

Directory of

Small Farms Technical Assistance in the United States

March 1981

Heather Tischbein Baker
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Roger Blobaum is president of a Washington, D.C. based consulting firm specializing in energy, agriculture, and community-based technologies. He is a former staff member of both houses of Congress, a member of the advisory board of the Solar Energy Research Institute, past chairman of Rural America, Inc., and a director of Appropriate Technology International.

Daniel G. Caye is a former director of administration for Volunteers in Technical Assistance (VITA) and has been involved in rural development projects in the United States and Botswana. His experience ranges from organizational administration to development of appropriate technology programs and small-scale agriculturally based enterprises in developing nations.

Virginia M. Caye is Coordinator of Small-Scale Agriculture Programs at The Pennsylvania State University. She has had extensive experience in international development programs in Botswana, Lesotho, and Swaziland as both a Peace Corps Volunteer and former Associate Director of the International Division of the National Council of Negro Women.

J. Patrick Madden, Professor of Agricultural Economics at The Pennsylvania State University, is a consultant to the National Rural Center and principal investigator of their Small Farms Research and Policy Project. He is best known for his study on the economies of size of farming and for his evaluations of public programs such as food stamps and the rural development programs of land-grant universities.

PREFACE

This directory, an inventory of technical assistance resources for small farms in the United States, was prepared by the National Rural Center for the U.S. Agency for International Development (USAID). The purpose of the inventory was to identify organizations and projects with expertise appropriate for assisting USAID in implementing its New Directions Mandate to work with limited-resource farmers in developing nations. The directory is divided into three parts: an introduction, project listings, and a subject index.

The introduction has three sections. The first two sections describe the need for the inventory and how small-farm development activities in the United States are relevant to developing countries. The third section describes how the directory was compiled and how it may be used.

The project listings are in alphabetical order first by state and then by name of the institution or project. The subject index is based on the key words listed at the end of each directory entry.

INTRODUCTION

Technical Assistance for Small Farms in Developing Nations

Over the past 20 years, the United States and other developed nations have committed considerable human and financial resources to improving the agricultural production of developing nations. Increasing the agricultural capacity of these countries was considered to be an economic development strategy which would improve the income and nutrition of millions of poor people. By encouraging the use of improved seed varieties and an array of relatively sophisticated mechanical, chemical, and biological technologies, the "Green Revolution" has indeed achieved remarkable success in increasing agricultural output in certain areas.

However, experience has shown that this increased production often has not resulted in increased income or improved nutrition for many of the poor, especially in rural areas. In fact, in many cases the plight of the poor has worsened. As agricultural production increases, prices decline, thereby reducing the income of all farmers except the early adopters of the new technologies. Consequently, income disparities in rural areas are often exacerbated as larger commercial farms reap the benefits of technological change, while little if any change occurs in the methods used on smaller, peasant farms. Also, increased mechanization of production and harvesting reduces employment opportunities in rural areas, further eliminating economic opportunities for farmers and other rural residents. This in turn causes many to migrate to already over-populated urban areas in search of employment. Lastly, the adop-

tion of new technologies often leads to an increase in the production of crops and livestock for export and a decline in production for domestic consumption. The resulting increase in domestic food prices and shortages of food supplies create further hardship for both the rural and urban poor. Thus, despite the assumption that "Green Revolution" technologies are scale-neutral and therefore equally useful to farmers regardless of size, differences among farms in their resource endowments (land, labor, capital, and management) combined with limited access to infrastructural support systems, frequently result in less than equal distribution of benefits.

For these reasons, various public and private international development agencies have become keenly interested in specifically increasing the productivity of small farms as a means of helping to solve problems of domestic food supply, poverty, and unemployment in developing nations. This interest has been enhanced by three other factors: (1) increasing energy costs embedded in "Green Revolution" technologies; (2) food scarcities, and the resultant rising food costs in domestic and international markets; and (3) economic stagnation coupled with population growth, causing a decline in employment opportunities in rural areas. Increasing agricultural production and improving employment opportunities, then, are essential goals of a comprehensive development strategy to enhance the incomes and nutritional well-being of the rural poor in developing nations.

Relevance of U.S. Small-Farms Experience

The plight of impoverished farm families has been a long-standing concern in the United States. This concern has its root as a poverty issue during the New Deal of the 1930s and the War on Poverty of the 1960s. As such, the quest to improve the plight of small-scale, limited-resource farmers has been a small, limited, but continuing, interest of the U.S. Department of Agriculture-land grant university system and a few social welfare agencies and organizations.

During the late 1970s, interest in small farms in the United States took a new orientation in which "small farms" were redefined to include a spectrum of sizes and income levels, from limited-resource poverty farms to moderate-income family farms. This transformation is significant in that "small farms" are no longer viewed as an undesirable status from which rational people would wish to escape, but rather as a valuable agricultural institution.

This reevaluation of small farms arose in response to concerns about concentration in ownership and control within the food industry, real estate speculation, the decline of some rural communities and the growth of others, plus concerns about the vulnerability of the U.S. food system to economic and/or environmental disruption. Small farms are now viewed by some as being part of the solution to problems facing the United States such as rapid soil erosion, environmental degradation, income disparities, increasing food prices, and economic stagnation. Indeed, many concerned agriculturists in the U.S. consider small farm development a possible means of increasing income and employment in rural areas and improving nutrition in general. While the validity of

all these claims and concerns may be matter of much debate, many institutions, agencies, and individuals in the United States have demonstrated a serious commitment to enhancing the survival and prosperity of small farms.

The increased emphasis on small-farm development in the United States stimulated USAID's interest in systematically providing access to the growing pool of domestic expertise. An inventory of technical assistance resources for limited-resource farmers in the United States was felt to be a potentially useful tool to international development agencies seeking to contact those in the United States with expertise in small-farm development. Combining the technical, scientific, educational, and organizational expertise of small-farm development efforts in the United States into a comprehensive directory will hopefully improve the effectiveness of small-farm activities here and abroad by facilitating communication and fostering the exchange of ideas and experiences.

The Farming Systems Approach to Small Farm Development

Recognizing that the technologies advanced by the "Green Revolution" were not suited to the needs or resource endowments of traditional peasant farmers, field personnel and researchers in developing countries began to seek new approaches to small-farm development. Increased awareness of the decision-making behavior of peasant farmers resulted in the development of a "farming systems" approach (Gilbert et al., 1980; Shaner, 1981). The definition of a farming systems approach to small-farm development varies in the literature and among practitioners. As

defined by Gilbert et al., farming systems research (FSR) has the following characteristics:

- (1) Farming systems research views the farm or production unit and the rural household or consumption unit -- which in the case of small farmers are often synonymous -- in a comprehensive manner. FSR also recognizes the interdependencies and interrelationships between the natural and human environments. The research process devotes explicit attention to the goals of the whole farm/rural household and the constraints on the achievement of these goals.
- (2) Priorities for research reflect the holistic perspective of the whole farm/rural household and the natural and human environments.
- (3) Research on a subsystem can be considered part of the FSR process if the connections with other subsystems are recognized and accounted for.
- (4) Farming systems research is evaluated in terms of individual subsystems and the farming system as a whole.

FSR explicitly recognizes farmer goals and seeks to include community and societal goals. The use of multidisciplinary teams of researchers facilitates the interaction of technical and socioeconomic perspectives, which complements, rather than overrides, the wisdom and experience of farmers and extension workers. Although current FSR activities focus primarily on the range of technical solutions to improving agricultural productivity -- particularly with reference to crops -- increasing attention is given to such nontechnical factors as input and output markets and macro policies. Finally, FSR can complement and strengthen commodity disciplinary research programs by increasing their relevance and effectiveness.

This approach seeks to build upon the strengths of traditional diverse and multiple cropping patterns as survival strategies, which have proven successful over many generations. The practices of peasant farmers have come to be understood as a rational adaption to natural and social constraints, rather than a "backward" aversion to technological change. "Green Revolution" technologies often increase the risks of financial loss, crop failure, and starvation, which survival-oriented peasant farmers are understandably reluctant to assume (Harwood, 1979).

Though increasing yield per acre is an important consideration, it is secondary to maintaining family survival and at least minimal financial security.

In general, there are two categories of farming systems activity: upstream and downstream. Upstream activities are essentially research programs and projects attempting to develop prototype solutions to overcoming the major constraints common to a range of farming systems extending across geographic and climatic zones. Downstream activities address the practical problems of farmers in a specific location.

In the United States, as in developing countries, the focus of small-farm development seems to be gradually shifting away from an exclusive focus on increasing yields. Practitioners and researchers working with small farmers are giving more attention to the farm and household as a producing and consuming unit. Emphasis is being placed on ascertaining family goals and resources (including both farm and non-farm considerations) and on striving to overcome barriers to attainment of those goals.

However, the "farming systems approach" as implemented in some agricultural development projects overseas has not been generally adopted in the U.S. (Rohrbach, 1980). Effective cooperation across disciplinary boundaries and between Extension personnel and researchers is still the exception rather than the rule. Much research in the United States could be considered "upstream" rather than "downstream," since it focuses on scientific problems potentially relevant to a wide range of farmers, rather than being of immediate value to small farms in a specific area or region. There are important exceptions, however, particu-

larly in those projects where the research priorities are generated by the concerns of small-farm operators. Many of these applied research projects and educational or Extension efforts demonstrate approaches and expertise potentially valuable to international small-farms development efforts.

About the Directory

In an attempt to make this a comprehensive inventory of small farms expertise, several sources were examined: land grant and other institutions of higher learning, public agencies of the federal and state governments, and private organizations. The vast majority of persons contacted responded favorably to a request to complete a questionnaire. Each cooperating respondent received one or more blank questionnaires. A copy of the blank questionnaire sent to universities is included in the Appendix. Similar questionnaires were mailed to respondents in various agencies and in selected private organizations. All the questionnaires were completed in late 1980.

Not all the projects or programs that returned a questionnaire have been included in this directory. If a questionnaire was substantively incomplete, not permitting a clear understanding of the relevance to small farms in developing countries, the project was not included in the directory. Projects operating with a very low level of resources, such as one-fourth a person-year, were also excluded. State offices of agencies such as the Soil Conservation Service, Cooperative Extension, and Agricultural Stabilization and Conservation Service which indicated that their programs were "size-neutral" and available to all farms regardless

of size were not included either. This is not to deny that such program efforts may be useful to small-farm families. For purposes of this directory, however, only those projects or programs containing a clearly identifiable small-farm component with possible relevance to less developed countries have been included.

This general criterion was also applied in selecting research projects to include in the directory. Many studies inherently useful in the United States may be of limited value in other cultural-political contexts. Research studies that have only progressed to the stage of identifying characteristics and problems of small farms have also been excluded from this directory. A few research projects reported in the questionnaires seemed more directly applicable to less developed countries; these have been included. Those seeking more information on small-farms research should examine the CRIS (Current Research Information System) printout based on the key word "small farm." In October 1980, more than 200 research projects were identified by this key word.

Other projects have been omitted from this directory because they are no longer in operation or because they are so new that, according to the questionnaire, little or no progress has been made toward their stated objectives.

For each questionnaire approved for inclusion, a directory entry was drafted by the project staff. Those who returned questionnaires prior to November 3, 1980, received a draft entry for review, correction, and approval.

Directory entries are listed alphabetically by state and by sponsoring institution within each state. Readers seeking a specific kind

of expertise (such as farm management, cooperatives, organic farming) or experience with a given kind of small-farm activity (such as paraprofessionals or direct marketing) are encouraged to refer to the alphabetical subject index. Expertise related to a given type of geographic location may be identified by referring to directory entries for states having similar soil and climatic conditions.

No attempt has been made to formally evaluate the projects listed here or to validate the information provided in the questionnaires. The information contained herein is not necessarily guaranteed to accurately indicate the capability of included projects and programs to successfully transfer their technical resources to small, limited-resource farmers in developing countries. Users of this directory are advised to request detailed and current information with which to make their own evaluation of the potential usefulness of the expertise of a specific domestic small-farm project in an overseas development context.

Toward a Possible Second Edition

Because the scope of small-farms development activity in the U.S. is expanding, and because our inventory may have inadvertently overlooked valuable small-farms technical assistance programs, a second edition of this directory is being considered. Those wishing to be included in a possible second edition are invited to complete the questionnaire in the Appendix and send it to the Small Farms Directory Project, National Rural Center, 1828 L St. N.W., Washington, DC 20036.

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Alabama

AUBURN UNIVERSITY
ALABAMA A&M UNIVERSITY
TUSKEGEE INSTITUTE
c/o Auburn University
Alabama Cooperative Extension Service
Auburn, AL 36849
(205)826-5323

PROJECT TITLE: Intensive Educational Program for Limited-Resource Farmers

CONTACT PERSON: Ray Cavender

OBJECTIVES: To improve the operations of small farmers through education and demonstrations on improved production, management, and marketing techniques; to assist farmers in securing financing for such practices.

ACTIVITIES:

Educational: County extension agents assist limited-resource and small farmers, primarily those dependent on farm income, through whole-farm management demonstrations focusing on increasing net farm income. Agents provide instruction on farm management, recordkeeping, and using available institutional resources. Each year about 50 whole-farm demonstrations are conducted to show proper application of recommended management and production practices.

Annually, county agents conduct over 300 enterprise demonstrations to introduce new cash crop and livestock enterprises and/or revitalize existing ones. Leading enterprises are cotton, soybeans, peanuts, hogs, and beef. Educational assistance is provided in the form of individual consultations, group demonstrations, and publications.

Over 500 home food supply demonstrations are conducted each year providing information on home food production and preservation, as well as marketing excess products through local outlets.

Institutional Development: Twelve feeder pig marketing associations have been organized to provide local markets for small farmers as a means of increasing the profitability of feeder pig production.

Public Policy: County Extension Advisory Committees representing participating farmers have been organized.

Publications: A progress report is published annually which combines the results and accomplishments of the inten-

Alabama

sive educational programs for limited-resource families. This report includes the total statewide educational effort directed at limited-resource and small-farm families emanating from Auburn University, Alabama A&M University, and Tuskegee Institute.

FUNDING: Funding is derived from county, state, and federal appropriations.

KEY WORDS: farm management, marketing associations, cotton, soybeans, swine, beef, food preservation, direct marketing, credit, recordkeeping.

AUBURN UNIVERSITY
Department of Fisheries and Allied Aquaculture
Swingle Hall
Auburn, AL 36849
(205)826-4786

PROJECT TITLE: Fish Culture Systems for Small Watershed Ponds

CONTACT PERSON: R. O. Smitherman

OBJECTIVES: To develop fish culture production and marketing systems for small ponds; and to offer a comprehensive, concise study of the principles of aquaculture.

ACTIVITIES:

Educational: Seminars, demonstrations, and farm visits are provided through extension and outreach programs.

Research: Research in warm water fisheries and aquaculture is conducted on all aspects of production and marketing from small ponds.

FUNDING: Annual expenditures of approximately \$500,000 are provided by private foundations, Auburn University, the U.S. Department of Agriculture, and the U.S. Agency for International Development.

FACILITIES: The project research station has classrooms and 88 hectares of ponds.

INTERNATIONAL: This program has access to the facilities and resources of the International Center for Aquaculture, a Fisheries and Allied Aquacultures program within the School of Agriculture.

Alabama

KEY WORDS: aquaculture, international, pond management.

AUBURN UNIVERSITY
International Center for Aquaculture
Auburn, AL 36849
(205)826-4786

PROJECT TITLE: Aquaculture Training Program

CONTACT PERSON: E. W. Shell

OBJECTIVES: To offer an alternative to a degree program in aquaculture; a concise, comprehensive study of the principles of aquaculture and closely related fields; and practical training in aquaculture.

ACTIVITIES:

Educational: Instruction is provided principally to foreign nationals through lectures, laboratory and field work, special projects, and supervised travel to aquaculture-related facilities.

Publications: Publications, many international in focus, range from aquatic ecology to water management. Selected publications are available in Spanish. A "List of Publications, Fisheries and Allied Aquaculture" can be obtained from the Department of Fisheries and Allied Aquacultures at Auburn University.

STAFF: A faculty of 33 participate in the training program.

KEY WORDS: aquaculture, international, water quality, ponds, Spanish.

Alabama

FEDERATION OF SOUTHERN COOPERATIVES
P.O. Box 95
Epes, AL 35460
(205)652-9676

PROJECT TITLE: Rural Training and Research Center

CONTACT PERSON: John Zippert

OBJECTIVES: To increase the awareness and skills of small farmers, increase their participation in farm cooperatives, and improve their living standards and quality of life.

ACTIVITIES:

Educational: Specialists in agriculture, credit union management, animal husbandry, housing construction, and energy conservation plan and organize conferences, demonstrations, meetings, and workshops. The Center also is a member of a consortium that trains farmworkers and small farmers in agricultural skills to enhance their opportunity for self-employment in farming. The training focuses on farm management, feeder pig production, vegetable production, marketing, and land retention.

Institutional Development: Technical and management services are provided to farm cooperatives and local credit unions serving low-income farmers. This includes membership education and outreach support provided by more than 90 VISTA workers.

Research: A research and demonstration project is developing and demonstrating simple and inexpensive techniques and equipment that small farmers can use to save energy. It focuses on wood heating, solar greenhouses, alternative cropping systems, alcohol fuel production, and weatherization.

Public Policy: Small farmers receive assistance in obtaining loans from the Farmers Home Administration and other sources of agricultural credit.

Publications: A monthly bulletin dealing with training, resources, and technical assistance is published. Technical manuals and training and organizing guides are also published.

FUNDING: About \$2 million per year is raised primarily from foundations, churches, state and federal agencies, and individuals.

Alabama

FACILITIES: The Center is located on 1,325 acres near Epes, Alabama. Facilities include administrative offices, a dormitory, a cafeteria-classroom complex, a materials production center, and a demonstration farm.

STAFF: About 80 persons, including 40 professionals, staff the Center's work with more than 100 cooperatives and credit unions.

KEY WORDS: cooperatives, credit unions, swine, vegetable production, greenhouses, alcohol fuels, wood heating, direct marketing, organic farming, small-scale machinery, credit, farm management.

TENNESSEE VALLEY AUTHORITY
Agricultural Resource Development Branch
F122 NFDC
Muscle Shoals, AL 35660
(205)386-2244

PROJECT TITLE: Developing Specialty Crops for the Mountain Region

CONTACT PERSON: Porter L. Russ

OBJECTIVES: To introduce and expand enterprises that have the potential for increasing the income of small farm families in the mountainous regions of eastern Tennessee, northern Georgia, western North Carolina, and southwestern Virginia.

ACTIVITIES:

Educational: As primarily an education project, staff provided individual assistance on enterprise planning and record analysis, crop and livestock production, and marketing. Farm tours were also organized and there were over 467 demonstrations in the four states.

FUNDING: The project is funded through federal and state funds for agricultural extension activities and is conducted cooperatively with the land grant colleges in the four states.

STAFF: TVA staff commit two professional person-year equivalents to the program. Additional staff support is provided by land grant universities in the South.

Alabama

KEY WORDS: marketing, farm management, specialty crops, hill farming.

TENNESSEE VALLEY AUTHORITY
Agricultural Resource Development Branch
F122 NFDC
Muscle Shoals, AL 35660
(205)386-2244

PROJECT TITLE: Resource Management Farms

CONTACT PERSON: Porter L. Russ

OBJECTIVES: To conduct on-farm demonstrations of technological advances in production and management practices to assist limited-resource farmers in fully utilizing their resources to increase on-farm income.

ACTIVITIES:

Educational: One-to-one technical assistance is provided for farm planning, production, management, and marketing. Assistance is also provided for analyzing farm records. Other educational activities include farm tours, conferences, and workshops.

Policy: Staff has prepared materials for Congressional hearings on small farms.

FUNDING: The program is conducted cooperatively with the land grant universities in Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia and is funded through federal and state appropriations for agricultural extension programs.

STAFF: Five professional person-year equivalents are provided by TVA with additional staff support from land grant universities.

KEY WORDS: on-farm demonstrations, recordkeeping, farm management, marketing.

Alabama

TUSKEGEE INSTITUTE
Department of Plant and Soil Science
Tuskegee, AL 36088
(205)727-8435

PROJECT TITLE: Tuskegee Model Small Farm Plan

CONTACT PERSON: Booker T. Whatley

OBJECTIVES: To increase the income of small farmers through improved farm management and production techniques which will provide year-round, full-time employment compatible with the labor, skills, and financial resources of the farm family, with emphasis on crops marketable in or near Alabama and which will yield a minimum of \$3000 per acre per year.

ACTIVITIES:

Educational: Fourteen small farm workshops were conducted around the state. Workshop participants comprise the core clientele for the small farm program. They receive publications, attend technical demonstrations, and visit the model farm as necessary.

Research: Research is conducted on irrigation methods, plant pathology, vegetable and fruit production, beekeeping and processing of related byproducts, and marketing.

FACILITIES: The program is conducted on a 25-acre farm planted in fruits (blackberries, blueberries, Muscadine grapes, and strawberries) and vegetables (turnips, greens, sweet potatoes). There is also a large honeybee component.

STAFF: A multidisciplinary team conducts the program. This team consists of an agricultural engineer, agricultural economist, food scientist, plant pathologist, horticulturalist, beekeeping specialist, and other professionals and paraprofessionals.

FUNDING: Funding is derived from several sources, including the Rockefeller Foundation, the Tennessee Valley Authority, and the U.S. Department of Agriculture. An Auburn University faculty member also serves on the project team.

KEY WORDS: irrigation, vegetable production, fruit production, beekeeping, marketing, farm management, paraprofessionals, multidisciplinary teams.

Alaska

KOYUKON DEVELOPMENT CORP., INC.
P.O. Box 29
Galena, AK 99741
(907)656-1238

PROJECT TITLE: Koyukon Development Corporation Agriculture Project

CONTACT PERSON: Jimmie L. Farmer

OBJECTIVES: To improve physical and mental health of area residents through improved diets; to decrease dependency on high energy input imported foods; to create a population of self-sufficient food producing and gathering people.

ACTIVITIES:

Educational: Over 1000 area residents have received training in gardening skills; equipment operation and maintenance; irrigation; land clearing, preparation and tillage; harvesting; and home preservation and preparation of food.

Research: The project is beginning to undertake research in crop and livestock production.

FUNDING: A variety of local, state, and federal agencies have provided funding for the project including the Department of Labor (Comprehensive Employment and Training Act), the Department of Energy, and the state of Alaska Division of Agriculture.

FACILITIES: Research stations are being developed in Ruby and Galena.

STAFF: A small staff of one full-time professional, one full-time paraprofessional, and an additional staff person manage the project.

INTERNATIONAL: The project grew out of an expression of need on the part of area residents and provides a model for helping limited-resource families develop and implement plans for increasing family income, improving diets, and stimulating the local economy.

KEY WORDS: gardening, food preservation, irrigation, self-sufficiency, nutrition, paraprofessionals.

Alaska

KUSKOKWIM NATIVE ASSN.

Box 106

Aniak, AK 99557

(907)675-4384

PROJECT TITLE: Aniak Farm -- Experimental and Demonstration Village Garden

CONTACT PERSON: Lowell Lambert

OBJECTIVES: To develop agricultural enterprises which are appropriate for available agricultural lands and which create a market for surplus labor.

ACTIVITIES:

Educational: A monthly newsletter is published on home food production and processing. Demonstrations, slide shows, and presentations are given in area schools and home visits are made as needed. On the Aniak Field Day, gardeners are flown to the demonstration farm to observe crop production practices and home food processing techniques. A full-time agricultural technician keeps village gardeners informed of findings of the experimental farm.

Research: Research is conducted on determining what kinds and varieties of crops are best suited for home and commercial production. Different techniques for cultivation, planting, harvesting, and weed and pest management are also tried. Experimentation is also conducted on the use of low-cost solar greenhouses for food production.

Policy: Staff attends state agriculture meetings and maintain correspondence with state legislators.

Other: Garden seeds, fertilizers, sprays, transplants, and equipment are furnished to village gardeners.

FUNDING: Funding for this project is received from the Bureau of Indian Affairs, Department of Energy, and the Alaska State Legislature. Technical assistance is also provided by the University of Alaska, Fairbanks, and the Agricultural Experiment Station in Palmer, Alaska.

FACILITIES: The project is situated on a 160-acre farm. Twenty-eight acres have been cleared and currently produce 14 vegetable crops, test grains, and forage crops. Two solar greenhouses and a greenhouse made of native materials have been built.

Alaska

STAFF: One full-time professional and two full-time paraprofessionals conduct the project with assistance from four other office staff.

INTERNATIONAL: The project represents a model of how research and extension activities can be coordinated at the farm level to best respond to the needs of actual food producers.

KEY WORDS: gardening, food processing, greenhouses, paraprofessionals.

RURAL VENTURE, INC.
6750 France Avenue, South
Minneapolis, MN 55435
(612)484-2230

PROJECT TITLE: The Selawik Agriculture Project

CONTACT PERSON: Grant Ballott

OBJECTIVES: To improve the economic base of the city of Selawik, Alaska through agricultural development based on training the indigenous population in tundra farming techniques and comprehensive rural development strategies.

ACTIVITIES:

Educational: Assistance is being provided in community planning and management and farm planning and management. Where appropriate, computer-based crop and livestock curriculum is supplementing traditional instruction methods.

FUNDING: To date, project capital expenditures and operating costs have come primarily from the state of Alaska in the form of special legislative monies granted to the city of Selawik.

FACILITIES: A farm site is being prepared near Selawik.

STAFF: The project staff consists of two professional, one paraprofessional, and two part-time support staff.

INTERNATIONAL: This project represents a comprehensive approach to increase employment; reduce costs and increase access to education and training; and to improve health

Alaska

care, housing, communications, environmental protection, transportation, and community planning in a remote, limited-resource community.

KEY WORDS:

tundra farming, community planning, computer courseware, paraprofessionals.

Arkansas

OZARK INSTITUTE
P.O. Box 549
Eureka Springs, AR 72632
(502)253-7384

PROJECT TITLE: Family Farm Development Service

CONTACT PERSON: Eca Jeffords

OBJECTIVES: To demonstrate that low-income farmers and rural residents trained as paraprofessionals can provide technical assistance, disseminate agricultural information, and deliver other income-enhancing services to small-farm families.

ACTIVITIES:

Educational: Low-income farmers and rural residents are given four months of farm management and other training before being assigned to work as paraprofessionals in one of 25 selected counties. The Institute staff also conducts workshops for small farmers on a wide range of farm-related topics.

Research: A survey of six northwest Arkansas counties assessed public attitudes toward small farms and identified public policies that affect them.

Institutional Development: Training and information services are provided to cooperating community-based organizations.

Publications: The Family Farm Advisor, a tabloid newspaper, is published periodically. Special publications include "Uncertain Harvest: The Family Farm in Arkansas," an anthology presenting a broad picture of problems facing farmers and rural communities.

FUNDING: The farm development service is funded by ACTION, the Community Services Administration, and the Arkansas Department of Economic Development. The funding level is approximately \$500,000 per year.

FACILITIES: The project uses Institute facilities in Eureka Springs. These include a large training classroom, library, and a rural resource center.

STAFF: A total of 51 persons, including 35 paraprofessionals, are involved in the project.

KEY WORDS: paraprofessionals, farm management.

Arkansas

WINROCK INTERNATIONAL LIVESTOCK RESEARCH & TRAINING CENTER
Petit Jean Mountain
Morrilton, AR 72110
(501)727-5435

CONTACT PERSON: Ned S. Raun or Edward L. Williams

OBJECTIVES: To advance animal agriculture and its role in the world food system for the purposes of increasing food availability and providing employment and income generation opportunities.

ACTIVITIES:

Educational: Teams of specialists in plant, animal, and social sciences provide technical assistance in various aspects of animal agriculture to host country organizations in the United States and around the world (Africa, Asia, Latin America, and the Caribbean). These teams identify and develop production agriculture systems which emphasize cooperative methodologies and which use all natural resources, especially those not dedicated to other food production efforts. Primarily working with family farmers and farm assistance organizations, projects in the United States have included the development of a swine cooperative, a dairy goat breeding stock cooperative, and other beef, sheep, and goat production efforts.

Winrock International provides residential training in various aspects of animal agriculture for up to 14 students as requested. Conferences, seminars, and workshops are also arranged. In 1980, 34 such workshops involving 1200 participants were conducted.

Institutional Development: Project staff routinely work with host organizations to enhance their research and training capabilities as part of an overall development strategy.

Research: Current activities include range/livestock research in Kenya, small ruminant research in India, Kenya, and Latin America, and research in the United States on the nutritional needs and general herd health of dairy goats.

Other: Winrock International develops communications and educational training materials ranging from video tape training packages and film documentaries to applications of the computer as a teaching tool.

FUNDING: Funding is derived from a combination of sources including individual contributions and contracts and grants from government and private organizations.

Arkansas

FACILITIES: Facilities include an office complex, a conference center with short-term lodging available for up to 30 people, dormitory facilities for 14 trainees, and the Petit Jean Goat Dairy.

STAFF: About 75 persons, including 25 program staff are employed, five reside in Kenya.

INTERNATIONAL: Winrock's international and domestic experience make this a unique technical assistance organization.

KEY WORDS: swine, goats, beef, cooperatives, public policy, training materials, forage, Kenya, India, Africa, Asia, Latin America, Caribbean, multidisciplinary teams, international, computer courseware, range management.

California

CENTER FOR SUSTAINABLE AGRICULTURE
9585 Rio Vista
Forestville, CA 95436
(707)887-7732

CONTACT PERSON: David Katz

OBJECTIVES: To create working models of sustainable agricultural systems and develop small-scale technology that will make farming economically feasible on small acreages.

ACTIVITIES:

Educational: Small farmers are provided with technical assistance in developing systems of intensive vegetable and specialty crop production. They receive assistance in controlling weeds, improving soil fertility, managing pests, and developing markets.

Research: The Center is experimenting with labor-intensive, semi-mechanized production of high-value crops and nonchemical food production techniques. It also participated in a survey of small-scale machinery and is developing an ecologically sound food production system for the Marin (California) Solar Village, a planned community.

Public Policy: Technical assistance is provided to groups seeking alternatives to conversion of farmland to nonagricultural uses.

FUNDING: This two-year-old, nonprofit institution is supported by consulting fees, contracts for services, foundation grants, and publication sales.

FACILITIES: Research is carried out at several public and private sites. Facilities are available for project use at the Farallones Institute Rural Center at Occidental, California.

STAFF: Two full-time and one part-time person provide staffing for the Center. An advisory council, which includes farmer members, assists in project development.

KEY WORDS: farm management, small-scale machinery, pest management, organic farming, weed control, soil management.

California

ECOLOGY ACTION OF THE MID-PENINSULA
2225 El Camino Real
Palo Alto, CA 94306
(415)328-6752

CONTACT PERSON: John Jeavons

OBJECTIVES: To demonstrate and evaluate the biodynamic/French Intensive method of producing vegetables and other crops with minimum inputs of ground space, water, and fertilizer.

ACTIVITIES:

Educational: Ecology Action offers a five-week course on the biodynamic/French Intensive method for gardeners. It also offers classes on topics ranging from food drying and canning to raising chickens and goats.

Research: Research has been conducted since 1972 on garden plots in Palo Alto, California. These tests have compared vegetable production from biodynamic/French Intensive methods with output from conventional production methods.

Publications: "How to Grow More Vegetables Than You Ever Thought Possible on Less Than You Can Imagine," a primer describing Ecology Action's experience with the Biodynamic/French Intensive method, was published in 1974 and has been updated and revised. It is available in Spanish, and translation into other languages is under way. A self-teaching series also is being published. Topics range from "Bio-Intensive Mini-Farming: A Rational Use of Natural Resources" to "Cucumber Bonanza."

FUNDING: Funds for a \$100,000 annual budget are raised from publication sales, foundation and corporate grants, memberships, and donations.

FACILITIES: Ecology Action lost its lease on its research area and is relocating. It maintains a library and operates Common Ground Garden Supply, an organic gardening supply store.

STAFF: Four persons provide staffing for Ecology Action and operate Common Ground Garden Supply.

KEY WORDS: biodynamic, French Intensive, organic gardening, vegetable production, composting, food drying, Spanish.

California

FARALLONES INSTITUTE RURAL CENTER
15290 Coleman Valley Road
Occidental, CA 95465
(707)874-3060

CONTACT PERSON: Christopher Szecsey

OBJECTIVES: To develop, test, and demonstrate ecologically sound, community-based technologies with special focus on the integration of locally-controlled technologies that promote self-reliance.

ACTIVITIES:

Educational: Programs include classes and seminars, weekend workshops, and residential skills training. Workshop subjects range from tree crop grafting and blacksmithing to flower marketing and biointensive horticulture. Technical assistance is provided to individuals, community groups, and government agencies on a fee or contract basis.

Research: The Institute is developing, testing, and evaluating solar water heaters, solar ovens and agricultural dryers, pedal-powered devices, water and waste recovery systems, biogas digesters, and earthen fuel-conserving stoves. It also is demonstrating French Intensive food production methods.

Publications: Technical publications documenting the Center's work are produced. A training module in appropriate technology extension has been produced for the Peace Corps.

FUNDING: This nonprofit institution is supported primarily by grants and contracts, education program fees, sale of publications, cottage industries, and memberships and donations.

FACILITIES: The Center owns and operates an 80-acre ranch near Occidental, California. Facilities include solar-heated cottages, solar greenhouses, organic gardens and orchards, classrooms and studios, and a library.

STAFF: Ten full-time professionals are in residence.

INTERNATIONAL: The Center provides consulting services in community-based technologies, appropriate technology policy development and assessment, and small-scale agricultural systems. Its client list includes Volunteers in Technical Assistance, U.S. Agency for International Development, the Peace Corps, and CHP International, Inc.

California

KEY WORDS: appropriate technology, organic farming, recycling, solar water heaters, composting toilets, solar ovens, earthen stoves, tree crops, biogas, pedal power, French Intensive, international.

HARTNELL COMMUNITY COLLEGE
Department of Agriculture
156 Homestead Avenue
Salinas, CA 93901
(408)758-8211, ext. 269

PROJECT TITLE: Small Farm Resource Center

CONTACT PERSON: Roy Ekland

OBJECTIVES: To serve the agricultural community of Monterey, Santa Cruz, and San Benito Counties, by providing information and instruction especially designed to address the problems of production, marketing, and finance that confront the small producer.

ACTIVITIES:

Educational: The Center offers three types of services: short courses, covering production practices, equipment maintenance, and administration; written materials in both Spanish and English addressing specific problems of the small farmer; and radio and television news and information programs on topics of special interest to small farmers of the central coast region.

Institutional Development: Center staff work with three small-farmer production cooperatives. They also coordinate activities with approximately ten local and county agencies/organizations.

Public Policy: As a member of the California Small Farmer Information Access Council, the Center participates in policy development seminars and conferences.

Publications: A variety of publications relevant to small-scale agriculture are available in English and Spanish.

Other: Direct services in computerized accounting and management techniques are also provided.

FACILITIES: Program participants have access to the facilities and services of Hartnell College. Of special inter-

California

est is a computer-based research and indexing system that provides a list of the most current literature available on a wide range of agricultural topics. The Center also operates a two-acre demonstration field.

- STAFF:** Program staff include three professionals and one supporting staff member.
- FUNDING:** With annual expenditures of approximately \$130,000, the Center is funded through federal and state employment and training programs.
- KEY WORDS:** cooperatives, farm management, machinery maintenance, radio education programs, Spanish, strawberries, insect and weed control, drip irrigation, soil management, small livestock, public policy.

INTERNATIONAL TREE CROPS INSTITUTE U.S.A., INC.
P.O. Box 888
Winters, CA 95694
(916)795-2440

- CONTACT PERSON:** Miles L. Merwin
- OBJECTIVES:** To promote scientific development and implementation of agroforestry.
- ACTIVITIES:**
- Educational:** ITCIUSA has helped organize several regional tree crop conferences. It has produced a slide show on California windbreak trees. It plans a series of international agroforestry study tours in 1981. Staff members also provide technical assistance to farmers and landowners.
 - Research:** The Institute's California research focuses on multiple purpose windbreaks for erosion control and food, feed, fuel, and timber production. The work in the Southeast emphasizes propagation, cultivation, and harvesting of native tree crops. Seeds and scions are distributed to research cooperators throughout the region for testing of adaptability and yield.
 - Publications:** A quarterly scientific journal, Agroforestry Review, is published. The Institute is the North American

California

publisher of Permaculture One and Permaculture Two. It also contributes to International Tree Crops Journal, which is published in England.

- FUNDING:** This nonprofit institution is supported by government grants, sales of publications and nursery stock, and contributions.
- FACILITIES:** The Institute operates research and commercial nurseries at Winters, California and Gravel Switch, Kentucky.
- STAFF:** Seven persons, including four paraprofessionals, staff the Institute.
- INTERNATIONAL:** ITCIUSA is an affiliate of the International Tree Crops Institute, founded in 1977 in Braintree, England.
- KEY WORDS:** tree crops, erosion control, windbreaks, forestry.

NATIONAL LAND FOR PEOPLE
2348 North Cornelia
Fresno, CA 93711
(209)233-4727

CONTACT PERSON: George Ballis

OBJECTIVES: To develop and demonstrate farm production methods that require less capital and energy, alternative farm marketing approaches, and increased food self-sufficiency for both farmers and consumers.

ACTIVITIES:

Educational: This seven-year-old institution sponsors farm apprenticeships. It also arranges field trips to sites where composting, intercropping, cover cropping, and other production techniques are demonstrated.

Institutional Development: Small farmers have been organized into an association that publishes an annual map showing locations of producers selling direct to consumers. NLP also has organized an association that operates a farmers market and a bulk sales cooperative that markets directly to wholesalers.

California

- Research: Solar greenhouse, dryer, and air collector systems are demonstrated and monitored. Preliminary work is under way on edible landscapes for arid areas.
- Public Policy: A public education effort emphasizes the need for small farmer access to land supplied with water from federal irrigation projects.
- Publications: The magazine Food-Land-People is published.
- FUNDING: Funding for a \$220,000 annual budget is provided by grants, donations, memberships, publication sales, and sale or rental of films.
- FACILITIES: NLP's facilities at Fresno include a farm, an energy field station, and a library.
- STAFF: Six professionals provide staffing. A board of eight full-time farmers helps set policy and design projects.
- KEY WORDS: organic farming, composting, intercropping, no-till farming, greenhouses, solar dryers, solar space heaters, cooperatives, direct marketing, farmers' markets, apprenticeship programs, self-sufficiency.

ORGANIC AGRICULTURE RESEARCH INSTITUTE
P.O. Box 451
Graton, CA 95444
(707)823-5106

- CONTACT PERSON: Kate Burroughs
- OBJECTIVES: To promote the production of food and fiber with organic methods.
- ACTIVITIES:
- Educational: Workshops on nonchemical weed control and pest management have been held. An organic agriculture conference is being organized.
- Research: Organic farmers in California are being surveyed on research needs and priorities. An earlier survey identified nonchemical weed control practices. Organic agriculture experiments are carried out with cooperating farmers. The use of goats to control weeds is being demonstrated.

California

Publications: Institute publications include "An Annotated Bibliography of Non-chemical Weed Management" and "A Survey of Weed Problems and Management Technologies in Organic Agriculture."

FUNDING: Donations, small grants, and publication sales provide financial support.

FACILITIES: Cooperating farmers provide land for research projects.

STAFF: The Institute is staffed by four part-time persons.

KEY WORDS: organic farming, pest management, weed control, goats.

UNIVERSITY OF CALIFORNIA -- DAVIS
Cooperative Extension Service
Small Farmer Information Access Council
157 AOB 4
Davis, CA 95616
(916)752-3006

PROJECT TITLE: Small Farm Information Access System

CONTACT PERSON: L. Clair Christensen

OBJECTIVES: To provide better information to small farmers through a more effective delivery system; to increase the institutional capacity of council members, organizations, and other similar California institutions to serve small farmers with timely and relevant information, and to develop a model for the establishment and implementation of an open access information system for small farmers.

ACTIVITIES:

Educational: A Central Information Center (CIS) selects, gathers, and stores information pertinent to small farms. Operated from the University of California at Davis, the CIS supplies information to the small farm support system through Council member agencies.

Institutional Development: The Council seeks to enhance the institutional capacity of member agencies as well as assist in the creation/growth of farmer cooperatives.

California

- Research:** Research efforts are focused on farm management and production methods for speciality crops. Present emphasis is on adapting completed research to the smaller farm unit.
- Public Policy:** These activities include member participation in and Council sponsoring of conferences and seminars.
- Other:** Two prototype Small Farm Resource Centers at Hartnell College in Salinas and Kings River College in Reedley coordinate and improve existing educational and information services to farmers at the local level.
- FUNDING:** Funding is derived from member organizations and contributions and grants from the California Comprehensive Employment and Training Act. Total grants for the first two years are \$1.2 million.
- FACILITIES:** These include the CIS at the Davis campus and the two other resource centers mentioned above.
- INTERNATIONAL:** The Center has a demonstrated Spanish capability.
- KEY WORDS:** marketing, cooperatives, Spanish, information systems, farm management.

UNIVERSITY OF CALIFORNIA -- SANTA CRUZ
University Farm
Environmental Studies
Santa Cruz, CA 95064
(408)429-2400

- PROJECT TITLE:** Courses in Small-Scale Agriculture
- CONTACT PERSON:** Ray Dasmann
- OBJECTIVES:** To teach and demonstrate the values of organic farming, small-scale horticulture and related activities.
- ACTIVITIES:**
- Educational:** The educational program includes courses in small-scale agriculture, apprenticeship and intern programs, and occasional publications.
- Research:** Research primarily emphasizes the development of biological techniques to improve and sustain production.

California

- Institutional Development:** Staff works with local groups in the formation of cooperatives, community gardens, and nonprofit organizations.
- FUNDING:** About 75 percent of the program's income is derived from the University. The other 25 percent is obtained through private donations.
- FACILITIES:** The program has access to the resources of the University as well as its own demonstration farm and garden.
- STAFF:** Program staff include one paraprofessional, two paraprofessionals, and 20 volunteers.
- INTERNATIONAL:** Virtually all aspects of the program emphasize increased production using low-energy methods. The labor-intensive, nonmechanized approach may be particularly relevant to situations in developing nations.
- KEY WORDS:** biological farming, apprenticeship programs, community gardens, cooperatives, low-energy farming, organic farming.

Colorado

COLORADO STATE UNIVERSITY
Extension Development Office
P.O. Box 687
Cortez, CO
(303)565-8417

PROJECT TITLE: Four Corners Rabbit Producers Cooperative

CONTACT PERSON: John Gray

OBJECTIVES: To improve the diets and income of small farmers through the production, processing, and marketing of rabbit meat and by-products and through production and sale of breeding stock.

ACTIVITIES:

Educational: Monthly newsletters are published and periodic seminars are conducted to provide producers with up-to-date information on rabbit production -- feeding, housing, reproduction, equipment and management options, and financial management. The coop also runs a cooperative demonstration rabbitry.

Institutional Development: The association has developed cooperative marketing strategies for producers, including farmers' markets every Saturday from July through October.

Research: Research on production and marketing is conducted under the auspices of the Department of Animal Science, Colorado State University, Ft. Collins.

FUNDING: The project is financed through loans, membership fees, and research grants.

STAFF: The cooperative is run by five full-time professional staff and member volunteers.

INTERNATIONAL: Rabbit production has considerable potential for improving the income and diets of small-farm families. The technical and marketing experiences of the coops could be useful in the development of rabbit production projects.

KEY WORDS: rabbits, cooperatives.

Colorado

COLORADO STATE UNIVERSITY
Cooperative Extension Service
San Luis Valley Area
Highway 285 South
La Jara, CO 81140
(303)274-5200

PROJECT TITLE: San Luis Valley Small Farms Project

CONTACT PERSON: Gene D. Williams

OBJECTIVES: To upgrade management skills and teach basic farm accounting to small farmers.

ACTIVITIES:

Educational: Monthly home visits are made to 30 small-farm families. Each family is assisted in establishing and keeping a simplified farm record system.

Institutional Development: Project staff are in the process of forming and financing a development corporation to work on various needs of area farmers.

FUNDING: A \$30,000 grant for three years was provided by the U.S. Department of Agriculture to implement this project.

STAFF: Staff consists of one full-time paraprofessional with back-up support provided on a part-time basis by professional staff.

KEY WORDS: recordkeeping, farm management, paraprofessionals.

DOMESTIC TECHNOLOGY INSTITUTE
P.O. Box 2043
Evergreen, CO 80439
(303)674-1597

CONTACT PERSON: Malcolm Lilywhite

OBJECTIVES: To demonstrate how individuals, businesses, and communities can utilize alternative technology to develop the local economy and become more self-sufficient.

Colorado

ACTIVITIES:

Educational: The Institute offers training programs that emphasize "hands-on" experiential learning. Programs range from designing, building, operating, and maintaining simple passive solar systems to designing and building integrated ethanol fuel processing systems and anaerobic digestion systems. It also offers consulting services in staff training, survey and assessment, program development, technical adaptation and design, and custom-designed passive solar buildings.

Research: A generic design for small-scale alcohol fuel plants has been developed.

Publications: Blueprints designed for do-it-yourselfers are available for use in constructing solar greenhouses, solar forced air heating systems, solar domestic hot water systems, and solar food dryers. Nineteen slide shows dealing with renewable energy technologies also are available.

FUNDING: Funding comes primarily from government contracts, consulting fees, and publication sales.

FACILITIES: A demonstration site is located in Evergreen, Colorado.

STAFF: A small staff carries out the Institute's program.

INTERNATIONAL: The Institute has conducted renewable energy technology workshops in 12 foreign countries. A report on an African village's energy project funded by the Agency for International Development is available.

KEY WORDS: greenhouses, solar dryers, solar water heaters, solar space heaters, methane digesters, alcohol fuels, international, Africa.

Connecticut

UNIVERSITY OF CONNECTICUT
Cooperative Extension Service
Storrs, CT 06268
(203)486-4126

PROJECT TITLE: Program for Small and Part-Time Farmers

CONTACT PERSON: Ronald F. Aronson

OBJECTIVES: To promote small farm efficiency and financial soundness through increased production; to promote small farm activities which are in harmony with the environment.

ACTIVITIES:

Educational: The Connecticut Cooperative Extension Service provides technical assistance through a variety of programs concerned with small farms, land use, and community resource development. These programs include seminars on subjects of general interest to small farmers such as goat and swine production, butchering, and greenhouse construction and use. Technical assistance in woodlot management and marketing is also provided. In cooperation with the New England Small Farmer Project, the Cooperative Extension Service will field one paraprofessional to provide on-farm technical assistance to 30 families in various aspects of farm management including recordkeeping and budgeting.

Institutional Development: An association of small woodlot owners has been organized. Also, an Extension Master Gardeners Program has been developed which provides training in gardening techniques. The trained Master Gardeners then volunteer to answer gardening questions for the Extension Service.

Publications: A monthly educational newsletter for farmers is published; plus, staff also write regularly in area newspapers.

FUNDING: Funds for the woodlot management program are provided by the U.S. Department of Agriculture. Other programs are funded through regular Extension Service allocations. The farm management paraprofessional is funded by area churches.

STAFF: Program staff include eight professionals and one paraprofessional.

KEY WORDS: farm management, gardening, woodlot management, recordkeeping, small livestock, fruit production, vegetable production, greenhouses.

Delaware

UNIVERSITY OF DELAWARE
Department of Agricultural Engineering
Newark, DE 19711
(302)738-2468

PROJECT TITLE: Trickle Irrigation: Vegetable Crops Demonstration

CONTACT PERSON: Robert P. Eastburn

OBJECTIVES: To provide access to appropriate water systems for vegetable crops; to demonstrate the use of automated trickle irrigation on small plots; and to provide small farmers with access to vegetable crop management procedures.

ACTIVITIES:

Educational: A demonstration site was established during the growing season. Workshops and tours were organized to provide information on the use and benefits of the system. In addition, the prototype vegetable plot and irrigation system were available for informal visits by small-scale farmers on a drop-in basis. The demonstration site will be reestablished in subsequent growing seasons.

Research: Research has been conducted on trickle irrigation systems and appropriate water use measurements, crop systems, and fertilization.

FUNDING: University research funds, under the Hatch Act, were used to develop the system.

STAFF: One university professional and one student implemented the demonstration.

INTERNATIONAL: A similar program in the Republic of Panama is being developed.

KEY WORDS: irrigation, drip irrigation, fertilization, vegetable production, international, Panama.

District of Columbia

INTERNATIONAL SCIENCE & TECHNOLOGY INSTITUTE, INC.
2033 M Street, N.W., Suite 300
Washington, DC 20036
(202)466-7290

PROJECT TITLE: Sustainable Small Farming Systems

CONTACT PERSON: B. K. Wesley Copeland

OBJECTIVES: To develop low-cost, efficient, small-scale farm implements for use by limited-resource farmers in the United States and in developing countries.

ACTIVITIES:

Research: This three-year project is developing and testing low-cost, small-scale farm equipment. The work is expected to lead to commercialization. Research on sustained farming systems also is carried out.

FUNDING: This project is funded by the National Science Foundation.

FACILITIES: A 15-acre demonstration farm in Massachusetts is used for farm implement testing.

STAFF: A small staff is assigned to the project.

INTERNATIONAL: The Institute also is conducting a small-scale water and sanitation project for the Agency for International Development.

KEY WORDS: appropriate technology, small-scale machinery, farm management, international, water quality improvement.

LEAGUE FOR INTERNATIONAL FOOD EDUCATION
1126 Sixteenth Street, N.W.
Washington, DC 20036
(202)331-1658

CONTACT PERSON: Carol I. Waslien

OBJECTIVES: To provide technical assistance and information on food technology and nutrition to institutions and organizations working on food problems in developing countries.

District of Columbia

ACTIVITIES:

Educational: Information on nutrition and food problems is provided through correspondence or on-site visits by members of nine professional societies that make up the League consortium. Technical support services are provided to private voluntary organizations, including the Peace Corps, and to host country institutions and organizations.

Research: A methodology for assessing on-farm food storage losses in developing countries has been developed. Surveys and studies designed to further national food and nutrition policies are carried out.

Publications: A newsletter published monthly contains current technical information on food and nutrition, case histories of private voluntary organization programs, announcements of conferences and training sessions, and reviews of books and other publications.

FUNDING: Activities are funded by government contracts, grants, and contributions from corporations and individuals.

STAFF: A small Washington-based staff coordinates and directs the work carried out by consortium society members.

INTERNATIONAL: Members of consortium societies have been providing services to organizations and institutions in developing countries since 1968.

KEY WORDS: nutrition, food storage, international.

Florida

FLORIDA A&M UNIVERSITY
Department of Animal Science
Tallahassee, FL 32307
(904)599-3499

PROJECT TITLE: Production, Livegrading, and Marketing Beef Cattle
for a Cow-Calf Operation in North Florida

CONTACT PERSON: W. L. Bate

OBJECTIVES: To compare live and carcass grades of beef cattle at
different stages of production, to evaluate profita-
bility of beef cattle relevant to stages of growth
and conditions of finish; to determine the optimum
number of animals for economic production for small
farmers.

ACTIVITIES:

Educational: On-campus demonstrations are provided to students and
limited numbers of local farmers.

Research: Research is conducted on a variety of aspects of beef
cattle production, including range management and
rotation, small grain production, pasture improve-
ment, and market potential.

FUNDING: The Florida A&M University Foundation provides about
\$10,000 per year; approximately \$45,000 is provided
through the U.S. Department of Agriculture -- Science
and Education Administration -- Cooperative Research.

FACILITIES: Research is conducted within the university labora-
tory and on a small demonstration farm.

KEY WORDS: beef, small grain production, pasture management,
marketing, range management.

FLORIDA A&M UNIVERSITY
School of Architecture
P.O. Box 597
Tallahassee, FL 32307
(904)599-3080

PROJECT TITLE: Experimental Low-Cost Construction Unit Graduate Pro-
gram in Architecture

CONTACT PERSON: Alan R. Wolfe or Larry Birch

Florida

OBJECTIVES: To educate architects to seek solutions to the farm building and housing needs of persons or groups, both domestic and foreign, limited in economic, material, and technical resources.

ACTIVITIES:

Educational: In addition to graduate studies, a program instructing persons on residential energy use evaluation was conducted, and methods of dealing with energy disfunctions were introduced.

Research: Several low-cost building systems using primarily waste materials have been designed; in addition, a range of low-cost, easily constructed, rural residential energy-saving equipment has been developed. This includes rain water collection and distribution systems, a solar water preheater, a thermal recycler, and a low-cost dry toilet for rural use.

FUNDING: The School of Architecture pays for the salaries and expenses of the graduate program. Additional funds are attracted through research and contractual services.

FACILITIES: This unit at the School of Architecture has a fully equipped experimental laboratory used for full-scale construction and testing of experimental low-cost building systems.

STAFF: Staff for the program includes two full-time professors, with secretarial support as well as graduate students as research assistants.

INTERNATIONAL: The flexible and experimental nature of this program enables it to respond to both general and specific housing concerns, as well as instructional or training formats. Two graduate students and an instructor are currently participating in a rural development project in East Africa.

KEY WORDS: farm buildings, rain water collection, composting toilets, solar water heaters, appropriate technology, international, Africa.

Florida

UNIVERSITY OF FLORIDA
Institute of Food and Agricultural Science
Gainesville, FL 32611
(904)392-1916

PROJECT TITLE: Small Farm Swine Program

CONTACT PERSON: K. L. Durrance

OBJECTIVES: To increase small farm swine production through decreased disease and parasites, improved breeding stock, improved housing conditions, and improved nutrition practices.

ACTIVITIES:

Educational: A Swine Thrust program has been implemented to reach approximately 2500 small producers in 15 north and northwestern counties of Florida. The educational program consists of county meetings, farm and home visits, and newsletters. Farm herds are tested for parasites, and test results are provided to the farmers along with recommendations.

Research: In 1979, a feeder pig parasite survey of small farm swine herds was conducted.

FUNDING: Funding has been provided by the Center for Rural Development, University of Florida, and with regular funds from the Florida Cooperative Extension Service.

STAFF: Project staff consists of one full-time professional, the equivalent of one full-time paraprofessional, and part-time supporting assistance.

KEY WORDS: swine, paraprofessionals, housing.

Georgia

EMERGENCY LAND FUND, INC.
564 Lee Street, S.W.
Atlanta, GA 30310
(404)758-5506

PROJECT TITLE: Small Farmers and Farmworkers Skill Upgrading and
Income Development Program

CONTACT PERSON: Joseph Adams

OBJECTIVES: To provide agriculture-related training to small
farmers and farmworkers to help them increase income
and land ownership.

ACTIVITIES:

Educational: Training is conducted by staff members and consul-
tants in the classroom and on the farm. The program
emphasizes family gardening, nutrition education,
market identification and development, and farm man-
agement. More than 250 small farmers and farmworkers
have been trained.

Institutional Development: Farmers' markets have been organized for the sale
of fresh produce.

Public Policy: Small farmers and farmworkers receive legal and
financial assistance needed to retain their land.

FUNDING: The two-year-old project is funded by the Department
of Labor at a level of about \$500,000 a year.

STAFF: Fifteen persons, including 10 professionals, staff
the project.

KEY WORDS: farmers' markets, nutrition, farm management, garden-
ing.

GEORGIA COOPERATIVE EXTENSION SERVICE
GEORGIA DEPARTMENT OF AGRICULTURE
Agriculture Building, Capitol Square
Atlanta, GA 30334
(404)656-3600

PROJECT TITLE: Georgia Direct Marketing Demonstration

CONTACT PERSON: Thomas T. Irvin

Georgia

OBJECTIVES: To assist local organizations and communities develop direct marketing facilities; to bring together limited-resource producers and low-income consumers in an inner-city market; to develop a prototype marketing demonstration based on the needs of the local population.

ACTIVITIES:

Institutional Development: Project personnel work with elected community officials, vegetable producers and consumer groups to plan and develop a direct marketing facility.

Other: Low-income consumer groups were given additional assistance in buying, preparing, and preserving produce available at the farmers' market.

FUNDING: Funding is provided by the Georgia Cooperative Extension Service and the Georgia Department of Agriculture, with total annual expenditures of approximately \$37,000.

STAFF: Seven professionals participated in the development of the farmers' market.

KEY WORDS: direct marketing, farmers' markets, food preservation.

UNIVERSITY OF GEORGIA
Cooperative Extension Service
Athens, GA 30602
(404)542-2632

PROJECT TITLE: Georgia Extension Small Farm Program

CONTACT PERSON: Ronald Atkinson

OBJECTIVES: To extend the assistance of Extension's education programs to small and limited-resource farmers not reached by present methods; to demonstrate the effectiveness of paraprofessionals working with limited-resource farmers, to raise farm income and the socioeconomic position of limited-resource farmers, and to increase the availability of services to small farmers.

Georgia

ACTIVITIES:

Educational: Educational services are provided by local extension assistants (paraprofessionals) in all areas of farm management and production. Specific attention has been given to the production of corn, soybeans, tobacco, and peanuts. Additional efforts have been developed in direct marketing and mini farmers' markets. Farm management skills, including farm record-keeping, soil testing, objective-setting, and upgrading farm facilities have also been stressed.

FUNDING: Funding is derived from several sources, including state funds, the Tennessee Valley Authority, and the U.S. Department of Agriculture -- Science and Education Administration Small Part-Time Farm and Home Garden Project funds.

STAFF: Staff include full-time equivalents of more than 13 paraprofessionals and one and a half professionals.

KEY WORDS: soybeans, corn, tobacco, peanuts, soil testing, recordkeeping, farm buildings, farm management, paraprofessionals, direct marketing, farmers' markets.

Hawaii

KOKOKAHI CHURCH
45-741 Ko Street
Kaneohe, HI 96744
(808)247-1349 or 247-5061

PROJECT TITLE: Kokokahi Hunger Mission Model

CONTACT PERSON: Dennis Alger or Olin Pendleton

OBJECTIVES: To demonstrate the use of tropical vegetables, aquaculture, renewable energy systems, and appropriate technology to meet the nutritional needs and enhance the self-reliance and wellbeing of small-farm families and other groups of people in the rural tropics.

ACTIVITIES:

Educational: The model farm is used to demonstrate organic methods of producing highly nutritious perennial tropical plants. Aquaculture and production of some annual plants are also demonstrated. The Mission provides special education classes for public school students and university classes; work tours for farm and social service agencies; work group experiences; and work study opportunities for college students. Volunteers are also welcomed for training.

Research: Project staff is investigating various species of plants and aquatic life to develop food production systems based on natural systems and which enhance soil productivity. Research is also conducted on the nutritional quality of food produced at the farm, including the development of recipes emphasizing balanced nutrition coupled with cultural tastes and practices.

Publications: A newsletter, Maka'alamihi, is published periodically.

FUNDING: Income is mainly from personal donations to the Kokokahi Church. Some interdenominational grants have been received for use as stipends for volunteers.

FACILITIES: The Mission is located on 4.5 acres and one hectare is set aside for crop production, aquaculture ponds, and experimentation. Limited housing space is available for resident trainees/volunteers.

STAFF: Two professional and two paraprofessionals conduct programs on an ongoing basis. Volunteers serve as the major work force.

Hawaii

INTERNATIONAL: The food production and preparation practices developed by the Mission provide a relevant model for implementation in other tropical areas where the nutritional wellbeing of residents is dependent upon subsistence farming.

KEY WORDS: tropical agriculture, aquaculture, organic farming, appropriate technology, nutrition, paraprofessionals.

UNIVERSITY OF HAWAII
State Small Farms Assistance Committee
Cooperative Extension Service
Honolulu, HI 96822
(808)948-8139

PROJECT TITLE: Upgrading Technology Skills and Managerial Techniques of Small Family Farmers in Selected Rural Communities

CONTACT PERSON: George Nakasato

OBJECTIVES: To assist 200 small-farm families in selected rural communities in Hawaii.

ACTIVITIES:

Educational: Short courses, organized classes, and workshops are held in selected communities covering such subjects as farm credit, cultural practices in vegetable and fruit production, drip irrigation, tax management, small engines, pest control, and basic management. Approximately 30 group training sessions are held per year.

Other: Staff also assisted in the formation of a council of community agencies and farmers on Molokai to serve as a catalyst to coordinate agency programs on that island.

KEY WORDS: farm credit, vegetable production, fruit production, drip irrigation, tax management, small-scale machinery, pest management, farm management, cooperatives, community councils.

Illinois

UNIVERSITY OF ILLINOIS
Cooperative Extension Service
Agricultural Extension Program
116 N. Mumford Hall
Urbana, IL 61801
(217)333-2664

PROJECT TITLE: Intensified Farm Development Program

CONTACT PERSON: T. Roy Bogle

OBJECTIVES: To provide educational assistance in farm and home management to limited-resource farm families in selected areas of Illinois; to refer farm families to appropriate local, state, and federal agencies for additional assistance when needed.

ACTIVITIES:

Educational: Extension professionals work with 185 families in seven counties on a variety of technical and financial problems. Work includes on-farm demonstrations, consultations, and referrals. Technical assistance in direct marketing, especially "pick-your-own" enterprises, is also provided.

Research: Several research projects concerning the overall situation of small farms in Illinois are currently under way in the Agricultural Experiment Station to provide basic information for Extension programs.

FUNDING: Expenditures for 1980-81 were approximately \$67,000.

KEY WORDS: farm management, livestock production, horticulture, gardening, direct marketing, on-farm demonstrations.

Indiana

PURDUE UNIVERSITY
Indiana Cooperative Extension Service
Department of Agricultural Economics
West Lafayette, IN 47907
(317)749-2066

PROJECT TITLE: Research and Extension for the Family Farm

CONTACT PERSON: E. W. Kehrberg or P. R. Robbins

OBJECTIVES: An ongoing research and extension effort to project the economic climate for and financial health of small-acreage family farms; to identify appropriate crop and livestock production enterprises and marketing option for small farms.

ACTIVITIES.

Educational: Meetings and workshops have been held with families of medium and small-acreage farms on various aspects of farm management.

Research: Research efforts focus on farm management, including such aspects as marketing, enterprise selection, farm finances, and recordkeeping. Some research is also concerned with public policy, especially the structure of agriculture and the impact of federal tax policies on farms of various sizes.

Publications: A series of publications, aimed at medium to small family farmers has been published. They are entitled, "Purdue Family Farm Guides."

FUNDING: Annual expenditures of approximately \$60,000 have been provided through the U.S. Department of Agriculture and the state of Indiana.

STAFF: Staff for the project include one professional and three paraprofessionals.

INTERNATIONAL: A comparable research project, working with low-income rural households in Brazil, is being implemented by project staff.

KEY WORDS: farm management, marketing, public policy, tax regulations, paraprofessionals, recordkeeping, international, Brazil.

Iowa

IOWA STATE UNIVERSITY
Cooperative Extension Service
Creston Area Extension Office
501 W. Taylor
Creston, IA 50801
(515)782-7066

PROJECT TITLE: Rural Family Development Project

CONTACT PERSON: James C. Alquist

OBJECTIVES: To assist limited-resource, small-farm families within a four county area by providing on-site educational services in both home and farm management.

ACTIVITIES:

Research: This project currently serves 210 farm families. The services include advice on production practices, goal setting, off-farm employment, recordkeeping, credit, marketing, and home management. These services are provided by part-time paraprofessional extension aides who receive back-up support from the professional extension staff.

Publications: A monthly educational newsletter, Special for Farm Families, is published.

FUNDING: Approximately \$70,000 is provided annually through Iowa State University. The Department of Housing and Urban Development also provides housing rehabilitation loans to program participants.

STAFF: The staff presently consists of full-time equivalents of two professionals and four paraprofessional aides.

KEY WORDS: farm management, home management, credit, recordkeeping, paraprofessionals, marketing, goal setting.

Kansas

THE LAND INSTITUTE
Route 3
Salina, KS 67401
(913)823-8967

CONTACT PERSON: Wes Jackson

OBJECTIVES: To search for sustainable alternatives in agriculture, energy, shelter, and waste management.

ACTIVITIES:

Educational: Eight to ten college students attend each semester, earning credit from Kansas Wesleyan or Marymount College in Salina, or from other colleges by special arrangement. Graduate students can earn credit from Emporia (Kansas) State University. Instruction includes work with wind generators, solar collectors, and other renewable energy systems. Special programs, including public lectures and workshops, are arranged annually. The Institute also serves as an environmental resources center.

Research: The Institute is studying the potential for replacing the current cropping system of annual monocultures on sloping fields with herbaceous, seed-producing, perennial polycultures. More than 140 species of native and naturalized herbaceous perennials from throughout the prairie regions and adjacent woodlots have been established in plots. A recently-discovered rare perennial from Mexico, a close relative of corn, also is being cultivated.

Publications: A magazine, The Land Report, is published three times a year. It includes reports on educational and research activities.

FUNDING: Financial support comes from tuition, foundation grants, and contributions.

FACILITIES: The Institute is located on 23 acres near Salina, Kansas. Facilities include classrooms, offices, workshops, a library, and several acres of research plots.

STAFF: A small, permanent staff carries out the Institute's activities.

KEY WORDS: perennial crops, polycultures, wind energy, organic farming, native grasses, solar energy, greenhouses, gardening.

Kentucky

AGRICULTURAL AND STABILIZATION SERVICES
P.O. Box 108
Flemingsburg, KY 41041
(606)845-4841

PROJECT TITLE: Fleming County Small Farm Assistance Project

CONTACT PERSON: William G. Cowan

OBJECTIVES: To improve the economic status and resource base of small-farm families through the implementation of conservation farming practices.

ACTIVITIES:

Educational: Information on forest management and woodlot improvement, pond construction, pasture seeding, and waterway improvement is disseminated through newsletters and multi-agency meetings with farmers.

Other: Cost-share funds are available to assist farmers in adopting conservation practices.

FUNDING: Funding comes through the U.S. Department of Agriculture Small Family Farm Assistance grants.

INTERNATIONAL: The project demonstrates techniques for adapting conservation farming practices to small-scale hill farms in temperate regions.

KEY WORDS: conservation farming, ponds, pasture management, woodlot management, hill farming, waterway improvement.

UNIVERSITY OF KENTUCKY
Agricultural Programs
N-322 Agricultural Science Center, North
Lexington, KY 40546
(606)257-4689

PROJECT TITLE: Limited-Resource and Small Farm Program

CONTACT PERSON: S. H. Phillips

OBJECTIVES: To improve the social and economic status of limited-resource farmers; to develop methods and procedures to assist families; to improve nutrition and housing of limited-resource families.

Kentucky

ACTIVITIES:

Educational: Educational assistance is provided to approximately 275 families by trained paraprofessionals. Extensive instruction is given in improving farm management skills such as recordkeeping practices, goal setting, and farm resource management. Staff also makes referrals to other service agencies as appropriate.

STAFF: Staff consists of 13 paraprofessionals, with technical back up and support from 15 professionals.

KEY WORDS: farm management, recordkeeping, nutrition, housing, paraprofessionals, goal setting.

Maine

BOWDOIN COLLEGE
Department of Economics
Brunswick, ME 04011
(207)725-8731

PROJECT TITLE: Maine Small Farm Management and Technology Project

CONTACT PERSON: David J. Vail

OBJECTIVES: To develop and implement applied and policy-related research on small farm management and technology, with an emphasis on organic methods and minor crop marketing.

ACTIVITIES:

Educational: Project staff are involved in seminars, conferences, and workshops focusing on project research papers.

Research: Policy research is conducted on a variety of issues, including apprenticeships, small farm marketing, organic farms, feed grain production in Maine, food cooperatives and small farmers, and the economic potential and efficiency of small farms.

Institutional Development: Project staff work as resource persons to producer cooperatives and on small farm extension and marketing projects.

Public Policy: Four agriculture-related bills for the Maine legislature were co-authored by project personnel. They also have provided advice to state commissioners on marketing, milk pricing, and minor crop strategies.

Publications: "Idea Papers," based on policy research, are published intermittently and deal with the research topics described above. A sample of titles follows: Small Farm Marketing: The Experience of 31 Maine Farms, The Political-Economic Logic of Farmer Cooperation; A Note on the Economic Inefficiency of Small Farms; Appropriate Technology for Small Farms: Lessons from 31 Organic Farms in Maine. Publications are available for a small fee.

FUNDING: Funds are derived from grants from organizations and foundations, and from government grants and contracts. The budget for 1980-81 is approximately \$1,000.

STAFF: A staff of three works part time on the project.

INTERNATIONAL: The project director has spent several years working on agricultural development in East Africa.

Maine

KEY WORDS: farm management, appropriate technology, cooperatives, marketing, farmers' markets, organic farming, soil management, apprenticeship programs, public policy, international, Africa.

COASTAL ENTERPRISES, INC.
141 Front Street
Bath, ME 04530
(207)443-6206

PROJECT TITLE: Small Farm Development Program

CONTACT PERSON: Ronald L. Phillips

OBJECTIVES: To increase jobs and income in farming by developing under-utilized resources, increasing food self-reliance through product diversification, and stabilizing established resource-based industries.

ACTIVITIES:

Educational: Direct technical assistance in agricultural business and finance is provided. The current focus is on sheep and vegetable production.

Institutional Development: Five farm marketing associations and a vegetable producers marketing cooperative have been organized. Future plans include establishment of a feed supply cooperative for sheep producers.

Research: CEI helped design and finance an innovative energy-efficient crop storage and processing facility for the vegetable producers marketing cooperative. It also sponsored preparation of a report on the impact of purchases by state institutions of locally-produced food.

Public Policy: Assistance was provided in organizing the Mid-Coast Agricultural Resource Center, the Maine Consortium for Food Self-Reliance, and the Maine Small Farm Association. Food stamp use at farmers' markets was successfully advocated.

FUNDING: Sources of support for this nonprofit, community development corporation included church and foundation grants and government contracts.

STAFF: Three persons provide program staffing.

Maine

KEY WORDS: sheep, vegetable production, cooperatives, marketing associations, crop storage, farmers' markets, self-sufficiency.

KENNEBEC VALLEY GROWERS COOPERATIVE

White Road
Bowdoinham, ME 04088
(207)666-5553

CONTACT PERSON: James L. Economou

OBJECTIVES: To increase the income of participating farmers through improved marketing strategies; to provide winter employment for member farmers.

ACTIVITIES:

Educational: On-site production assistance is provided to growers by the county extension agent, who has been encouraging farmers to improve their recordkeeping, including information on pest control, soil management, and fertilization practices.

Research: Consumer and buyer market surveys have been conducted to facilitate market planning.

Institutional Development: The coop has been able to extend the growers marketing season, and thereby cash flow to members, by constructing a passive solar storage and packing facility with a 750,000 pound capacity.

Policy: Staff has lobbied for passage of the Main Institutional Marketing Bill and continues to lobby for the allocation of additional extension personnel to provide technical assistance to member growers.

FUNDING: The cooperative has received funding from the Community Services Administration, the U.S. Department of Agriculture, the Campaign for Human Development, and the Cooperative Fund of New England.

STAFF: Current staff consists of one full-time manager who is also a member grower.

KEY WORDS: cooperatives, food processing, recordkeeping, soil management, market survey, public policy, crop storage.

Maine

MAINE ORGANIC FARMERS AND GARDENERS ASSOCIATION
Box 138
Hallowell, ME 04347
(207)622-3118

CONTACT PERSON: Arthur H. Whitman

OBJECTIVES: To develop and exchange information that encourages adoption of organic farming practices.

ACTIVITIES:

Educational: A farm apprenticeship service arranges placements for persons exchanging farm labor for on-the-job training. Hands-on construction workshops are held to show farmers how to build solar greenhouses. Field days, seminars, and workshops are sponsored regularly. The association also sponsors an annual state agricultural fair.

Institutional Development: An organic growers supply cooperative is being organized.

Publications: A tabloid newspaper, The Maine Organic Farmer and Gardener, is published six times a year.

FUNDING: Most of the funding comes from membership dues paid by 1,800 members. Other sources include proceeds from the annual agricultural fair and from newspaper advertising.

STAFF: Two full-time and one part-time person provide staffing. Assistance also is provided by association members, who are organized into 24 local chapters.

KEY WORDS: organic farming, greenhouses, apprenticeship programs, cooperatives.

Maryland

U.S. DEPARTMENT OF AGRICULTURE-SCIENCE AND EDUCATION ADMINISTJQX423
Jwom 230 Building 003
BARC-W
Beltsville, MD 20705
(301)344-3087

PROJECT TITLE: Northeastern Region Agricultural Research Small Farms Program

CONTACT PERSON: Howard W. Kerr, Jr.

OBJECTIVES: To enhance the wellbeing and standard of living of small farm families in the 12 states of the northeastern region through agricultural research.

ACTIVITIES:

Research: Basic research is being conducted on the production and management of crop and livestock enterprises appropriate to the needs and aspirations of small farmers in the Northeast.

Other: A survey was conducted on the current and future research needs of small farmers in the northeastern region.

Publications: A report of the survey, "A Survey of Current and Expected Research Needs of Small Farmers in the Northeast Region," is available.

FUNDING: Individual project funding is determined according to federal annual appropriations for the Science and Education Administration/Agricultural Research/Northeast region. Cooperating organizations include all the state agricultural experiment stations in the 12 northeastern states.

STAFF: Approximately one professional is assigned to each research project for a total of about 50 professionals involved.

INTERNATIONAL: The technical aspects of crop and livestock production and management and soil and insect pest management would have application in areas with similar climatic and soil conditions.

KEY WORDS: livestock production, fertilization, pest management, vegetable production, fruit production.

Maryland

UNIVERSITY OF MARYLAND, EASTERN SHORE
Cooperative Extension Service
Princess Anne, MD 21853
(301)651-3915

PROJECT TITLE: The Farm Institute (Small and Part-Time Farmers and Home Gardeners Program)

CONTACT PERSON: Charles L. Davis

OBJECTIVES: To establish an Extension program in agricultural education for limited-resource families to increase their standard of living.

ACTIVITIES:

Educational: Education services are provided by agricultural consultants trained in a variety of subjects including swine and poultry production, weed and insect control, vegetable production and marketing, corn and soybean production on small farms, and credit institutions for small farmers. Agricultural consultants develop demonstration plots, provide individual on-farm consultations, and distribute information materials. They also organize group meetings and workshops on specific areas of farming or gardening as needed.

Research: Research efforts include testing of home garden varieties of vegetables that can be preserved by simple drying or storage methods, and that are disease and drought-resistant. Research is also undertaken in crop production methods for the small producer.

Publications: A variety of publications are available, including fact sheets on specific vegetable varieties, pamphlets on poultry and swine production, and "If You Are a Small or Part-Time Farmer or Home Gardener," dealing specifically with the Farm Institute's programs.

FUNDING: Funding for the program is provided through the U.S. Department of Agriculture Science and Education Administration. Annual expenditures are approximately \$30,000.

FACILITIES: Facilities include a vegetable research farm in Salisbury, Maryland, and a Training Center at the University of Maryland, Eastern Shore.

STAFF: The staff of five includes one professional and four paraprofessional employees.

Maryland

INTERNATIONAL: The project leader has spent 17 years in developing nations implementing similar programs.

KEY WORDS: poultry, eggs, swine, paraprofessionals, vegetable production, direct marketing, weed control, soybeans, credit, corn, onions, vegetable drying, food storage, pest management.

Massachusetts

COOLIDGE FARMS
Topsfield, MA 01983
(617)887-2787

OBJECTIVES: To explore alternative agricultural strategies for small farmers through investigation and demonstration of cropping systems, appropriate mechanization, and environmentally-sound pest control.

ACTIVITIES:

Educational: Farm field days held monthly from May through October include a farm tour. Staff members serve as resource persons at workshops and conferences conducted by other groups.

Research: The Center, established in 1978, is demonstrating biological pest control, mechanical weed control, cyclical farming systems, passive solar market gardening, and small livestock production.

Publications: The Coolidge Center Quarterly, a project newsletter, includes general information on alternative agriculture.

FUNDING: The main funding source for the Center's \$100,000 annual budget is an endowment set up by the River Road Charitable Corporation, a nonprofit charitable trust. Other sources are subscriptions and sustaining memberships.

FACILITIES: The Center is located on a 60-acre farm, which has a farmhouse, machinery sheds, and livestock buildings. The 35 acres of open land include a four-acre experimental orchard, 12 acres of field crops and vegetables, and trial grounds. Facilities also include an office, a conference room, and a library.

STAFF: Five professionals provide staffing.

KEY WORDS: small-scale machinery, organic farming, mechanical weed control, solar energy, market gardening, small livestock, farm management, biological pest control.

Massachusetts

HAMPSHIRE COLLEGE
Amherst, MA 01002
(413)253-7065

PROJECT TITLE: New England Farm Center

CONTACT PERSON: Susan Goldhor

OBJECTIVES: To help New England agriculture by revitalizing the sheep industry.

ACTIVITIES:

Educational: This two-year-old center organizes seminars and talks, short courses on sheep management techniques, and apprenticeships on sheep farms. It also operates a phone and letter service to answer requests for information on specific problems. In addition, agriculture is taught as a liberal arts subject to undergraduates at Hampshire College.

Research: Research is principally biological and includes breeding, testing, and leasing livestock and guard dogs for predator control; breeding hair sheep for low-care forest flocks; tests on use of alder for forage; green fertilizer and biomass conversion.

Publications: Publications include a newsletter to the Center's constituency and articles on specific research projects.

FUNDING: An annual budget of \$230,000 comes from foundations, government grants, and earned income.

FACILITIES: A 100-acre farm contiguous with the college campus is used for research. The farm also has residential and laboratory facilities.

STAFF: Seven professional staff are assisted by program specialists for guard dog use, outreach, and native nitrogen-fixing plants.

INTERNATIONAL: This center is a potential model for a sheep demonstration center for visiting foreign nationals.

KEY WORDS: sheep, predator control, guard dogs, apprenticeship programs.

Massachusetts

NEW ALCHEMY INSTITUTE
237 Hatchville Road
East Falmouth, MA 02536
(617)563-2655

CONTACT PERSON: John Todd

OBJECTIVES: To design and test human support systems -- food, energy, and shelter -- that are environmentally benign and economically efficient.

ACTIVITIES:

Educational: About 40 apprentices work at the Institute each year. Saturday tours, which include workshops, are conducted at the demonstration farm May 1 through September 30. Educational programs are arranged for schools and special groups.

Research: Current research includes development of a backyard agriculture system; propagation of fruit, nut, forage, and timber trees for human food, livestock feed, and windbreaks; experiments with natural predators and other beneficial insects; development of an integrated fish/vegetable facility designed for multi-season, small-scale applications; design of a passive solar house that uses solar algae ponds as thermal storage, and development of sailing water pumping windmills.

Publications: The Journal of the New Alchemists is a book-length publication issued annually. A newsletter is published for the Institute's 3,000 members.

FUNDING: The 11-year-old Institute is supported by foundations, government grants, and memberships. Each provides about one-third of the funding.

FACILITIES: The main facility is a research station and demonstration farm at East Falmouth, Massachusetts.

STAFF: The staff of 26 persons includes 10 professionals and 10 paraprofessionals.

INTERNATIONAL: Projects have been carried out in Central America, the West Indies, and the Indian Ocean. The Institute has an affiliate in Costa Rica, which operates a farm in the Atlantic lowlands.

REFERENCES: See "The Book of the New Alchemists," a compendium of articles published by E. F. Dutton.

Massachusetts

KEY WORDS: organic gardening, tree crops, bioshelters, wind-mills, aquaculture, solar ponds, natural pest controls, apprenticeship programs, Costa Rica, Indian Ocean.

NEW ENGLAND SMALL FARM INSTITUTE
P.O. Box 937
Belchertown, MA 01007
(413)323-4531

PROJECT TITLE: Small Farmers in Partnership with Appropriate Technology

CONTACT PERSON: Judith Fuller Gillan

OBJECTIVES: To enable small-farm families to negotiate limited-resource Farmers Home Administration loans to acquire new and relatively unfamiliar appropriate technologies which have the potential to increase on-farm income.

ACTIVITIES:

Educational: During 1980, the project focused on the construction and management of an attached solar greenhouse. Small-farm families in two counties attended a demonstration of the greenhouse as a horticultural enterprise. On-site visits were conducted to farmsteads interested in constructing their own greenhouse. Bibliographies, technical assistance, and construction resources were available to interested participants.

Research: A study entitled, "The Feasibility of Commercial Production in the Small-Scale, Passive, Attached Solar Greenhouse," has been published by the Institute as a result of monitoring and research into solar greenhouse maintenance, biological systems, production and crop selection, and an in-depth market survey.

Other: Workshops on orchard management, woodlot management, and other farm skills are offered periodically. Additionally, the Institute has an active resource center serving the area community as well as small farmers.

FUNDING: Funding for the project comes from the Massachusetts Society for the Promotion of Agriculture and the Com-

Massachusetts

prehensive Employment and Training Act. Other cooperating organizations are the New England Small Farmer Project and the Farmers Home Administration. Funding for the Institute has been attained through various private and federal sources.

FACILITIES: The project is located on a state-owned farm which is currently being restored to develop a practical hands-on training center in small-scale, energy-efficient, ecologically sound farming practices for beginning and existing farmers.

STAFF: The Institute's small staff includes a half-time professional and two paraprofessionals.

KEY WORDS: greenhouses, appropriate technology, biological farming, market survey, paraprofessionals, orchards, woodlot management.

UNIVERSITY OF MASSACHUSETTS
Cooperative Extension Service
217 Draper Hall
Amherst, MA 01003
(413)545-0060

PROJECT TITLE: New England Small Farmer Project

CONTACT PERSON: Pat Sackrey

OBJECTIVES: To build a constituency to influence government and agency decision-makers to improve conditions for agriculture in New England, and to strengthen the economic position of small farms by assisting farmers to identify new opportunities for marketing, cutting costs, and adding value to their products through storage and processing.

ACTIVITIES:

Educational: Ten VISTA volunteers currently work with about 500 farmers across New England, 50 of whom are farmer organizers. Farm visits, workshops, meetings, and a newsletter are the primary means of farmer education. In addition, a "Credit Handbook for Small Farmers" plus other bulletins are distributed to the clientele. A paraprofessional program is currently being developed which will reach another 400 families through farm visits. Assistance is also provided to cooperatives, farmers' markets and associations.

Massachusetts

FUNDING: Funds for the annual budget of approximately \$175,000 are provided by the U.S. Department of Agriculture Science and Education Administration, the Community Services Administration, and ACTION. In-kind contributions also come from New England Extension Services.

FACILITIES: A small farm resource center is included in the central offices at the University of Massachusetts.

STAFF: The staff of 14 persons includes three professionals, 10 VISTA volunteers, and one secretary.

KEY WORDS: farm management, farmers' markets, constituency building, paraprofessionals, volunteers, crop storage, food processing, cooperatives, public policy.

Michigan

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

American Legion Building

L'Anse, MI 49946

(906)524-6065

PROJECT TITLE: Reach Out to Help Small Farmers

CONTACT PERSON: Ruth Hanson or Barbara Raby

OBJECTIVES: To increase the productivity and income of small farmers through technical assistance for implementing soil, forest, and water conservation practices on a cost-sharing basis.

ACTIVITIES:

Educational: Paraprofessionals plus professional staff have worked with 71 farmers. Through interagency cooperation, participating farmers were helped to introduce weed control measures, fertilization practices, improved seed varieties, and other management techniques to increase forage production for beef and dairy enterprises. The project has been accepted by the U.S. Department of Agriculture Agricultural Stabilization and Conservation Service as a "model small farmer project."

Cooperating Organizations: Services to cooperating farmers are also provided by the U.S. Department of Agriculture Soil Conservation Service, the Cooperative Extension Service, and the Michigan Department of Natural Resources.

STAFF: Four professionals plus three paraprofessionals implement program activities.

KEY WORDS: forage, beef, dairy, cost-sharing, soil conservation, paraprofessionals, water conservation.

MICHIGAN LAND TRUST

North Center Street

R. R. Box 316

Bangor, MI 49013

(616)427-8986

PROJECT TITLE: Homesteading Programs Associated with Michigan Land Trustees

CONTACT PERSON: Maynard Kaufman

Michigan

OBJECTIVES: To provide a living-learning experience of small-scale agricultural life and work to young people from urban backgrounds, to actively demonstrate the feasibility of low-technology, small-scale farming based on organic methods of vegetable, field crop, and livestock production.

ACTIVITIES:

Educational: Two farms offer living-learning experiences to eight to 12 students per term in homesteading and small-scale farming, emphasizing food production, processing, and preservation. They also provide careful instruction and experience in livestock care, operation and maintenance of farm machinery and equipment, organic methods of soil building and pest control, and some construction activities. Students live on the farm and share in both daily chores and season-specific activities.

Other: A close relationship is maintained with Western Michigan University where the Homesteading Coordinator, Maynard Kaufman, teaches a course each winter in the Environmental Studies Program, called Homesteading Theory.

FUNDING: Student fees and membership contributions support this program.

FACILITIES: Two farms, one a residential training center owned by the Michigan Land Trust, and the other a family farm owned by the course designer and coordinator, are used. The former is a 38-acre general farm with livestock and emphasis on market vegetable production. The latter is a 100-acre general farm with livestock and an emphasis on dairy production and small fruit.

STAFF: Each farm has one or two instructors who direct the homesteading/small farming operations.

KEY WORDS: livestock production, vegetable production, homesteading, organic farming, pest management, food preservation, machinery maintenance, fruit production, dairy, fertilization.

Minnesota

RURAL VENTURE, INC.
Project Management
6750 France Ave. South
Minneapolis, MN 55345
(612)389-4208

PROJECT TITLE: Princeton Small Farms Program

CONTACT PERSON: Lee Mesko

OBJECTIVES: To demonstrate and improve the economic viability of small farms by supplementing them with modern technology and management methods.

ACTIVITIES:

Educational: Participating farmers receive direct production and management assistance through both traditional instruction and computer-based crop and livestock and farm management curriculum. Computerized courseware is being developed in cooperation with over 40 universities and other organizations.

Research: Data banks of technology appropriate to the needs of small-scale farmers are being assembled. Priority is being given to agricultural technologies which focus on increased production per acre, low capital investment, decreased consumption of fossil fuels, and more efficient land utilization.

FUNDING: Capital expenditure and operating costs are borne by participating farmers, though assistance in obtaining bridge financing is provided. Financial support for research and courseware development, planning, management and overhead has been provided by the Control Data Corporation.

FACILITIES: Fifteen new farms are under construction as is an agricultural services and education center.

STAFF: The project is managed by two full-time professional staff and one supporting staff person.

INTERNATIONAL: The low-cost, low-energy farming techniques being developed for this project may prove useful to improving farming systems in developing nations with similar soil and climate conditions.

KEY WORDS: computer courseware, low-energy farming, appropriate technology.

Minnesota

UNIVERSITY OF MINNESOTA
Agricultural Extension Service
Institute of Agriculture, Forestry and Home Economics
Coffey Hall
1420 Eckles Avenue
St. Paul, MN 55108
(218)631-2006

PROJECT TITLE: Opportunity Farming Program

CONTACT PERSON: Sherman Mandt

OBJECTIVES: To improve family income; the use of appropriate farm agricultural technology and managerial techniques; knowledge and use of public agencies; participation in community activities; and home/family management skills.

ACTIVITIES:

Educational: Four Opportunity Farming Aides work with about 40 farm families per month on a regular basis, with a total clientele of about 350-400 farmers per year. Their work in setting up demonstrations and providing educational materials is supported with back-up assistance from the County Extension Director of the three participating counties.

Institutional Development: Opportunity Farming Aides work with farm cooperatives, such as creameries and electric cooperatives, to increase resources for small farmers.

Public Policy: Staff works with legislators to convey the problems of small farmers. Tours have been conducted for elected officials and others to give them a first-hand knowledge of problems.

Publications: A pamphlet, Working with Small Farmers, was published through the Agricultural Extension Service to describe and explain the particular needs of the small farmer.

FUNDING: Funding is provided through the Agricultural Extension Service and the Institute of Agriculture, Forestry and Home Economics.

STAFF: The staff consists of one professional and four paraprofessionals.

KEY WORDS: farm management, home management, appropriate technology, dairy, paraprofessionals, public policy.

Mississippi

MISSISSIPPI STATE UNIVERSITY
Cooperative Extension Service
P.O. Box 5426
Mississippi State, MS 39762
(601)325-2515

PROJECT TITLE: Small Farm Family Assistance Project

CONTACT PERSON: Joseph Schmidt

OBJECTIVES: To improve small farm family income levels and increase family skills for farm and nonfarm employment; to improve access to adequate housing and essential community facilities and services; to provide more equitable access to U.S. Department of Agriculture programs; to create and implement a process for involving the private sector and local, state, and federal agencies in establishing program priorities to benefit small farmers; to update and improve the technical expertise and sensitivity of U.S. Department of Agriculture staff to the needs of small farmers.

ACTIVITIES:

Educational: The project engages in a wide range of educational activities including the development and implementation of farm plans, budgeting and recordkeeping, home economics and family food production and preservation, erosion control, job training, and youth development. On farm demonstrations of commercial horticultural crop production have been established. Feeder pig production will be introduced in the future. Vegetable grower meetings are held periodically and on-farm technical assistance is provided to growers.

Institutional Development: Facilities for assembling and grading commercial vegetables have been provided by the county Board of Supervisors. A model community cannery is also being developed.

Other: Eligible project participants are encouraged to participate in job training for nonfarm employment and housing improvement programs.

Mississippi

- Cooperating Organizations:** A combination of 10 local, state, and federal agencies are cooperating on this project to provide services, including loan monies, and technical assistance to participating families in the area of commercial vegetable production, feeder pig production, home food production and nutrition, housing, and essential community services and facilities.
- FUNDING:** Financial support for different aspects of the project comes through the agency responsible for the activity.
- STAFF:** Information on number of professional staff was not available. Approximately two professionals are currently working with families participating in commercial vegetable programs.
- INTERNATIONAL:** Project staff has experience in designing and implementing programs to successfully introduce new agricultural technologies to limited-resource farm families.
- KEY WORDS:** vegetable production, feeder pigs, gardening, food preservation, nutrition, soil conservation, housing, paraprofessionals, recordkeeping, job training, community cannery.

Missouri

BOOTHEEL RURAL DEVELOPMENT COMMITTEE
c/o Farmers Home Administration
105 E. Center
Sikeston, MO 63801
(314)471-4808

PROJECT TITLE: Bootheel Small Farm Swine Project

CONTACT PERSON: Harry Littleton

OBJECTIVES: To increase the farm income of minority farmers
 through the production and sale of feeder pigs.

ACTIVITIES:

 Educational: Participating farmers receive individual technical
 assistance from a paraprofessional and agricultural
 specialist in feeder pig production, conservation
 planning, drainage, and waste disposal systems.

 Other: Loan assistance and cost share funds are available
 through the Farmers Home Administration and the Agri-
 cultural Stabilization and Conservation Service to
 eligible applicants. Breeding stock and marketing
 services are provided through the Bootheel Agri-
 cultural Services, Inc., Coop by the Federation of
 Southern Cooperatives.

FUNDING: Primary funding for the project comes from the U.S.
 Department of Agriculture through the Agricultural
 Stabilization and Conservation Service, Cooperative
 Extension Service, Farmers Home Administration, the
 Soil Conservation Service, and from the Federation of
 Southern Cooperatives. Training and technical assis-
 tance is also available from the state office of eco-
 nomic opportunity upon request. VISTA volunteers
 from ACTION are also assigned to the project.

KEY WORDS: feeder pigs, cooperatives, conservation planning,
 paraprofessionals.

Missouri

MISSOURI COOPERATIVE EXTENSION SERVICE
Lincoln University
University of Missouri
Department of Agricultural Economics
228 Mumford Hall
Columbia, MO 65201
(314)882-2728

PROJECT TITLE: Missouri Small Farm Family Program

CONTACT PERSON: Edward R. Wiggins

OBJECTIVES: To assist families living on small farms and not currently using Cooperative Extension Services to use available resources for improving their quality of living; to enhance the quality of living through improved resource management, cost reductions, and increased income.

ACTIVITIES:

Educational: Educational assistants work with individual families and through demonstrations for the development of on-farm enterprises such as feeder pig production, firewood sales, vegetable/crop production, etc. They also provide instruction in home food processing, energy management, and nutrition.

Research: Several research projects concerned with selected aspects of the needs, problems, progress and cooperative potential of Missouri small farmers were conducted. These were under the auspices of the Department of Agricultural Economics at the University of Missouri.

Public Policy: Congressional testimony on the program has been given.

Publications: Progress reports on this program, first undertaken in 1971, are published regularly.

Other: Program staff cooperate with other services, including the Agricultural Stabilization and Conservation Service, the Farmers Home Administration, Soil Conservation Service, and the Forest Service, to assist the 2000 families participating in the program.

FUNDING: The program operates on county and state appropriations, as well as federal funds. Total annual expenditures are approximately \$610,000.

STAFF: Program staff includes six professional and 40 paraprofessional persons.

Missouri

KEY WORDS: marketing, feeder pigs, energy management, nutrition, recordkeeping, farm management, paraprofessionals, cooperatives, forestry, food processing, public policy.

NEW LIFE FARM, INC.
Drury, MO 65638
(417)261-2553

PROJECT TITLE: Small Farm Outreach Program

CONTACT PERSON: Linda Jacobs

OBJECTIVES: To promote renewable energy, waste management, and direct marketing alternatives by making research and information resources of New Life Farm available to small farmers in the region.

ACTIVITIES:

Educational: Workshops and seminars are conducted on a regular basis. VISTA workers disseminate information developed through methane digester, hydraulic ram, solar heater, organic farming, composting toilet, and other appropriate technology demonstrations at New Life Farm.

Institutional Development: Technical assistance is provided to small farmers interested in organizing a direct marketing system.

Publications: The project's activities are publicized in a newsletter published by New Life Farm.

FUNDING: Most of the support is provided by a grant from ACTION.

FACILITIES: The facilities of New Life Farm, including a retrofitted farmhouse and a 40-acre demonstration area, are used by the project.

STAFF: Five persons staff the outreach program.

KEY WORDS: direct marketing, organic farming, solar energy, methane digesters, hydraulic ram, composting toilets, appropriate technology, energy conservation.

Montana

NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY
P.O. Box 3838
Butte, MT 59701
(406)494-4572

CONTACT PERSON: Edwin C. Kepler

OBJECTIVES: To research, develop, demonstrate, and transfer appropriate technologies that help low-income individuals and communities become more self-reliant.

ACTIVITIES:

Educational: Conferences and workshops on appropriate technology are co-sponsored. Field representatives disseminate information to organizations and institutions. An education project prepares curriculum materials for science teachers.

Institutional Development: Technical assistance is provided to community action agencies, community-based organizations, and other institutions that encourage the use of small-scale community-based technologies.

Research: A research development division initiates a wide range of projects involving agriculture, biofuels, and renewable resources. Low-cost solar collectors and water heaters are instrumented and tested. Solar greenhouses and cold frames have been researched, designed, constructed, and monitored. Similar research projects have dealt with alcohol fuels, biogas, composting toilets, organic farming, and aquaculture.

Public Policy: The staff monitors and researches legislation and policy regarding agriculture, small farms, on-site food processing, community gardening, and organic agriculture. Policy option papers are prepared for state and federal agencies.

Publications: A tabloid newspaper, A. T. Times, is published. The Center prepares slide shows and films and publishes a wide range of research reports, "how-to" manuals, and annotated bibliographies.

FUNDING: The Community Services Administration and other federal agencies provide support.

FACILITIES: The Center is headquartered in Butte, Montana. Its facilities include a research site, a library, and a resource center. NCAT also has field offices in each federal region.

Montana

STAFF: About 100 employees, including about 35 professional and technical personnel involved in research and development, staff the Center.

KEY WORDS: appropriate technology, solar energy, community gardens, organic gardening, composting toilets, greenhouses, cold frames, biogas, alcohol fuels, aquaculture.

Nevada

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE
P.O. Box 360
Reno, NV 89504
(702)784-5411

PROJECT TITLE: Walker Indian Reservation Small Farm Family Assistance Project

CONTACT PERSON: Al Pasquale

OBJECTIVES: To increase farm income through the adoption of soil, water, and energy conserving irrigation technology.

ACTIVITIES:

Educational: Participating farmers are provided engineering assistance to install concrete-lined head ditches.

Other: When appropriate, the Farmers Home Administration made loans to participating farmers.

FUNDING: Cost-share funding is provided through the Agricultural Stabilization and Conservation Service and the Four Corners Regional Commission at the 80 percent rate. Participating farmers provide 20 percent.

STAFF: Staffing is provided by regular Agricultural and Stabilization Service employees.

KEY WORDS: irrigation, soil conservation, energy conservation, water conservation.

New Hampshire

RURAL EDUCATION CENTER, INC.
Stonyfield Farm
Wilton, NH 03086
(603)654-9625

CONTACT PERSON: Samuel Kaymen

OBJECTIVES: To promote agricultural awareness and increased agricultural self-reliance through practical training and experience in rural skills.

ACTIVITIES:

Educational: A full-time residential training program has been established with work study courses in soil, plant, and animal husbandry; greenhouse management; fruit production; intensive vegetable gardening; forestry; and food preservation. The Center plans to offer practical training in appropriate technology applicable to agriculture, building skills, farm equipment repair and maintenance, and energy. Workshops, seminars, and lectures also are sponsored on a regular basis.

Research: The Center, opened in 1979, is demonstrating biodynamic agricultural production techniques.

Publications: A quarterly newsletter, Stirrings at the Rural Education Center, is published.

FUNDING: Donations, grants, and gifts provide most of the funding for the Center's \$40,000 annual budget. It also has received a \$23,000 Department of Energy grant to solarize its facilities.

FACILITIES: Most center activities are conducted at its 134-acre farm. Permanent structures include a 15-room Colonial house, a large barn, a carriage house, and a 1,440-square-foot greenhouse.

STAFF: Six persons, including three professionals, provide staffing.

KEY WORDS: organic farming, appropriate technology, greenhouses, food preservation, small-scale machinery, small livestock, vegetable production, forestry.

New Hampshire

UNIVERSITY OF NEW HAMPSHIRE
College of Life Sciences and Agriculture
Department of Plant Science
Durham, NH 03824
(603)862-1200

PROJECT TITLE: Environmental and Cultural Modifications for Intensive Crop Production in Northern Areas

CONTACT PERSON: Otho S. Wells

OBJECTIVES: To develop energy conservation systems for plastic greenhouses, to determine the efficiency of supplementary greenhouse lighting for vegetables; to develop an economical system for using plastic row covers to extend the growing season, and to determine the efficacy of starter fertilizers for vegetable crops.

ACTIVITIES:

Educational: Project results are disseminated through demonstrations at the University and on local farms, local, regional, and national seminars; and various publications. Educational activities are conducted in close cooperation with the Cooperative Extension Service. Research results are shared with high school and college students, especially those who have indicated a potential interest in small-farm careers.

Research: Research in this project is specifically applicable to small farms and emphasizes technology requiring low-capital investment. Areas under investigation include low-cost energy systems for greenhouses, as well as greenhouse lighting systems; starter fertilizers and other crop production aids.

Other: Contacts have been initiated with commercial firms; some have begun to tool up to manufacture some of the materials and equipment developed and demonstrated through this project.

Publications: A variety of publications have been issued concerning project results. Sample titles include: "Conserving Energy in Plastic Greenhouses with Liquid Foam Insulation," and "Slitted Row Covers for Intensive Vegetable Production."

FUNDING: Funding is provided by the U.S. Department of Agriculture, the Department of Energy, and private donors. Total annual expenditures are approximately \$10,000.

New Hampshire

KEY WORDS: greenhouses, energy conservation, fertilizers, vegetable production, greenhouses, appropriate technology, mulching.

UNIVERSITY OF NEW HAMPSHIRE
College of Life Sciences and Agriculture
Plant Science Department
Durham, NH 03824
(603)862-1205

PROJECT TITLE: Improving Land Utilization for Forage on Small Farms

CONTACT PERSON: David W. Koch

OBJECTIVES: To determine the potential of introducing annual forages by minimum tillage for interim production during a fertility-building program, enhancing the establishment of perennial legumes by minimum tillage, and maximizing the grazing season.

ACTIVITIES:

Educational: Information on research findings is disseminated to local farmers through field days, special demonstrations, and meetings related to introducing legumes and other forages with a minimum of tillage. In addition, individual consultations are provided to assist farmers in field assessments, fertility and sod control needs, crop requirements, seeding techniques, and management after seeding.

Research: Research is conducted in the areas of soil management, crop production, and crop harvesting, with special emphasis on perennial legumes.

FUNDING: Annual expenditures of approximately \$10,000 are met through funds provided by the U.S. Department of Agriculture-Science and Education Administration-Agricultural Research.

KEY WORDS: forage, minimum tillage, soil management.

New York

STATE UNIVERSITY OF NEW YORK
COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY
Institute of Environmental Program Affairs
Syracuse, NY 13210
(315)473-8892

PROJECT TITLE: SUNY College of Environmental Science and Forestry
Extension Program

CONTACT PERSON: James W. Geis

OBJECTIVES: To disseminate information on woodlot management to
the public.

ACTIVITIES:

Educational: A variety of projects are conducted which disseminate
woodlot information to the public. They include:
(1) workshops on log scaling and grading, aimed
toward farm woodlots; (2) woodlot management meetings
for the small farmers; (3) a question and answer ser-
vice for letters and calls from the small woodlot
owner; and (4) updating and publication of a forest
pest series.

STAFF: Four professionals are conducting this program.

KEY WORDS: woodlot management, pest management, forestry.

North Carolina

MARS HILL COLLEGE
Mars Hill, NC 28754
(704)689-1111

PROJECT TITLE: Rural Life Demonstration Center

CONTACT PERSON: Richard Hoffman

OBJECTIVES: To engage in diverse land-use demonstrations applicable to the small family farm that might enhance its economic viability; to provide an educational environment in which the values of self-sufficiency, stewardship of land and life, and other values associated with a rural ethos are prized and communicated; and to determine and demonstrate alternative technology and farming methods consistent with energy requirements and health needs.

ACTIVITIES:

Educational: The work of the Center is organized around three interrelated components: the Small Farm (Land Use) Component, the Educational Component, and the Cross-Cultural Component. The Educational Component will offer: "How-to" courses in biodynamic gardening, solar greenhouses, alternative energy sources and systems design; conferences and workshops on current issues in American and Third World agriculture; and publications and resource materials related to the concerns and needs of the Appalachian small-farm operator. Much of this work is still in the developing phase. Other future plans include a Rural Life and Appalachian Studies Curriculum, which will include 20 to 30 student internships and a resource center of technical materials relevant to the experiments and demonstrations.

Other: The Small Farm Component centers around a 1,000-acre farm which emphasizes land use, appropriate technology, alternative energy systems, and woodland management. The Cross-Cultural Component involves an agreement with the state of Morelos, Mexico, to plan and carry out a cooperative project on animal husbandry and cropping.

FUNDING: Funds for the project are derived from crop sales, grants, and contributions.

FACILITIES: The Center is located on a 1,000-acre farm, having three houses and four barns; it also has access to the teaching facilities of the College.

North Carolina

STAFF: Staff for the project consists of three professionals and three paraprofessionals.

KEY WORDS: biodynamic, greenhouses, alternative energy sources, appropriate technology, woodlot management, molasses, tobacco, corn, internship programs, paraprofessionals, self-sufficiency, international.

NATIONAL SHARECROPPERS FUND
2128 Commonwealth Avenue
Charlotte, NC 28205
(704)334-3051

PROJECT TITLE: The Frank Porter Graham Center

CONTACT PERSON: Kathryn Waller

OBJECTIVES: To make limited-resource farms economically viable and to improve the quality of rural life through self-sufficiency and cooperative effort.

ACTIVITIES:

Educational: Approximately 60 small farmers from 12 counties are involved in the Center's programs on a regular basis. They receive classroom instruction and on-farm technical and other assistance. A wide variety of workshops and seminars is held throughout the year. Included in the current educational program are literacy training and a series of special programs for rural women.

Research: The Center is designing and testing small-scale machinery and farm implements. It also is demonstrating organic farming techniques, manure composting, small-scale livestock production, and site-built alternative energy systems.

North Carolina

- Institutional Development:** Staff members assist small farmers in organizing rural cooperatives and provide follow-up management training.
- Publications:** A quarterly newsletter, Rural Advance, is published at the Center. Other publications include the "Graham Center Seed Directory" and "Tax Instructions for Small Farmers."
- FUNDING:** About half of the National Sharecroppers Fund's funding is provided by individual contributions. The balance comes from grants from churches and foundations, government contracts, and publication sales.
- FACILITIES:** The Center has offices, classrooms, a resource center and library, food services, livestock buildings, a machine shop, and dormitory facilities for 25 conference participants. These facilities are located on its 400-acre farm near Wadesboro, North Carolina.
- STAFF:** The staff of 45 persons includes nine professionals and 30 VISTA workers. Twenty-five of the VISTA volunteers are small farmers being trained as agricultural paraprofessionals.
- KEY WORDS:** paraprofessionals, organic farming, farm management, small-scale machinery, cooperatives, rural women, alternative energy sources, self-sufficiency.

NORTH CAROLINA STATE UNIVERSITY
Agricultural Extension Service
Box 7317
Asheville, NC 28807
(704)258-6195

- PROJECT TITLE:** Mountain Agricultural Program
- CONTACT PERSON:** W. C. Bledsoe
- OBJECTIVES:** To introduce high-income agricultural enterprises to limited-resource mountain farmers.

North Carolina

ACTIVITIES:

Educational: Working cooperatively, North Carolina State University and North Carolina A & T University professionals and paraprofessionals provide technical assistance in the identification and implementation of income-generating enterprises. This project, which began in 1978, now operates in 15 counties and the Cherokee Indian Reservation. Currently, 283 projects have been initiated or assisted. They include production of ginseng, tomatoes, native ornamentals, Christmas trees, and feeder pigs. Farm families are given technical assistance in all aspects of the enterprise ranging from production to marketing.

FUNDING: Funding is provided through the Agricultural Extension Service and the Tennessee Valley Authority Cooperative Program.

KEY WORDS: ginseng, tomatoes, ornamentals, Christmas trees, farm management, recordkeeping, feeder pigs, hill farming.

North Dakota

STANDING ROCK COMMUNITY COLLEGE
BISMARCK JUNIOR COLLEGE
c/o Farm Analysis Center
1200 West College Drive
Bismarck, ND 58501
(701)223-4500

PROJECT TITLE: School Farm: Agricultural Education and Training Program

CONTACT PERSON: Les Cullickson

OBJECTIVES: To provide vocational education in agriculture through classroom experience, field trips, and on-farm demonstrations; to develop and introduce new or improved farming techniques in cow-calf operations, irrigation methods, and crop and livestock management.

ACTIVITIES:

Educational: Located on the Standing Rock Indian Reservation, this school farm is designed to reach limited-resource farmers and ranchers on the reservation needing technical assistance, as well as a specified number of low- to moderate-income individuals interested in entering a farming career. Students are provided instruction in alfalfa, corn, and sunflower production, as well as livestock production. The program includes both classroom learning in such areas as financial management, bookkeeping, and livestock sciences, as well as practical experience in the day-to-day activities of farming. Established in 1979, the School Farm anticipates expanding its instruction and demonstration activities to crops requiring a higher degree of production skills at a later date.

Other: The School Farm is a joint venture undertaken by Standing Rock Community College and Bismarck Junior College. The latter college provides administration services, while curriculum and actual programs are developed jointly. Other cooperating agencies include the Farmers Home Administration, the Agricultural Stabilization and Conservation Service, the Cooperative Extension Service, Soil Conservation Service, Community Services Administration, and the North Dakota Employment Security Bureau.

FUNDING: This project is financed with funds from the Comprehensive Employment and Training Act. Expenditures in the second year of operation are expected to be \$120,000.

North Dakota

FACILITIES: The program is located at Standing Rock Community College and has access to its resources and facilities. This includes 960 acres of irrigatable land, which will be put into production this year.

STAFF: The staff consists of three professionals and one paraprofessional.

KEY WORDS: livestock production, alfalfa, sunflowers, corn, irrigation, farm management, cow-calf operation, paraprofessionals, recordkeeping.

Oklahoma

OKLAHOMA STATE UNIVERSITY
Division of Agriculture
Stillwater, OK 74078
(405)624-5400

LANGSTON UNIVERSITY
Langston Extension Program
Langston, OK 73050
(405)466-2339

PROJECT TITLE: Oklahoma Small and Part-Time Farm Program

CONTACT PERSON: James L. Mosley, Oklahoma State University
Gilbert Tampkins, Langston University

OBJECTIVES: To improve agriculture production practices for small-farm families; to improve home gardening and other food production for sale and/or home use; to develop needed and improved existing marketing opportunities for small farmers; and to improve the economic status of small-farm families.

ACTIVITIES:

Educational: The program is conducted in designated counties utilizing an agricultural paraprofessional to work individually with 20 to 25 specific families during any given period. Regular farm visits are made by the paraprofessionals to provide information, demonstrations, and assistance in various agriculture areas based on prior needs assessment. The paraprofessional, working under the supervision of a professional extension agent with assistance and support from the county staff, also provides information on services available from other federal agencies.

Research: Research efforts emphasize identifying potential income-earning crops for small farmers. Currently, three areas are receiving special attention: vegetable production, with an emphasis on asparagus; sheep production, especially increased lambing and management; and small fruit production, especially strawberries, brambleberries, and blueberries.

FUNDING: The Cooperative Extension Service funds the program.

STAFF: Six paraprofessionals and two professionals working part time conduct the program.

KEY WORDS: paraprofessionals, marketing, vegetable production, asparagus, sheep, fruit production, strawberries, brambleberries, blueberries, needs assessment.

Oregon

OREGON STATE UNIVERSITY
Polk County Extension Service
316 North Main Street
Dallas, OR 97338
(503)623-8172 ext. 282

PROJECT TITLE: Small Family Farm Assistance Project

CONTACT PERSON: John Burt

OBJECTIVES: To improve the viability of the small family farm through increased net income, increased access to farm credit and technical assistance from federal agencies, improved marketing and farming practices, and a revitalization of rural community awareness and cooperation.

ACTIVITIES:

Educational: Twelve workshops were held over a six-month period in 1979-80 on a variety of topics including pastures, sheep, orchards, accounting, berries, vegetables, management, soils, and irrigation. Part of a continuing program, these workshops will continue on specific topics as needed. In addition, 42 farm families receive on-farm technical assistance in various aspects of farming. They also receive technical and/or financial assistance from cooperating organizations, including Agricultural Stabilization and Conservation Service, Soil Conservation Service, and the Farmers Home Administration.

Institutional Development: Two farmers' markets have been established through the project.

Public Policy: Project staff have worked at local, state, and federal levels on behalf of the project and small farms.

Publications: A regular newsletter is distributed to more than 700 families. Other publications include: "What You Can Raise on Your Small Farm," "How to Find a Good Farm in Polk County," "Where to Find Help," "All about Bookkeeping and Taxes," and "All about Tractors and Machinery."

FUNDING: A grant from the U.S. Department of Agriculture in the amount of \$24,000 for 1980, and \$20,000 for 1981, supports the program, with additional in-kind support of secretarial assistance.

STAFF: One professional person and a part-time secretary staff the program.

Oregon

KEY WORDS:

fruit production, vegetable production, sheep, farm management, machinery maintenance, taxes, irrigation, soil management, marketing, interagency coordination, farmers' markets.

Pennsylvania

MENNONITE ECONOMIC DEVELOPMENT ASSOCIATES
21 South Twelfth Street
Akron, PA 17501
(717)859-1151

CONTACT PERSON: Paul Derstine

OBJECTIVES: To extend technical and financial resources that promote development of institutional credit and related services, management and technical training for entrepreneurs, testing of current development programs or practices, and development of program alternatives.

ACTIVITIES:

Educational: International tours are organized to enable North American business persons to share experiences with entrepreneurs in developing countries. Technical assistance and experienced counsel are provided to other development agencies.

Research: The Association is trying out ways to improve agricultural enterprises in rural communities.

Institutional Development: Low-interest loans are made available to establish small businesses and credit institutions in developing countries.

Publications: A quarterly magazine, The Marketplace, is published jointly with Mennonite Industry and Business Associates. A monthly newsletter also is published.

FUNDING: Memberships provide 45 percent of this nonprofit association's \$600,000 annual budget. Another 35 percent is provided by the Canadian government. The balance comes from foundations and consulting fees.

FACILITIES: The Association has offices in Akron, Pennsylvania, and Winnipeg, Manitoba.

STAFF: Thirteen persons, including eight professionals, provide staffing for this 26-year-old institution.

INTERNATIONAL: Projects include providing financial support for a credit cooperative in India, a feed mill in Zaire, a land clearing operation in Bolivia, and a cooperative creamery in Uruguay. Similar efforts are under way in Ethiopia, Ghana, Belize, Jamaica, and Colombia.

REFERENCES: A brochure, entitled "MEDA: A Venture in Brotherhood Economics," is available.

Pennsylvania

KEY WORDS: credit, cooperatives, rural development, small business development, Ethiopia, Ghana, Belize, Jamaica, Colombia, Uruguay, Bolivia, Zaire, India.

PENNSYLVANIA STATE UNIVERSITY
Cooperative Extension Service
323 Agricultural Administration Bldg.
University Park, PA 16802
(814)863-0331

PROJECT TITLE: Small and Part-Time Farmers

CONTACT PERSON: Emory Brown

OBJECTIVES: To enhance the welfare of small and part-time farmers and their families, especially limited-resource farmers, through provision of technical assistance in management, production, and marketing practices as well as family financial management.

ACTIVITIES:

Educational: Program staff work with farm families in all areas of farming, including small and part-time livestock production, farm building construction, machinery maintenance, forage management, recordkeeping, enterprise selection, crop production, and small woodlot management. Assistance is provided by paraprofessionals through on-farm consultation, demonstrations, workshops, and group meetings. Families are included in home economics and 4-H programs.

Public Policy: Program staff participate in seminars and conferences on the structure of agriculture, land use, etc.

Other: Staff assist farmers in such direct services as soil testing, dairy cattle testing, and computer programming in farm management.

FUNDING: Funds are obtained through the U.S. Department of Agriculture (Smith-Lever Funds), as well as from state and county governments.

KEY WORDS: paraprofessionals, forage, recordkeeping, farm management, livestock production, swine, farm buildings, machinery maintenance, woodlot management, public policy.

Pennsylvania

PENNSYLVANIA STATE UNIVERSITY
Cooperative Extension Service
University Park, PA 16802
(814)865-7656

PROJECT TITLE: Unit Test Demonstration Program

CONTACT PERSON: Fred Hughes

OBJECTIVES: To assist families in increasing net farm income by improved efficiency in resource management and utilization.

ACTIVITIES:

Educational: Twenty families in four counties receive intensive technical assistance in areas of farm management and crop production through on-farm consultation, field days, and other group educational activities. Families participate for five years, during which time they are able to receive fertilizer at reduced prices from the Tennessee Valley Authority, as well as direct referrals to credit institutions and assistance from the Soil Conservation Service.

FUNDING: Funding is received from the Cooperative Extension Service and the Tennessee Valley Authority.

KEY WORDS: farm management, fertilization.

RODALE ORGANIC GARDENING AND FARMING RESEARCH CENTER
Box 323, Route 1
Kutztown, PA 19530
(215)683-3112

CONTACT PERSON: Richard P. Harwood

OBJECTIVES: To conduct extensive research in the area of commercial organic agriculture, develop and demonstrate low-energy input technologies for field crop production, and investigate new home food production methods.

ACTIVITIES:

Educational: Workshops in the areas of small-scale fish culture and grain amaranth and other new crops are conducted. Guided tours of the Center's research facility are available. Research reports are distributed.

Pennsylvania

- Research:** Projects address problems in horticulture, agronomy, nutrition, and new crops. Applied research specifically applicable to small farms includes sod interplanting with corn, soybeans, and vegetables; legume over-seeding and living mulch systems, and research on organic farms as agricultural production systems.
- Public Policy:** Organic production methods are advocated in presentations before congressional committees and at conferences, workshops, and other events. The Center assisted the U.S. Department of Agriculture in a national survey of organic farmers.
- Publications:** A magazine, The New Farm, with a circulation of about 75,000, is published six times a year. Reports on specific research projects are issued on a regular basis.
- FUNDING:** The Center's annual support of about \$700,000 is provided with publication revenues of Rodale Press, Inc.
- FACILITIES:** Center facilities are located on a 305-acre farm in Maxatawny, Pennsylvania. About 25 acres are set aside for gardens, an orchard, and permanent research areas, and the balance is operated as an integrated organic farm. Permanent structures include staff offices, a visitors center, laboratories, solar grow frames, and greenhouses.
- STAFF:** Thirty-two persons, including 11 professionals, carry out the Center's activities.
- INTERNATIONAL:** The Center has been designed as the seed source for an international grain amaranth research effort and coordinates this worldwide project.
- REFERENCES:** Rodale Press, which funds the Center, is a major publisher of books dealing with organic agriculture, gardening, and renewable energy.
- KEY WORDS:** organic farming, amaranth, greenhouses, cold frames, recycling, interplanting, aquaculture, nutrition, mulching, gardening, orchards, international.

Rhode Island

UNIVERSITY OF RHODE ISLAND
UNIVERSITY OF MASSACHUSETTS
UNIVERSITY OF CONNECTICUT
c/o University of Rhode Island
Department of Resource Economics
311 Lippitt Hall
Kingston, RI 02881
(401)792-2470

PROJECT TITLE: Tri-State Small Farms Project

CONTACT PERSON: W. H. Wallace

OBJECTIVES: To undertake problem-oriented research for expressed needs; to assist farmers at specific locations in obtaining access to capital; to provide instruction and training at an appropriate and useable level, and to develop a team approach to working with small farms.

ACTIVITIES:

Educational: A Cooperative Extension employee, funded through the project, coordinates the provision of technical assistance through the organization of seminars, newsletters, and occasional home visits.

Institutional Development: A principle emphasis is on the development of local small farm organizations. It is through these groups that most of the technical assistance is provided. They are also a vehicle for the development of cooperative buying of farm inputs, direct marketing channels, and a barter system.

Public Policy: Participating families receive information on contacting public officials.

FUNDING: Annual expenditures are approximately \$60,000.

STAFF: The staff is composed of full-time equivalents of 3.5 professional employees.

KEY WORDS: direct marketing, barter system, cooperatives, community planning.

South Carolina

CLEMSON UNIVERSITY
Cooperative Extension Service
109 Barre Hall
Clemson, SC 29631
(803)656-3297

PROJECT TITLE: Vance Community Project

CONTACT PERSON: B. L. Cunningham

OBJECTIVES: To improve the living standards of limited-resource families in Vance, South Carolina by increasing their incomes through improved small livestock and vegetable production and marketing practices.

ACTIVITIES:

Educational: Participating families receive on-farm assistance in swine production and cooperative marketing from a trained paraprofessional. Families are also assisted in improving soil fertility and producing and marketing vegetables, row crops, and poultry. About 60 families have participated in the swine program since its inception in 1973, while about 100 families have been involved in the vegetable production and 4-H components.

Institutional Development: A board of directors, composed of participating families and community leaders, provides supervision for this project and handles both policy and day-to-day problems.

FUNDING: Although initiated with a grant of \$20,000, the project is now self-sustaining. Participating families return to the project the proceeds from a specified number of hogs sold, as payment for the technical assistance and services received.

STAFF: Project staff consists of one trained paraprofessional supported by a professional county extension agent.

KEY WORDS: swine, vegetable production, paraprofessionals, poultry, marketing, cooperatives.

Tennessee

AGRICULTURAL MARKETING PROJECT
2606 Westwood Drive
Nashville, TN 37204
(615)297-4088

CONTACT PERSON: John Vlcek

OBJECTIVES: To enhance the economic viability of family farmers through development and demonstration of locally-controlled alternatives to conventional agricultural marketing systems.

ACTIVITIES:

Educational: Technical assistance has been provided to several thousand small farmers organized into farm retail marketing associations. A model for food education programs for schools, churches, and food cooperatives has been developed. A demonstration project in eastern Tennessee is introducing farmers to solar, methane, and other alternative sources of energy.

Research: A study of the feasibility of establishing wholesale bulk markets for small farmers has been completed.

Institutional Development: AMP has organized small farmers into retail marketing associations that have established and operated tail-gate markets for fresh produce in 19 cities in Tennessee. It also has helped three vegetable growers associations establish wholesale marketing cooperatives.

Public Policy: Direct marketing has been advocated by staff members in congressional testimony, through government agency advisory committees, and in conference and workshop presentations in the United States and Canada.

Publications: A tabloid newspaper, Farm, Food, Land, is published six times a year. Others include "Citizen Participation in Rural Land Use Planning in the Tennessee Valley," a compendium of articles edited by Lindsay Jones; "Everything You Ever Wanted to Know about Food Fairs," a step-by-step description of how to organize locally-controlled farmers markets; "F.A.R.M. Handbook," a 135-page guide for farmers who want to set up their own produce markets; and "Eclipse of the Blue Moon Foods," a guide to food education.

FUNDING: The project, set up in 1975, raises approximately \$140,000 annually from church and foundation grants, government contracts, publication sales, and private donations.

Tennessee

STAFF: Ten professionals provide staffing. Three VISTA volunteers work as paraprofessionals.

KEY WORDS: farmers' markets, direct marketing, alternative energy sources, paraprofessionals, food education, cooperatives, marketing associations.

TENNESSEE STATE UNIVERSITY
Department of Rural Development
Box 524
Nashville, TN 37203
(615)320-3473

PROJECT TITLE: Small Farm Development Program in West Tennessee

CONTACT PERSON: S. P. Singh

OBJECTIVES: To increase the productivity of the individual and/or family, and thus the total family income; to assist small-farm families in identifying farm and home problems as well as ways of solving them by their own efforts.

ACTIVITIES:

Educational: Technical assistance is provided to 100 farms in two counties of west Tennessee by paraprofessionals through home visits, workshops, and publications.

Research: Research is conducted in various aspects of farm management and marketing.

Institutional Development: Technical help may be provided for establishing and organizing markets for small farmers.

FUNDING: Annual expenditures of approximately \$105,500 are met through funds provided by the U.S. Department of Agriculture -- Science and Education Administration-Cooperative Research.

STAFF: Staff equivalent to 1.8 full-time professionals, two paraprofessionals, and .5 supporting assistants are implementing this project.

KEY WORDS: farm management, marketing, paraprofessionals.

Texas

PRAIRIE VIEW A&M UNIVERSITY
Cooperative Extension Service
Prairie View, TX 77445
(713)857-2213

PROJECT TITLE: Small Farmer Program; Fish Pond Program

CONTACT PERSON: Ivory Nelson

OBJECTIVES: To assist small farmers in all areas of agriculture production and marketing, gardening, and fish pond production.

ACTIVITIES:

Educational: Small Farmer Program: paraprofessionals are used to deliver technology directly to the small farmer on a one-to-one intensive basis. They are supported with back-up assistance by Extension specialists, who provide continuous training and who themselves are supported by University faculty members and other relevant agencies. Presently, this program is implemented in 22 Texas counties, providing assistance to over 1,603 farmers monthly.

Fish Pond Program: this program is assisting farmers to make maximum use of their farm ponds by producing catfish to add more protein to their diets, by supplementing the family income, and by providing a recreation tool. Paraprofessionals and fishery specialists provide training and leadership for 166 catfish demonstrations conducted in 22 counties.

INTERNATIONAL: Prairie View A&M has extensive experience working with developing nations, including a small farm project in Ghana.

REFERENCES: For additional information on the program, see "Prairie View A&M University, International Capability for the West Africa and Caribbean Countries," available from the University.

KEY WORDS: paraprofessionals, farm management, gardening, aquaculture, international, Africa, Caribbean, Ghana.

Texas

TEXAS A&M UNIVERSITY
Texas Agricultural Extension Service
College Station, TX 77843
(713)845-6411

PROJECT TITLE: Small and Part-Time Farmer and Home Garden Program

CONTACT PERSON: D. H. Seastrunk

OBJECTIVES: To teach basic skills required to implement technical recommendations; to provide gardening and nutrition assistance to small farmers and home gardeners; to utilize an existing educational system to accelerate assistance to small farmers and home gardeners.

ACTIVITIES:

Educational: Paraprofessionals provide on-farm consultation in farm production, management, and marketing activities. They organize group seminars and on-farm demonstrations.

Institutional Development: Marketing specialists have coordinated small farmers and consumer buying group activities for more efficient marketing of vegetables.

Publications: Program packets have been written for this program and are available for county use in organizing a small farm program in vegetables, swine, and other areas.

FUNDING: Funding for the approximately \$90,000 annual budget is provided through the Agricultural Extension Service budget.

STAFF: A staff of nine paraprofessionals implement the project, with back-up support from one professional working half-time.

KEY WORDS: farm management, paraprofessionals, swine, vegetable production, gardening, marketing.

Utah

BRIGHAM YOUNG UNIVERSITY
Department of Agronomy and Horticulture
275 WIDB
Provo, UT 84062
(801)378-3825

PROJECT TITLE: An Integrated Small-Scale Agricultural System

CONTACT PERSON: Laren R. Robison

OBJECTIVES: To determine the human support potential of one-half hectare of land in relation to food, nutrition, and capital; to develop an integrated crop/animal production system which is reasonably labor-intensive and which will require minimal capital and energy input; to develop a computer model which will predict the best size of small farm operations, based on various limitations in energy, financial resources, and labor.

ACTIVITIES:

Research: Research efforts are focused on providing 2400 calories per day for seven to 10 people on four one-half-hectare plots. This includes production of crops for human consumption and to feed small animals (poultry, rabbits, guinea pigs, milk goats or sheep). The program is aimed at meeting caloric and nutritional needs (protein, vitamins A and C, and folic acid).

FUNDING: Annual expenditures of approximately \$30,000 are met through funds provided by the Ezra Taft Benson Agricultural and Food Institute.

KEY WORDS: goats, poultry, rabbits, guinea pigs, sheep, appropriate technology, nutrition, gardening.

Vermont

ASSOCIATES IN RURAL DEVELOPMENT

P.O. Box 897
Burlington, VT 05402
(802)658-3890

CONTACT PERSON: George Burrill

OBJECTIVES: To conduct research and provide educational and consultant services relating to energy, agriculture, forestry, fisheries, land use, rural development, and environmental affairs.

ACTIVITIES:

Educational: ARD provides assistance to nonprofit, educational institutions and community-based groups in the development of educational and training programs.

Research: A bio-regional approach to natural resource utilization and rural development as been developed and demonstrated. A study of the feasibility of alcohol production by farm cooperatives has been completed.

Publications: Publications prepared by ARD staff members include a two-part analysis of energy utilization in Vermont agriculture and a report on nutritionally-adequate vegetarian diets.

FUNDING: ARD is funded through government grants and contracts.

STAFF: Eight persons are listed as members of the firm's core professional staff.

INTERNATIONAL: Staff members have worked as consultants, primarily on energy-related problems, in Africa and Latin America.

KEY WORDS: cooperatives, alternative energy sources, alcohol fuels, nutrition, forestry, aquaculture, international, Africa, Latin America, energy conservation.

Vermont

NATIONAL ASSOCIATION FOR GARDENING
180 Flynn Avenue
Burlington, VT 05401
(802)863-1308

CONTACT PERSON: B. H. Thompson

OBJECTIVES: To organize community gardens and promote gardening skills.

ACTIVITIES:

Educational: The institution disseminates information on improved and innovative gardening techniques and provides training in gardening methods.

Publications: A gardening news periodical is published. General gardening publications also are issued.

FUNDING: Funding of about \$350,000 a year is provided by contributions, sales of publications and merchandise, and membership fees.

FACILITIES: The institution sponsors demonstration gardens in many large cities. These provide space for research plots and training.

STAFF: The Gardens for All staff includes 17 professionals. Organizers and coordinators of demonstration gardens provide assistance to the staff.

INTERNATIONAL: The institution consults for the Blubbar Valley Project, a new initiative that helps families in Antigua, West Indies, produce food on quarter-acre plots for home consumption and sale. It also trains people from other Caribbean islands, teaches food processing skills, and promotes farmers' markets.

KEY WORDS: community gardens, nutrition, farmers' markets, food processing, Antigua, West Indies, Caribbean, international.

Vermont

UNIVERSITY OF VERMONT
Cooperative Extension Service
Morrill Hall
Burlington, VT 05405
(802)656-3013

PROJECT TITLE: Small-Scale Agriculture Project

CONTACT PERSON: Les Ravlin

OBJECTIVES: To increase individual and group productivity to enable farm families to remain on their farms; to improve profitability; and to increase the quality of life for the individual and family involved.

ACTIVITIES:

Educational: Initiated in July 1980, this project will include workshops, publications, and on-farm consultations. In 1980-81, the plan of action includes regional workshops on poultry, small grain, and swine production and management. Workshops for experienced farmers will also be conducted on goats, sheep, beef, Christmas trees, small fruit, vegetables, and orchard production and management. In addition, 14 county workshops will be conducted on "What To Do with 10 Acres of Land"; also, farmers' market and farm credit seminars will be held for small-scale producers.

Research: Research on weed control in carrot production is under way.

Institutional Development: Cooperatives have been assisted in various technical matters and business management.

Publications: Small-scale agriculture reference libraries have been developed in each county office of the Cooperative Extension Service. Expected publications for 1980-81 include a newsletter for small-scale and emerging agricultural enterprises and "Farming for Fun or Profit," on poultry, small grain, and swine.

STAFF: The Small-Scale Agriculture Project is an integral part of the total program of the Cooperative Extension Service. Existing staff are implementing this project.

KEY WORDS: swine, small grain production, poultry, marketing, cooperatives, farm management, carrots, weed control, credit, fruit production, orchards, goats, sheep, Christmas trees, vegetable production.

Virginia

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
203 North Governor St.
Richmond, VA 23219
(804)786-3538

PROJECT TITLE: Rural Rehabilitation Fund
CONTACT PERSON: Jim Kee
OBJECTIVES: To supplement Farmers Home Administration loan money available to limited-resource farmers.

ACTIVITIES:

Educational: An Agricultural Credit Handbook was produced and distributed to lenders and professional agricultural workers.

Policy: Regional conferences have been conducted to bring farmers and lenders together to exchange information and develop courses of action.

Other: Direct and electronic marketing techniques are being developed to improve marketing opportunities for farmers.

FUNDING: Funds for the project come from income generated by the Virginia Rural Rehabilitation Corporation.

STAFF: Staff for the project consists of two full-time professionals.

KEY WORDS: credit, direct marketing, electronic marketing.

VIRGINIA STATE UNIVERSITY
Bureau of Economic Research and Development
Box W
Petersburg, VA 23803
(804)520-5148

PROJECT TITLE: Small Farm Development Center -- Facilitators
CONTACT PERSON: Wilbert H. Lawrence
OBJECTIVES: To increase the earnings of economically disadvantaged and/or underemployed small farmers by identifying the most serious constraints facing the family or individual, with special attention to improving

Virginia

recordkeeping and obtaining credit; to obtain profiles of all small farm families in south central Virginia.

ACTIVITIES:

Educational: Counseling services are provided in credit, financial recordkeeping, alternative farm enterprises, off-farm job development and placement, and marketing and alternative energy resources for farm operations. Training is provided in recommended production practices and applicable U.S. Department of Agriculture programs for small farmers. Instruction is provided in problem-recognition and decision-making, as well as in coordinating resources available to meet small farmers' economic needs through such agencies as the Cooperative Extension Service, Farmers Home Administration, Agricultural Stabilization and Conservation Services, and the Bureau of Economic Research and Development.

Research: Over the years, the Bureau has conducted a number of research projects on such topics as labor market activity of rural women, human resources development, rural labor supply, and income in rural areas. The Small Farm Development Center will translate this information into action programs small farmers can understand and utilize to increase their earnings.

FUNDING: The project is funded by the Comprehensive Employment and Training Act and the Community Services Administration.

FACILITIES: Research facilities and residential housing are located on Virginia State University's campus.

STAFF: Six professional staff, three paraprofessionals, and four other staff are providing services to approximately 256 small farms.

KEY WORDS: farm management, recordkeeping, credit, paraprofessionals, off-farm employment, alternative energy sources, marketing, rural women.

Virginia

VIRGINIA STATE UNIVERSITY
Cooperative Extension Service
Box 540
Petersburg, VA 23803
(804)520-6421

PROJECT TITLE: Virginia Small Farm (Bootstrap) Program

CONTACT PERSON: Mitchell Patterson, Jr.

OBJECTIVES: To increase the economic opportunities and quality of living for families living on small farms.

ACTIVITIES:

Educational: Paraprofessionals utilize demonstrations, home visits, and publications to inform constituents. Technicians provide assistance to vegetable cooperatives.

FUNDING: Annual funding of \$265,000 is provided by the U.S. Department of Agriculture.

STAFF: There are presently 3.6 person years of professional time and 15 paraprofessionals working on this effort.

KEY WORDS: feeder pigs, paraprofessionals, vegetable production, marketing, cooperatives.

Washington

BLUE MOUNTAIN ACTION COUNCIL
19 East Poplar St.
Walla Walla, WA 99362
(509)529-4980

PROJECT TITLE: Washington Small Farm Resources Network

CONTACT PERSON: R. Randal Son

OBJECTIVES: To improve small farm viability and economic stability through labor apprenticeships; energy innovations; market development, including cooling and storage facilities; credit advocacy; organic product certification; public policy information outreach; and policy advocacy.

ACTIVITIES:

Educational: The project conducts workshops on credit, publishes a newsletter every six weeks, and has published a directory of resources for small farmers which includes information on energy and marketing alternatives for small farms and other organizations working with or for small farmers. Staff also assists in placing apprentices on working farms.

Research: Current research involves the use of fodder beets for ethanol production under a grant from the Department of Energy.

Institutional Development: Considerable effort has been made to develop marketing options for area small farmers. Three farmers' markets have been organized, and 30 have been assisted with securing food stamp acceptance. Cooperative facilities for cooling and storing produce have been developed, and a certified organic producers cooperative has been organized. A low-interest loan fund has also been set up to assist with establishing new on-farm enterprises.

Policy: Project staff has prepared and delivered testimony at public hearings and prepared a policy paper for the Community Services Administration.

Publications: A project newsletter and list of other available articles and information are available upon request.

FUNDING: This interagency project receives funding from the Community Services Administration, ACTION, and the Department of Energy.

STAFF: Approximately five professional and five paraprofessional staff conduct the project.

Washington

KEY WORDS: apprenticeship programs, alcohol fuels, appropriate technology, organic farming, marketing, credit, cooperatives, public policy, farmers' markets.

EVERGREEN STATE COLLEGE
Olympia, WA 98505
(206)866-6009

PROJECT TITLE: Small-Scale Agriculture: Survival of the Small Farm

CONTACT PERSON: Fred Stone

OBJECTIVES: To train students and practitioners in small-scale agriculture which is ecologically and socially sound; to assist farmers through student projects, internships, adult education courses, and student involvement in outreach and networking.

ACTIVITIES:

Educational: Established in 1972, this program organizes informal workshops and credit courses in a variety of farm-related subjects such as pest management, organic gardening, and marketing. Apprenticeships are organized for on-farm student training. Students also intern with alternative food distribution systems.

Research: Student research focuses on alternative food production methods, including solar greenhouses, aquaculture, no-till organic grain production, intensive gardening, and pest management.

Institutional Development: Students work with agricultural organizations including those concerned with soil improvement, farmers' markets, community gardens, and cooperative food distribution.

Public Policy: Students and faculty are active on local and regional zoning boards and agricultural committees. They also testify in support of legislation concerning farmland preservation and the development of standards for organic produce.

Other: The Evergreen State College works closely in course development activities with the Washington Small Farm Resources Network and Tilth Association.

Washington

- FUNDING:** Activities for the project are financed principally through the Evergreen State College. Total annual expenditures are approximately \$50,000.
- FACILITIES:** Facilities include a 13-acre farm, having woodlands, grain fields, and a garden; a farmhouse with kitchen and classroom; a solar greenhouse; and a fish tank.
- STAFF:** Professional staff working on the project equal 1.5 full-time equivalents. Four paraprofessional staff are also employed.
- INTERNATIONAL:** This program represents a potential model for a demonstration center for organic gardening and appropriate technology techniques.
- KEY WORDS:** organic gardening, aquaculture, alcohol fuels, internship programs, greenhouses, farmers' markets, paraprofessionals, public policy, no-till farming, apprenticeship programs.

West Virginia

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE
P.O. Box 250
Summersville, WV 26651
(304)872-1731

PROJECT TITLE: Forest Access Management Roads

CONTACT PERSON: Frederick L. Williams

OBJECTIVES: To provide small-farm families supplemental farm income from harvesting and marketing trees through improved forest management practices and the construction of access roads; to prevent stream pollution from sedimentation; to provide a source of relatively low-cost home heating fuel for area residents.

ACTIVITIES:

Educational: Technical assistance is provided to landowners in the preparation of forest management plans, best management practices, and marketing strategies. Monthly newsletters, radio releases, and newspaper articles are used to disseminate information.

Research: Comparative studies based on monitoring streams for sedimentation are being done on access roads constructed under the project and those constructed outside the project area.

Other: Cost-sharing is provided for conservation practices, spring development, fencing, timber stand improvement, weed control, and water impoundment reservoirs.

FUNDING: Funding has been provided by the U.S. Department of Agriculture Small Farmer Assistance Program through the Agricultural Stabilization and Conservation Service. Technical assistance is also received from the Soil Conservation Service, County Extension Service, and the West Virginia Department of Natural Resources Forest Service and Water Resources Division.

STAFF: Project activities are conducted by five professional full-time staff and two paraprofessionals.

KEY WORDS: soil conservation, water quality improvement, paraprofessionals, forestry, woodlot management.

West Virginia

ROANE COUNTY MOUNTAINEERS FOR RURAL PROGRESS

Route 3 Box 88
Spencer, WV 25276
(304)927-1020

PROJECT TITLE: Upper Pocatalico Watershed Small Farm Family Assistance Project

CONTACT PERSON: Quellen Keith

OBJECTIVES: To increase family income and quality of life through improved production and woodlot management practices; to reduce soil erosion and improve water quality through improved management skills and reclamation of stripmined lands; to improve family access to U.S. Department of Agriculture programs and information.

ACTIVITIES:

Educational: A general monthly newsletter is published, supplemented by more specific periodic newsletters for beef and bee producers. A garden calendar was distributed to over 270 families, and home and garden newsletters are received by approximately 240 families. Technical assistance for soil conservation and forest management are also provided to area farmers.

Other: The project sponsors meetings on topics of interest to local farmers such as marketing, beef production, pasture management, and safe use of pesticides.

FUNDING: Several local, state, and federal agencies provide funds for this project, including funds for cost-sharing for implementation of conservation practices.

STAFF: The project is staffed by two professionals, two paraprofessionals, and two other staff people.

KEY WORDS: soil conservation, woodlot management, beekeeping, beef, gardening, paraprofessionals, water quality improvement.

West Virginia

WEST VIRGINIA UNIVERSITY
Division of Plant Science
Morgantown, WV 26505
(304)293-4817

PROJECT TITLE: Small Farm Demonstration Unit

CONTACT PERSON: Steven H. Blizzard

OBJECTIVES: To develop a small-farm demonstration unit for West Virginia.

ACTIVITIES:

Educational: Technical assistance, information, and demonstration are provided to local farmers. Principal crops grown are fruit (grapes, strawberries, apples, tomatoes) and tobacco. Services to farmers include marketing (direct marketing, a subterminal market, and farmers market) and information on small-scale production.

Research: Research efforts include biological, management, and marketing activities.

FUNDING: This \$40,000 program has been in operation since 1971 and is funded by the State of West Virginia.

FACILITIES: Facilities include the technical resources of West Virginia University, as well as an eight-acre farm with 30,000 square feet of greenhouse space, located in Hamlin, West Virginia.

STAFF: There are presently three professionals working within the unit.

KEY WORDS: farm management, marketing, greenhouses, grapes, tomatoes, tobacco, strawberries, apples, farmers' markets.

Wisconsin

UNIVERSITY OF WISCONSIN
College of Agriculture and Life Sciences
Department of Agricultural Economics
Madison, WI 53706
(608)262-9480

PROJECT TITLE: Extension Small Farms Program

CONTACT PERSON: William Saupe

OBJECTIVES: To permanently improve the economic and social well-being of small-farm families in selected areas of Wisconsin.

ACTIVITIES:

Educational: Families participating in this six-year-old program receive on-farm technical assistance from trained paraprofessionals. Assistance is provided in areas of problem identification, and instruction emphasizes production technology, farm financial management, and use of community services.

Research: Interviews with 160 selected small-farm families have been completed covering human resources, goals and values, use of markets and technology, and more. Analysis is under way.

Public Policy: Program staff provides testimony, participates in state and national conferences, and interprets the impact of public policies and programs on small-farm families.

Publications: Fact sheets on various aspects of small farming are published regularly, as well as occasional research reports.

FUNDING: The annual budget of \$100,000 is derived from federal and state funds earmarked for the Extension Small Farms Program. Participating families receive additional assistance from other cooperating organizations, including the Farmers Home Administration, Wisconsin Federation of Cooperatives, and the Community Action Agency.

STAFF: Program employees include two professionals and four paraprofessionals.

INTERNATIONAL: Program staff have provided training to foreign extension workers in credit and general extension for small farmers.

Wisconsin

KEY WORDS:

farm management, paraprofessionals, dairy, tax management, credit, public policy, international.

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NRC SMALL FARM PROJECT QUESTIONNAIRE

Please complete the following questionnaire, which has been developed to obtain an inventory of projects of demonstrated benefit to limited-resource small farms in the United States. This information is being gathered for possible inclusion in a directory of potential resources for small farmers in developing nations. Space for additional comments has been provided on page 6. Please complete a questionnaire for each small farm project or program being conducted by your agency/organization, and mail the completed questionnaires in the enclosed envelope to National Rural Center's Small Farms Project, 1828 L St., N.W., Washington, D.C. 20036. If you have any questions, please call Heather Tischbein Baker collect (814) 466-6632. Your cooperation in completing the questionnaire would be greatly appreciated.

GENERAL DESCRIPTION OF PROJECT OR PROGRAM:

1. Do you conduct any project or program for limited resource family farms? Yes _____ No _____
If yes, what is the name of this project or program?

2. Person in charge of project or program: _____

Phone () _____

3. Name of Agency/Organization: _____

4. Department _____

5. Address: _____

_____ Zip Code _____

6. Date project was established: _____

7. If completed, date completed: _____

8. Project or program objectives: _____

NRC SMALL FARM PROJECT QUESTIONNAIRE

IMPLEMENTATION ACTIVITIES AND SCOPE:

Describe the specific activities of your project; please indicate the scope of these activities in your answer; e.g., number of farms served, geographic area included, frequency of publications, etc.

9. Education or technical assistance for small farmers (seminars, home visits, and demonstrations, apprenticeships, publications & other information services; please attach bibliography if available. We will indicate publications are free unless you indicate otherwise.)

Not applicable

10. Institutional development of organizations serving small farmers (cooperatives, service organizations, other non-profits, funding organizations)

Not applicable

11. Applied research specifically applicable to small farms (mechanical, biological, farm management, sociological, demographic, marketing, credit, etc.)

Not applicable

NRC SMALL FARM PROJECT QUESTIONNAIRE

12. Public policy activities (outreach, testifying, conference participation, lobbying, policy analysis, etc.)

Not applicable

13. Other kinds of activity for the benefit of small farms (please specify):

14. Project facilities: Describe the facilities of your project or program (e.g., research station, residential training center; include location and address) _____

15. Cooperating organizations: If your project or program is conducted with other organizations (government, private, or voluntary) please complete the following.

<u>Organization Name</u>	<u>Address</u>	<u>Contact Person</u>	<u>Telephone</u>
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PROJECT FINANCE:

16. Income sources _____

NRC SMALL FARM PROJECT QUESTIONNAIRE

17. Approximate total annual expenditures for this project or program: (Round to the nearest \$10,000, including salaries, travel, operating expense, overhead, etc.) \$ _____

ORGANIZATION & PERSONNEL:

18. Number of professional staff
Male _____ Female _____ (full time equivalents)
19. Number of paraprofessional staff
Male _____ Female _____ (full time equivalents)
20. Number of other staff
Male _____ Female _____ (full time equivalents)
21. Do farmers participate with project staff in designing, legitimizing, or organizing project activities? Yes _____ No _____, If Yes, please describe. _____

IMPACT:

- What do you feel has been the impact of your project or program on small farm families? Please be specific as possible.
22. Economic Impact (e.g., increased employment and/or income, development of agriculture-based light industries in target areas, etc.)
 Not applicable

23. Social Impact (e.g., increased farmer participation in community activities, etc.)
 Not applicable

NRC SMALL FARM PROJECT QUESTIONNAIRE

24. Other (e.g., environmental, health, nutritional, etc.)

Not applicable

25. Do you feel the objectives stated in Question 8 are being/have been met? Yes ____ No ____ . If no, please describe specific problems: _____

RELEVANCE TO DEVELOPING NATIONS:

26. Please list those aspects of your project or program (resources, experiences, or models) which you feel would have special relevance to small farm development projects in developing nations.

27. What factors would limit the practicality or effectiveness of efforts to replicate or utilize your project or program for limited resource farmers in developing nations? _____

28. Do you think your agency/organization might participate in an international program that involved residential training in the United States? Yes ____ No ____

29. If so, under what conditions? _____

NRC SMALL FARM PROJECT QUESTIONNAIRE

OTHER CONTACTS AND PROJECTS:

30. If there are other projects in your agency/organization or region which should be included in this Directory, please list below.

<u>Project/Agency</u>	<u>Address</u>	<u>Contact Person</u>	<u>Telephone</u>

31. If you have future projects planned which you wish to have indicated in the Directory, please describe: _____

32. Person completing this questionnaire: _____
May we call you if we have further questions? Phone No. ()

33. Date: Month _____ Day ____ 1980

34. Would you like to review a draft of the Directory entry we will prepare for your project or program? Yes ____ No ____ . If yes, please return this questionnaire no later than November 3.

35. Additional space for previous questions/general comments.

<u>Question Number</u>	

(Attach additional pages if needed. Thank you.)