs. The argument could certainly be made that since the large majority of farmers, full-time or part-time, are small, their problems are inseparable from the problems of agriculture in general. Nonetheless, USDA now agrees that although its agricultural research and extension policies "have had a substantial impact on the structure of agriculture in several ways . . . it is clear that large scale enterprises have been the principal beneficiaries in the farm sector." [21]

The criticism of USDA research and extension policy—once very controversial—now, therefore, seems to be accepted by even the USDA. Moreover, according to the Department, efforts are now underway to "deal with this problem," as Anson Bertrand put it at the hearing. As Secretary Bergland wrote in a memo to the Department, "It is . . . the policy of the Department to provide, on its own initiative when appropriate, assistance which will enable small farmers and their families to expand the necessary skills for both farm and nonfarm employment to improve their quality of life. It is a priority of this Department to encourage small farm operators to participate more fully in all USDA programs." [22]

Unfortunately, while the rhetoric of the USDA on this issue has been impressive, its actions have been discouraging.

The Department still insists that most (84 percent) of its research is "scale-neutral". The Department contends that the problem is that this rsearch is not reaching the small farmer. While that is clearly the case, the neutrality of USDA research is not so clear. In fact, the Department has supported many projects designed specifically for large-scale farming—even mechanization research, an area which the Department testified was one in which it did not involve itself. In a

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[20] Bertrand, *op. cit.*
[21] Bertrand, hearings, *op. cit.*
[22] Bergland, Secretarial Memo, *op. cit.*

study done in 1978, of the University of California "Commercial Mechanization Projects" (the state's term), California Rural Legal Assistance found that 16 separate projects received a total of $90,000 in federal assistance. Projects included the development of mechanical harvesters of olives, a study of fruit growth to improve their ability to be harvested mechanically, and the development of production equipment for mechanicl harvesting of lettuce and onions.[23]

These projects are labor-displacing and are primarily beneficial to the large farmers able to purchase the equipment. At a recent hearing in Fresno, California, and again in a speech in Reston, Virginia, Secretary Bergland agreed that such research assistance was not consistent with federal policy, and pledged to cut off any further support for it.[24]

Although Bergland's actions are appropriate, only months before USDA was testifying that it did not engage in such research, making the contention that research is essentially scale neutral suspect.

That view receives further support from the assessment of Neill Shaller, head of the USDA's extension program, who contended in 1977, that only 25 percent of USDA research was of benefit to small farmers, and only five percent of the extension work.[25]

Unfortunately, as in other areas, there is no thorough study of the scale effects of USDA research, and the 84 percent figure appears to be little more than a guess. A careful and neutral evaluation of this problem would be in order.

The Committee agrees with USDA that the basic problem is that that small farmer does not get the extension service he needs, and which the law intended, so that he can take advantage of the ample information that is available that would so greatly benefit him.

## CURRENT USDA SMALL FARM PROGRAMS

Congress has directed the USDA to undertake a small farm research program and, as noted, the Department has pledged to take actions to redress the bias in its existing programs towards larger farms. Despite these Congressional directives and Department promises, however, USDA has done little for the smaller farm. A demonstration farm in Arkansas is the most visibly project.

Section 502C of the Rural Development Act directs the USDA to create a small farms research program, funded at $10 million for 1974, $15 million for 1975, and $20 million through 1980. USDA, however, never requested money for the program, although Congress included $3 million for the program in 1979 and $3.75 million in 1980.

Overall, USDA calculates that less than $8.6 million in FY 1980 was earmarked for small farms, $1.8 million of which was federal money for state agricultural experiment stations. USDA agency requests for an expanded paraprofessional program for small farms were made for 1978 through 1980, but OMB turned down the request one year and the Department turned down the requests in the other two.[26]

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[23] Data submitted to the Senate Select Committee on Small Business by California Rural Legal Assistance, December 1979.
[24] Remarks of Secretary Bergland, Reston, Virginia, December 1979.
[25] Remarks by Neill Shaller before the 1977 Rural America Conference, December 7, 1979.
[26] Testimony of Anson Bertrand, *op. cit.*

The budgetary situation with respect to small farms was summarized by the following dialogue between Subcommittee Chairman Stewart and Anson Bertrand at the hearings:

> Senator STEWART. How in the world are we going to believe Secretary Bergland when he indicates that they are going to do something for the small farmer when all you are doing now is continuing the kinds of activities that have gone on before?
>
> ANSON BETRAND. We will * * * redirect and target.
>
> Senator STEWART. Rhetoric does not do much for the small farmer.

Secretary Bergland, in a speech in Reston, Virginia, pledged to change this situation.[27] He announced the creation of an ad hoc advisory board to review decisions on agricultural research whose "direct and immediate benefit" go to a relative few in a limited number of locales . . ." or where "the major effect of that research will be the replacing of an adequate and willing work force with machines."

He also announced that "new research and education programs have been initiated in the Department's Science and Education Administration and in cooperating state institutions to provide direct educational, technical and organizational assistance to the operators of small farms and their families to help them identify and clarify their goals, needs, resources and opportunities, and to assess alternative ways of using their resources to respond to needs and opportunities." A number of other research and education initiatives to help small farmers and their communities have been initiated, are in the process of being developed, or await funding."

The Secretary's speech is very, very encouraging. It remains to be seen, however, if this will amount to a real commitment and will truly reorient research decisions, or is simply another theoretical flourish. Nothing in this new directive changes the lack of support for small farm research evidenced thus far in budgetary decisions. One encouraging development is the creation of 16 small farm pilot programs. The programs are an outgrowth of a joint Community Services Administration—USDA series of small farms hearings. These pilot projects are designed to find ways to maximize small farm income. Outreach from these projects, however, will be severely limited due to their small number.

Overall, then, the USDA small farm program has been virtually nonexistent and its rhetorical commitment to redirecting its research and extension activities towards small farms has not, by and large, been supported by concrete actions.

## STATE AND PRIVATE SMALL FARM PROJECTS

The potential for small farm programs is dramatically illustrated, however, by a number of state agricultural college projects as well as several private efforts. Each of the projects outlined here has had tremendous success. Although limited in scale, these projects suggest the potential that USDA could tap.

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[27] Remarks of Secretary Bergland, Reston, Virginia, December 1979.

The most common type of small farm program is the paraprofessional program. Thirty-one states now have such a program, although only a handful have been able to devote any significant resources to the projects. By far the best-known, and largest, such program is at the University of Missouri. In this program, the University hires paraprofessionals—people with farm backgrounds, but without specific training in agricultural research or extension work—to work on a one-to-one basis with small farmers, making suggestions about how they can improve their income.

Only 1 percent of the Missouri farmers contacted turned down the offer of assistance, a fact that belies the common observation that smaller farmers are not interested in the kind of help they can get from the university. During the course of the program over the last three years 7,000–8,000 farmers have been contacted. In a study of 2,000 farms participating in the program in 1978, average income increased by $2,000,000. Benefits outweighed costs by 3.5 to 1, making it one of the university's most successful programs.[28]

In pursuing this policy, however, Missouri had to make the very difficult decision to channel funds away from other programs into this one. Missouri thought the sacrifice was worth it:

> * * * in Missouri some of our extension dollars and our extension administration could be put to many other good uses in extension [but] our extension administration has said, 'small farmers are important enough and we are people oriented enough.'[29]

Unfortunately, most other land-grant universities have lacked either the money or the desire to put such a program into place. According to Michael Sprote from the Alabama Cooperative Extension Service, in order to fund a very modest small farm program, the university has "scratched and clawed to find money", while Dr. James Dawson from Alabama A&M University testified that "we are having more difficulty now holding the line, let alone increasing into these areas of extra need."

The Alabama programs that are in place focus on aiding small farmers to manage their farms more efficiently. In the 118 farms tested in the program from 1969 to 1978, net worth increased from $21,000 to $52,000, and net income from $1,000 to $3,100. These impressive gains again indicate the promise of small farm programs. They also suggest the tragic and unnecessary deprivation many small farmers must undergo because neither the USDA nor the land grant colleges, with some exceptions, have been willing to devote substantial resources to such proven programs.

## PRIVATE PROGRAMS

One very notable private effort has been undertaken by the Control Data Corporation. Control Data believes that "if you give (the farmers) the right tools of resource management and if education and innovative, appropriate technology are assured, then the small-scale farm makes better use of the nation's agricultural resources with the least amount of environmental damage."[30]

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[28] Material concerning the Missouri program taken from the testimony of Ed Wiggins, program director before the committees.
[29] Ibid.
[30] Testimony of Ralph Thompson, Vice-President, Control Data Corporation, Hearings.

To back up this belief, Control Data has established a small farms program. One part of the program consists of establishing a number of farm families on 30–150 acre farms on a 1200–1500 acre plot established by the company in Minnesota. The purpose of the project is to demonstrate the feasibility of small farm operations when provided with the proper advice.

A second component of the program consists of an information package designed to provide farmers with managerial and technical guidelines to help them maximize farm profit. Control Data hopes to use paraprofessionals to assist farmers implement the package effectively. Farmers would pay the company 4 percent of their incremental profit gain for the package—0 percent if there were no gain.

Altogether, CD has invested $6–7 million in the idea. It hopes to set up 6 separate projects in 1980. Interestingly, CD's investment in small farms is roughly equal to the entire 1979 USDA small farm program expenditure. CD reports that initial results from its program have been extremely encouraging.

Another very successful small farm program is that of the Agricultural Marketing Project (AMP). AMP was started in Tennessee in 1975, and since then has spread to five other states. The project farmers set up direct markets. 51 such projects have been established, and 45 have succeeded (have continued from year to year and increased farm income). In Tennessee and Alabama, about 1500 growers have participated, with average daily sales of $75–100. Many small farms have had significant increases in income as a result.[31]

### SUIT AGAINST THE UNIVERSITY OF CALIFORNIA

Recently California Rural Legal Assistance filed suit against the University of California for conducting mechanization research which throws small farmers and farmworkers out of work. The suit contends that the University is violating its charter and its legal mandate under the enabling act for agricultural land grant colleges passed by Congress by pursuing research beneficial to a small number of large farmers. A California Court has thrown out a university motion to dismiss the suit which could have a major impact on the direction of publicly funded research.

## Conclusions and Recommendations

Until recently, the small and moderate sized family farm was not considered an important target for agricultural research and extension efforts. Criticism of this bias has ranged from academia to the General Accounting Office, to the Senate Agriculture Committee, and, finally, funded to the USDA itself.

Secretary Bergland has pledged to move USDA towards a more positive role with respect to smaller farms. As part of this, he has announced new, if unspecific initiatives for small farm research and extension, as well as pledging to end research directed only towards a small number of farms.

These steps are encouraging. Preserving a diverse agricultural structure is not only good for agriculture, but is necessary for a vital rural economy, a sounder conservation program, and the preservation of a unique way of life many people cherish. These goals have

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[31] Testimony of Lindsay Jones, AMP, Hearings.

often been taken lightly in the past, but we now are beginning to appreciate their significance.

Nonetheless, the Secretary's promises, remain, at this point, only promises. In order to make them reality, the committee urges that:

(1) USDA carry out its pledge to take major steps to assure that research and extension dollars are specifically spent for small and moderate sized farm programs. This amount should be gradually increased over the next several years, until it comprises not less than 25 percent of all research and development expenditures, at least half of which should be for small farms. Considering that the vast majority of commercial farmers are "small", this is a modest figure. While setting such a specific goal is necessarily arbitrary, without such a goal, it is doubtful that real changes in program priorities will be made.

(2) As a part of that 25 percent, USDA should earmark funds for small farm, paraprofessional extension programs. At least 5 percent of these funds should be allocated to non-land grant college projects. Enough money should be earmarked so that every state has the capacity to create a program capable of reaching a substantial number of small farmers. In establishing these goals, the existing program commitment of University of Missouri could serve as a useful guide. A report by nation's extension directors outlining such a program is appended.

(3) USDA should recommend immediate funding of the small farms research program and should report to Congress on how this program can be augmented to reach the goals established in recommendation 1).

(4) USDA should proceed with Secretary Bergland's directive to create an ad hoc review board to review program decisions which have the effect of replacing a willing workforce, damaging the environment. or decreasing competition. In addition to these guidelines established by the Secretary, the board should review proposals which have the effect of reducing the number of farms.

(5) USDA should vigorously pursue and expand its research on technologies designed to lessen dependence on fossil fuels. Small and moderate sized farms are especially well suited to less petrochemical and oil intensive techniques. Given the world energy crisis, the U.S. should adapt its agricultural system to changing realities.

(6) USDA should establish a program to provide technical and financial assistance for direct and cooperative marketing, among the most promising alternatives for amall and moderate sized farmers.

(7) USDA should undertake new studies of the relationship between size and efficiency, giving specific consideration to the measurable and intangible social and environmental cost of different farm sizes.

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APPENDIX

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# EXTENSION EDUCATIONAL OPPORTUNITIES WITH SMALL FARM OPERATORS

SMALL AND PART-TIME FARMER
TASK FORCE

CARL SCHENEMAN, MISSOURI, CHAIRMAN
JOHN COX, LOUISIANA, SECRETARY
HOWARD DIESSLIN, INDIANA

FOR
ECOP SUBCOMMITTEE,
AGRICULTURE, FORESTRY, AND RELATED INDUSTRIES

APRIL 28, 1976

I. The Small Farm Situation

A. Introduction

The history, strength and economic success of our nation are built upon the family farm concept. America started as a land of small farmers, and it was the rapid increase in technology and farming skills that enabled America to make the enormous and rapid progress it did in providing the economic necessities of life.

The American farmer is still the best in the world. He is able to provide an adequate supply of food at a cost more reasonable than that found in any other major nation in the world. Many nations are catching up with the United States in industrial technology, but none can match the American farmer in quantity, quality or variety of production.

Most states have some areas that are very rural. The future of most communities in these rural counties and a good portion of the semi-rural counties will depend largely upon the family-type farm being able to remain competitive in commercial agriculture. Many large farmers of today were once small farmers; with Extension's help they have gradually expanded to their present size.

Extension has always been concerned about people and their problems; and State Extension Services are providing administrative leadership and support to develop educational programs for small farmers. Today the small farmer program continues to play an important role in Extension's effort.

The reversal of the population migration from rural to urban areas underlines the fact that the interest in rural living has been increasing in recent years for many reasons. Higher food costs have prompted many to produce

at least a part of their food needs to reduce living costs and to assure a high quality diet for themselves. Environmental and back to nature movements have made our population sensitive to the advantages of rural life and home grown food. Home food production plays a key role as a way of improving a total life style. To some rural people, farming as a way of life provides physical exercise, simple accomplishment and a general feeling of well-being.

Some believe that dispersed living and association with the land promote good citizenship. There is a high rate of participation by rural people in public affairs. Ownership of land provides rural people with a strong incentive to support the basic system of ethics and citizen responsibility, important keystones of our system of government.

A small farming enterprise is also used by some families as a way of training their children. It can be used to teach physical and biological processes as well as to give training in responsible productive activities. Many enterprises are well adapted to teaching entrepreneurship and responsibility in business operations. Thus, the support of small farms has many benefits in addition to the monetary returns to the participants.

A large percentage of farmers in most counties are operators of small farms. We cannot and must not overlook them. The small farm program is designed to reach them. It is a valuable program and contributes to their well-being.

Extension is for people. State Extension Services' experiences with the small farm program provide evidence that it helps increase the agricultural income base of a community. More important, it is increasing the confidence and improving the skills and satisfaction of people. Since the small farmer contributes to the well-being of America, contributions which this program makes to the small farmer in turn contribute to making states and the nation a better place in which to live and work.

B. Changes in Farm Numbers and Size

"Agricultural statistics show that the number of farms in the United States has steadily declined since 1935. From 1950 to 1975, for example, the number of farms decreased about 50 percent. At the same time, the total land in farms decreased only about 10 percent and the average farm size increased about 81 percent.

"Generally, the farms with the least amount of farm sales have gone out of business. As shown in the following table, for example, the number of farms with gross annual sales under $20,000 decreased by about 1.8 million between 1960 and 1973. Because of increased prices, production efficiencies, and farm size, about one-third of these moved into the category of farms with gross annual sales of $20,000 and over. The other two-thirds, however, went out of business.

| Gross Annual Sales | Number of Farms 1960 | Number of Farms 1973 | Percent of Change 1960-73 |
|---|---|---|---|
| Expanding farm sector: | | | |
| $40,000 and over | 113,000 | 446,000 | 294.7 |
| $20,000 to $39,999 | 227,000 | 563,000 | 148.0 |
| Total | 340,000 | 1,009,000 | 196.8 |
| Declining farm sector: | | | |
| $10,000 to $19,999 | 497,000 | 332,000 | -33.2 |
| $5,000 to $9,999 | 660,000 | 262,000 | -60.3 |
| $2,500 to $4,999 | 617,000 | 488,000 | -20.9 |
| Total | 3,623,000 | 1,835,000 | -49.4 |
| Total | 3,963,000 | 2,844,000 | -28.2 |

"Although the number of smaller farms has declined and many of those remaining are operated by part-time or semi-retired farmers, many small farms are operated by farm families in their productive years who depend primarily on farm income for their livelihood. Available information indicates that many of these families may be subsisting on incomes near or below the poverty level.

"While farm families may receive income from nonfarm jobs and businesses, professional practices, retirement plans, or investments, a special Bureau of the Census survey showed that in 1970 about 19 percent of the farm households with gross annual farm sales under $20,000, excluding those in which the head-of-household was classified as part-time or semiretired, did not have any off-farm income and an additional 33 percent did not earn any salaries and wages from off-farm sources. Salaries and wages accounted for about 61 percent of the total off-farm income received in 1970 by all farm households with gross annual farm sales under $20,000."[1]

C. Definition of a Small-Farm Operator

"Because of the diversity in agricultural production, the physical constraints of agricultural land in different sections of the country, and the intermix of farm and off-farm employment of rural residents, there is no universally accepted definition of a small-farm operator.

"USDA and the Bureau of the Census define a farm as any place of 10 acres or more with sales of agricultural products of at least $50 annually, or any place of less than 10 acres with sales of agricultural products of at least $250 annually. Included in this definition are farms operated by full-time farmers, part-time farmers, hobby farmers, and retirees.

"USDA's Economic Research Service told us that gross farm income and total family income would be the most important factors to use in defining a small-farm operator and that most USDA officials would consider gross annual sales of $20,000 to be the upper limit of a small-farm operator. Therefore, for the review, we considered a small-farm operator as a person who (1) is under 65 years of age, (2) works off the farm for wages less than 100 days a year, and (3) sells less than $20,000 of agricultural products annually.

"We recognize the limitations of using such general criteria for this definition. However, the criteria permit a general distinction to be made between (1) farmers in their productive years who may depend on profit from the sale of farm commodities as their main source of income and (2) other people with farm sales living in rural areas.

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1 and 2 "Some Problems Impeding Economic Improvement of Small-Farm Operations: What the Department of Agriculture Could Do," Report to the Congress by the Comptroller General of the United States, August 15, 1975, pages 2,4,5.

"Using information from the 1969 Census of Agriculture on the profile of farmers, we estimated that 666,000 or about 37 percent of the operators of the 1.8 million farms with agricultural sales of less than $20,000 in 1973, met the above definition of a small-farm operator."[2]

II. Resume of Extension Program Currently Underway

A. National Policy Position -- Extension Education Program for Small Farms

1. "Extension's Responsibility to Farmers and Ranchers (with gross farm income less than $10,000)," May 4, 1967.

   This report reviewed the situation at that time, indicating more than 70 percent of the nation's farms fell in that category. Detailed recommendations were developed to accomplish an effective national extension educational program for these small farms.

2. "Extension Education for Growing Agriculture" ECOP, February, 1974.

   Attention was again given to the critical educational needs of this large farm clientele in this national report. The opportunities are challenging. The clientele is diverse and includes many responsive as well as technically "obsolete" and unresponsive, hard-to-reach farmers. Most of the technical information they need has already been identified and tested. Extension's challenge is to adapt the educational program to their needs if and when resources are available to do it.

3. "Some Problems Impeding Economic Improvement of Small-Farm Operations: What the Department of Agriculture Could Do" Report to the Congress by the Comptroller General of the United States, August 15, 1975.

   This report delineates the opportunities available and the competency of State Extension Services to carry out this important educational undertaking, provided federal funding by Congress was made available.

B. Pilot Projects Underway in Individual States

Since the early 1970's nearly a dozen states have undertaken pilot projects in this area. Details of these programs and evaluations of their efforts are included in Appendix A.

In the 1862 and 1890 college programs, para-professionals are employed to work intensively with small part-time and limited resource farmers. This includes the use of para-professionals or program technicians under the guidance of county Extension agents. These para-professionals generally work with 25 to 35 selected limited resource farmers and provide intensive personal assistance to them.

These programs have been successful in helping small farmers make substantial improvements. A research study in Missouri indicated that the benefit-cost ratio of this program in the state was approximately 3.5 to 1. This approach has generally been limited to pilot programs due to its high cost per family and limited availability of funds. Only a small percentage of small, limited resource farmers have been served by para-professional program aides.

C. Congressional Support of Small Farm Extension Programs

1. Special recognition of this sector of American Agriculture was delineated in Title V of the Rural Development Act of 1972. Appropriation authorization was granted under Title V for small farm extension programs. No funds have been appropriated for this purpose under Title V through Fiscal '76.

2. Congressional appropriations to the Extension Services in Fiscal '76 carried a special line item designated for small and part-time farmers as follows:

   a. $1 million for 1862 Land-Grant Institutions

   b. $1 million for 1890 Land-Grant Institutions

   Thus, Congress has made its first specific appropriation designated strictly for this important agricultural clientele sector.

3. ECOP, through its ECOP Legislative Subcommittee, has requested $5 million additional appropriations ($4 million for 1862 and $1 million for 1890) in Fiscal '77 for small and part-time farmers.

III. Recommendations for Small Farm Extension Program .

Among the 1.8 million farms with gross farm incomes below $20,000 in 1973, "there are more than one million farmers averaging less than $3,000 annual net farm earnings who do not have an important source of nonfarm income. Generally, the educational needs of this group of farmers is somewhat different than those of other larger producers. Their capital and often their labor resources are limited, and their managerial skills may be less than desired. However, most of the technical information they need has already been identified and tested. For them, Extension's challenge is to adapt the educational program to their needs and to put more emphasis on individual husbandry and management skills in the use of known practices. Many require individual advice and counseling concerning both farm and off-farm opportunities. Added staff resources are required to provide for the individualized assistance in this important area of agriculture for rural community improvement.

"The concept of multicounty or county agents providing professional leadership, combined with para-professionals working directly with farm families, has successfully emerged as a pattern for serving educational needs of limited resource farmers. Educational programs for limited resource farmers require a different mix of experience and know-how than is required for serving commercial farmers -- more skill in working with people in relation to knowledge of scientific agriculture. Thus, where possible, skilled para-professionals should be added to the regular Extension staff at the local level to help serve the needs of small farmers." ("Extension Education For a Growing Agriculture," February, 1974)

IV. Implementation -- Small Farm Extension Program

A. Guidelines

Extension recognizes the need and is eminently qualified to provide the leadership for implementing an effective educational program for owners and/or operators of America's small farms during the next five years.

The agricultural leadership of Cooperative Extension is prepared to provide the program leadership for such an intensive educational undertaking. Existing agricultural extension specialists in our Land-Grant Universities are prepared to assign a portion of their effort to a small farm program. Likewise, agricultural agents throughout the nation's counties would enlarge their efforts in providing professional leadership to such a program.

The main thrust of such a program would be carried directly to the small farm families by para-professionals employed to disseminate and to encourage application of agricultural science and technology. The success of the program will

depend on the small farm program becoming an integral part of ongoing total Extension efforts.

B. Staffing Requirements

Additional staff would be required at all levels -- para-professional, professional field staff and University-based specialists. It is recommended that two thirds of the additional funding required be utilized for para-professionals and not to exceed one third for professional agents and University specialists.

Data for 1973 enumerate 1.8 million farms with gross income of $20,000 or less. Over a five-year period, 3,600 para-professionals would be required to serve those families who choose to participate. In addition, 600 extension agent positions (one for each six para-professionals) and 100 University specialist and/or program leader positions would be required.

C. The following funding on a recurring basis would be required to implement the total program:

| | |
|---|---|
| 1. 3,600 county para-professionals (@$10,000) | $ 36.0 mil. |
| 2. 600 county extension staff (@$20,000) | 12.0 mil. |
| 3. 100 state specialist staff (@$35,000) | 3.5 mil. |
| Total | $ 51.5 mil. |

The total annual cost of the program -- $51.5 million -- would cover personal services and operational support and provide adequate funds for the preparation and printing of publications that should be designed and developed specifically for use by these small farm families.

The Small Farm Task Force recommends that the ECOP Sub-committee on Agriculture, Forestry and Related Industries consider requesting funding support through ECOP and the ECOP Legislative Subcommittee for $51.5 million for the small farm program. Because it is unrealistic to implement such an important and substantial undertaking in one year, the task force recommends that it be phased in over a three-year period -- $21.5 million, $15 million and $15 million, respectively. The funds should be classified as 3(d) Smith-Lever appropriations allocated to states on the basis of the percentage of the U. S. small farms in each state and territory. The allocation of funds between 1862 and 1890 institutions will be determined by the Directors of Cooperative Extension and the Administration of the 1890 Institutions.

Revised
8/3/76

## Specific Results of Small Farm Assistance in Selected States

### TEXAS

The Texas program was initiated in 1968 with one program aide in each of 10 counties in Eastern Texas. The specific objectives of the Texas Intensified Farm Planning Program were (1) to demonstrate the effectiveness of the program aide in working with small farm operators on an intensive basis to bring about change in production agriculture and management practices, and (2) to provide county staffs an opportunity to field-test program procedures, teaching methods and techniques which could be drawn upon to strengthen an educational program designed to provide assistance to operators of small farm units.

The program aides have been effective in bringing about improvements in production practices and improvements in the level of living for most of the original 224 cooperators in the 10 original counties. The program has since been expanded to 15 counties and is providing some limited assistance in the area of marketing for small farmers. In one county a tomato market has been established, in another substantial improvement has been made in livestock marketing.

### MISSOURI

In 1971 the University of Missouri Extension Service started an educational program for small farmers. The program began as a pilot effort in two counties. Local support and acceptance was so great that in 1972 the program was expanded to six more counties. Thus far more than 879 families living on small farms have participated in the program. Some of these families were full-time farmers who wanted to grow. Others planned to always be part-time farmers but wanted to increase their farm income. Eighty-five percent of the families reported their gardens saved an average of $210 on family living costs.

The program participants increased both the size of their livestock operation and the income received from livestock. They also improved their crop production practices. Small farmers involved in the program progressed more than those not involved. A research study carried on in association with this small farm program shows that the benefit-cost ratio of this program is approximately 3.5 to 1.

### VIRGINIA

Virginia Cooperative Extension Service has been operating a special project using program technicians to assist small farmers in four counties in the state. This effort was a special demonstration project designed to help small farmers upgrade their farming operations.

Each of the four counties has four program technicians who provide intensive assistance to small farmers. Improved crop and livestock production practices have been initiated by small farmers as a result of the special work by technicians. Farm management practices also show some improvement and nearly all of the cooperators have

increased the production of their family gardens. A more detailed study is now underway.

MARYLAND

Agricultural consultants (program aides) have identified approximately 150 low income farm operators in a contiguous five county area and are working with them continuously on a face to face basis. Twenty-five percent of consultant's time was spent assisting these small farmers with problems related to farm machinery and mechanization, selection, purchase, safe use, and repairs. Fifty percent of the consultant's time was spent assisting cooperators on problems of agronomy and horticulture including soil tests, fertilizer recommendations, insect and disease control, and marketing. Egg production and marketing and swine production problems also received attention from the program consultants. These consultants effectively reached small farmers who were not making use of the assistance available from Extension and as a result enabled these small farmers to improve their farming operations and their level of living.

NORTH CAROLINA

Program aides are used in several counties in North Carolina to provide special assistance to small farmers in that state as part of the 1890 component of the Extension program. These program aides have been able to assist small farmers improve their incomes through improved production practices in crop production, livestock production, and overall farm and business management. In some cases special crops have been introduced such as tomato production in 14 Western North Carolina counties, this work is. under the 1862 component of the Extension program.

ALABAMA

Alabama Cooperative Extension Service has been providing special assistance to small farmers for several years. Small farm demonstrations, both whole farm and enterprise demonstrations, are being carried on in all counties.

Special publications to assist small farmers have been prepared by the staff of Auburn, Alabama A&M and Tuskegee. Program aides to assist small farmers have been placed in several counties as a result of the 1890 Extension component. This has resulted in increased intensive assistance to a group of farmers who have not been reached by extensive Extension efforts..

ARKANSAS

Arkansas has found that small farmers have been very willing to adapt improved methods of production and marketing and have been

receptive to assistance offered to them.

An educational program in Southeast Arkansas, with objectives to increase the family food supply, improve diets, supplement family food budgets, and encourage commercial production and marketing has been conducted.

This project was begun in 1972 to assist small farmers in Southeastern Arkansas. Horticultural aides were employed to work with this group. In 1975 there were 981 families enrolled in the program. The aides also worked with some 1,144 families who were not enrolled. More than 2,700 gardens were grown with approximately $340,000 worth of vegetables used from these gardens. Commercial vegetable sales are estimated at $269,000.

In five counties in Eastern Arkansas special assistance has been offered to small farmers in the commercial production and marketing of okra, cucumbers, and peas. This has resulted in substantial increased income to small farmers in this area.

Farm management material has been developed for the special use of small farmers. The results of this effort is to increase the opportunities and quality of living for families on small farms.

MINNESOTA

An "Opportunity Farming Program" is a pilot demonstration program in four county area in North Central Minnesota which was begun in 1975 under a grant from the Governor's Rural Development Council. Farm aides in these four counties received special training to assist them in providing on-the-farm education and assistance to low income farmers which will help these farmers improve their standard of living.

The farm aides assisted small farmers to improve production practices, livestock selection, and overall business management decisions.

SUMMARY

Several states are developing special materials for use with small farmers. For example, Oregon, Montana, and Michigan are currently developing special program designed to reach this group in their states. New Mexico has developed several publications which are bilingual so as to reach both Spanish speaking and English speaking small farmers.

Farm management and agricultural engineering specialists are each preparing special educational materials aimed at reaching small farmers.

Appendix 2

## Civil Rights and Equal Employment Opportunity Status Report 1/

USDA-ECOP Task Force Report 2/

Regional meetings held during April and May provided an opportunity to discuss the "Procedures for the Implementation of the Task Force Report" to members of the State Cooperative Extension Services.

The implementation of these procedures will result in the submission of the following materials to ES/USDA on or before October 1, 1976:

1. Data of each Institution of Higher Education in the State of Degrees conferred (Bachelor's, Master's, Doctor's) in Agriculture and Home Economics by major field of study for:
   a. County and Area Professional Positions.
   b. Statewide Professional Positions.
2. Summary of the number of persons, by race, holding degrees, identified by staff who may be potential candidates for employment.

The following supplements are due in ES/USDA on December 1, 1976:

1. Supplement to the "Affirmative Action Plan" which includes specific "Standards" and "Actions Required" for:
   a. A-1 - Agriculture and Natural Resources.
   b. A-1 - Community Resource Development.
   c. A-2 - Home Economics.
   d. A-3 - 4-H Youth Development.

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1/ Prepared by Roy D. Cassell, Director, Civil Rights Compliance, ES/USDA, for discussion during the Extension Committee on Organization and Policy meeting to be held August 3-5, 1976.

2/ For complete details consult "Procedures for the Implementation of the Recommendations of the USDA-ECOP Task Force on Civil Rights" (Revised 4/21/76).

2. Supplement to the "Action Plan for Progress in Equal Employment Opportunity for State Cooperative Extension Services" (Section II), which includes:

   a. The minority employment goal for the State for County, Area, and Statewide Professional Positions.

   b. The number of Counties and their minority employment goals for Clerical/Support Staff Positions and for Paraprofessional Positions.

   c. A statement describing the labor market area for County and Area Professional Positions.

ES/USDA Compliance Reviews

The Civil Rights Compliance Unit, Extension Service, is planning to conduct reviews of nine (9) State Extension Services during fiscal year 1977. They are:

Arizona
Colorado
Florida
Michigan
New Hampshire
New York
Ohio
Rhode Island
South Carolina

Appropriate schedules will be worked out in cooperation with the respective State Directors in the next few months.

Future Audits - Office of Audit, USDA

We have been advised informally by the Office of Audit of plans to reschedule audits during fiscal year 1977 (beginning after January) in Civil Rights and Equal Employment Opportunity Programs of those five (5) State Extension Services which were scheduled for fiscal year 1975 and postponed. These are:

| | | | | | |
|---|---|---|---|---|---|
| Nebraska | - | Tentative | Tennessee | - | Definite |
| New Mexico | - | Definite | Virginia | - | Definite |
| Oregon | - | Tentative | | | |

Appendix 3
4/23/76

A supplement to: "PROCEDURES FOR INITIATING AND CONDUCTING ECOP SPONSORED STAFF DEVELOPMENT ACTIVITIES"

Over the years the Extension Committee on Organization and Policy (ECOP) has recognized the need for a comprehensive program of professional development to improve the quality of program content and to improve the efficiency with which staff delivers the program to people. In a policy statement approved in August 1975 provision was made for submitting a "package" of proposals for ECOP approval.

The package proposal approach has mutual benefits for States participating in and groups developing training programs. States have the advantage of selecting from the programs offered only those which most nearly meet their varying program priority and staff training needs. Groups initiating programs have greater latitude in developing staff training activities--workshops, seminars, pilot programs, individual study, etc.--to provide a broad base of support for the States.

The following guidelines are designed to supplement the "Procedures and Guidelines for Initiating and Conducting ECOP Sponsored Staff Development Activities" - PSD(1)-8(8-75) when the package approach to training is used:

1. The subcommittee chairperson will request ECOP to approve the appointment of a Staff Development Advisory Committee to the specific subcommittee. (The subcommittee may perform the role of Advisory Committee.) The ECOP subcommittee should have at least one person on the Advisory Committee. The Advisory Committee should include State leaders and/or specialists, a staff development and training representative, ES representatives, and other representatives as recommended by the Subcommittee and approved by ECOP.

2. The Advisory Committee, with the assistance of ES and other national staff as appropriate, will prepare in consultation with the States a recommended package of staff development proposals for the program area. Each proposal in the "package" submitted for ECOP's consideration will include:

| | | | |
|---|---|---|---|
| I. | Title | VII. | Evaluation |
| II. | Intended Participants | VIII. | Logistics |
| III. | Situation | IX. | Date of Last Activity |
| IV. | Purpose | X. | Registration Fee |
| V. | Content | XI. | Contractual Grant |
| *VI. | Learning Experience | XII. | Planning & Evaluation Plan |

3. The chairperson of the Advisory Committee will present the package to the respective Subcommittee chairman for action by the committee.

*Initial development of learning experience should focus on methods. Final development will include details.

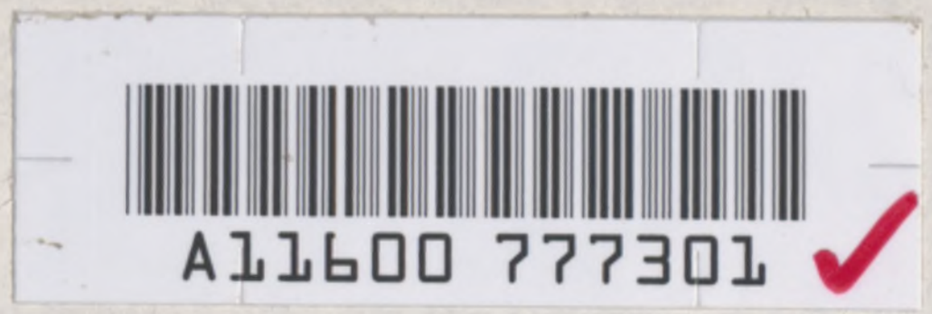
4. After the committee has acted on the proposal and made its recommendations, the Subcommittee Chairman will provide two copies of the recommended proposals to the ES/USDA Coordinator (Director of Staff Development, ES/USDA) for review to determine consistency with the format outlined. If not consistent, inconsistencies will be noted and returned to the Subcommittee chairperson. Otherwise the Coordinator will forward the proposals to the ECOP representative on the Subcommittee.

5. The ECOP representative on the Subcommittee will present the Subcommittee's recommended package to ECOP for action.

6. The approved package will be implemented under the direction of the Subcommittee in cooperation with representatives of ES, the states and appropriate national organizations.

7. Planning/evaluation committee(s) involving state and national people will generally be used for all workshops. In some instances the same planning/evaluation committee may be involved in more than one workshop. It may be found that a committee is not always necessary for established continuing workshops. If a committee is not proposed, the rationale should be explained in point XII of the format outlined in paragraph #2 of these guidelines.

8. An ongoing accounting, evaluation and reporting program will be implemented and presented to the respective subcommittee and to ECOP and used as a basis for planning and recommendations for future developments.


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