# 2005

**FY 2004 October 2004 through September 2005**

# Annual Report of Accomplishments and Results

**University of Alaska Fairbanks - Cooperative Extension Service**

**University of Alaska Fairbanks - Cooperative Extension Service**

# SERVICE GOALS - PROGRAM INDEX

# Annual Report of Accomplishments and Results
# UAF Cooperative Extension Service
# FY 2005 October 2004 through September 2005

## 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.*

### 1.0 Executive Summary

### Highlights and Accomplishments

During this reporting period more than 93 planned workshops related to Goal 1 were taught by 11 Land Resources faculty, reaching more than 2300 Alaskans in 16 communities. Topics ranged from developing Alaska markets for locally grown produce, reducing disease in potato crops, improving livestock nutrition and reproduction, supporting Alaska's alternative livestock producers to Master Gardening, lawn care, insects and pesticide management, landscaping, garden production and managing woodlots.

Land Resources program faculty provided 102 hours of public service, reaching over 11,700 clients covering a range of topics from lawn care, vegetable gardening, forest products, to greenhouse management. Over 2,000 hours of consultation time were provided to individuals, agencies and organizations during this reporting period, reaching more than 4,000 clientele on Goal I related topics that included noxious weed control, horticulture, pesticide use, vegetable growing, and tree clinics. Contacts were made by telephone, e-mails, office and site visits, meetings and audio conferencing.

In this reporting period over 10,000 clients received ag/hort newsletters; 27 newspaper articles were published, 19 fact sheets and publications were written by faculty, and 2 hours of television programming featuring Extension ag/hort topics were delivered throughout the state.

**Expenditures and FTEs**

| | |
|---|---|
| Federal: | $345,651 |
| State Match: | $345,651 |
| FTEs: | 8 |

**Key Themes:**

**1.1 Agricultural Profitability**

**Statement:** In 2005, three conferences relating to agricultural profitability were held in Alaska: the Alaska Greenhouse and Nursery Conference, with a reported attendance of 110, the Potato and Vegetable Grower's Conference, with a reported attendance of 30, and the Sustainable Agriculture and Organic School Conference, with a reported attendance of 126. The Sustainable Agriculture and Organic School Conference is the first statewide effort of its kind. Each of these conferences plays an integral role in Extension's mission to educate the public on sustainable practices.

**Impact:** While no survey data was available on the Alaska Greenhouse and Nursery and Potato and Vegetable Grower's conferences, the Sustainable Agriculture and Organic School conference evaluations indicated that 95% of attendees found the conference useful to their agriculture efforts.

***Source of Federal Funds:*** Smith Lever 3b&c

***Scope of Impact***: Integrated Extension and Research

**Statement:** During the latter part of the 2005 summer, an outbreak of late blight disease of potato occurred in the Matanuska Valley, despite precautions for preventing introduction of the disease to Alaska.

**Impact:** The Western Plant Diagnostic Network worked as planned for timely identification and dissemination of crucial countermeasure information. Because of these efforts, the effects of the blight were significantly reduced. The cooperation between scientists, agents, and growers is a testament to bridges built over the years. The time devoted to education on late blight has subsequently increased and will be a significant topic next field season.

***Source of Federal Funds:*** Smith Lever 3b&c

***Scope of Impact***: Integrated Extension and Research

**Statement:** During the latter part of the 2005 summer, an outbreak of late blight disease of potato occurred in the Matanuska Valley, despite precautions for preventing introduction of the disease to Alaska.

**Impact:** The Western Plant Diagnostic Network worked as planned for timely identification and dissemination of crucial countermeasure information. Because of these efforts, the economic impact of the blight was significantly reduced. According to a letter from Ben VanderWeele of VanderWeele Farms, where the outbreak occurred, the quick response time to the initial outbreak report was crucial in stemming damages and making an eventual harvest possible. According to Mr. VanderWeele, "This prompt response allowed us to know exactly what we were facing and act quickly to counteract the potentially devastating effects of late blight on our potato crop."

The cooperation between scientists, agents, and growers is a testament to bridges built over the years. The time devoted to education on late blight has subsequently increased and will be a significant topic next field season.

***Source of Federal Funds:*** Smith Lever 3b&c

***Scope of Impact***: Integrated Extension and Research

## 1.2 Animal Reproduction

**Statement:** On-farm site visits to Alaska livestock operations by extension's livestock specialist continue to provide 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. 235 hours of consultation and on-farm site visits were logged by the livestock specialist to address a range of needs, including animal nutrition, diagnosing disease and health conditions, herd management, and animal lactation.

The Extension Livestock Program conducted 14 producer-oriented animal science classes and workshops in this period. Topics included Animal Nutrition, Reproductive Management of Livestock, and Physiology of Lactation, Genetics and Animal Breeding, Environmental Physiology and Animal Welfare and Well-being. Classes varied in duration depending on audience numbers and participation levels; attendance averaged 7-25 livestock producers and other interested people.

**Impact:** Livestock Environmental Physiology classes had averages of 12.9% in the pretest, but rose to 72.3% in the posttest; Livestock Handling Equipment had a pretest average of 42.6% and rose to 91.4% in the posttest; Animal Breeding and Bull Selection had a pretest average of 19.8% and rose to 82.5% in the posttest; Animal Disease rose from 11.1% in the pretest to 69.7% in the posttest; Animal Lactation rose from 8.2% in the pretest to 62.4% in the posttest; and, Herd Health rose from 13.5% in the pretest to 62.4% in the posttest.

***Source of Federal Funds:*** Smith-Lever 3b&c, Hatch

***Scope of Impact:*** Integrated Research and Extension

## 1.3 Noxious and Invasive Plants (NIP) Management

**Statement:** Dog mushing and guided horseback hunts are important recreational activities occurring on public lands in Alaska. Both have the potential of spreading noxious weed seed into remote areas via bedding and feed. Certain public lands have areas that require weed free forage if available. To reduce the spread of noxious weeds in public and other lands where forage and mulch are used, an Alaska Weed Free Forage and Mulch Certification Program was established. The purpose of the program is to inspect forage before it is harvested to verify that there are no propagative plant parts of noxious and invasive weeds. The Alaska program is following the North American Weed

Management Association Standards. Alaska added additional weeds to the list that are of special concern.

**Impact:** CES land resource agents developed an inspector training and certification course and presented information on the program to farmers and outdoor-enthusiasts across the state.

***Source of Federal Funds:*** USDA special grants, Smith-Lever 3b&c

***Scope of Impact:*** State Specific

**Statement:** Invasive plants are plants that become established and spread without natural controls. Invasive plants can cause extreme economic or environmental harm to native habitat, agricultural fields, or recreation areas. The long-term effects of uncontrolled spread can result in higher crop and livestock production cost, loss of native plants, degradation of wetlands and destruction of wildlife habitat.

The Cooperative Extension Service has led a multi-year project to coordinate the development of a statewide NIP management network to address and mitigate the potential for extreme harm from noxious and invasive plants. Activities included the formation and participation in the Alaska Committee for Noxious and Invasive Plants Management (CNIPM), a multi-level partnership group of federal, state, university, local government, tribal agencies and non-profit organizations.

Management of invasive plants in Alaska is challenging because of its vast acreage, limited communication, and because transportation corridors and adjacent lands are managed by multiple agencies. Inventories, particularly of major highways, are necessary to assess impacts, develop management control strategies and raise public awareness.

**Impacts:** In less than five years of existence, the CNIPM has established a statewide inventory and mapping system, an invasive plant raking system, cooperative weed management areas in five communities, and other management programs around the state.

***Source of Federal Funds:*** BLM, Smith-Lever 3b&c

***Scope of Impact:*** State Specific

**Statement:** In the spring of 2005, CES land resource agents spearheaded a project to investigate the possibility of a large morel mushroom harvest within the roughly million-acre expanse of Alaska forests burned by wildfires in 2004. Eleven workshops were held pertaining to the correct identification, harvesting, preserving, and marketing of the morels, which were attended by over 650 people. A publication was also created to complement the workshops, with correct identification of morels being emphasized.

**Impact:** About 175,000 pounds of morels were harvested commercially and it is estimated that Alaskans harvested 21,000 pounds. With an average price of $5.00 per pound throughout the season,

this brought $105,000 dollars into the pockets of rural Alaskans. Money was also made from renting space to buyers of mushrooms, transportation of pickers by land and water, and other income to the communities where these activities took place. Several Alaskan entrepreneurs set up buying stations and picked morels in order to market them on their own via the Internet. Without the workshops, publications and public awareness generated by Extension, it is likely that these opportunities would not have been realized to such an extent. Also, the focus on correct identification of morels was tantamount to the economic opportunities, and may have prevented cases of mistaken identity with similar looking non-edible mushroom species.

***Source of Federal Funds:*** USDA grants, Smith-Lever 3b&c

***Scope of Impact:*** International

## 1.4 Home Lawn and Gardening

**Statement:** The Master Gardener training course is a volunteer development program whereby CES magnifies its service to Alaska by getting 40 hours of gardening related community service from each volunteer trained. Students include K-12 teachers looking to enrich school programs, commercial agriculturists looking to improve profitability, and the general public for quality of life. The course is offered as a credit and noncredit course.

**Impact:** In the Tanana District alone, enrollment has been between 35 -50 individuals annually. The demand by for this program continues to be more than the Tanana District agent can fill, necessitating a waiting list. One obvious benefit of the program is that it allows land resource agents to reach out to additional clientele in their districts. Public demand for coordinating and teaching this program could easily justify a fulltime position.

***Source of Federal Funds:*** Smith-Lever 3b&c

***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.*

## 2.0 Executive Summary

### Highlights and Accomplishments

During this reporting period seven Home Economics faculty, reaching over 900 Alaskans in 16 communities, taught over 66 planned workshops related to Goal 2. Topics included canning and food preservation and utilizing traditional food sources (berries, wild salmon and game meat).

Home Economics program faculty provided over 700 hours of consultation time to individuals. agencies and organizations during this reporting period, reaching more than 4,820 clientele on Goal 2 topics which included safe canning, and food preservation, and utilizing traditional Alaskan food sources. Contacts were made by public presentations, phone calls, e-mails, office and site visits, fairs, meetings and audio conferencing.

In this reporting period more than 1,500 clientele received newsletters by Home Economics faculty, 32 newspaper articles were published on food safety topics, and 8 fact sheets and publications were written by faculty. Thirty minutes of television programming and 115 minutes worth of radio spots were used statewide to deliver food safety information.

**Expenditures and FTEs**

| | |
|---|---|
| Federal: | $ 156,379 |
| State Match: | $ 156,379 |
| FTEs: | 2.5 |

**Key Themes:**

## 2.1 Food Accessibility and Affordability

**Statement**: The Fairbanks community serves ~26,000 people a year through the local Food Bank. The local extension home economist supports this work by offering classes on making baby food and food preparation. Each month people are taught how to use the food they receive in their USDA Commodities TEFAP (The Emergency Food Assistance Program) food boxes. This year the Food Bank had 2,037 families enrolled in the TEFAP program.

**Impact:** Commitment to annual on-going training of 500+ families enhances the usability of thousands of dollars worth of food a year. For example, 500 families receiving enough food for one week a month worth $100, is more than $50,000 worth of food that has been efficiently and nutritionally utilized. This training also enhances the benefits of the TEFAP food program.

***Source of Federal Funds:*** Smith-Lever 3b&c

***Scope of impact:*** State specific

**Statement**: In a partnership with the Fairbanks Health Coalition and the Fairbanks Food Bank, CES is helping parents of infants learn how to make their own baby food.

**Impact:** Fifty-one parents of infants were provided with a $19 baby food grinder donated by the Fairbanks Health Coalition. The grinder can replace four jars of food at $1.25 per jar, per day. Over a six-month period, parents can save $90; for all 51 participants, $4,590 can be saved.

***Source of Federal Funds:*** Smith-Lever 3b&c

***Scope of impact:*** State specific

## 2.2 Food Quality

**Statement:** Safe food preservation is of paramount importance to Alaska's population. Many people live a subsistence lifestyle, harvesting wild edible plants and game meats for their family's livelihood. Even in more urban areas, game meat and berries are a major part of many families' diets. CES sponsored, supported, or conducted food quality and safety workshops and training sessions are providing a key avenue for up-to-date research information and publications to be widely shared directly with Alaska residents, and other agencies and educational programs directed at enhancing food safety and quality of Alaskan diet staples.

**Impact:** 100% of the students in a recent class expressed more confidence in food preservation skills when surveyed 6 months later and 80 percent said they had used these new skills to preserve foods.

***Source of Federal Funds:*** Smith-Lever 3b&c

***Scope of Impact:*** State Specific Integrated Extension and Research

## 2.3 Food Safety

**Statement:** Food Safety and 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 According to Alaska Department of Fish and Game.

An essential part of extension's outreach, the Cooperative Extension Home Economics program, year-round, provides research based information on food preservation for clients and teaches people to preserve food in a safe and appropriate manner, whether it is fish, big game or berries. Reliable information is imperative to reduce the risk of food borne illness, and to minimize waste of valuable and unique food resources.

**Impact:** In the Tanana District, twenty-four people completed the eight lessons necessary to qualify for Master Food Preserver Certification. Classes ranged from rural locations such as Delta Junction, Tok, Chistochina and Nulato, to the Master Food Preserver classes at the Fairbanks Food bank. Of particular interest this year was teaching 18 students from the Koyukuk public schools to can salmon and make jellies from the local berries. These students ranged in age from 9 to 16. Many of these students had canned fish at home with their parents. All were using safe processing techniques. At completion, the students invited the adults to a potlatch where they served the newly canned salmon.

***Source of Federal Funds:*** Smith-Lever Food Safety and Quality Formula Funds

***Scope of Impact:*** State Specific

**Impact 2:** In 2005, food safety activities included developing processing times for smoked salmon in metal 301 and 307 cans; two classes demonstrating assembly, maintenance and use of the can sealers; on-site support for the Master Food Preservers class; and installation and instruction of can sealer equipment at our Mat-Su District Office. A total of 48 participants were involved in the three activities.

***Source of Federal Funds:*** Smith-Lever Food Safety and Quality Formula Funds

***Scope of Impact:*** State Specific

**Statement:** An important aspect of proper food preservation in canning is to annually inspect pressure canner gauges to ensure that low-acid foods are processed at the correct temperatures. This year, in the Kenai Peninsula, 202 gauges were tested for accuracy with 11% showing inaccurate readings.

**Impact:** People using inaccurate gauges run the risk of under-processing food and therefore increasing the risk of botulism. Detecting the presence of 22 inaccurate gauges in a high subsistence-

lifestyle region has undoubtedly improved the safety of several families' food supplies and consequently the well-being of each potentially affected family member.

***Source of Federal Funds:*** Smith-Lever Food Safety and Quality Formula Funds

***Scope of Impact:*** State Specific

**Statement:** The Food Safety Hotline, the Food Preservation Hotline and the Ask the Expert Website provide convenient access options to the public on critical food safety and preservation information. No advertising has been done for these services, yet demand for information has significantly increased the number of questions answered through our program. The plan is to begin actively advertising the availability of the Hotline, especially in rural communities.

**Impact:** These services have been especially effective resources for those district offices that have been without a home economist because the position has been vacant and for home economists when they are out-of-the-office. The questions range from those that require just a few minutes to answer to those that require hours of research to answer. Of particular interest is the fact that the Ask the Expert Web site receives questions almost exclusively from out-of-state.

***Source of Federal Funds:*** Smith-Lever Food Safety and Quality Formula Funds

***Scope of Impact:*** National

**Statement:** A 1-credit Food Safety and Preservation class is now taught by Extension specialists. This is a rural, distance delivered class of the University of Alaska Southeast. This class is now required in the curriculum for the Community Wellness Advocate Program, which trains and certifies Community Nutrition Specialists. The seven students enrolled in the class this spring semester were from Sitka, Ketchikan, Juneau, Cordova, Homer, Seward and Bethel. Skills in food preservation require students to "learn by doing" which was our particular challenge for this course. The class combined audio lectures, reading assignments from a binder of materials assembled for the class, writing assignments that were distributed via e-mail, quizzes and an "at home lab kit" that contained all the equipment and materials for 4 at home labs and lab reports. its" to encouraging interaction and participation of all the students.

**Impact:** Although this was a very demanding class for 1 credit, the student feedback was positive. The preparation for this class was extensive from purchasing all the equipment for the "at home lab kAll seven of the students in the class have either completed or are on track to complete their certification. Furthermore, these students have become 'unofficial' Extension representatives in the seven rural communities they represent, bringing in relevant publications and information and thereby increasing awareness of our services.

**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.*

## 3.0 Executive Summary:

### Highlights and Accomplishments

During this reporting period 66 classes were taught by extension home economics faculty that related to Goal 3 and quality of diets, quality of food or food choices. These classes represented over 90 hours of teaching and reached over 1,600 clients. Faculty participated in community health fairs that reached more than 100 clientele in rural Alaska, and more than 5,000 general public participants in Fairbanks and Anchorage. More than 1,000 hours of volunteer time is donated working with the statewide and regional health boards and arranging presenters for community health fairs held statewide.

Consultations by the home economists with individuals, agencies and organizations reached over 3,000 clients with an investment of more than 500 hours.

In this reporting period 16 newspaper articles were published on diet and nutrition topics, and 11 fact sheets and publications were written by faculty. Thirty minutes of television programming were used statewide to deliver nutrition information

**Expenditures and FTEs**

| | |
|---|---|
| Federal: | $ 77,650 |
| State Match: | $ 77,650 |
| FTEs: | 2.5 |

**Key Themes:**

## 3.1 Human Health

**Statement:** Diabetes is a growing concern in the state of Alaska. Over13% of the population in 2003 were diabetic or pre-diabetic. The direct and indirect costs of diabetes are estimated at $261 million. Simple lifestyle changes can reduce the risk of diabetes by 58%.

**Impact:** Two classes we have introduced address these lifestyle changes. Dining with Diabetes was offered in two locations in Alaska during 2005. Those taking the class increased their knowledge of diabetes, carbohydrates, sweeteners, and healthy eating for a diabetic diet. Increasing physical activity is another way to decrease the risk of diabetes.

***Source of Federal Funds:*** Smith-Lever 3b&c

***Scope of Impact:*** State Specific

**Statement:** The Strong Women Program was developed by Dr. Miriam Nelson at Tufts University as a progressive strength-training program for midlife-to-older women. Through scientific research, Dr. Nelson demonstrated that strength training would increase strength and muscle mass and improve balance. Strength training can reduce the risk of chronic diseases such as diabetes, heart disease, arthritis and osteoporosis. Strength training has also been shown to reduce depression and contribute to a sense of well-being.

**Impact:** Over 100 group leaders were trained in leading the Strong Woman program. Four home economists were trained and began Strong Women programs in Bethel, Fairbanks, Kenai, and Palmer. A total of 76 participants have completed the 8 week program, with many continuing the exercises on their own after the formal class was completed. Several of the participants have reported decreased pain from arthritis, increased bone mass tests from their physician, and decreased blood pressure.

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

***Scope of Impact:*** State Specific

## 3.2 Human Health

**Statement:** The Tanana District Extension office cooperates each year with the Alaska Health Fair Association to bring the latest in health research to Alaska's communities. 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. An exhibit on sugar for use at Health fairs has been developed. It is an interactive display with youth

measuring out the amounts of sugar in various sized drinks. The aim is to help reduce the amount of sugar consumed by drinking heavily sweetened beverages such as soda pop.

**Impact:** Alaska's three half-time FSNEP nutrition educators reported teaching FSNEP lessons beginning in October. As of April 30, 80 clients had been formally enrolled in the nutrition education curriculum. A total of 150 (family members) have been or are being reached indirectly in this effort. Of these 80 enrolled clients, 32 have graduated from the program, 3 exited the program prior to completion, and as of July 1, 58 are still active. Lessons were taught in group settings (28%), individually (69%), and a combination of group/individual lessons (3%).

Participants in the FSNE program show a marked improvement in skills related to food resource management, safety, and preparation. For instance, 80% of the participants showed improvement by using lists, planning meals, or comparing prices. In nutrition, 50% have improved by using at least 3 nutrition practices (prepares food without adding salt, reading nutrition labels, plans meals, makes healthy food choices, or has children eat breakfast). In the area of food safety, 74% showed improved skills in handling food safely.

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

***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.*

### 4.0 Executive Summary:

### Highlights and Accomplishments

During this reporting period, land resources faculty provided over 120 hours of consultation time to individuals, agencies and organizations during this reporting period, reaching more than 600 clientele on Goal 4 topics, which included urban forestry, invasive weeds, pesticide and herbicide issues, and soil and nutrient management. Contacts were made by public presentations, phone calls, e-mails, office and site visits, fairs, meetings with agencies, and audio conferencing.

In the area of water quality, 2 Land Resources agents taught 33 hours of workshops reaching more than 500 people, covering topics from village drinking water to issues affecting homeowners and watersheds. Agents provided over 900 hours of consultation time to individuals, agencies and organizations, reaching more than 4,500 clients on topics including drinking water and water quality environmental issues.

In the area of invasive pest management, over 90 educational workshops, presentation and classes were presented to the public in seven communities by land resources faculty and IPM technicians. Thousands of publications were distributed in IP- related activities alone, and 37 media contacts delivered (combination of television, newspaper articles, newsletters and radio spots).

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. 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**

| | |
|---|---|
| Federal: | $ 118,729 |
| State Match: | $ 118,729 |
| FTEs: | 3 |

## Key Themes

### 4.1 Integrated Pest Management

**Statement:** The Gypsy Moth is a particular problem in the lower-48 states, defoliating a broad range of tree species. So far, they haven't been a problem in Alaska and yearly monitoring takes place to locate and eradicate any that do arrive. An Asian Gypsy Moth also exists that could have far worse implications. Although not found in the US yet, the possibility exists particularly for Alaska. As all species are susceptible to trapping, monitoring is possible.

**Impact:** IPM technician set out 270 Gypsy Moth pheromone traps in 2005, in locations such as Dutch Harbor, the Dalton Highway, Kodiak and Haines. Most of the traps were retrieved, with one containing a single Gypsy Moth. The specimen was sent to a lab in Seattle to be verified and genetically identified regarding its species subtype.

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

***Scope of Impact:*** State Specific

### 4.2 Pesticide Management & Safety

**Statement:** The Pesticide Safety Education Program provided information on the safe use of pesticides. Cooperative Extension Service provides pesticide safety instruction in coordination with the Alaska Department of Environmental Conservation (ADEC) Pesticide Branch, which provides pesticide safety exams and certification. The Pesticide Applicator Training (PAT) program provided professional pesticide applicator training for Alaskans to he certified / recertified with the Alaska Department of Environmental Conservation as restricted or commercial use pesticide applicators. Workshops were conducted in Anchorage, Palmer, Delta Junction, Fairbanks, Juneau, and Sitka. Importantly, consumers need information on pesticide safety to protect the environment and human health from improper pesticide use.

**Impact:** Pesticide applicator training for the state's 13 categories is available through the CES Pesticide Safety Education Program. Students receiving this training include: farmers, household and structural pest professionals, right of way managers, commercial greenhouse growers and commercial landscapers. 2005 saw eight workshops with 108 clients enrolled, with clients representing a wide variety of professions including commercial pest managers, university researchers and employees, foresters, lawn maintenance professionals, right of ways managers and public citizens.

The Kenai Peninsula CES District Agent continues to make available a comprehensive pesticide and pest management information Website (http://www.alaskapestmanagement.com) linking all Alaskans to current state, regional and federal pest management resources.

***Source of Federal Funds:*** Smith-Lever 3b&c, Smith-Lever 3d IPM and competitive grants

***Scope of Impact:*** State Specific

## 4.3 Natural Resources Management

**Statement:** Within the Municipality of Anchorage there are approximately 59,000 dogs producing approximately 22 tons of feces each day. Anchorage has eight creeks and three lakes within the municipality on the state 303d list for fecal matter pollution. A multi-agency organizing committee was formed to address the issue of animal feces along hiking trails, multi-use trails and in and along public lands. The agencies involved included the UAF Cooperative Extension Service, Anchorage Waterways Council, the Municipality of Anchorage, the State of Alaska Department of Environmental Conservation, and the US Bureau of Land Management. A public awareness poster was part of the solution to the issues addressed within this committee. Other activities included the establishment of an annual community event and the installation of poop bag dispensers and waste canisters at many trail heads.

**Impact:** CES, in partnership with the Anchorage Waterways Council, Municipality of Anchorage, Alaska Department of Environmental Conservation and the US Bureau of Land Management, have created a three-step program to raise awareness and educate the public about the dog poop problem. During phase 1, a series of posters with a "Got Poop?" theme were produced featuring local personalities such as Olympic skiers and hockey stars. Phase 2 demonstrated the need for and results of the "Scoop the Poop" program by featuring a cleanup of a trail system on a BLM tract of land, and an educational "Science Center" was located on the site. Phase 3 was the installation of sponsored poop stations at trailheads and parks in the municipality. More than 30 stations have been constructed, and include signage, a poop bag dispenser, and a trash can to deposit the bags.

***Source of Federal Funds:*** n/a

***Scope of Impact:*** State Specific

## 4.4 Sustainable Agriculture

**Statement:** In 2005, Extension's new rural land resource agent aided in establishing multiple community gardens in rural Alaskan villages. With the escalating costs of transportation to these villages, the ability for villagers to become small-scale producers is becoming increasingly desirable.

**Impact:** In one particular garden, an end-of-season sale was held that raised over $200 dollars to help sustain the garden for the 2006 growing season. Considering the low, fixed-level incomes of so many rural Alaskans, this represents a significant earning. Grassroots efforts such as these to establish successful gardens in Alaska villages will likely seed long-term benefits for the villages as a whole.

***Source of Federal Funds***: Smith-Lever 3b&c and Special Grants

***Scope of Impact:*** State Specific (some Multi-state)

## 4.5 Forestry

**Statement:** This year, the CES Forestry Specialist developed and presented a 'hazard trees' workshop in Girdwood, Soldotna, Anchorage, North Pole and Fairbanks. This program evolved from a large collection of images collected for several years associated with damaged trees. Although the USDA Forest Service has an excellent web site on hazard trees, it is limited in its coverage of specific tree examples in Alaska. This program provides an opportunity to meet with the public first hand and discuss tree issues and because of this, this exercise combines aspects of both teaching and public service.

**Impact:** The response by the public was very encouraging and has lead to many further discussions and site visits. This project constitutes the first efforts by the forestry specialist to make a program available to all the districts throughout the South-Central and Interior regions of Alaska. As a result of the large amount of work involved in developing these presentations, an associated Web page on Hazard Trees in Alaska will become a component of the forestry home page web site.

***Source of Federal Funds:*** CSREES Special Grant

***Scope of Impact:*** Multi-state

**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.*

## 5.0 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:

During this reporting period, 132 planned workshops (over 750 hours of teaching) were taught by the 4-H, Home Economics and Land Resources faculty, reaching more than 4,800 Alaskans in 19 communities statewide. Topics included: family finance, 4-H youth and leader training, parenting, time management, cold-climate, marine-climate home building, and junior master gardening.

Extension specialists and faculty gave 82 public service presentations reaching 5,800 youth and adults on topics ranging from 4-H shooting sports, leadership training, to fly fishing and animal care. Faculty provided over 2,350 hours of consultation time to individuals, agencies and organizations during this reporting period, reaching more than 6,500 clients on Goal 5 topics**.** Contacts were made by public presentations, phone calls, e-mails, office and site visits, fairs, meetings with agencies, and audio conferencing.

In this reporting period thousands of clients received newsletters; forty-four newspaper articles were published, and faculty wrote 13 fact sheets and publications. Sixty minutes of television spots were aired, and 60 minutes of radio time involved Extension information.

Indoor Air Quality, taught by the Housing and Energy specialist, continues to be a major program of interest statewide, along with cold- and marine-climate home building. The issue of asthma in children and its relationship to the home environment continues to be a topic of growing community awareness and concern. Fifteen classes and workshops on these topics reached more than 500 clients in nine communities throughout Alaska.

**Expenditures and FTEs**

| | |
|---|---|
| Federal: | $ 345,651 |
| State Match: | $ 345,651 |
| FTEs: | 8 |

**Key Themes:**

## 5.1 Air Quality

**Statement:** Recent high profile incidents have weighed heavily in the general concern over carbon monoxide poisonings in Alaska. Particularly influential was the death of an Anchorage family in December 2003. The Alaska State Legislature passed a law requiring use of carbon monoxide detectors in houses. This legislation resulted in a series of workshops around the state by the CES housing specialist.

**Impact:** In 2005, air quality workshops, including information on carbon monoxide and radon awareness, reached over 500 clients in communities throughout Alaska. Print-based information on associated risks, as well as on carbon monoxide and radon detectors, was made available.

***Source of Federal Funds:*** Smith Lever 3b&c

***Scope of Impact:*** State Specific

## 5.2 Children Youth and Families at Risk

**Statement:** The Beach Break Up Party, held at Eielson AFB, was a big success in April, promoting Alcohol Awareness month, Month of the Military Child, and Child Abuse Prevention Month. Over 700 individuals attended, and over $1,000 in prizes were donated from community businesses. The evening consisted of Health Rocks! BINGO, Pool Olympics, kiddie contests and games, and much more.

**Impact:** This annual event at Eielson has grown each year due to continued support of the Access Eielson committee. The impacts on the community were numerous. Over 50 volunteers were enlisted to help with the evening. Volunteers were able to enjoy the time at the Beach Party as well as gain volunteer recognition for career advancement. Families were made aware of the many helping agencies on base by seeing them action. Although surveys weren't conducted at the event, verbal praises and a write up in the base newspaper proved what a tremendous impact this program was to Eielson families. Also in April, we worked with the schools and after school programs to have youth tell us what they would do if they could be the parent for the day. We compiled their answers and printed a booklet that has been disseminated through Eielson, North Pole, and Elmendorf communities.

***Source of Federal Funds:*** Smith-Lever 3d CYFAR

***Scope of Impact:*** State specific

**Statement:** In October of 2004, 12 teens were trained to present dating violence information to Eielson AFB health classes in the Ben Eielson Jr/Sr. High. The teens called themselves STARVE (Students Together Against Relationship Violence Everywhere). In addition to presentation to Health Classes, the teens also presented to the senior enlisted staff at Eielson and collected items for the women's shelter in Fairbanks. They made shower bags out of washcloth fabric and included soaps, toothbrushes, toothpaste, etc in the bags. The bags were delivered to the shelter in October as well.

**Impact:** This program not only impacted the teens that were trained and presented the dating violence information to their peers, but it also impacted families in Fairbanks that were in difficult situations.

***Source of Federal Funds:*** Smith-Lever 3d CYFAR

***Scope of Impact:*** State specific

**Statement and Impact:** Some stories are better left unrevised; this is as told by Kenai/Soldotna District 4H Agent Nancy Veal:

> *Let me introduce you to Colt and Harley. These two young residents of the Kenai Peninsula were able to live with a 4-H family for almost a year—while their mother was in jail. When I first met Colt, a 4th grader, his long, red, curly hair made it hard to distinguish his gender—not a problem except for the fact that the 4-H'ers in the club, until they got acquainted with him, kept calling him "her". This made Colt quite out of sorts. The leaders—and foster parents—exercised great patience while they dealt with these two boys who needed special attention and care. But over the course of time, small successes began to accumulate. Music was the first step. The music club performed a couple of numbers for a talent show. Colt especially loved to sing and he did so with gusto! The music leader was able to channel his energy and enthusiasm into a productive activity. Then Colt joined the 4-H Market Livestock program. As a part of that program he had to meet with business people. He got mighty discouraged. He just wasn't getting any results, while his foster sister was. He was ready to quit. His leader and I encouraged him to keep on a little longer! Then I saw Colt and his foster dad in the grocery store. I did a double take. Colt's hair was cut short and he was wearing a nice shirt.*
>
> *Not long after that, Colt and his family came into the office. Colt had his business contacts finished and he had a big smile on his face! On the farm tours, Colt discovered a new world. He especially fell in love with the Jersey cows at the Martin Ranch. He got his toe smashed when one stepped on him, but it didn't dampen his enthusiasm. He went on to finish his project and was a joy to everyone at the fair. He took his job seriously and worked hard to help in any way he could. One of his business contacts bought the turkey he raised. She used it for a contest at her store. People were invited to guess the weight of the turkey. The person who guessed the closest, won the turkey at Thanksgiving! She asked that Colt's name be put in the newspaper ad because she was so pleased with his work.*

*Both of the boys entered exhibits in the fair and were happy with the awards they received. Harley also blossomed as encouragement and positive feedback came his way. Both of the boys are back with their mother now. The impact of caring adults lingers on, however, because one of the 4-H leaders works as a teacher at Harley's school. She takes extra care to make sure he gets attention. Their foster parents keep touch with the boys. Colt now sees adults who remember him and encourage him. A network of caring adults has been introduced into these boys' lives. This is why my job is important to me! If our program makes a difference in one child's life we have succeeded!*

***Source of Federal Funds:*** Smith-Lever 3d CYFAR

***Scope of Impact:*** State specific

## 5.3 Youth Development / 4-H

**Statement:** Matsu District dog training classes continue to be popular. Of significance this year is that it is now taught by a very qualified adult leader and several teens, and a community business has offered to let 4-H use their building at no charge.

Impact: Over 30 families and pets have been positively impacted by learning obedience, showmanship, and pet care. Many exhibited at the Alaska State Fair.

***Source of Federal Funds:*** Smith-Lever 3d CYFAR

***Scope of Impact:*** State specific

**Statement:** The Matsu District Colony Days parade, in conjunction with our office Open House and Friday Fling booth, was an outstanding success. The entry included over 40 members and parents, horses, livestock and more and won third place overall, as well as $50.

**Impact:** The parade continues to prove a valuable community relations builder for 4H, as is evident from the overwhelmingly positive feedback from participants and spectators. Extension handouts and publications are made available at the event, and continue to be popular.

***Source of Federal Funds:*** Smith-Lever 3d CYFAR

***Scope of Impact:*** State specific

**Statement:** January 17, 2005 was 4-H Rally Day in the Kenai/Soldotna district. Over seventy young people from the community participated. Classes were held all day long on a large variety of subjects including flesh-eating beetles, dog mushing, rabbits, fish and game, public presentations, food service.

**Impact:** These classes not only educated young people in a fun, “learn by doing” fashion, the event also gave our community opportunity to see 4-H and Cooperative Extension at work. 4-H membership was not required to attend.

***Source of Federal Funds:*** Smith-Lever 3d CYFAR

***Scope of Impact:*** State specific

**Statement:** The first summer Junior Master Gardener (JMG) program offered in Anchorage was through the Alaska Botanical Garden (ABG) in 2004. JMG is a national program developed by the Cooperative Extension Service at Texas A&M University. Almost 30 children enrolled in the classes the first year and another 20 during the summer of 2005.

Five Master Gardener volunteers were channeled to work with the ABG instructor in 2005 so that learning experiences could be hands-on. A number of children had special needs. In 2004 the groups met for 3 hours a week for two months. In 2005, the classes were shortened due to the instructor's schedule. Each session, the students did something in their garden, took a field trip through ABG, listened to a garden book relating to the topic they were studying and participated in an activity. I taught a session for each class on growing and utilizing herbs. During these sessions the kids made herbal bath sachets to take home. No follow-up was made with the students after they completed the program, although two of the 2005 students had also taken the class in 2004 so their parents must have thought it was worthwhile.

The JMG garden site was built by the Alaska Botanical Garden from funds secured through ExxonMobil. The site included raised beds, kid oriented containers (with baseball bats and Barbie dolls worked into the design), an overhead canopy to keep off the rain or sun, and even a mosquito beater machine.

**Impact:** In 2005 two Master Gardeners provided 48 hours of volunteer assistance. This program is a good example of collaboration between the private, non-profit sector and the University of Alaska Cooperative Extension Service.

***Source of Federal Funds:*** Smith-Lever 3d

***Scope of Impact:*** State specific

**Statement:** The "4-H Talking Plant" is a plastic model used to teach basic botany (plant structure and function). In the Anchorage School District (ASD) the presentation fits with the Second Grade science curriculum. During April/May Master Gardeners gave 65 presentations to 1,392 second grade students. (A couple of classrooms were a combination of grades.) Presentations were given in Anchorage, Eagle River, Chugiak and in the military base schools. It has been a number of years since the Anchorage Cooperative Extension Service has been able to offer this school enrichment program. The Community Resources office of the ASD requests that before the program is advertised to second grade teachers we anticipate being able to handle all requests that might possibly come in. This requires a strong commitment from 3-4 Master Gardener volunteers. One class was taught completely in Spanish by a Master Gardener whose first language is Spanish. Alaska National Public

Radio even visited a classroom as part of segment they were doing on the Master Gardener program. The amount of volunteer time spent was 78.5 hours. Of the five Master Gardeners involved, one spent beyond her 40 hours of volunteer commitment.

**Impact:** In past years, approximately 50 classrooms have requested the program on an annual basis. The 65 presentations made last spring set an all time record. A number of revisions were made to the program. Program content was checked with the ASD Science Coordinator to make sure it still fit with the second grade curriculum. A new form was developed to collect statistics and provide an evaluation mechanism. Supplemental materials were added to the presentation to help reinforce concepts. One of the Master Gardeners also developed an annotated bibliography of children's gardening books, including ISBN #s. The handout was distributed to teachers and once it was written up in the Master Gardener newsletter, was even requested by a librarian from Kenai.

Teacher evaluations were extremely positive and included comments such as "My students were very engaged in the learning", "Excellent connection to our plant unit", "Kids loved being involved with building the plant—this definitely helped keep their attention", "It was a success".

***Source of Federal Funds:*** Smith-Lever 3d

***Scope of Impact:*** State specific

**Statement:** Kaltag 4-H Counting Tower Crew Successful in Contributing Biological Data. Kaltag teenagers have continued a tradition of working on an elevated tower erected on Kaltag Creek this past summer. Since 1991, high school aged youth have been employed for six weeks to erect the tower, install a weir in the river to intercept returning Chum and King salmon from salt water. Under the direction of two crew leaders, they collect biological data including age, sex and length ratios of fish and total number of fish returning to spawn in this tributary stream of the Yukon River. The ten teens on the 4-H Counting Tower Crew acquire on-the-job training about this regionally important natural resource. Data collected is communicated daily to an Alaska Department of Fish and Game field office which uses the information to determine both subsistence and commercial fishing seasons on the Yukon.

**Impact:** In addition to contributing important biological data impacting many communities, youth learn life skills associated with employment: being responsible for assigned work, showing up on time, developing a work ethic, taking direction from a supervisor and working cooperatively with other employees. The 4-H Program designated as the youth development outreach program with the Cooperative Extension Service, University of Alaska – Fairbanks established the summer work/learn opportunity as a compliment to a larger school enrichment agenda in science, math and natural resource management. 4-H continues to be integral in providing support and management of this youth development program.

***Source of Federal Funds:*** Smith-Lever 3d

***Scope of Impact:*** State specific

**Statement:** Alaska State 4-H Program Sponsors Youth/Adult Summit at Eielson Air Force Base in November. Over 50 teens and adults from 15 communities across the state met at Eielson Air Force Base during a weekend in November, 2004 to practice and experience youth/adult partnerships. The weekend activities sponsored by the 4-H Youth Development Program of the Cooperative Extension Service provided the venue to examine stereotypes and biases teens have of adults and adults have of teens. Sometimes humorous conclusions were recognized, but 'common ground' and important recognitions of human behaviors were made. Adults participating came to realize that youth often have energy, enthusiasm and fresh looks at situations. Adults recognized that youth themselves should be considered as stakeholders and resources bringing not always the depth of past experience, but passion and sincerity as contributions to an organization. The premise that involving youth on boards or organizations because 'it would be good for them to know and experience so they could become contributing members of society when they become adults' was replaced with a new awareness of viewing youth as being engaged resources NOW.

**Impact:** Through participation at the summit, teens learned that adults who often hold power through position and resources also could become trusted allies. Mutual respect and admiration became evident. The teen/adult teams returned to their communities with new skills and understanding to create more productive relationships.

***Source of Federal Funds:*** Smith-Lever 3d

***Scope of Impact:*** State specific

**Statement:** October 4-H Teacher In-Service Provides Skills to Rural Educators.Twenty-six rural educators participated in a four-day in-service in Fairbanks over a long weekend during the month of October 2004. The training sponsored by UAF's Cooperative Extension Service's 4-H Program, provides graduate level instruction to compliment a year long school enrichment program associated with natural resource management issues, science and math literacy. The teachers were invited to participate in the 4-H Natural Resource and Youth Development Program's teacher in-service to acquire hands-on experience with fishery biology, the salmon life cycle, local salmon egg-take and fertilization techniques, water quality monitoring and testing, learning and teaching styles research and application of Alaska standards. Most of the educators use an in-classroom incubator system to raise salmon back in their classrooms. The in-service provides the basics of aquarium set-up, maintenance, daily and weekly procedures, permit requirements, water chemistry and report writing.

**Impact:** The broad-based and culturally relevant program materials provided to the educators enhances and encourages use of local knowledge and community elders in the school environment. Educators leave the workshop with an extensive support network of participating school districts, along with agency personnel from US Fish and Wildlife Service, Alaska Department of Fish and Game and a variety of University of Alaska Fairbanks faculty.

The 4-H Natural Resource and Youth Development Program originally conceived in 1991 serving ten Yukon River communities has expanded to over 70 communities across the state. The annual teacher in-service represents a very important key to success, pairing researchers, agency personnel and educators in a dynamic learning situation. Teachers return to their communities infused with new skills and knowledge to make learning relevant.

***Source of Federal Funds:*** Smith-Lever 3d

***Scope of Impact:*** State specific

### 5.4 Leadership Training and Development

**Statement:** The Kenai/Soldotna 4-H program partnered with Solid Rock Camp to squeeze in a 24-hour camp that was filled with fun activities and many educational sessions! Twenty-four 4-H'ers and five 4-H leaders attended and members of the Solid Rock Staff worked with the leaders to teach classes in horsemanship, rabbits and games and activities. Other classes, taught by resource leaders, consisted of Crafts, Tai Chi, Outdoor Cooking, Rifle and Poultry Showmanship.

**Impact:** This was a successful partnering and the start of a "regular" camp that provides quality leadership training opportunities.

***Source of Federal Funds:*** Smith-Lever 3d CYFAR

***Scope of Impact:*** State specific and multistate

### 5.5 Cost of Credit

**Statement:** What does it cost for four years at an Ivy League school? When comparing schools, students should weigh the costs with the benefits. Extension home economists conducted seminars at local area high schools to help explain the cost of credit, and how easily young adults can go deep into dept. This year, 34 Fairbanks high school students learned to use specialized calculators that calculate payments, saving computations, annuities and interest.

**Impact:** After learning to use the calculators, students figured the yield from savings accounts and the cost of credit cards, as well as the price of a car, a house and a college education. With increased awareness of costs versus savings, high school students are better prepared to become fiscally responsible young adults.

***Source of Federal Funds*:** Smith-Lever

***Scope of Impact:*** State specific

### 5.6 Childcare Training

**Statement:** Programs for Child Care Providers were offered in the Matsu District in conjunction with the Child Care Connection program and were based on the Better Kid Care videos produced through Penn State University Cooperative Extension. Topics were chosen from stated needs of the providers. Topics included working with problem parents, incorporating play, math, music and movement into daily curriculums, and reducing stress in caregiving.

**Impact:** Participant evaluations overwhelmingly indicate that clients gained knowledge and insight from the classes.

***Source of Federal Funds:*** Smith-Lever 3b&c

***Scope of Impact:*** State Specific

**Statement:** The Nome home economist worked with the Northwestern Alaska Career and Technical Center (NACTEC) to provide a two-week section on Early Childhood Education. NACTEC serves high school and middle school students from the Bering Strait, Nome and Northwest Arctic Borough School Districts. Students attended daily classes and spent three hours a day working with and observing children in Early Childhood settings.

**Impact:** This was a wonderful opportunity for students to explore career options in the field of Early Childhood. One NACTEC student wrote in a thank you letter: "You taught me so much about child brain development. You taught me how to take care of kids better and not use those critical words."

***Source of Federal Funds:*** Smith-Lever 3b&c

***Scope of Impact:*** State Specific

**Statement:** The Nome home economist worked with Maniilaq staff for a two-day training for Foster Parents from seven rural communities and Kotzebue. Twenty-five parents participated in a two-day training held in Kotzebue. Five hours of information on Child Development and other issues pertinent to foster parents was presented.

**Impact:** One product of the training was two pages of ideas the group offered to each other to best support the foster children in their care.

### 5.7 Promoting Housing Programs

**Statement:** For more than 12 years, a focal effort of the Energy and Housing Program of Cooperative Extension Service has been delivery of courses to the home buying public, enabling them to become better quality housing consumers. The courses are customized to various regions of Alaska and are commonly referred to as the Cold Climate Homebuilding and Marine Climate Homebuilding courses. Over the past 11 years, Extension has perfected course delivery, such that it is about seven hours long and extremely customized to various locations around the state.

Over those same 12 years, more than 3,000 people have taken this course. Many of them end up financing their homes through the Energy Rated Homes Program and get an energy mortgage incentive. This saves money for the homeowner, enhances the quality of the homes and the housing stock used, and consequently improves the health of the inhabitants of their homes. This continues to be a major thrust and a major benefit of extension to the state of Alaska exemplifying the application of university-based research to unique Alaska housing challenges in ventilation; heating systems, insulation performance, moisture control and radon reduction.

**Impact:** The impact**s** of these efforts continue to be significant. The savings in interest and finance costs, let alone the benefits to the health and well-being of people living in these healthier more

durable houses, can be as much as $10,000 per home over the life of a mortgage. The savings of one percent or more on an interest rate can demonstrate this over the life of a mortgage. On a larger scale, this means the fiscal cost of saving $10,000 on 3,000 home mortgage purchases is on the order of $30 million. Of course, this is a low end estimate because the savings may be more, and the number of houses affected may be greater. Each year the number of individuals who take the course in anticipation of buying new homes and who finance through mortgage incentive programs increases this tally.

***Source of Federal Funds:*** Partly Smith-Lever 3b&c (but majority of funds from the Alaska Housing Finance Corporation and the IA S. Dept of Energy)

***Scope of Impact:*** State Specific

## II. Stakeholder Input Process

### Extension State Advisory Council:

The purpose and composition of CES' state advisory council is geared to emphasize and maximize stakeholder input in the planning and budgeting process of CES and to assist in developing program direction and priorities. The council is comprised of 12 members and two ex-officio members and seeks continual input from stakeholders and community members in each member's respective geographic region. The council meets monthly to discuss new, existing and potential CES projects; they provide input to the CES director and continually discuss new possibilities for implementing the CES Plan of Work national goals. The current membership list, which includes a short bio for each member, is published on the CES Web site at http://www.uaf.edu/coop-ext/dir_info/advisorycouncil.html.

### Outcomes-based Reporting

A new Web-based reporting system (mentioned in last year's report) was implemented in January 2006. This represents a 6-month delay from the previously stated target date of July 2005, as unanticipated system revisions were needed to fully accommodate both UAF and CSREES reporting criteria. As such, the Web-based survey management tool is not yet implemented as hoped; we expect to see its use no later than the first year of the new plan of work (FY2007), but quite possibly before then. As this reporting system transition also represents a significant 'culture change' for so many CES faculty, many of our outcomes-based reporting objectives are also in transition and therefore not yet realized.

The all-faculty plan of work meeting held in December 2005 was pivotal in outlining an outcomes-based approach for the organization, one that will certainly be reflected in the 2007-11 plan of work cycle. For the meeting, faculty were asked to provide comprehensive needs assessments in which they identified stakeholders and underrepresented groups, described how stakeholder input is gathered and analyzed, what stakeholder needs are, and how programming for stakeholders supports other CES program areas. Faculty conducted surveys and qualitative mini-assessments to determine and analyze stakeholder input. An evaluation specialist was brought in to demonstrate the concepts of a logic model-based approach to program development; each program area is required to integrate the logic model into the plan of work.

## III. Program Review Process (Merit Review)

CES is continuing its effort to establish a comprehensive merit review process. The CSREES Institution Driven Reviews merit review process mentioned in last year's report was not applied for this year in consideration of the imminent changes occurring in the new plan of work cycle and subsequent program needs assessments. Program merit review will be further addressed in the new plan of work soon to follow this report.

## IV. Evaluation of the Success of Multi and Joint Activities

Alaska participates in the following multistate research and coordinating committees:

**W-1147:** Managing Plant-Microbe Interactions in Soil to Promote Sustainable Agriculture
**W-112:** Reproductive Performance in Domestic Ruminants
**W-192:** Rural Communities and Public Lands in the West: Impacts and Alternatives
**NC-218:** Assessing Soil N Availability in Regional Corn Cropping Systems
**4-NRSP/IR4:** A National Agricultural Program to Clear Pest Control Agents for Minor Uses.
**NCR –101:** Controlled Environment Technology and Uses
**WCC-021:** Revegetation and Stabilization of Deteriorated and Altered Lands
**WCC-093:** Western Region Soil Survey and Inventory

Stakeholder inputs have questioned the importance of multistate research to Alaska's needs. Specifically they point out the relative development of Alaska agriculture compared to most western states. Unlike other small population states in the west such as Wyoming, Alaska has no nearby markets in other more populated states. This coupled with extreme differences in environmental and economic climate found in other states has been a factor in Alaska's limited participation in multistate research.

## V. Integrated Research and Extension Activities

Alaska submitted Form CSREES-Waiver requesting a waiver for FY2000 Integrated Activities from Hatch Act Funds. CSREES granted the waiver and approved our projected Integrated Activities for the 2001-2004. The form CSREES-REPT reporting Integrated Activities for 2005 is included here.

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 moved ahead with Integrated Activities involving AFES researchers and support staff and CES specialists and agents; an evaluation and brief synopsis of those activities are summarized below:

The SNRAS/AFES Palmer Research Center in southcentral Alaska became the Palmer Research and Extension Center in 2001. In addition to housing two joint AFES/CES faculty positions in horticulture, the Center also provided office facilities for the CES Fisheries and Natural Resources

specialist and a Curriculum Coordinator. Our goal is to increase Integrated Activities to the AREERA target percentage.

**Agronomic Crops and Soils**

Integrated activities continue to address best management practices for production of livestock feed crops, primarily forages and small grains as well as investigating new crop opportunities. The loss of the joint AFES/CES Agronomy Specialist position seriously impacted this program. AFES researchers and CES agents continued collaborative work at Delta Junction, Fairbanks, Palmer, and the Kenai Peninsula. In cooperation with Extension resource development and land resource agents, we hosted a turfgrass field day for golf course superintendents in 2004. A cooperative on-site golf green cultivar demonstration trial was re-established at the Settler Bay Golf Course in 2004 and will be evaluated one more year.

**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. The Agronomy Specialist position was replaced with a horticulture specialist (75% CES and 25% AFES) in 2004 and the individual in that position is participating in the Hatch project "Production Practices, Cultivars, and Disease of Potato and other Horticultural Crops". That project leader in cooperation with the AFES horticulture researcher at Palmer is evaluating: potato, lettuce, and cabbage variety and management trials, comparison of overhead and drip tape irrigation on vegetables, soil moisture monitoring in transplanted lettuce, and proposed hoop house evaluations. This information is presented annually to CES/AFES jointly sponsored workshops including: The Greenhouse and Nursery Conference, the Potato and Vegetable growers Conference, Ag Symposium, and the Delta Farm Forum (presentations included "Seed Piece Size and Fungicide Treatment", "Compost Tea for Home Gardeners" to name a few. The horticulture/plant pathology researchers at the Palmer Research and Extension Center working closely with CES agents in Palmer, Anchorage, Soldotna, Fairbanks, and Delta Junction provide the core for this working group.

**Greenhouse Management/Nursery**

Collaborative work continued in the greenhouse/nursery production of cut flowers, bedding plants, ornamentals, and other landscaping plants. Research and outreach addresses 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. Extension oriented publications in 2003/2004 included a number of publications in Greenhouse Product News and Experiment Station circulars and bulletins. 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, 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 managed 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 on the Seward Peninsula (details reported above under Goal 1). Current projects range from reproduction and disease management to range management and reindeer nutrition. The Extension reindeer agent position has been terminated but the Extension livestock specialist works with AFES researchers and other agencies (i.e. NRCS, AFG, and BIA), and the herders themselves and facilitates annual meetings and workshops.

**Animal Reproduction**

The joint research animal scientist/livestock 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. Most of this research and outreach was on-farm, directly involving the local extension agents and the producers. In 2005, outreach activities included one-on-one contacts with producers, workshop presentations at the Delta Farm Forum, and the Agricultural Symposium. His project has become the cornerstone of our Integrated Activities in livestock with Cooperative Extension. It encompasses all the desirable elements of multistate, integrated research and extension activities.

**Soil Quality /Nutrient Management**

No Integrated Activities reported in 2005.

**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. The AFES forester working in the area of growth and yield has worked cooperatively with CES and State and Private forestry in cooperation with the state Division of Forestry and the U.S. Forest Service.

**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 ("Public Planning Process"). A new project "Innovative Methods of Involving the Public in Environmental Decisions" will involve CES and outreach efforts. In 2004, an interdisciplinary team was established to develop alternatives for

management of the Alagnak River based on prior and new public meetings and written comments. Plan completion is scheduled for 2005. The National Park Service will use the plan to guide the management and use of the popular river corridor. The AFES Natural Resources Economist continued work cooperatively with CES on the reindeer industry economic impact analysis through presentation of information at the CES sponsored annual reindeer meeting in Nome.

## Attachments to the Annual Report of Accomplishments and Results

1. Form CSREES-RFPT (2005). Multi-state Extension Activities (Electronic copy with hard copy to follow.)
2. Form CSREES-REPT (2005). Integrated Activities (Smith-Lever Act Funds) (Electronic copy with hard cops to follow.)