Annual Report of Accomplishments and Results
University of Alaska Fairbanks
Cooperative Extension Service
FY2000: October 1999 through September 2000

I. Planned Programs

GOAL 1. AN AGRICULTURAL SYSTEM THAT IS HIGHLY COMPETITIVE IN THE GLOBAL ECONOMY. Through research and education, empower the agricultural system with knowledge that will improve competitiveness in domestic production, processing and marketing.

Executive Summary:

Highlights and Impacts

Alaska's agricultural system is still young and evolving. Less than 100 years ago there were national debates about whether the Territory of Alaska could even support home gardens. Today we see agriculture and forestry in Alaska as formative land management activities. Cooperative Extension is fortunate to have several specialists who have joint research – extension appointments. Dr. Milan Shipka is the extension livestock specialist. He is planning to coordinate a three-day conference in Fairbanks on Alternative Livestock Production. Alaska agriculture holds many possibilities for raising and marketing specialty animals such as reindeer, elk, bison, and musk ox. A follow up meeting to organize a statewide alternative livestock advisory group is planned for the winter 2001. As the sole UAF animal scientist, Dr. Shipka regularly visits Alaska livestock producers. He has worked with dairy producers to develop an early pregnancy detection test for cows, which will potentially save dairy farmers thousands of dollars annually. He has relocated the UAF cattle herd from Fairbanks to Palmer where most of the livestock producers are located.

Dr. Roseann Leiner, extension horticulture specialist, has directed her work to vegetable production. She has started cultivar trials for lettuce producers. Lettuce is an important vegetable crop in Alaska. Her work also includes research into plant diseases affecting vegetable crops. She has actively shared her research with vegetable producers at conferences and grower meetings.

Both Drs. Shipka and Leiner also are involved in multistate research projects. Dr. Thomas Jahns, a district agent and agronomist, serves on a national forage trial group with representatives from throughout the western region land grant institutions. He works with farmers in southcentral and southwestern Alaska on forage production, especially in the value of fertilizing with sulfur to dramatically increase forage production. Growers that he has worked with readily and frequently report at conferences and grower meetings the dramatic increase in forage production as a result of applying Dr. Jahns' expertise. Dr. Robert Wheeler, extension forestry specialist, has the daunting task of being Alaska extension's only forester. His *Under the Canopy* newsletter has won national awards for his informative, timely articles. Like Bob

Gorman - resource development agent, Dr. Wheeler regularly hosts visiting research and extension faculty from land grant universities across the United States to come to Alaska and assist the forest products industry, timber dependent workers and communities. These visits from other land grant faculty provide tremendous diversity and information resources for Alaska's public land dependent forest product companies, workers and communities.

State's Assessment of Accomplishments

Information delivery and exchange of information are critical elements in assisting the development of a competitive agriculture and forestry system. Extension sponsors or co-sponsors a number of annual meetings for farmers, livestock producers, greenhouse and nursery operators, forest product companies, workers and timber dependent communities. In a state where distances are great and opportunities to meet and visit with other producers are limited, these meetings are important occasions to share information and develop new, more efficient production systems. Meeting evaluations typically ask participants about the relevance of the information provided to their operation and the likelihood they will adopt the information. Also growers, producers and other stakeholders typically are involved in the planning of these annual meetings.

Alaska is working to implement AREERA. It is requiring changes to the usual method of reporting and documenting impacts. The loss of faculty and staff over the past four years has placed a heavy workload on the remaining agents, specialists and staff. The implementation of AREERA is evolving. As each year passes Extension specialists and agents will increasingly work to fully implement the CES 5 year Plan of Work.

Expenditures and FTEs

	FY2000
Federal	$371,154
State Match	$371,154
FTE's	9

Key Themes:

1. Adding Value to New and Old Agricultural Products

a. Extension's resource development agent coordinated two forest products workshops in the spring of 2000 for southeast Alaska timber dependent communities. In Ketchikan a workshop on Forest Product Business Development was held in conjunction with the annual meeting of the Alaska Society of American Foresters. A representative from the U.S. Department of Agriculture Forest Service in Klamath Falls, Ore., presented a workshop titled "Recognizing and Assisting Sustainable Forest-based Business Opportunities." In Sitka a one-day workshop on Specialty Forest Products was held in conjunction with the USDA FSL Sitka Wood Utilization Research & Development Center and the Sitka Society of American Foresters. Presenters included Washington State University's Extension Special Forest Products Specialist, the Tongass National Forest

Special Forest Products Coordinator, the general manager of Chesloknu Foods (Seldovia, AK), and the Tongass National Forest Native Affairs Liaison.

b. Impact - A total of 50 community members attended the workshops. Follow-up visits to these communities by the resource development agent were encouraged by the participants, and future consultations and workshops are anticipated. Both of these workshops were organized by Alaska CES in response to underserved-clientele requests

c. Source of Federal Funds - Smith-Lever 3b&c and Special Needs

d. Scope of Impact - Multistate Extension
with Washington State University

2. Agricultural Competitiveness

a. The annual Delta Farm Tours were organized and hosted by the Extension land resources program. The all-day tour included dairy, beef and elk farms, a luncheon of Alaska Grown products, and three large production crop farms. Some of the notable guests who attended were state legislature officials and their staff, the UAF chancellor, and both state and federal agriculture officials.

b. Impact - Over 150 attendees participated in the tours. Many positive comments were made such as, "I am so glad I attended the tour. It was enjoyable, enlightening and educational, well planned and farmers were very accommodating and forthcoming with information. It felt like a real cooperative effort with mutual respect among them. Thanks for the memorable experience."

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - Integrated Research and Extension

3. Agricultural Competitiveness

a. The Palmer District Extension horticulturist, filling a joint position with the School of Agriculture and Land Resources Management -- Palmer Research Center, tested 14 cultivars of lettuce for quality and yield in the summer of 2000. A popular crop, head lettuce is "miles fresher" when grown in Alaska, and growers choose cultivars that are suited to the long days and cool soils in Alaska. Other experiments included growing baby greens, the young leaves of mustard greens and other leafy plants in the cabbage family. 12 different types were grown to measure yield and quality. Baby greens can be harvested in three weeks, and produce a second crop in days, a real plus in Alaska's short growing season.

b. Impact - Research results will be shared with growers and the public via Extension agents and specialists, and will positively impact both commercial growers and home gardeners.

c. Source of Federal Funds - Smith-Lever 3b&c, Hatch Act

d. Scope of Impact - Integrated Research and Extension

4. Agricultural Profitability

a. The annual Delta Farm Forum included information on commercial greenhouse production, estate planning, game ranching, grain trials, haylage production, diversified farming, and miscellaneous reports from state and federal agencies. Handouts included information related to the various topics plus publications on subjects of interest to the producers who attended.

b. Impact - 146 people from around the state attended the event. Farmers and producers were able to meet with and speak to their state legislative representative and state department officials on agriculture topics of interest and concern in Alaska.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - Integrated Research and Extension

5. Agricultural Profitability

a. Land Resources faculty and staff in Palmer and Anchorage coordinated the Alaska Greenhouse and Nursery Conference held in Wasilla in February 2000. The conference is an annual event that includes UAF faculty presentations as well as presenters from the horticulture industry in Alaska and other states.

b. Impact - The conference was attended by 75 greenhouse / nursery owners, operators, and workers.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - Integrated Research and Extension

6. Agricultural Profitability

a. The Extension land resources program organized the annual Potato and Vegetable Growers Conference. This annual event is structured to address current concerns of commercial produce growers in south central Alaska. It also exposes growers to new technology and growing practices that show promise in Alaska.

b. Impact - 85 producers attended.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - Integrated Research and Extension

7. Animal Reproduction

a. On-farm site visits to Alaska livestock operations by Extension's livestock specialist provided excellent opportunities to work with individual producers on livestock production

and management issues that impact farm profitability, and allow development of animal nutrition and feed management programs, animal breeding and reproductive management programs, improvement of animal health and calf survivability and improvement of many other factors related to the well being of Alaska's livestock industry.

b. Impact - More than 70 on-farm site visits were made by the livestock specialist to address a wide range of needs from feed analysis, diagnosing disease and health conditions, to herd management.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - Integrated Research and Extension

8. Animal Production Efficiency

a. Extension's livestock specialist is collaborating with Alaska Dairy Farmers on research in the early pregnancy detection in dairy cows. Other research involves collaborating with Alaska Beef and Dairy Producers in the development of breeding management in beef and dairy cattle. In alternative livestock, research into reproductive management of musk ox and reindeer is part of the livestock specialist's research program at UAF.

b. Impact - These applied research projects offer positive interactions with Alaska Livestock Producers and excellent opportunities for increasing the profitability of Alaska's livestock enterprises and the well being of Alaskans involved in animal agriculture.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - Integrated Research and Extension

9. Diversified/Alternative Agriculture

a. Alaska's livestock specialist and Delta Junction land resources agent are organizing and hosting a three-day, "Alternative Livestock Producers Conference," to be held in October 2000, which will target the educational needs of producers of alternative livestock such as elk, bison, yak, reindeer and musk ox.

b. Impact - More than 90 participants are registered to attend this conference. While much of the organizing and planning effort have occurred in FY00, actual results will be reported in the next cycle.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - Integrated Research and Extension

10. Grazing (Forage)

a. The potential of a new Orchardgrass cultivar from Norway, Apelsvoll, has been evaluated for the past five years by the Kenai Peninsula land resources agent. This new variety will yield at least two cuttings of higher quality hay than Engmo Timothy, the most popular

hay-grass currently grown on the Peninsula. It regrows more quickly and is more prolific than other varieties, making it an excellent alternative pasture grass. Apelsvoll offers improved winter hardiness over Engmo Timothy and is an excellent horse feed as well.

b. Impact - This new "super-grass" should have a tremendous impact on the Kenai Peninsula's livestock industry over the next five years.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

11. Grazing (Forage)

a. Forage crop varietal and fertility evaluation trials were conducted in Kodiak over the past three years by land resources agents. These efforts are starting to pay off for cooperators, as selected annual and perennial forage crops looked promising under Kodiak's difficult growing conditions. The use of salmon meal fertilizer, readily available on Kodiak, proved an added bonus as pH was increased along with enhanced nitrogen and phosphorus fertility levels.

b. Impact - As options are quantified under on-farm conditions, benefits to all of Kodiak's forage producers will be realized.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

12. Home Lawn and Gardening

a. Garden clinics in the Anchorage District utilized the time and talents of Master Gardener volunteers to educate the public at large and at the Alaska State Fair. Master Gardeners also supported the Alaska Botanical Garden to provide visitors with Extension publications as well as direct educational contact. Over 99 classes taught in the Fairbanks Tanana District reached 1,716 people, for a total of 278 hours of instruction. 75 Master Gardeners were trained this year, with each student volunteering 40 hours of service to share what they have learned with the rest of the community.

b. Impact - 80 Master Gardener volunteers participated in garden clinics, reaching over 560 people in the community. With 75 Master Gardeners trained this past year, an estimated 3000 hours of volunteer service will result as they go on to share what they have learned in the local community.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

13. Diversified/Alternative Agriculture

a. The Anchorage Extension horticulture program assistant continues to provide the Bureau of Land Management's Campbell Creek Science Center with native landscape expertise as a member of the Landscape and Greenhouse Committee. The committee has been developed to display native plants and their attributes in an educational as well as aesthetic way for the visitors to the Center, as well as propagate native plants for use by the Center and other organizations.

b. Impact - Extension involvement with this committee will FINISH STATEMENT

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

14. Invasive Species

a. The Delta land resources program has taken an aggressive, proactive stance dealing with several specific noxious weed species occurring in the area. Site visits of area farms are made to educate land owners/operators of proper weed identification, various control options, and best management practices to minimize the introduction or spread of these weeds. Though not a noxious weed, foxtail barley is a real problem in forage and grain crops; an herbicide trial was initiated in June 2000 to evaluate the effective control of six herbicides for control of foxtail barley in smooth bromegrass hay fields or pasture.

b. Impact - A noxious weed program has been in place for five years and positive results in slowing down and controlling their spread are being noted.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

GOAL 2: A SAFE AND SECURE FOOD AND FIBER SYSTEM. Improve access to an affordable, healthful and culturally relevant food supply, and improve food safety by controlling or eliminating food borne risks.

Executive Summary:

Highlights and Accomplishments

During this reporting period 102 classes were taught by 6 faculty within the Extension Home Economics program (1 faculty member has been on medical leave). Teaching hours equaled 463, reaching an audience of 2036. Selected class evaluations indicated that approximately 92% of the clientele planned to adopt the practices taught. Programs in food safety, food preservation and food choices have been identified for impact evaluations during this next reporting cycle.

Home Economics program faculty provided 1364 hours of consultation time to individuals, agencies and organizations during this reporting period. The 6 program

faculty provided one-to-one consultations for 3672 clientele in the areas of food preparation, Alaskan foods, food handling and food choices. Expansion of the Home Economics Web site, specifically the nutrition and EFNEP locations, has provided an additional opportunity for clientele to access Extension resource materials and faculty.

The HACCP model plan is nearing completion with an expected date of release set for June of 2001.

Pressure canner gauges continue to be tested throughout the state. A total of 397 gauges were tested by Home Economists with a gauge failure rate of 13%.

In this reporting period 65 newsletters, newspaper articles, fact sheets and publications were written by faculty and distributed to clientele. Two television program and 8 radio spots were used by statewide media outlets.

Expenditures and FTEs

	FY2000
Federal	$146,697
State Match	$146,697
FTE's	4

Key Themes:

1. Food Accessibility and Affordability

a. The Fairbanks Food Bank provides nutritious food boxes to hungry families each year. Families sometime don't have the skills to cook the food distributed. To meet this need the Tanana District Home Economics program tested recipes and created 6 pamphlets for families. Subjects were: Beans, Rice, Fruits and Vegetables, Bread, Canned Salmon, and Carrots. Each time one of these items goes into a box, the appropriate flyer goes in as well.

b. Impact - Food boxes have gone to 8000 families this past year, with one or more of the appropriate Extension flyers in each box.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

2. Food Quality

a. The home economics food technology specialist researched processing times for quart jars of salmon in cooperation with the UAF School of Fisheries and Marine Science's Marine Advisory Program located in Kodiak. The results of this research will be published after outside verification. The next project is to research times and processing pressures for pound and half-pound cans of fish.

b. Impact - The research results will allow dissemination of up-to-date information via Extension and other agency publications and educational programs, enhancing food safety and quality of an Alaskan diet staple.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

3. Food Resource Management

a. The Kenai Peninsula home economist, working in cooperation with the local Women's Crisis Center, offered a series of classes centered on nutrition, food preparation, and budgeting. Women were trained in skills they will need when they transition from the center.

b. Impact - The series was presented to 87 individuals this year.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

4. Food Safety

a. Food Preservation continues to be a central component of the home economics program in Alaska. Food preservation information is delivered through classes, workshops, community wide events, fair booths, newspapers, newsletters and the toll free Food Safety and Preservation Hotline.

b. Impact - Over 5000 consumer questions were answered by the Extension home economists and the food preservation technician.

c. Source of Federal Funds - Smith-Lever Food Safety and Quality Formula Funds

d. Scope of Impact - State Specific

5. Food Safety

a. Understanding basic food microbiology is the foundation for all food preservation. The Extension food and nutrition specialist taught this basic component at Master Food Preserver workshops in Delta Junction, Fairbanks, and Anchorage.

b. Impact - 65 participants received this instruction at Master Food Preserver workshops.

c. Source of Federal Funds - Smith-Lever 3b&c and 3d EFNEP

d. Scope of Impact - State Specific

GOAL 3: A HEALTHY, WELL-NOURISHED POPULATION. Optimize consumer health through improved quality of diets, food and number of food choices, and promotion of health, safety and access to quality health care.

Executive Summary:

Highlights and Accomplishments

During this reporting period 35 classes were taught by Extension Home Economics faculty that related to quality of diets, quality of food or food choices. These classes represented 493 hours of teaching and reached 1052 clientele. Faculty participated in 12 health fairs that reached over 1200 clientele. One faculty member is an active committee member on the statewide health fair board and heads a local committee that identifies all the non-medical volunteers for the health fair.

Consultations by the home economists with individuals, agencies and organizations reached 543 clientele with an investment of 236 hours. The nutrition specialist/EFNEP coordinator documented 520 hours of consultations as he assisted Extension faculty, media, agencies and peers in other states with questions in this program area.

Six EFNEP food and nutrition assistants in Anchorage and Fairbanks taught nutrition, cooking skills and budgeting to 319 low-income families. They also taught the food guide pyramid, food safety, healthy snacks and food choices to 2277 youth. These activities represented 6098 contact hours during this reporting period.

Indoor Air Quality, taught by the Housing and Energy specialist, continues to be a major program of interest statewide. A focus during this reporting period has been on the issue of asthma in children and its relationship to the home environment. Eight classes or workshops reached 194 clientele in communities throughout Alaska. The Housing and Energy Specialist received funding for a second VISTA volunteer to work with him on rural housing issues. The addition of this volunteer to the Housing and Energy program has allowed the expansion of the program, especially through increased collaboration with RurAL CAP and other Alaska native agencies and organizations. Key themes related to this programming are also included under Goal 5.

The Housing and Energy Web site has continued to expand, incorporating additional publications, newsletters and current resources for clientele. <http://www.uaf.edu/coop-ext/faculty/seifert>

Expenditures and FTEs

	FY2000
Federal	$66,694
State Match	$66,694
FTE's	2

Key Themes:

1. Human Health

a. A recent Alaska housing survey revealed that 17 percent of the homes surveyed revealed that a family member had asthma. Recognizing that there is a relationship between second-hand smoke and asthma, and the fact that Alaska has the highest smoking rate in the nation (45.1 percent), CES is expanding its indoor air quality education to schools. The summer edition of *Alaska Building Science Network Newsletter* featured an article on managing asthma in schools, and in-service education for teachers is being planned. (Alaska Housing Finance Corporation provides funds for printing the newsletter.) <http://www.uaf.edu/coop-ext/faculty/seifert>

b. Impact - 1,600+ Alaskans receive the AHFC funded *Alaska Building Science Network Newsletter*. CES in Alaska continues to be a major participant with the National Healthy Indoor Air for America's Homes Program. This program recognizes that asthma is a growing concern especially for school-aged children nationwide.

c. Source of Federal Funds - Smith Lever 3b&c; and Grant through the Alaska Housing Finance Corporation

d. Scope of Impact - State Specific

2. Human Health

a. The Tanana District Extension office cooperates each year with the Alaska Health Fair Association to bring the latest in health research to Interior residents. Extension topics presented at the fairs include food safety and preservation, proper hand washing techniques, pressure canner gauge testing, and preventative health care, as well as information in the form of publications and EFNEP correspondence course information. Health fairs are an economical way to reach many people and present targeted information in a casual manner, reaching both youth and adults.

b. Impact - Eight health fairs in the Interior locations of Denali Park, Delta Junction, Eagle, Tok, North Pole and Fairbanks, reached several thousand clientele. Over 900 elementary students were taught proper hand washing techniques at five of these health fairs.

c. Source of Federal Funds - Smith-Lever 3b&c, EFNEP 3d funds.

d. Scope of Impact - State Specific

3. Human Nutrition

a. Increasing numbers of families are concerned about getting the best diets for their babies. In cooperation with the local food bank, the Tanana District home economist and EFNEP program began offering classes once a month in making baby food. Each family attending a class is given a baby food grinder and a box of food from the Food Bank. Classes taught at the Food Bank are full.

b. Impact - Fifty parents have been trained in making baby food.

c. Source of Federal Funds - Smith-Lever 3b&c, EFNEP 3d funds.

d. Scope of Impact - State Specific

4. Human Nutrition

a. Food and nutrition classes for youth were taught by the Juneau home economist at elementary schools in Klawock, Craig, Hydaburg, Wrangell, Petersburg, and Ketchikan. Students learned how to prepare nutritious snacks and basic food preparation skills.

b. Impact - 320 students were taught at both city and rural schools in Southeast Alaska.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

GOAL 4: GREATER HARMONY BETWEEN AGRICULTURE AND THE ENVIRONMENT. Enhance the quality of the environment through better understanding of and building on agriculture and forestry's complex links with soil, water, air, and biotic resources.

Executive Summary:

Highlights and Impacts

Most states work feverishly to replace a physical environment degraded by point source industrial and commercial activities, some related to agriculture and forestry, and degraded by non point source pollution such as agriculture and forest management operations. Alaska's environment on the other hand is probably as close to pristine as any human-occupied, modern environment. CES' activities with Goal 4 are to enhance economic opportunities on working lands while maintaining the high quality of Alaska's physical environment. The UAF CES Plan of Work Goal 4 has eight themes that fall into the following topics: water quality, pest management, land use and waste management. Water Quality is an important program area that includes the efforts of seven faculty. Two are working on the Alaska Village Safe Drinking Initiative to provide practical solutions to water / wastewater needs in remote, rural Alaskan villages. One trains volunteers to become Master Watershed Stewards who assist in monitoring watersheds for point source and non point source water degradation. Salmon is an important economic and cultural icon in Alaska. Programs like the Village Safe Drinking Water Initiative and the Master Watershed Stewards Program assist in identifying and resolving water polluting activities that degrade salmon habitat and so help preserve Alaska's aquatic environment. Another faculty member works with two technical assistants to connect the lifecycle of the salmon to everyday life in village Alaska. These efforts connect the Native cultural salmon icon with the science of fisheries management. Along the way Native youth and elders find common ground in contemporary schooling,

reducing school drop-out, and increasing science and math comprehension among participating Native village youth.

Pest management is a concern in agriculture and forestry management in Alaska, as elsewhere. Generally, Alaska does not have as diverse variety of pests as occurs in more temperate or semi tropical states. At the same time Alaska pests generally do not have the variety of predators found in other states. Most pests in Alaska are controlled by climatic extremes, particularly cold temperatures. As global warming accelerates, even on a short-term basis, many Alaska pests are able to overwinter with minimal losses to population, thereby increasing the demand for active and aggressive pest management. The Integrated Pest Management (IPM) Program provides Alaska farmers, forest managers and homeowners with information to identify pests, determine economic threshold levels and control strategies. The IPM program works to decrease dependence on chemical pest control. The Pesticide Applicator Training Program (PAT) provides training for restricted use pesticide applicators and commercial pesticide applicators in cooperation with the Alaska Department of Environmental Conservation (ADEC), the state lead agency for US EPA in Alaska. The PAT Program trains individuals to apply pesticides to target pests and sites in a legal and safe manner. Both the PAT and IPM programs have brochures and information for both the agricultural and forestland managers and the general public. As the Food Quality Protection Act (FQPA) directly impacts the pesticides available for pest management, it is increasingly important that research and extension work together to find alternatives to pesticides that are phased out. The Pesticide Impact Assessment Program provides a means to utilize the resources of pest management researchers in Alaska and other western states to identify new, emerging pest management strategies, including new pesticides and new uses for existing pesticides.

As southcentral Alaska urbanizes the prime Matanuska – Susitna valleys, agricultural and forest lands are being replaced with homes, buildings, roads and pavement. The Alaska Landuse Decisionmakers Extension Resources (ALDER) Program provides local land use decision-makers in southcentral Alaska with Geographic Information Systems (GIS) information references on the impacts of potential land uses on aquatic and near shore resources. The program does not attempt to prevent urbanization of working land, but to provide real time maps and visual references that demonstrate the impact of the loss of working lands and increase of impervious soil surfaces on aquatic resources.

The Sustainable Agriculture Program (SARE) works with western region research and extension systems to provide agricultural growers with information on economic and sustainable production systems. The SARE program assisted in providing a series of grower and homeowner workshops on composting of farm and garden waste by-products. Sustainable farms and gardens will place fewer demands on the environment.

State's Assessment of Accomplishments

Combined, the Goal 4 programs work to keep Alaska’s environment an international model of a pristine environment in an economically viable, contemporary society that values working lands. In a state where distances are great, conditions diverse, and

demands on a relatively small staff are growing, information delivery and exchange of information continue to be critical elements, as are working partnerships with state researchers and other entities. Communities and their stakeholders need to be involved in the planning processes for CES and addressing land use issues. Restructuring of the CES state advisory council has made strides to increase geographic and stakeholder representation. CES is continuing to address the issues of environmental quality with its in-state partners, in spite of economic constraints and uncertainties and its own workload challenges.

Expenditures and FTEs

	FY2000
Federal	$100,019
State Match	$100,019
FTE's	3

Key Themes:

1. Integrated Pest Management

a. The Integrated Pest Management program provides education and consultations to the Alaskan public on alternative, least toxic pest control in the home and garden. Through direct contacts such as phone calls, office walk-ins with specimens, presentations to school and community groups, clients throughout Alaska have been reached during the 2000 summer season. This number does not include the thousands reached through booths at fairs, shows and clinics.

b. Impact – More than 6,500 clientele were reached in the summer 2000 season. 45 classes, workshops and presentations were given during this time period. In addition to the direct contacts, the IPM program staff had over 35 media contacts including newspaper articles either written by the staff or resources for media writers, television appearances, and radio interviews. Thousands of publications covering IPM topics have also been distributed this year.

c. Source of Federal Funds - Smith-Lever 3b&c, and Smith-Lever 3d IPM

d. Scope of Impact - State Specific

2. Land Use

a. The Alaska Land-use Decision-makers Education Resources (ALDER) program got under way this year. This grant funds equipment and resources to provide materials and workshops in order to educate individuals in the communities who make decisions affecting water flow and contamination. Use of GIS mapping and other watershed informational resources will be used in this program. Planning commission members,

realtors, and policy makers are the targeted audiences. Pilot watersheds identified are Cottonwood Creek – Lake Susitna and Girdwood watershed.

b. Impact - 45 community councils in the Mat-Su Borough and Municipality of Anchorage have received ALDER information, including GIS information to help decisionmakers visualize impacts on aquatic and near shore resources.

c. Source of Federal Funds - EPA pass-through dollars through the State of Alaska Dept. of Environmental Conservation

d. Scope of Impact - State Specific

3. Pesticide Application

a. The Pesticide Applicator Training (PAT) program provided professional pesticide applicator training for Alaskans to be certified / re-certified with the Alaska Department of Environmental Conservation as restricted or commercial use pesticide applicators. Workshops were conducted in Anchorage, Palmer, Homer, Soldotna, Fairbanks, Delta Junction, Juneau, Sitka and Ketchikan.

b. Impact - A total of 29 workshops were conducted, with 225+ Alaskans certified or recertified as pesticide applicators.

c. Source of Federal Funds - USDA / EPA: PAT funds Interagency Agreement

d. Scope of Impact - State Specific

4. Pesticide Application

a. In response to an unintentional pesticide related poisoning that killed over twenty ravens in Sitka, the land resources agent for the region developed a fact sheet on control of European crane flies in lawns. The paper was co-authored with several US Fish & Wildlife Service staff. A series of meetings on pesticide - wildlife incident protocol were held with US Fish & Wildlife Service, Alaska Department of Environmental Conservation and UAF Cooperative Extension Service.

b. Impact - Development of necessary information on properly utilizing pesticides to control lawn pests in response to a serious poisoning situation.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

5. Sustainable Agriculture

a. The Rosie Creek Flower Farm, with the assistance of the Tanana District land resources agent, received grant funds from the Farmer/Rancher SARE Program 2000 to study best methods for germination and growth of native plants. There is a high demand for native

plants in revegetation, both for the oil and mining industries and the state department of transportation.

b. Impact - The Tanana district land resources agent has provided expertise and assistance to this project, which has grown eight native Interior Alaska plant species using methods consistent with container production of other standard ornamental perennials. Determining a protocol for future seed production, container production, and determining optimal growing conditions are continuing goals of this project. Web site: http://www.uaf.edu/coop-ext/SARE/

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

6. Water Quality

a. The Master Watershed Steward program finished up its third and final grant year educating volunteers who in turn provided water quality monitoring to various non-profit groups throughout Alaska. The Watershed Steward program assistant also helped other groups in setting up classes, trainings and presentations including the watershed tract of the 2000 Alaska Forum for the Environment.

b. Impact - 28 volunteer stewards completed two, 30-hour courses. 36 teachers from the Anchorage School district completed a field training session on stream monitoring. These volunteers went on to provide over 1,000 hours of their time in stream monitoring, demonstrations and classes to over 2,000 school children, stream cleanups, and community service projects. Web site: http://www.uaf.edu/coop-ext/landresources/watershed/

c. Source of Federal Funds - EPA pass-through dollars to the State of Alaska Dept. of Environmental Conservation

d. Scope of Impact - State Specific

7. Water Quality

a. The Water Quality instructor for CES to the University of Alaska and partnering agencies continued his work on a grant to help rural villages test traditional water sources for contaminants. Six months of testing were performed on water from sources that included ice and snow, rivers, springs, and roof catchments, as well as home water storage containers, in three villages. It was found that people in these villages frequently drink water that state regulations determine to be unfit for swimming, wading or boating.

b. Impact - Produced by this project were educational materials, including specially designed posters that were mailed out to over 250 villages and communities in Alaska. An educational video of this project will soon be released and available to the public.

c. Source of Federal Funds - EPA and Smith-Lever 3d Funds.

d. Scope of Impact - State Specific

8. Yard Waste / Composting

a. A composting workshop was developed in response to public demand in the Palmer Mat-Su District. One of the objectives of the workshop was to address the feasibility of a commercial composting operation in the local area.

b. Impact - Approximately 50 individuals representing private and commercial interest attended this one-day, hands-on workshop.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

GOAL 5: ENHANCE ECONOMIC AND SOCIAL OPPORTUNITIES AND QUALITY OF LIFE FOR AMERICANS. Empower people and communities, through research-based information and education, to address economic and social challenges facing our youth, families, and communities.

Executive Summary:

This goal more than any other reaches across the program lines of Cooperative Extension. Cooperation between agents within disciplines and in different disciplines is highlighted in the Key Themes that follow. A few of the highlights resulting for Goal 5 include:

- Successful relationship developed between Eielson Air Force Base and Cooperative Extension Service to provide a 4-H program for the military.
- Five Alaska native villagers learned first hand how to start agribusinesses.
- Sixty five Alaskans learned about planning their estate and dealing with the topic of death and dying.
- Three home economists took training in the Women's Financial Information Program and trained an additional 273 adults.
- Therapeutic horse programs in Fairbanks, Anchorage, and Kodiak reached out to nearly 60 handicapped youth using adult and teen volunteers.
- Students and teachers from more than 70 rural communities around the state benefited from the fisheries biology program coordinated by extension's fisheries biology specialist. Through a hands on salmon fisheries program, innovative and practical instruction in math and science skills enhances learning both in the classroom and out in the field.
- The Anchorage FCE program provided packets to 4,920 new parents on the importance of reading to children.
- Training to address that as our population ages, homes need to be built or remodeled to accommodate the potential for lesser mobility.
- Newly released prisoners with lack of money management skills have been addressed using Extension's "Getting Organized" series on financial management.

The 4-H Shooting Sports program was resurrected in three districts during the year. Leaders in the Kodiak and Anchorage 4-H districts kept the 4-H program alive in spite of having no agent in the office.

Successes and Impacts

Financial Planning Improvement for Alaskans

Workshops, classes, and individual consultations by district home economists have provided information in every district to families and individuals who need help with budgeting dollars, getting the most buying power from their limited resources, understanding how to use today's dollars to protect themselves during retirement, learning how to plan for their estate, and understanding how best to invest for those retirement years.

Classroom evaluations were outstanding for the individual workshops. Comments about new ideas learned and potential changes indicate that participants had increased their knowledge significantly and were planning on making changes in behavior.

Energy and homes

In cooperation with the energy specialist and the home economists work was accomplished in home housing and making decisions about air quality, retrofitting or building for your elderly years, more understanding of the hazards of radon, and a better understanding of how save money when making needed changes.

The indoor air quality workshops were very successful. Delivered by audio-conference they worked very well. The workshop on either building or remodeling a home to accommodate aging self or parents was also well received and several individuals noted a plan to make changes in their present living quarters. <http://www.uaf.edu/coop-ext/faculty/seifert>

Home Business

Five native landowners were introduced to methods of using their land to help supplement their income. Four of the five individuals have started home-based businesses and there is now interest in starting a vocational center to develop more interest in agriculture.

4-H and Youth Programming

A new 4-H program at Eielson Air Force Base has introduced a whole new audience to the 4-H program. The national 4-H shooting sports team that came to Alaska has renewed the 4-H shooting sports program in three districts. The therapeutic horseback program is providing essential exercise to over 50 Alaskan youth.

The different special camps and workshops held at Eielson Air Force Base have helped youth, who will only be in Alaska a few short years, better understand the

environment they now live in. Over 100 youth participated last year. Therapists who work with these children note the remarkable flexibility and control they gain through horsemanship. The 4-H fisheries program is a model for the state and for programming with native populations.

State's Own Assessment

Most impacts to date are measured by numbers and testimonials. We are attending the Logic II training in the West in 2001 and are also looking at a program from Washington State that will help us quantify our outputs and outcomes.

The 1999-00 year was a comeback year for CES. There was need to close some offices to get financial stability. As a unit I think we have held up our program to some very high standards. We have had a lot of great output given our downsized staff. For more in-depth reports of successes and impacts, please see the *Extension 2001* report (covers 1999-00 activities) provided with attachments to this report.

Expenditures and FTEs

	FY2000
Federal	$296,962
State Match	$296,962
FTE's	8

Key Themes:

1. Air Quality

a. The Alaska Home Economics program was recognized as a regional winner by the National Extension Association of Family and Consumer Science for efforts in teaching Indoor Air Quality throughout the state. This workshop, taught by the energy specialist and facilitated by the District Extension home economists, has been offered in 8 different locations via distance delivery for the past three years. <http://www.uaf.edu/coop-ext/faculty/seifert>

b. Impact - In FY00, workshops reached 194 clientele in communities throughout Alaska.

c. Source of Federal Funds - Smith Lever 3b&c

d. Scope of Impact - State Specific

2. Energy Conservation

a. The CES energy and housing specialist is coordinating Alaska's involvement in the State Million Solar Roofs Coalition, a community partnership to encourage and facilitate solar

energy systems in Alaska. Partnering with businesses and interest groups throughout the state, the first efforts are to identify barriers to installation of solar energy and energy efficiency applications in buildings, and to identify financial incentives for solar installations.

b. Impact - To become part of the solar coalition, state groups must promise to install 500 solar energy systems within the next ten years through the facilitation of the Million Solar Roofs Partnership. Long-term impacts will be realized as this goal is developed and reached.

c. Source of Federal Funds - U.S. Dept. of Energy

d. Scope of Impact - State Specific

3. Children, Youth, and Families at Risk

a. As a part of the three-year USDA funded Air Force project, a full time 4-H Extension agent was hired at Eielson Air Force Base near Fairbanks. To help youth understand what is happening when a parent is deployed to other locations around the world, the 4-H agent in collaboration with Eielson Family Advocacy and Family Member Services developed "Operation Bug Out", a mock deployment for 3rd through 8th graders. Operation Bug Out offered briefings, a deployment line, set up at the new base, with 100+ participating youth getting field gear, putting up tents, camouflage face painting, and self-aid buddy care. Resembling as close as possible to a real deployment, youth have a better understanding of what their parents face when they are deployed. Another benefit of this collaborative effort will be to develop a mock deployment curriculum that may be used by other bases Air Force-wide.

b. Impact - More than 100 youth participated at Eielson Air Force Base.

c. Source of Federal Funds - Smith-Lever 3d CYFAR

d. Scope of Impact - State Specific

4. Community Development

a. The Extension Indian Reservation Program (EIRP) agent, and Tanana Chiefs Conference Economic Development specialist, held an Agriculture Study Tour and Business Intensive Course. Five people, from remote villages across the Interior, participated through a grant from the State of Alaska Job Training Partnership Act and EIRP scholarships. Participants visited ten agriculture producers, learned first-hand about starting agribusinesses in Alaska, and wrote business plans of their own during the course. Participants received Certificates of Completion from the Interior Athabascan Tribal College.

b. Impact - Four new sole proprietorships were established in honey, composting worms, craft kits, and vegetable production. The economic feasibility for developing an agricultural vocational school was also investigated.

c. Source of Federal Funds - Smith-Lever 3d EIRP

d. Scope of Impact - State Specific

5. Estate Planning

a. The Fairbanks home economist presented a three part series on Estate Planning in the Tanana District. A local attorney presented the first workshop on the legalities of estate planning, the second workshop centered on distribution of Personal Property, and the final section was presented by the Tanana Valley Hospice on how to communicate with families about difficult subjects.

b. Impact - Sixty-five people attended the workshops.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

6. Family Resource Management

a. The Women's Financial Information Program was taught by home economists in Anchorage, Kenai and Palmer. Local resource people presented sections of the program including estate planning, money management, investing for retirement, social security, resources and financial stability, banking and credit. The program was co-sponsored by AARP with support from the Anchorage Association for Family and Community Education and the Anchorage Association of Family and Consumer Sciences.

b. Impact - 273 people were trained in three Extension districts.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

7. Leadership Training and Development

a. 4-H leader training and development support from the 4-H agent at the Tanana district office has had many beneficial effects. Notably, the Governor's Council on Disabilities and Special Education recognized four of the Tanana district's 4-H leaders for their work in beginning a 4-H Therapeutic Riding Program. 4-H teens and adults assisted youth with disabilities to help them gain balance, physical strength and self-esteem.

b. Impact - The Tanana district 4-H agent provided valuable support and training to 4-H leaders who involved 14 riders and over 700 volunteer hours in this project.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

8. Leadership Training and Development

a. The 4-H fisheries program, coordinated by the Extension 4-H fisheries specialist, was originally designed to increase math and science literacy through fisheries biology in ten rural schools. The program now serves students and teachers in more than 70 rural communities, and the hands-on learning from rearing salmon eggs into fry with in-classroom incubators to stream habitat surveys, has yielded far more than higher math and science scores. Students and teachers alike have experienced a deeper appreciation and understanding of what it means to be good landlords of the fisheries resource.

b. Impact - 70+ rural communities were enriched with the fisheries program in rural schools this past fiscal year. The program has gained wide recognition and support throughout the state. Higher math and science scores among rural students are only one invaluable dividend of this successful program.

c. Source of Federal Funds - Smith-Lever 3d CYFAR

d. Scope of Impact - State Specific

9. Parenting

a. The Anchorage home economist helped coordinate efforts by the Anchorage Council for Family and Community Education (FCE), an organization in partnership with the Cooperative Extension Service, to prepare and distribute Raise-A-Reader packets to parents of newborns in all four hospitals in the Anchorage district. The packets contained baby's first book and information on the importance of reading to children. Materials for packets were made possible by outside financial donations received from businesses in support of this program.

b. Impact - 4,920 parents of newborns in all four hospitals in the Anchorage District received Raise-A-Reader packets.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

10. Retirement Planning

a. As Alaska's population begins to age, Universal Design in housing becomes important. The Palmer Extension home economist offered classes to individuals to plan for their own retirement years, or to accommodate multi-generational families.

b. Impact - Three area builders were given 3 hours of instruction on Universal Design; and more than 40 community clientele were reached through classes on retirement planning and home financial management.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

11. Workforce Preparation

a. Money management classes for prison inmates are being taught to encourage them to plan ahead, teaching them about goal setting, tracking spending, causes of family financial conflict and getting organized. Prerelease inmates are helped to create a spending and savings plan based on the income they will realistically earn after being released. The courses are taught by the Extension home economist with the support of the education coordinator at the Wildwood Correctional Facility in Kenai, using the Extension series, "Getting Organized."

b. Impact - In FY00, 48 prerelease inmates were instructed in financial management. Comments such as this recent statement are typical, "It's a really good class. We have a chance to talk about our money concerns. We learned how to manage money and how to save."

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

12. Youth Development / 4-H

a. The following are typical highlights of the many 4-H and Youth Development activities this past year:

Thirty-two youth were involved in Dog Days, a day camp during Iditarod week to learn about dog care, dog nutrition, dog breeds, human nutrition, and setting goals (taught by former 4-H'er Libby Riddles). The kids made dog biscuits for the mushers dogs as a reward for coming and visiting with them.

The Soldotna land resources agent, with the help of three key leaders has helped resurrect the shooting sports program on the Kenai Peninsula. This past year 25-20 youth were involved in rifle shooting. Three Kenai leaders attended the statewide leaders training and another became a certified trainer at a National 4-H Shooting Sports training in Idaho. The program is alive and growing under the attention of dedicated leaders.

Key 4-H leaders from Anchorage have helped keep the 4-H program alive, filling nearly a year's gap in the availability of an Extension agent. The interim program assistant has been working part-time with the 4-H program. The leaders have worked well together, holding several successful recruitment drives, sponsoring a number of horse shows, a district fair, and developing a relationship with the Fort Richardson Army youth program.

b. Impact - Alaska 4-H served 28,816 youth last year, aged kindergarten through eighteen. Of these youth, 1,946 were a part of organized 4-H clubs; 16,214 participated in 4-H special interest programs (day camps); 943 participated in overnight camping programs; 10,378 participated in high school enrichment programs; 638 in School-Aged Child Care Education programs; and 150 participated in instructional TV and video programs. Volunteers working with 4-H youth numbered 596, an important part of making the projects, camps and community service activities possible.

c. Source of Federal Funds - Smith-Lever 3b&c

d. Scope of Impact - State Specific

II. Stakeholder Input Process

Actions taken to seek input
Process used to identify individuals and groups
How input was considered

Surveys:
A comprehensive survey was developed in the fall of 1999 to gather feedback and input on the Alaska Extension plan of work. This survey listed projects and asked respondents to rate them by importance to their needs. Input was solicited on new subject areas not currently addressed along with informal comments in general. The survey was long and not widely used except at Alaska's annual Ag Symposium and the annual Greenhouse and Nursery Conference. Participation was voluntary at the meeting sites. Predictably, results favored the agriculture and natural resource projects due to the limited audience and number of respondents. Results were shared with land resources faculty.

In conjunction with the campus-wide accreditation process, a more broad mail-out survey instrument was mailed to 5,000 established extension clientele throughout Alaska in the spring of 2000. Clientele from 10 Alaska communities were surveyed, their names taken from existing databases for Forestry, Agriculture, 4-H and Youth Development, Building and Energy, Gardening, Home Economics and general interest programs. Thirty-two percent (1,600) were returned. In addition to this written survey, random phone surveys of known extension clientele were conducted, gathering input from an additional 299 respondents. Overall results were utilized for the campus accreditation report, and were shared with all extension faculty and staff and our state advisory council. The information will be useful for program area planning groups of faculty and staff that will meet this year. A copy of the executive summary for these results will be provided with the certification letter for this report.

Extension State Advisory Council:
The purpose and composition of Extension's state advisory council has been readdressed this past year to emphasize and maximize stakeholder input in to the planning and budgeting process of CES and to assist in developing program direction and priorities. Council membership has been revised to represent geographic and stakeholder areas of Alaska as well as linking their representation with CES Plan of Work national goals. Copies of the current membership list, member planning list with Plan of Work linkages, and advisory council bylaws will be sent with the certification letter for this report.

Outcomes-based Reporting:
Efforts are underway to address the need to regularly and consistently gather stakeholder input from program workshops and activities, annual conferences and district advisory councils. A program chair, faculty person, and the database specialist will attend a regional, May '01 conference, "Logic II - Train the Trainer," which builds on the "Proving Leadership for Program

Evaluation" national workshop. Involvement at this level will provide our staff with knowledge, skills and resources to effectively evaluate programs and utilize stakeholder input.

III. Program Review Process (Merit Review)

No significant changes to our program review process have taken place in the past year. There have, however, been some specific plans made for external merit reviews by the University of Hawaii and Washington State University. Invitations have been extended and arrangements are being finalized to have a formal, on-site merit review from extension representatives of these two institutions in the fall of 2001.

Internal stakeholder review has been facilitated by the broadened outreach and representation of our statewide advisory council membership. Six new members have been added to the current membership of five. The program goals are being addressed by the council membership. Copies of the council bylaws and membership list will be sent with the certification letter for this report.

IV. Evaluation of the Success of Multi and Joint Activities

The projections for Integrated Activities for 2001-2004 were based on the Supplement to the Plan of Work submitted to CSREES July 28, 2000. Despite the waiver, we have moved ahead with Integrated Activities involving AFES researchers and support staff and CES specialists and agents; an evaluation and brief synopsis of those activities for FY2000 are summarized below:

Agronomic Crops and Soils

Integrated activities centered around best management practices for production of livestock feed crops, primarily forages and small grains as well as investigating new crop opportunities. AFES researchers and CES specialists and agents continued collaborative work at Delta Junction, Point McKenzie, and the Kenai Peninsula. The extension agronomy specialist (75% CES and 25% AFES) cooperated with AFES researchers as co-P.I. on three USDA-funded projects ("Production and Harvest of Quality Forage Products at Northern Latitudes", Hatch funded; "No-Till Forage Establishment to Improve Soil and Water Conservation", SARE funded; and "Dairy Research at Northern Latitudes", USDA Special Grant). We evaluated new and traditional grass and legume forages for yield, quality, and adaptability to climatic conditions in interior and southcentral Alaska, tillage practices for forage establishment, optimum soil management for soil chemical and physical health and quality. Both AFES researchers and CES specialist and agents disseminated products of this applied research at workshops and the annual Delta Farm Forum and Agriculture Symposium.

Potato and Vegetable Crops

AFES researchers and CES counterparts carried out applied research, demonstration, and outreach activities primarily related to variety selection, disease control and management, and weed control. Much of this work is conducted in, but not limited to, south central Alaska where approximately 78% of the statewide value of production of potatoes and vegetables reside. Two

horticulture/plant pathology researchers at the Palmer Research Center working closely with CES agents in Palmer, Anchorage, Soldotna, Fairbanks, and Delta Junction provide the core for this working group. Our new horticulture researcher has developed a Hatch project "Cultivar Selection, Production Methods, and Market Quality of Vegetables in Alaska" that has been submitted to CSREES for approval. That position carries a 25% CES appointment and is performing applied research and on-farm demonstration for wide range of vegetable crops both traditional and new crop opportunities including specialty greens. Other AFES/CES collaborative work included potato late blight monitoring and treatment which assisted in taking the potato industry from the brink of devastation with a serious outbreak in 1998 to blight-free fields in 2000. Outreach included a joint AFES/CES publication on late blight control and presentation of research results at the joint CES/AFES Potato Growers Conference and Vegetable Growers Conference.

Greenhouse Management/Nursery

Collaborative work continued in the greenhouse/nursery production of cut flowers, bedding plants, ornamentals, and other landscaping plants. Research and outreach continued to address physiological response to light, day length, and temperature in controlled environments for species that included cyclamen, dwarf carnations, forget-me-nots, and selected food crops including raspberries. Research and demonstration efforts at the Georgeson Botanical Gardens evaluated woody perennials, herbaceous perennials, annual flowers, herbs and vegetables for survival and productivity at northern latitudes. The latter had a high degree of volunteer and extension involvement. Outreach efforts have included one-on-one contacts with growers and the public, presentations at CES workshops, master gardener program, and the annual CES/AFES Alaska Greenhouse and Nursery Conference (i.e. "Greenhouse Flower Production for Local Markets"), and lay publications including "Annual Flower Plant Evaluations", "Georgeson Botanical Garden Review", "Alaska Spinach, Savory, Succulent, Salad Selection" to name a few.

Reindeer Production

Alaska native reindeer herders have manage herds totaling over 30,000 deer. Those numbers have dropped significantly in recent years from out-migration of deer joining migratory caribou. AFES scientists continued to carry out a number of research and demonstration projects in cooperation with the CES reindeer agent on the Seward Peninsula. Current projects range from reproduction and disease management to range management and reindeer nutrition. The Extension reindeer agent is acting as the liaison between the researchers, agencies (i.e. NRCS, AFG, and BIA), and the herders themselves and facilitates annual meetings and workshops.

Animal Reproduction

The research animal scientist/livestock split position (CES, 51%; AFES, 49%) addressed reproductive performance of ruminant animals under the aegis of multistate research (W-112) which addresses both traditional and alternative animal species. Research and demonstration collaboration included silent ovulation detection in dairy cows, reindeer bull management effects on reproductive physiology of reindeer cows, and estrus synchronization in dairy and beef. Most

of this research was on-farm, directly involving the local extension agents and the producers. Outreach activities included one-on-one contacts with producers, workshop presentations at the Delta Farm Forum, the Agricultural Symposium, and the development and hosting of the Alternative Livestock Conference. This relatively new project should prove to be the cornerstone of our Integrated Activities with Cooperative Extension. It encompasses all the desirable elements of a multistate, integrated research and extension activities.

Forest Production/Protection

Alaska Cooperative Extension Service has a single Forestry Specialist who works cooperatively with AFES researchers both in applied research, demonstration, and dissemination of information on issues related to growth and yield.

Community and Rural Development

AFES resource planning researcher cooperated with CES land resource specialists and are developing a database of planning cases in Alaska. A literature review of criteria for effectiveness in resources planning and environmental dispute resolution was completed.

Other Integrated Activities

In addition to Hatch-driven programs, CES and AFES cooperate in the delivery of several annual state conferences which address stakeholder-driven subject matter, public policy issues, and disseminate research-based information. These include the Agricultural Symposium, Greenhouse and Nursery Conference, Potato and Vegetable Growers Conference, Delta Farm Forum, and Agriculture Appreciation Day. A new cooperative conference planned this past year was the Alternative Livestock Producers Conference. These have been highlighted under the key themes in the national goals, but are reiterated here in terms of responsiveness to stakeholder needs and strategic importance.

The Delta Farm Forum featured local producers who presented to 140 attendees from the surrounding farming areas and cities, the university, Experiment Farm, state legislature and state and federal agency officials. Extension provided estate planning instruction, and SALRM/AFES provided research results on the feasibility of irrigation in the Delta area. Feed evaluation information was presented by the joint CES/SALRM livestock specialist. The Forum provided producers and farmers a means of interfacing with state and federal officials on a personal basis, as well as providing an overview of the status of agriculture in Alaska.

The Alternative Livestock Producers Conference (held in October 2000) will target the educational needs of producers of alternative livestock such as elk, bison, yak, reindeer and musk ox. Topics planned for presentation include animal husbandry, operations management, marketing, and profitability. More than 90 participants are registered to attend. A post-conference survey will ask for evaluation of the applicability of the information presented with regard to the producer needs. Extension and AFES share the livestock specialist joint position, and the ability to address the information needs of the producers will help improve the industry's success.

Two land resources programs that have been increasing in size include the Water Quality program and the forestry program. CES has had a forestry program for several decades, but in

the past few years, the program has expanded to address forest health, forest products business needs, the needs of timber dependent workers and communities, and providing general forestry information. Recent clientele survey results showed that 5 percent of the total reported uses of extension resources were for forestry information.

The Water Quality program also accounted for 5 percent of the total uses of extension services. The program included the watershed steward volunteer development program that was suspended in June 2000 when the funding source ended. Other Water Quality projects (with varying funding sources) include a Village Safe Water Drinking Project, Alaska Land-use Decision-makers Education Resources program, the Pacific Northwest Regional Water Quality consortium and, the university Water Quality Liaison Project.

V. Multistate Extension Activities

Alaska Cooperative Extension Service requested and was granted a waiver for FY2000. Form CSREES-REPT (2/00), Supplement to the Annual Report of Accomplishment and Results, so indicates the granting of this FY00 waiver. A copy will be sent with copies of the Supplement to the ACE Plan of Work and the granting letter from Deputy Administrator George Cooper. These will accompany the Certification Letter.

VI. Integrated Research and Extension Activities

Alaska Cooperative Extension Service requested and was granted a waiver for FY2000. Form CSREES-REPT (2/00), Supplement to the Annual Report of Accomplishment and Results, so indicates the granting of this FY00 waiver. A copy will be sent with copies of the Supplement to the ACE Plan of Work and the granting letter from Deputy Administrator George Cooper. These will accompany the Certification Letter.

Attachments to the Annual Report of Accomplishments and Results
(To follow by hard copy.)

1. Certification Letter
2. Form CSREES-REPT (2/00): Multistate Extension Activities
3. Form CSREES-REPT (2/00): Integrated Activities (Smith-Lever Act Funds)
4. Supplement to ACE Plan of Work with Waiver, Base and Target Percentages Forms (July 28, 2000)
5. Deputy Administrator George Cooper's Letter of November 2, 2000 regarding Target Percentages for Alaska CES
6. Report: Extension 2001 (for Alaska Cooperative Extension Service)
7. UAF Cooperative Extension Service Executive Summary "*How Well Are We Doing?*"
8. Cooperative Extension Service report for *UA in Review*
9. List: Membership of the Cooperative Extension Service State Advisory Council
10. List: Cooperative Extension Service State Advisory Council -- POW Linkages Planning
11. Bylaws: Cooperative Extension Service State Advisory Council (draft form of 9/2000)