

FY2004 Annual Report
University of New Hampshire Cooperative Extension
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Introduction

The University of New Hampshire Cooperative Extension provides New Hampshire residents with research-based information, enhancing their ability to make informed decisions that strengthen youth, families and communities, sustain natural resources, and improve the economy. As a University outreach program, our network of professional Extension staff resides in all 10 New Hampshire counties. County staff work with local volunteers and specialists on the University of New Hampshire (UNH) campus to design and conduct educational programs that meet societal, environmental and economic needs. While many of our programs are conducted locally, we also use current communication technologies including computer networking, computer-based courseware, phone, web, and interactive video conferencing. As part of the national land-grant university system, we also access the knowledge and expertise of other state land-grant universities throughout the United States. Cooperative Extension derives its name from the partnership structure that combines federal, state and county funding. This “cooperative” effort ensures all people have local access to a public university and its knowledge and resources to address needs and problems. The University of New Hampshire serves the state as the principle land-grant university charged by Congress to conduct resident instruction, research, and outreach to people beyond the formal classroom. With a total state population 1.3 million people, Extension reaches a quarter of these individuals through educational programs.

UNH Cooperative Extension employs approximately 80 Extension Educators and additional program staff who plan, conduct and evaluate educational programs. Programs derive from two broad program areas - Youth, Families and Communities, and Natural Resources. These areas are supported by staff in five program groups: 4-H Youth Development, Family and Consumer Resources, Agricultural Resources, Forestry and Wildlife, and Sea Grant and Water Resources. State Program Leaders manage each program group.

UNH Cooperative Extension commits to increased programs for underserved and underrepresented audiences. These individuals participate mainly through program efforts in Nutrition Connections and the Family Lifeskills Programs, part of the state’s welfare reform effort. 4-H camping and after school programs also involve a significant number of underserved families. Staff working in these programs build trust and rapport with under-represented audiences, and help Extension advisory councils understand the audience’s needs and circumstances. Issues for the underserved and underrepresented are incorporated into New Hampshire’s plan of work and accomplishments during FY2004 are highlighted in this report.

Program accomplishments in this report respond to high priority needs in New Hampshire identified through comprehensive statewide needs assessment conducted in 1999. Extension advisory councils and stakeholders systematically analyzed data collected and identified the highest priority needs. These needs include:

Natural Resources Needs (includes land use, the environment, agriculture, forestry, wildlife, water and marine resources)

- Land use, land and water conservation, and open space preservation
- Sustaining the economic value and impact of natural resources and natural resources-related industries

- Increasing the visibility and marketing of Extension’s expertise and assistance to support natural resources and natural resources-related industries

Family and Youth Needs

- Strengthening families - balancing work, family and community roles, parent education/pre-parenting education, resiliency, and family functioning
- Life skill development for youth - workforce preparation, character education, and social responsibility
- Family resource management - time, money, and other resources
- Wellness - healthy lifestyles including nutrition, physical activity, and food safety

Broad State Needs

Community Involvement/Sustainability - community decision-making, educating elected officials, leadership development, community forums, balanced growth, and user-friendly town government.

Based on the statewide needs assessment, final analysis and ranking by the State Extension Advisory Council, the following goals served as the basis for the FY2000-2004 Plan of Work and the FY2005-2006 Plan of Work Extension. These goals as well as the program logic models found at: <http://extension.unh.edu/AboutUs/UNHCEPOW.htm> provide the framework for the following FY2004 program accomplishments. Downsizing and staffing changes resulted from increased costs and a lack of increase in state and federal funding during FY2004. Program impacts resulting from these changes are noted in the executive summary for each goal.

A. Planned Programs

Goal 1 - An Agricultural System that is Highly Competitive in the Global Economy

Executive Summary

Agricultural profitability and effectiveness was enhanced through workshops, conferences, and producer visits that resulted in growers and farmers improving farm image to increase returns upwards of \$10,000, saving \$60 a month on feed costs, improving farm facilities to save up to \$30,000, and saving over \$200,000 through employee training and practice changes. Producers have also begun more profitable ventures such as organic dairies, use of new technology and practices, selling value added products, and enhancing customer relations.

The Cooperative Extension Family, Home and Garden Education Center Master Gardeners responded to more than 7,000 home horticulture requests. The Master Gardeners also contributed 11,000 hours of educational programs in approximately half of New Hampshire’s towns, villages, and cities. One Master Gardener effort of note is the “Veggie Volunteers” that collected from a local farm and distributed to food pantries 12,500 pounds of produce valued at \$15,000. Cooperative Extension paid and volunteer staff also saved local governments over \$50,000 by serving as consultants on municipal landscaping, parks, and athletic field projects.

A multi-state effort that greatly benefits New Hampshire agricultural producers is Risk Management and Transferring the Farm programs. As a result of multiple workshops and individual consultations, producers better understand risk reduction strategies, improved their agricultural support network, used new risk management tools, and changed practices to reduce risk. The transfer program kept several critical farms from falling into the hands of developers.

Extension trained 99 new Master Gardener volunteers in addition to 500 currently active Master Gardener volunteers. These individuals educate New Hampshire's citizens about making decisions that are economically and environmentally sound.

Changes in staffing and programming for this goal during FY2004 included loss of four agricultural resources and one water resources staff due to retirements and separations. Three of those staff were replaced but the positions were held open for several months. As a result, key themes not reported on during FY2004 include niche marketing, GIS/GPS, and bioterrorism.

Total Expenditures: \$2,636,218

Funding: Federal Smith-Lever b&c - \$323,838

State Matching Funds - \$1,534,120

County Funding - \$509,735

Grant & Other External Funding - \$268,525

FTEs - 23

Adding Value to New and Old Agricultural Products - Mike Sciabarrasi

A. Situation: Proximity of New Hampshire farmers to markets and large numbers of consumers provide substantial opportunities for sales of agricultural products, related goods, and services. Adding value to farm products through processing, packaging, and services helps growers improve net income. Consumers benefit from higher quality products when farmers adopt marketing practices that make local farm products available.

B. Program Description: Marketing efforts focus on helping farms increase profits through greater understanding of local markets and improved marketing strategies. Seminar series and workshops emphasize direct sales of high value, locally grown products to consumers and retail outlets.

Recent programs addressed how to sell products through direct markets such as farmers' markets, farm stands, and pick-your-own sales. Staff made three presentations in New Hampshire, one in Massachusetts, and one in Maine. Garden center marketing programs focused on promotion, display techniques, events, and new products. Prepaid soil test kits were available for sale through garden centers in FY2004.

Marketing goat meat was offered as an option for New Hampshire dairy goat producers. Budget software that evaluates the economic feasibility and results of that software analyses were

presented to producers. Farmers received copies of the program. Individual farm consultations helped farmers with specific pricing, promotion, and product strategies.

C. Impacts:

- 55 New Hampshire growers improved direct marketing skills related to advertising and promotion
- 225 New England growers better understand direct marketing options and opportunities
- 59 New Hampshire garden center owners improved marketing skills related to promotion and product selection
- Garden centers bought 106 prepaid soil test kits
- 80 New Hampshire producers learned to evaluate the economic feasibility of goat meat production
- Direct marketing strategies helped 30 New Hampshire growers increase profits

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E. Scope of Impact: State specific

Agricultural Profitability – Carl Majewski

A. Situation: Agricultural producers continue to seek information and resources that improve the profitability of their businesses and farm enterprises. The greatest needs for educational programming are:

- niche and value-added marketing
- risk management
- improving the efficiency and productivity of farm businesses
- farm business management skills
- whole farm planning

B. Program Description: In FY2004 Extension educators and specialists addressed these needs with a variety of educational programs. These included written materials such as newsletter articles and fact sheets, workshops and producer meetings, farm tours, and one-on-one meetings and consultations by private sector specialists collaborating with UNH Cooperative Extension staff.

C. Impacts:

- 55 growers attended a marketing workshop in Rockingham County. In an evaluation, 40% report they will improve their farm image by making it more attractive, while 35% will diversify their farms by offering new products or holding special activities. Results from program surveys indicate that seven percent will increase their return between \$2000 and \$4000 while nine percent will increase their return between \$10,000 and \$20,000
- Following a seminar on flower and vegetable production, 20% of participants saved an average of \$1000 by implementing practices they learned

- 1,348 people attended the New England Vegetable and Berry Association Conference held in Manchester, NH. Eighty-two percent of those responding to an evaluation of the conference believed their farm profitability would improve
- A producer attending a “Marketing Ruminants for Meat” seminar used the information to evaluate and modify her management decisions that affect the profitability of the operation
- 19 participants in a Small Ruminant Nutrition Mini-course learned to better evaluate diets of their small ruminants, improved understanding of nutritional requirements, and learned to balance rations. They report saving an average of \$60 per month on direct feed costs
- 18 producers saved a total of \$30,000 by redesigning, relocating, or otherwise improving their facilities as a result of farm visits made with Extension staff and a retired Cornell agricultural engineer
- Evaluations of one garden center program showed participants expect to save a total of \$210,000 by improving employee training and/or policies, trying a new promotion or event, or using UNH recommendations to help customers select plants
- Half the producers participating in a field survey of 15 chrysanthemum growers reduced the number of pinches on their crop this year, representing a labor savings of \$750 on 25,000 pots of mums. A fruit grower added no-pinch mums to his fall crops for the first time and grossed about \$1000 in additional revenue
- Farm visits in Sullivan County alone saved producers a total of \$6,871 by improving pest management practices, marketing skills, or reducing labor costs
- 35 people who attended a “Focus on Forage” workshop increased their understanding of forage quality concepts and their knowledge of grass harvesting practices to optimize forage quality for better animal performance
- A Cheshire County producer used portable scales promoted by Extension to improve manure management and reports this management technique resulted in significantly higher forage yields on his cropland

A. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

B. Scope of Impact: Multi-state

Animal Health/Animal Production Efficiency - Pete Erickson

A. Situation:

Dairy producers and allied industries need education on regional and national research and well trained employees to make their businesses more profitable. This includes background information for farm employees on overall farm management, calf management for adequate growth, and animal health. Part-time ruminant and small ruminant producers also need a better understanding on feeding animals to improve profitability. Many small ruminant producers don't have a good understanding of ruminant nutrition and may be over or under feeding their animals. This requires a better understanding of feedstuff quality and how to feed animals.

Goat producers need to understand the burgeoning meat goat market and small poultry flock owners need guidelines for flock management and health to learn the potential impacts on their

business. Finally, equine owners requested university-based information and training on facilities, business management, health, nutrition, and breeding.

B. Program Description:

Program activities included,

- A dairy employee training session on expectations of farm employees and raising calves
- Workshops for small ruminant producers on evaluating forage quality, ruminant anatomy and physiology, nutrient requirements of small ruminants and ration balancing
- A dairy goat seminar for meat goat, dairy goat, and lamb producers on “Marketing Ruminants for Meat” led by a producer and an Extension educator. The producer sold and processed 1000 sheep and goats in 2003
- A poultry management workshop on guidelines for flock management and health for small poultry producers and 4-H members. Youth experienced a poultry showmanship demonstration and were taught lessons on handling and presenting a bird to a judge for evaluation. Flock management topics included housing, lighting, nutrition, health, and choosing the right flock
- 43 equine owners participated in at least one workshop in a series covering facilities and barns, equine business management, equine health and nutrition, and equine breeding
- A newsletter “Dairy Briefs” serves as a link between UNH and dairy producers on dairy research and management. The newsletter serves more than 600 producers and allied industries

C. Impacts:

- Workshop participants gained a better understanding of farm employee behavior, colostrum and calf management, and milking management. This results in an increase in milk cow efficiency and decrease in mastitis
- 19 participants enhanced their ability to evaluate the diets of sheep and goats, improved their understanding of nutritional requirements, and learned to balance rations
- Participants reported they saved an average of \$60.00/month on direct feed costs, had healthier animals, and now had the tools necessary to evaluate animal diets relative to the available forage and the condition of their herds and flocks
- Three participants changed their feeding program based on information they learned in the workshop sessions. Producers are less likely to feed excess nutrients to their animals resulting in less waste
- One producer used the meat goat budget to help evaluate the economics of raising un-weaned, purchased kids for the ethnic market. Kids were purchased from a local dairy and fed to market weight. The evaluation included total feed cost, purchase price, and days to market weight were evaluated. Results show it would not be profitable for the farm to raise kids in this manner without a change in efficiency
- To effectively market meat goats, dairy goat producers need to cross their dairy does to meat bucks. Dairy goat producers likely will begin crossing their does to take advantage of the market. This discussion will lead to a more profitable goat industry in the New England area
- 4-H youth and small poultry producers learned how to improve flock health and performance. This results in increased profit due to morbidity, which helps maintain New Hampshire’s backyard flock cottage industry

- Equine workshop participants stated appreciation for the equine information and research shared
- Producers and allied industries are more aware of dairy industry research

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

C. Scope of Impact: Multi-state

Aquaculture - J-J Newman

A. Situation: Extension's aquaculture program works with both existing and potential aquatic farmers to increase family income, employment options for struggling commercial fishermen, farm diversity, increase economic development in rural communities, find new uses for unproductive land and old buildings, and reduce risk.

B. Program Description: Efforts include:

- Direct help to individual farmers in New Hampshire, Maine, Vermont and Massachusetts, in consultation with local Extension personnel
- Educational workshops and tours for a New England-wide audience on aquaculture topics
- Demonstration/research projects at university facilities and at private farms
- Connecting individuals, state aquaculture associations, and a local fishermen's cooperative with university researchers

C. Impacts: FY2004 Aquaculture Program efforts concentrated on projects that will show impacts over a 3-10 year period. Impacts this year include:

- As a result of the UNH Open Ocean Aquaculture Research-Demonstration Project, four local commercial fishermen received the necessary state permits, and began the process of growing blue mussels in waters 10 miles off the New Hampshire coast
- Since 1999, the Extension Aquaculture Program has held nine workshops on raising fish in small, indoor culture systems. A total of 114 families and individuals from eight states (ME, NH, VT, MA, CT, RI, NY & NJ) participated. Five years later, 96% of participants surveyed are still interested in aquaculture, and 48% have grown fish since taking the workshop
- Joint farmer/university research on culture techniques for rainbow smelt continues to make progress. Work on larval feeding and training to artificial feed is nearly complete. Local production of smelt for sale as bait should be entirely feasible within the next year

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

A. Scope of Impact: Multi-state and Integrated Research and Extension

Diversified/Alternative Agriculture - John Porter

A. Situation: The face of New Hampshire agriculture is changing. It is moving from extensive to intensive farm enterprises using smaller amounts of land. Producers are looking for ways to

gain more income per acre attempting to increase their percentage of retail sales. Although growing populations in rural areas inflate land values and cause challenges for farmers, this phenomenon brings more high income consumers closer to the farm. The objectives of the Diversified/Alternative Agriculture Program include increased awareness of alternative farming options and providing technical and marketing information to help producers with new enterprises.

B. Program Description: Extension educators provide up-to-date alternatives available to New Hampshire farmers. Phone requests and farm visits, as well as formal group meetings promoted creative alternatives for farmers looking to augment their income. More than 90 people attended a meeting for beginner farmers on available resources. The Granite State Dairy Promotion annual meeting offered a program on organic milk as an option for dairy farmers. The New Hampshire Dairy Goat seminar presented a program on meat goats as another farming alternative for small scale farmers.

C. Impacts: As the result of Extension efforts the following impacts occurred:

- After receiving advice on building cold apple storage, a farmer constructed a storage facility and expanded his season for retail apple sales
- Two dairy producers now produce organic milk and three others are exploring this option.
- Three farmers are now establishing goat meat production on their farms
- A vegetable grower adopted ram pump technology, allowing him to irrigate from a brook and increase crop yields. The same technology is being examined by farmers doing rotational grazing
- Assistance given to a beekeeper helped him establish two acres of tall sweet clover resulting in increased production and better brood strength
- Growers are experimenting with warm-season grasses in the northern part of New Hampshire to improve the quality of late season grazing
- Many farmers' markets participants report an increased interest from consumers in buying local, value-added products
- Small, niche agriculture is becoming recognized as an important segment of New Hampshire agriculture. Restaurants are buying more local food, some stores have local produce sections, and agricultural service agencies are catering more to small agriculture enterprises. Some are even starting to call this the "Renaissance of New Hampshire Agriculture."
- An educator presentation at the "Boosting Customer Traffic to Your Market" workshop resulted in thirty five growers changing their farm image and improving customer service. As a result, their sales increased
- One community starting a 'Community Supported Agriculture' farm market arrangement with a local farmer. The community gained access to local fresh produce and supported six different growers, who increased their profitability
- Fifty-five new immigrants from Cambodia, Vietnam, and North Africa learned new techniques in harvesting and maintaining the quality and freshness of their produce. These growers improved the quality of their produce enhancing customer relations
- Fifty-five growers learned new techniques from display models at farmers markets, which improved their marketing

- Sixty farm participants, who sell through farm stands or pick-your-own operations, gained information on designing parking lots to meet customer needs for flow and access, the use of shopping baskets, and other merchandising techniques that enhance niche market sales
- One educator participated in a county Conservation District Ag Practices Tour and gave a presentation on dairy manure composting as an enterprise. One composting enterprise in that county now generates additional income and produces an organic certified manure/paper bedding compost used by tunnel vegetable operations
- As a result of a county grower meeting on direct marketing and ergonomics, more than 12 diversified growers who raise livestock, vegetables, and fruit developed strong networking relationships that enhanced all their enterprises. For example, one apple grower began supplying dropped apples to a farmer, who used them as feed for his red deer
- A No-Pinch mum trial convinced growers to change practices and realize labor savings
- Helped one farmer establish a couple acre "bee-pasture" of sweet clover which provided a nectar source in late summer when not much else available. As a biennial, the clover flowered this year and best practices were shared with other farmers through a growers meeting on site

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E. Scope of Impact: Multi-state

Home Lawn and Gardening - Margaret Hagen

A. Situation: New Hampshire's population now exceeds 1,288,000. Each year Extension receives thousands of requests from New Hampshire citizens for education on a wide range of topics including home gardening, wildlife, water quality, household pests, backyard livestock, food preparation and food safety, urban forestry, and many others. With minimal full-time staff to meet the demand, Extension developed a variety of methods to meet this need. Each contact with the public, homeowners, gardeners and municipalities provides the opportunity to teach people how to make changes to their surroundings that optimize the safe use of their properties while protecting the environment.

B. Program Description:

- 99 new volunteer Master Gardeners received 60-84 hours of training
- More than 500 active Master Gardeners contributed 11,000 hours to Extension programs in 100 communities
- 18 Master Gardener volunteers taught 15 workshops for the public from the Family, Home and Garden Education Center. Master Gardeners and county Extension Educators delivered another 73 workshops by request to schools, libraries, civic groups and clubs around the state. 25 volunteers completed Beaver Brook's "Accomplished Gardener" program with Extension's assistance
- 805 people received an ID or diagnosis on an insect, disease or plant sample
- 52 "Grow It Green" spots aired on Channel 9 (WMUR) on the Saturday morning and Tuesday noon news shows. Reached 38,000 households which view these weekly shows

- Garden Columns were written and distributed weekly, bi-weekly or monthly from most county Extension offices. Fifty-nine percent of adults read newspapers
- The North Country Garden Calendar was written and published in partnership with Maine and Vermont

C. Impacts:

- Active Master Gardeners worked on projects with schools, communities and prisons, conducted workshops and wrote articles, worked with the elderly and with garden clubs to teach new skills that were applied for economic and aesthetic benefits. More than 5,000 citizens gained skills that improved self-esteem and enabled them to grow and preserve crops, apply pesticides responsibly and/or protect their environment
- Municipal and county government saved more than \$50,000 by using Extension staff and volunteers as consultants on town landscapes, parks and athletic fields (locations like Antrim, Dover, Lee, Laconia, Madison)
- Veggie Volunteers (assisted by Master Gardeners) collected and distributed 12,500 pounds of produce with a value of \$15,000 while learning from a working farm
- On the toll-free Info Line Master Gardeners responded to 7000-plus requests. In the counties, Extension Educators responded to another 5000 requests. A caller survey showed 90% of callers were satisfied, and 83% applied the education they received

D. Source of funding: Smith-Lever 3bc, State matching funds, County funds

E. Scope of Impact: Multi-state

Risk Management - Mike Sciabarrasi

A. Situation: Nature, weather conditions, market changes, escalating asset values, funding, legislation, legal challenges, and personnel issues impact the viability of New Hampshire and Northeast farms. These factors pose considerable risk of economic loss and damage to the farm and family. Management tools and techniques to reduce, minimize and transfer production, marketing, financial, human resource, and legal risks can stabilize farm income and improve net worth.

B. Program Description: Risk management programs center on:

- production risk and examine the variability associated with yield or output
- marketing risk that deals with price fluctuations and target market sales
- financial risk that addresses securing business equity while meeting cash flow needs
- human resource risk that focuses on the role of family members and employees in the firm
- legal risk that considers business agreements and environmental issues

The 2004 program focused on providing farmers and agricultural professionals with information and training on assessing farm risks, understanding the tools to manage those risks, and developing risk management strategies. Delivery methods included farmer workshops and seminars, training programs for agricultural professionals, development of web pages,

participation in industry trade shows, and distributing news releases and fact sheets. Special efforts targeted small, family farms, and specialty crop producers.

In addition, New England educational efforts related to “Transferring the Farm” programs continued in 2004. Transferring farm ownership to succeeding generations relies on balancing high start-up costs faced by the beginning farmer while ensuring financial security for the retiring farmer. Introductory estate planning workshops were conducted at locations in four different states. In addition, advanced workshops were held for the first time at two sites.

C. Impacts:

- 62 NH agricultural professionals improved their understanding of risk reducing strategies for farmers
- 68 NH small, family farms improved contact with the agricultural support network in the state
- 25 NH forage producers considered factors important in achieving high corn yields and strategies for dealing with late plantings
- 118 NH maple producers learned about revenue insurance and other risk reduction tools
- 60 NH greenhouse and nursery growers better understand nursery and revenue insurance options
- 214 New England farmers learned techniques to minimize farm business succession risks
- 48 New England farmers considered the impacts of various farm transfer scenarios

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grants

E. Scope of Impact: Multi-state

Goal 2 - A safe and secure food and fiber system

Executive Summary

The Safety Awareness in the Food Environment (SAFE) program provided 630 food workers in restaurants, schools, hospitals and nursing homes with education about practices to prevent foodborne illnesses. This 2-hour program includes personal hygiene, cross contamination, and basic food handling principles. Follow-up surveys with food service managers indicated increased hand washing by food workers, disposable glove use, and cleaning and sanitizing of food surfaces. Five hundred and four of the 526 food managers participating in ServSafe programs received national certification.

Food Safety specialists in the six New England states implemented the last year of a 3-year grant to integrate research initiatives with innovative educational approaches to increase adoption of Good Agricultural Practices (GAP) for food safety and sanitation. This year GAP launched a new website that serves as a portal for starting and maintaining food businesses. Training for agricultural producers also continued and resulted in increased food safety practices.

The Nutrition Connections staff continue to work on food security issues with low income populations. Staff efforts with food security organizations and events increased knowledge of the target population on how to improve food security. Programs of note include work with farmers' markets to make fresh produce more accessible to food stamp recipients and the Veggie Volunteer program that brought 12,500 pounds of surplus vegetables from farms to food pantries.

One Nutrition Connections staff member who retired during FY2004 has not been replaced. Programming in that county has decreased as a result.

Total Expenditures: \$1,142,355

Funding: Federal Smith-Lever 3b&c - \$154,879
State Matching Funds - \$733,710
County Funding - \$243,786
Grants, Contracts, Other - \$9,980

FTEs - 11

Food Handling - Catherine Violette

A. Situation: As consumers increasingly rely on others to prepare food, the importance of a knowledgeable and skilled work force for all food outlets such as restaurants, grocery stores, schools, hospitals and nursing homes is critical in preventing foodborne illnesses.

B. Program Description: The Safety Awareness in the Food Environment (SAFE) program provides food workers with practical information about food safety and sanitation. As consumers increasingly rely on others to prepare food, the importance of a knowledgeable and skilled work force for all food outlets such as restaurants, grocery stores, schools, hospitals, and nursing homes is critical in preventing foodborne illnesses. SAFE is a two-hour program that focuses on personal hygiene, cross contamination, and basic food handling principles. For food managers and workers desiring a more in-depth food safety and sanitation certification program, the ServSafe™ program sponsored by the National Restaurant Association Educational Foundation was also implemented.

C. Impacts: Thirty-seven SAFE programs reached 630 food workers. Post workshop questionnaires were completed by 593 (94%) of the workshop participants. Participants' responses to knowledge and food safety practice questions are highlighted below.

- 98% correctly identified recommended hand washing procedures
- 95% correctly identified the food temperature danger zone
- 76% correctly identified the maximum amount of time food can stay in the temperature danger zone
- 97% correctly identified how to prevent cross contamination
- 76% correctly identified when to clean and sanitize food contact surfaces

Twelve follow-up phone surveys of food managers in food service establishments sponsoring SAFE programs were completed. Ninety-two percent of food managers reported an increased awareness of key principles covered in the SAFE program and described observed changes in food handling practices, such as increased hand washing and use of single service gloves, changing gloves more frequently, servers storing utensils with handles up to minimize contact with eating surfaces, and cleaning food storage areas. One manager ordered a new refrigerator and freezer and another ordered instant read thermometers.

To provide baseline data on food practices, SAFE participants prior to the program indicated how often they implement currently recommended food safety and sanitation practices. Listed below are the two lowest and two highest scoring practices implemented 75% or more of the time as reported by participants:

- 81% wash hands before and after working with food
- 81% check cooking and holding temperatures with a calibrated thermometer
- 96% use recommended hand washing techniques
- 97% keep potentially hazardous foods at $\leq 41^{\circ}$ F. or $\geq 140^{\circ}$ F.

ServSafe® programs reached 526 food managers and workers. Five hundred and four participants passed the examination with a grade of 75% or greater yielding a pass rate of 96%. Three hundred and fifteen participants passed the examination with a score of $\geq 90\%$.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

E. Scope of Impact: State specific

Food Safety - Catherine Violette

A. Situation: As produce consumption increases, so has the number of associated foodborne illnesses. The New England region is characterized by small agribusinesses with a diversity of crop varieties, most marketed locally. Good Agricultural Practices (GAP) are recommended food safety and sanitation practices that, when implemented, can help produce growers minimize foodborne pathogen contamination. The New England Extension Food Safety Consortium was funded by USDA/CSREES (10/00 – 9/04) to develop and test three educational approaches to enhance the voluntary adoption of GAP recommendations by produce growers.

B. Program Description: To meet the information and resource needs of food entrepreneurs in the region, the New England Extension Food Safety Consortium (UNH Cooperative Extension and UMASS Extension as lead institutions), with funding from the New England Extension Consortium, developed and launched a new website. The website is a gateway to valuable information on starting and maintaining a food business within seven broad topic categories starting a food business, business and marketing, state specific information, food regulations, product development, training and education, and resources.

C. Impacts: UNH Cooperative Extension GAP Impacts:

- 14 New Hampshire fruit and vegetable producers received an in-depth, on-site GAP audit conducted by teams of UNH Cooperative Extension Family and Consumer Resources and Agricultural Resources Educators. Follow-up evaluation results indicate that 57% made a change in one or more farm practice as a result of the GAP audit. Specific changes included using more drip irrigation, providing employee education on hygiene, ensuring packers wear single-use gloves, and cleaning equipment better and more often
- Microbial analysis of produce samples from six NH farms (2 strawberry, 2 lettuce, and 2 apple) pre and post GAP audit showed no detectable pathogens
- Approximately 270 fruit and vegetable growers increased their awareness of food safety and sanitation at selected steps throughout their production, harvesting, and sale of product while attending GAP presentations
- Extension Educators increased their knowledge of on-farm food safety/sanitation
- Anecdotally, growers indicated a variety of changes made to enhance food safety, such as installing a hand washing station for customers or in employee work areas, installing two new thermometers in food storage coolers, and sealing food storage areas to exclude rodents

Online Support for Food Entrepreneurs Impact:

- 15 New England food entrepreneurs participated in a semi-structured interview to ascertain web-based information and resource needs
- Based on the needs assessment results, the website was developed and launched (www.umass.edu/nefe)

A Feedback Form is included on the website, though no completed forms have been received to date. Informal feedback from phone inquiries show the website is being used

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E. Scope of Impact: Multi-state

Food Security, Accessibility and Affordability – Deborah Luppold

A. Situation: One in 15 people in New Hampshire lives below the federal poverty threshold and 31 percent are children under the age of 18. Of those living in poverty, many are hungry or “food insecure” or living with the uncertainty of obtaining adequate food. Increasingly, food banks, soup kitchens and food pantries are called on to meet their food and nutritional needs.

B. Program Description: Along with our Food Security Coordinator, the UNH Cooperative Extension Nutrition Connections staff worked on a variety of food security issues this past program year: Nutrition Day at the New Hampshire Food Bank use of the Electronic Benefit Transfer debit card at Farmers’ Markets, the Veggie Volunteer Program and nutrition interventions conducted for low-income families throughout the state.

C. Impacts: The Food Security Coordinator serves on the advisory board of the New Hampshire Food Bank and chairs the Operations and Workforce Committee. Working in cooperation with Operation Frontline, the Food Security Coordinator helped organize the first “Nutrition Day” at

the food bank. Nutrition Connections staff and local chefs staffed displays and nutrition education demonstrations. Participants at the NH Food Bank are representatives of agencies that directly serve people living in poverty and shop at the food bank. There were approximately 50 people in attendance representing 25 different agencies. Nutrition Connections staff in Hillsborough and Rockingham counties participate in Operation Frontline programming. Operation Frontline pairs a nutrition educator with a local chef to teach about nutrition and how to prepare meals. Low income families are recruited, participate in a series of lessons, and sent home after each lesson with enough food to prepare the meal they prepared in class.

Local food stamp district offices and other agencies distributed more than 12,000 “How to Use Food Stamps” brochures. These brochures give food stamp participants an overview of how to use their benefit, the Electronic Benefit Transfer process and ways to receive additional nutrition information and education.

This year five Farmers’ Markets helped increase accessibility of fresh produce to food stamp recipients by implementing measures to use the Electronic Benefit Transfer cards at farmers’ markets. When the Food Stamp Program changed from paper food stamps most farmers’ markets were not set up to accept a debit-type card. Funding was secured from the Food Stamp Nutrition Education Program and the Sustainable Agriculture Research and Education Program. Staff was available throughout the growing season to assist food stamp recipients with their Electronic Benefit Transfer debits and to issue scrip for market sales. There were 80 customer transactions with scrip sales totaling \$807.75. Over 460 people participated in nutrition demonstrations held twice during the summer showing people how to use produce from the farmers’ market. Several large newspapers in New Hampshire, along with the Associated Press, featured articles on this new effort.

A team of 93 community volunteers organized by Carroll County Extension Master Gardeners picked, washed, and boxed 12,500 pounds of surplus vegetables. This food was then distributed to food pantries and senior meal programs throughout the county. Their generosity served more than 23,000 vegetable meals valued at more than \$15,000 to residents of Carroll County who might not otherwise have access to fresh vegetables. Organized last year as an Extension Master Gardener initiative, the Veggie Volunteer Program links volunteers with Sherman Farm, a diversified dairy, livestock and vegetable farm whose community-spirited owners long wanted to find a way to get their crop surpluses to people in need.

Nutrition Connections staff work with families in a series of lessons to teach food and nutrition. Results of their work reveal that 34% of participants more often planned meals in advance to save time and money. Thirty percent more often compared prices when shopping and 35% more often used a list for grocery shopping to save money and time. Most importantly, thirty-one percent less often ran out of food before the end of the month.

A joint effort is underway with the USDA Emergency Food Assistance Program to provide nutrition-related articles for its newsletter. The newsletter is mailed to over 200 food pantries and soup kitchens receiving food distributions. Articles appeared in the last three newsletters mailed out on an every other month basis. The intent is that people running food pantries learn current nutrition topics and how to help participants use the food they receive appropriately.

D. Source of Funding: Smith-Lever 3b,c&d State matching funds, County funds, grant funds

E. Scope of impact: State specific

Goal 3 - A healthy, well-nourished population

Executive Summary

Optimizing health by reducing risk factors through education was this year's goal. Educational efforts included improving physical exercise and lifestyle choices. Activities targeted physical activity, educational sessions, and strength training. Statewide, 4,300 low-income youth and 788 low-income adults participated in a series of programs including fitness activities. In addition, 445 Family Lifeskills program participants engaged in daily physical activity during the program with 28% increasing the time they spent in physical activity outside of the program.

The Tufts University's *Strong Living Program*, a research-based strength training program for older adults and the developmentally disabled, was used again this year to help individuals live more healthy, independent lives. Fifty-one seniors involved increased their physical activity. One group of frail elderly participants increased their lower body strength by 60%. A number of walking programs for a variety of audiences supplemented the *Strong Living Program*.

A successful statewide social marketing campaign targeted food stamp recipients this year. It included a mailing of three newsletters to 22,000 households. Over 800 households requested more information about a nutrition concern or to sign up for nutrition programs.

The Nutrition Connections program involved 429 volunteers this year who helped with nutrition education programs. It's calculated this equals 2.3 FTE's valued at \$46,000.

One Nutrition Connections staff member who retired during FY2004 has not been replaced. Programming in that county has decreased as a result.

Total Expenditures: \$4,112,324

Funding: Federal Smith-Lever 3b&c funds - \$295,678

Federal Smith-Lever 3d - \$204,114

State matching funds - \$1,400,718

County funding - \$465,410

Grants, Contracts, Other - \$1,746,403

FTEs - 21

Human Health – Deborah Luppold

A. Situation: Preventable deaths, disease, disability, and disparities in health status continue to affect the health of many New Hampshire citizens. Many causes of death are potentially preventable through nutrition and exercise. Given rising rates of obesity, UNH Cooperative

Extension is committed to look at ways to optimize health by reducing risk factors through education to improve physical exercise and lifestyle choices. Individual, group, and community coalitions are all ways to get important messages and education to the public.

B. Program Description: The Nutrition Connections Program implements the majority of nutrition and health programming in New Hampshire. Family & Consumer Resources Educators, 4-H Youth Development Educators, and the Family Lifeskills program staff provide programming as well. Activities target physical activity, strength training, community involvement, and obesity awareness and prevention.

C. Impacts:

Statewide Nutrition Connections staff include physical activity education and direct programming to youth and adults. Of the 788 adults completing a series of lessons, 30% increased the time they devote to physical activity on a daily basis. Over 4300 youth participated in a series of four or more lessons:

- 69% now eating a variety of foods
- 83% increased knowledge of nutrition
- 79% increased ability to select low cost, healthy foods

Due to rising obesity rates in their area, a collaborative was formed as part of the Advocates for Healthy Youth. One learning outcome of this collaborative is that many agencies, including UNH Cooperative Extension, are participating in a research study to find out how a community can provide better, more engaging, and enriching out-of-school-time activities for children, including work on obesity.

The Family Lifeskills staff working with more than 445 clients, incorporate daily physical activity in their programming. Instructors and many participants walk daily for the three weeks the classes meet and continue this on their own afterwards. Twenty eight percent increased the time spent in physical activity. “Although I wasn’t so thrilled about taking walks in the cold, at first, I enjoy what I get out of them. I plan to continue walking with my son everyday,” reported one participant.

Nutrition Connections staff conducted three 12-week Strong Living Programs reaching 51 older adults. The Strong Living Program is a research-based strength training program for older adults and the developmentally disabled to help these populations live healthy, independent lives. One group of frail elderly averaged a 60% improvement in lower body strength. Additionally, two walking programs were initiated with 50 adults, with half reaching their walking goals.

Another walking program continued with county employees. This year the program attracted 58 new participants and most of last year’s 138 employees continued with the program. Some participants exceeded the 10,000 steps recommended, walking 17,000 steps or more. One participant shared that he lost over 20 pounds by walking and changing his eating habits.

Given the increase in obesity rates, Extension took the lead to involve many agencies and organizations in a statewide initiative called “Lighten Up New Hampshire.” This initiative is designed to assist New Hampshire citizens maintain and lose weight and to increase their

physical activity. Learning outcomes show the need for more staff resources and funding to move forward with this initiative.

D. Source of Funding: Smith-Lever 3b,c&d State matching funds, County funds, grant funds

E. Scope of impact: State specific

Human Nutrition – Deborah Luppold

A. Situation: Dietary factors interrelated with patterns of physical inactivity are associated with five of the 10 leading causes of death in the United States. Four categories of factors seem to influence food consumption: consumer's income, food prices and costs of other products and services, knowledge of health and nutrition, and consumer's tastes and preferences. The development, maintenance and change of eating patterns are determined not only by individual factors, but also by many social, cultural and environmental influences.

B. Program Description: Nutrition education activities in New Hampshire are based on the revised Dietary Guidelines 2000 and the Food Guide Pyramid. Educational interventions are typically preceded by a needs assessment process which provides essential information for instructors in the field. This year, the Nutrition Connections program conducted a telephone survey of 403 food stamp recipients. This survey revealed some interesting results which help us understand what our audiences want to learn, how they want to learn, and the most effective way to reach them.

C. Impacts: Through combined statewide efforts, 1,103 families participated in nutrition education lessons, with 820 graduating from a series. Results showed:

- Ninety percent graduated with a positive change in any food group, meaning they did a better job of approaching the recommended servings from the food guide pyramid
- Eighty-one percent of graduates showed improvement in one or more nutrition practices by planning meals, making healthy food choices, preparing foods without adding salt, reading nutrition labels or having their children eat breakfast
- Fifty-three percent showed improvement in two or more, 23% of graduates showed improvement in three or more, 7% of graduates showed improvement in four or more, and one percent of graduates showed improvement in all five nutrition practices
- Families learned to improve nutrition practices through hands-on interactive lessons designed to practice what they have learned. One participant states, "I've learned to eat healthier which will help me in my pregnancy, health and family. I thought eating healthier would be more expensive and time consuming but have learned it's not true."
- Seventy-one percent of graduates showed improvement in one or more food resource practices by planning meals, comparing prices, not running out of food, or using a grocery list
- Forty-one percent showed improvement in two or more of these practices, 14% of graduates showed improvement in three or more, and 4% of graduates showed improvement in all four food resource practices

- For limited resource audiences, saving money at the grocery store helps them extend their purchasing power.” One participant states, “I learned that if I make the food from scratch the food lasts longer.” Another says, “I also learned that bringing a lunch is so much cheaper than going out for lunch every day. You can really save a lot of money...” Another said, “I was inspired to cook from scratch rather than buy packaged products.” Finally another says, “I can read the unit price labels at the supermarket and get more food for my money.”

Twenty-two child care providers or staff completed one or more lessons on nutrition and food safety. Four continuing education credits with the state of New Hampshire are awarded to those completing the series. Many providers and staff showed gains in serving more fruits and vegetables.

Reaching people through social marketing is one way to increase an educational intervention. The Nutrition Connections program developed and distributed three issues of the “Smart Choices” newsletters to 22,000 food stamp households. Each issue focused on increasing the consumption of fruits and vegetables and other healthy foods. Over 800 households requested more information about a nutrition concern or how they could sign up for nutrition related programs.

Four thousand three hundred and seven youth participated in a series of nutrition interventions resulting in improvements in the variety of foods, knowledge of the essentials of human nutrition, increasing their ability to select low cost nutritious foods and improved practices in food preparation and safety. Youth are reached through classes at school, in after-school programs, and summer gardening projects.

UNH Cooperative Extension is committed to work with the limited resource audience, particularly the food stamp program recipients. With the assistance of the Food Stamp Program Manager, \$780,976 grant dollars awarded to New Hampshire this year went to this specific audience.

Nutrition Connections had a total of 429 volunteers who assisted with nutrition programming which accounted for 2.3 FTE at a value of \$46,000.

D. Source of Funding: Smith-Lever 3b,c&d State matching funds, County funds, grant funds

E. Scope of Impact: State specific

Goal 4 - Greater harmony between agriculture and the environment

Executive Summary

This goal encompassed a large part of the UNH Cooperative Extension work in FY2004. The natural environment and the state’s natural resources are highly valued by New Hampshire residents. Protecting and preserving the environment are among Extension’s highest priorities.

This includes the preservation of land and open space, and minimizing the impact of chemicals, erosion, and pollution. Programs also focus on land and forest management and stewardship to help maintain the environment and quality of life for all residents. In the past year, UNH Cooperative Extension strengthened partnerships with NRCS, FSA, and other agencies to address the interface between humans and the natural environment.

Extension's accomplishments for this goal are reflected in agricultural waste management, forest management, Integrated Pest Management, land use education, sustainable agriculture, water quality, and wildlife habitat. Extension is well-known in New Hampshire for expertise and educational programs in these areas. Extension has strong partnerships with state and federal agencies, and public and private organizations and industries concerned with conserving natural resources and protection of the environment. Cooperative Extension's Forestry & Wildlife program focuses on sustaining forests that support the state's \$2 billion forest industry. One major role for Extension staff includes educating citizens to make informed natural resources decisions by providing technical assistance, promoting forest and land stewardship and increasing knowledge and skills in natural resources protection and management. The Community Conservation Assistance Program helps communities and conservation commissions with land and water conservation planning projects. In 2004, New Hampshire communities approved \$36 million for land conservation measures. This year, 37 towns and conservation groups involving 1950 participants received help in developing natural resource inventories, conservation plans, and land acquisition.

Several efforts focused specifically on agricultural producers. The Integrated Pest Management program helped growers handle pest problems while reducing dependency on chemical insecticides, and maintaining or improving crop profitability. its primary focus includes commercial crop production of apples and other crops. A recent study analyzing data since the program's inception in 1978 shows spray savings over \$7 million. This year alone, growers reduced spraying by over \$100 per acre. The nutrient management program strives to help farmers focuses on better phosphorous availability to lower chemical application rates. Educational programs include soil testing and nutrient recommendations, use of cover crops, and development of a more accurate nitrogen leaching index and phosphorous site index for New Hampshire. A variety of grants sources continue to fund this integrated research and Extension program. Finally, Extension supports the New Hampshire Pesticide Applicator Program by training commercial and private pesticide applicators for certification and recertification by the state. In FY2004, 100 applicators were certified and over 500 applicators worked towards recertification. In one survey, 92% of training participants stated they would improve their pest management practices due to the training.

Extension's water quality programs showed multifaceted impacts this year including contributions to the research base, increased audience knowledge in water related topics, changes in audience attitude towards water quality practices, increased individual's skills in water quality monitoring, increased community capacity in land use and enhanced water quality and monitoring programs. On a broader scale the programs improved decision maker's capacity on water quality issues and resulted in changes in water quality related decisions and policies, economic conditions, and water quality.

New Hampshire is home to 10,000 species of wildlife. However, 13,000 acres of wildlife habitat

are lost to development each year. Extension partners with multiple public and private agencies to protect critical wildlife habitats, natural plant communities, lakes and ponds, rare plants and animals, and other ecologically significant lands and waters. Major impacts occurred to begin to save wildlife habitat by providing land management assistance, training for natural resource professionals and land managers, training and supporting 240 volunteer Coverts Cooperators, assisting with community conservation planning, and providing critical leadership for development of a statewide comprehensive wildlife conservation plan.

Four agricultural resources positions, two forestry and wildlife positions and one water resources position were vacated because of staff retirements and budget reductions in this goal area in FY2004. This downsizing as well as leaving positions open awaiting employee hire, reduced the impacts reported in this goal area. Key theme reports on biodiversity and global change and climate are not presented this year.

Total Expenditures: \$6,103,902

Funding: Federal Smith-Lever 3b&c - \$253,439
Federal Smith-Lever 3d - \$64,671
State matching funds - \$1,200,616
County funding - \$398,923
Grants, Contracts, Other - \$4,186,254

FTEs - 18

Agricultural Waste Management - John Porter

A. Situation: Many New Hampshire livestock and dairy enterprises are near urban areas. Concern about properly storing manure to avoid environmental, odor and water quality problems drives the manure management program in the state. Manure storage also allows for improved timing of land application to maximize the use of nutrients for crops. Backyard operations with horses, sheep, goats, and other livestock are under pressure from neighbors and town officials to properly handle animal wastes. Extension collaborated in New Hampshire with the Natural Resources Conservation Service (NRCS) and the N.H. Department of Agriculture, Markets, and Food in working with farmers to comply with best management practices. Extension received a grant that made it possible to hire a consulting agricultural engineer to help plan systems.

B. Program Description: The waste management program in New Hampshire is primarily carried out with individual visits to farms requesting help. A team approach is used, usually consisting of the local Extension Educator, State Dairy Specialist, hired agricultural engineering consultant and area NRCS technician. Several of the systems are cost-shared with the Environmental Quality Incentive Program (EQIP) or with small grants from the NH Department of Agriculture, Markets and Food. Systems are designed that are environmentally sound, easy to operate, labor saving and cost effective.

C Impacts: Extension staff visited seven dairy farms with a consulting agricultural engineer to deal with manure storage problems. As a result of this:

- A farm relocated its manure pit to a less environmentally sensitive area and extended storage to five months
- UNH put an expensive manure handling system on hold and is exploring lower cost options that will serve as better models for state farmers
- A newly-constructed dairy operation installed alley scrapers after getting design help, reducing their labor costs

Additional efforts have been made to work with small farmers, especially horse owners, helped reduce run-off from the storage of animal waste. Follow-up phone calls with participants revealed these changes:

- “I’ve changed the type of bedding in our stable.”
- “We fixed our manure storage. It is safer for ground water now.”
- “I appreciated learning about money that’s available for manure management. I plan to apply for money through the Department of Ag.”

Improved cooperation among the agricultural agencies gave farmers better service. One NRCS technician said, “I appreciate getting the backup of an engineering consultant and the Extension on these projects, and I feel more confident with my recommendations.”

Technology and ideas from projects in the New York City Water Shed Project were incorporated into solving several manure storage issues in New Hampshire.

D Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E Scope of Impact: Multi-state

Forest Resource Management - Karen Bennett

A. Situation: Forest landowners hold the key to protecting New Hampshire’s environment. 84% of the land in New Hampshire is forested. Most of New Hampshire’s forest, 70% or approximately 3.2 million acres, is non-industrial privately ownership. The average size woodlot is just under 40 acres with these small, family forests defining our state.

We depend upon private forest lands to protect water quality, provide wildlife habitat, contribute to the economy, and enhance quality of life. Yet the USDA Forest Service reports that without technical forestry assistance, many of these privately owned lands are subject to poor resource management practices. In addition, New Hampshire is experiencing rapid population growth resulting in increased development. 13,000 acres of farm and forest land are lost to development each year.

B. Program Description: Extension’s Forestry and Wildlife Program provides technical assistance and educational programming to landowners, natural resource professionals, volunteers, and others to increase the adoption of sustainable forest management practices and to improve the health and productivity of NH’s forests. Approximately 84,000 landowners and 300 licensed foresters are the target audience.

Extension has a professional forester in each of the 10 counties as well as forestry, wildlife, forest industry specialists, and program coordinators located on campus. Extension programs help landowners with woodlot care, long term planning, selling timber, wildlife habitat, estate planning and land protection, current use assessment, and more.

To enhance Cooperative Extension's education and outreach efforts, the Forestry and Wildlife Program offers two natural resource volunteer training programs: the Community Tree Stewards Program and NH Coverts Project. Enthusiastic volunteers participate in intensive training programs and then return to their communities to put their new knowledge to work.

A. Impacts:

- County Extension Educators in Forest Resources provided land management assistance to 1,700 NH landowners and influenced the management of over 130,000 acres of forest land. As a result of this assistance, landowners make more informed decisions about forest management
- Extension refers landowners to licensed private sector foresters to follow-through on management activities. In 2004, comprehensive forest stewardship plans were written by private sector foresters for nearly 40,000 acres of forestland representing an estimated \$400,000 of direct economic activity
- Comprehensive planning results in sustainable management of NH's forest resources. A recent national study found that landowners with stewardship plans became more active in the care and management of their forestlands. For example, 80% of the landowners who had a stewardship plan prepared for their land implemented at least one of the practices recommended in that plan. Nearly 70% of survey respondents expended between \$1,800-\$3,600 to implement recommended practices such as tree planting, thinning, and wildlife habitat improvements. Further, the study found that people with stewardship plans continued to expand their natural resource knowledge by subscribing to resource publications and contacting natural resource specialists
- Forest stewardship plans cover 400,000 acres of forest land, or roughly 12.5% of the privately owned forestland in NH. Better informed natural resource management occurs on these lands as a result of this program
- Extension Educators and Specialists presented 300 natural resource-related workshops to landowners, natural resource professionals, volunteers, and others. Approximately 17,000 people participated in these programs and learned how to incorporate various resource considerations into their land management activities. As a result of these programs, land owners and managers better understand wildlife habitat needs, considerations for managing tree species, techniques for reducing erosion and sedimentation, and the benefits and characteristics of eastern old growth forests. Program evaluations indicate over 90% of participants were glad they had attended
- 23 new Coverts Cooperators and 38 new Community Tree Stewards were trained bringing the total number of trained volunteers to 226 Coverts Cooperators and 240 Community Tree Stewards. NH's natural resource volunteers extend the Extension Forestry and Wildlife Program's reach into many communities and neighborhoods. These volunteers engage in many activities such as using their lands to demonstrate forest management practices, conducting habitat improvement projects on their lands, writing natural resource related

articles, and serving on community natural resource committees. Extension's natural resource volunteers make a difference in their communities. Recent community appropriations for land conservation underscore the value that people place on New Hampshire's natural landscape. Between 2001 and 2004, NH communities appropriated over \$100 million dollars for open space/land conservation projects. The NH Coverts Project found that communities with Coverts Cooperators as residents were twice as likely to pass conservation measures as towns without Coverts volunteers. In a recent evaluation of the NH Coverts Project, one participant wrote, "...the experience proved to be invaluable to me in my conservation efforts in my community. I feel my effectiveness and influence improved as a result. I am busier than ever, with more critical projects that have resulted in success."

D. Source of Funding: Smith-Lever 3b,c&d State matching funds, County funds, grant funds

E. Scope of Impact: State specific

Integrated Pest Management – Alan Eaton

A. Situation: New Hampshire crop growers commonly over-use pesticides. The IPM program helps NH crop growers manage pest problems, while meeting demands for unblemished products, and minimizing costs and risks. Extension emphasizes a three-pronged approach:

- monitoring pest populations and field conditions
- preventing conditions that favor pest problems
- applying controls when and if necessary

Growers using this approach usually reduce their dependence on chemical pesticides, become better stewards of the land, and farms often become more sustainable.

B. Program Description: The UNH Cooperative Extension IPM work focuses on apples, greenhouse operations, field corn, and forage crops. Staff created and revised publications, newsletters, fruit pest updates (24/7 automated telephone message) and grower meetings held in every New Hampshire county. One three day meeting had 1,348 attendees. In collaboration with colleagues in Maine and Vermont, our staff ran three greenhouse IPM workshops serving 118 people with participatory learning. One specialist evaluated apple quality at 23 New Hampshire orchards and introduced two biological agents for apple insect control (*Typhlodromus pyri* and *Lathrolestes ernsator*).

Staff monitored rootworm populations on 12 Cheshire County farms, and armyworms in Cheshire, Coos, and Strafford counties. Extension staff involved included two entomologists, a plant pathologist, three county educators, and one county program associate.

Impacts:

Extension's efforts resulted in a 5.61% statewide average incidence of pest injury to apples this year, low for a year favorable for fungal pathogens. This number is well below the pre-IPM figure of 10% pest injury. For the state's 600,000 bu apple crop, this amounted to 26,340 fewer bushels of pest-injured fruit (compared to pre-IPM patterns). The dollar value of this fruit is impossible to estimate, since fruit value varies widely among varieties, fruit sizes, grades, and

selling methods. In addition, staff helped growers reduce spraying by more than \$100 per acre (compared to than pre-IPM levels). That amounted to \$230,000 in spray savings statewide. Since the program's introduction in 1978, spray savings have been more than \$7 million. Extension established the predator mite *Typhlodromus pyri* on one additional orchard this year, bringing the total number of acres with the mite to approximately 43. This reduced miticide spraying on those acres by one application per year for a total savings including labor of \$1100). This mite spreads very slowly, despite best efforts.

Extension completed the largest introduction to date of the European apple sawfly parasite *Lathrolestes ensator*. With time this parasite will establish itself and allow introduction elsewhere in NH or other states. Recent changes in importation regulations now make it unfeasible to bring more sawfly parasites into the United States.

One county educator worked with three growers to try perimeter trap cropping for managing cucumber beetles in pumpkins. This effort followed a lecture by CT IPM researcher T. Jude Boucher. Growers reported success with this novel approach, and will use it in 2005.

The corn rootworm survey demonstrated that Western corn rootworm numbers are increasing, but are still below threshold for New Hampshire. Extension anticipates this will reduce the temptation for growers to use insecticides or genetically modified corn seed for rootworms in 2005. Meeting evaluations from Cheshire county growers indicate many intend to use more pest monitoring and improved IPM record keeping (for all crops, not just corn) next year.

D. Source of Funding: Smith-Lever 3b,c&d State matching funds, County funds

E. Scope of Impact: Multi-state

Land Use - Frank Mitchell

A. Situation: Community decision makers need guidance, appropriate education, and training to help them move forward with their land and water conservation goals.

B. Program Description: The Community Conservation Assistance Program assists New Hampshire communities and conservation groups with land and water conservation planning projects, such as natural resources inventories, conservation planning, land protection, public outreach, and building public support. During the reporting period, Extension staff working with CCAP helped 37 towns and seven conservation groups with natural resources inventories, wetland evaluation, conservation planning and land protection, and participated in 18 regional meetings. Direct assistance to communities, workshops and courses involved 1,950 participants. Education and training provided by this program increased communities' abilities to be proactive about land conservation. Conserved land has significant water quality benefits, and helps maintain the state's biodiversity. Conserved land also supports natural resource-based industries such as forestry and agriculture.

C. Impacts: Specific impacts include:

- Five communities involving 138 participants started working towards comprehensive natural resource and land conservation strategies as a result of the *Dealing with Growth* presentation and extended follow-up assistance (multiple meetings) by the Natural Resources Outreach Coalition (NROC), of which Extension is a part
- As a result of NROC assistance, Somersworth conducted a surface water quality monitoring program and completed a basic natural resources inventory, Candia and Nottingham developed public well surveys to assess local ground water issues
- Candia, Chester and East Kingston implemented public outreach programs focused on land conservation. Chester is working on an open space plan and East Kingston is developing a vision for its master plan. Intensive follow-up assistance provided by NROC provided communities with skills and momentum to accelerate their natural resource and land conservation programs
- Three hundred people attended the Saving Special Places conference, receiving education on a variety of land conservation and stewardship issues. This annual event is co-sponsored by Extension and the Center for Land Conservation Assistance
- Five watershed groups (95 participants) received extended assistance (multiple meetings) with natural resources inventories, conservation planning, water supply and greenways (Piscataquog, Ammonoosuc, Squam Lakes, Oyster River, Bellamy and Oyster River Watershed Protection Partnership). These projects will result in an increase in conserved land and resources in the watershed communities
- Four communities (27 participants) received training in *Developing an Effective Public Education and Outreach Strategy*, and as a result are building public support for land conservation projects (Candia, Somersworth, East Kingston, Chester)
- Fourteen workshops (425 participants) on land conservation and estate planning were presented in 11 communities and to one conservation group (Belmont, Candia, Goffstown, Laconia, Madbury, Madison, Newfields, Newmarket, Northwood, Sandown, Rollinsford, Wakefield, and Moose Mountain Regional Greenways [New Durham and Middleton]). These workshops resulted in an increase in the number of landowners interested in conserving their land through easements
- Five communities (38 participants) received training in natural resources inventories and conservation planning (Claremont, Deerfield, Haverhill, Northwood, Wilton)
- Ten towns and one watershed group received assistance with natural resources inventories, wildlife habitat studies, and water quality assessment through the UNH Senior Projects course (47 students involved). These projects helped communities to accomplish their objectives more quickly and efficiently
- Through “Does Open Space Pay” programs and related work with communities that demonstrates the link between open space loss and escalating property taxes, New Hampshire communities allocated over \$100 million in four years for land conservation

This work has sparked a major culture change in how municipalities interact. New Hampshire communities formed multi-community groups for land conservation purposes in the regions where Extension staff encouraged a watershed approach rather than working only within political boundaries. This is a dramatic change in the way New Hampshire communities traditionally worked.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

E. Scope of Impact: State specific

Nutrient Management – Tom Buob

A. Situation: Nutrient management issues extend across all commodities from field corn to greenhouse tomatoes and bedding plants. Because situations vary by commodity, approaches employed to address a specific concern will vary. Dairy, livestock and vegetable enterprises face the challenge of managing large amounts of manures and composts, while greenhouse tomato and bedding plant growers need help calibrating and understanding nutrient injection equipment for proper fertilizer applications. In listening to growers discuss their current nutrient applications, there is an apparent disconnect between what the crop needs and what is being applied. Over application of nutrients increases the risk of groundwater contamination.

The expanded use of mycorrhizae fungi in shade tree installations will result in better phosphorous (P) availability and lower application rates. Elimination of the UNH Soil Testing Program will increase the difficulty in addressing some of these issues. Research and education in the nutrient management area need to be expanded and financially supported if this effort is to succeed. The increased need for research-based information can only be met with additional program support.

Wastewater treatment plants are updating their treatment systems resulting in an increase in Class A biosolids. There are fewer regulations and much less oversight than with Class B materials, and there is a need to better understand the nutrient interactions with soils and crops as the use of these materials increases.

B. Program Description: The complexity of nutrient management and the current situation in New Hampshire require an effort in both research (on-farm, lab and greenhouse, and collaborations with others) and education (farm visits, small farm workshops, fact sheets, news articles). Increasing the expertise of the Extension agricultural staff and producers in different commodity areas is the first step in the development of a long-term educational program. Establishing research locations and links with other states and organizations will provide a basis for future expansion. The attempt to address the risk of nitrate leaching to groundwater should include the use of PSNT, expanded use of cover cropping and a nutrient credit system. However, the loss of the UNH Soil Testing Lab will make PSNT sampling more difficult, so there is a need to adopt other approaches to address nitrogen management. The issues of nitrogen (N) and P movement to surface and groundwater will be addressed thru the development of a more accurate N Leaching Index and P Site Index for the state of New Hampshire.

C. Impacts:

- Continuation of collaborative relationship with Ag Research Station researchers and staff (NPRP)
- Expanded research to identify the soil test factors most closely related to offsite P movement in New Hampshire soils has been expanded

- Enhancement of continued multi-state collaborative efforts continue
- Demonstration sites were established for on farm research efforts
- Buffers were established to observe (and monitor) their effects on sediment and nutrient transport; various mixes of shrubs and sod were established to observe their ability to trap sediments and nutrients, ongoing monitoring and maintenance continues.
- Established nutrient credit research
- Revision and updating of the soil test recommendation system and staff training on its use
- Data collection shows that overfeeding of P in dairy cows ranges from 5-50% above new NRC recommendations; efforts were made to adjust overfeeding
- Seven workshops to more than 250 farmers around the state provided education and training on nutrient management plans and issues
- The lack of funding required a major effort in grant writing to allow for continuation of this program
- Nutrient monitoring with 24 growers (6 greenhouse tomato and 18 bedding plants) resulted in improved fertilizer practices, improved plant quality and reduced costs.
- Installation of drip irrigation systems by four vegetable and small fruit growers resulted in a reduced risk of nitrate leaching, use of shade trees inoculated with mycorrhizae resulted in increased P availability and lower application rates
- QAPP (Quality Assurance Project Protocol) for the expansion of research sites was completed and submitted to the EPA for approval
- The New Hampshire Agriculture Experiment Station awarded a three-year nutrient management grant to the program
- The New Hampshire Department of Agriculture, Farms and Markets awarded two nutrient management grants for this program
- A greenhouse facility established at the Grafton County Extension office expanded the nutrient management research and educational programming
- Pilot farms implemented eight Nutrient Management Plans affecting approximately 1700 acres of hay and pasture and 1000 acres of corn

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E. Scope of Impact: Multi-state Extension and Integrated Research and Extension

Pesticide Application – Stan Swier

A. Situation: Without Pesticide Applicator Training (PAT), certification and recertification farmers, landscapers, and pest control operators cannot apply pesticides.

B. Program Description: The Pesticide Applicator Training Program trains commercial and private applicators to be certified and recertified by the NH Division of Pesticide Control (NHDPC). Certification requires passing a test covering pesticide safety, IPM, regulations, worker protections standards, pesticide storage, environmental protection, calibration, labeling, and knowledge of the target pest. Recertification for private applicators requires 15 hours of additional education every five years to maintain certification. Commercial applicators require 12 hours of additional education for every category, every 5 years. To meet the need of

certification and recertification, training manuals are produced and sold to the applicators. The county Extension educators teach pesticide application classes or help tutor private applicators. In FY2004, over 100 applicators were initially certified. At least 25 meetings were held offering 77.5 credits to help recertify over 500 private and commercial applicators. Security of the certification exam administered in the county was a concern to both the NHDPC and Extension. A new protocol developed by both agencies reduces the risk of compromising the exam.

C. Impacts:

- Without the PAT program, our 500 certified farmers could not apply pesticides for pest control, losing millions of dollars from crop losses
- In New Hampshire, 12,000 commercial applicators use the PAT program to prevent millions of dollars in losses from landscape and structural pests
- The PAT program improves human health by reducing the risk of exposure to disease vectors, as well as to the pesticides themselves
- The PAT program also saves millions of dollars in environmental damage from the misuse of pesticides by teaching applicators how to use them safely
- In 2004, a survey at the New England Vegetable and Berry Conference showed 92% of growers would improve their pest management as of the result of attending pesticide education programs
- The new exam protocol ensured exams remained confidential when administered in the county office

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

E. Scope of Impact: State Specific

Water Quality – Julia Peterson

A. Situation: Water is essential for life and its protection is critical. The United States Environmental Protection Agency considers polluted runoff the primary source of water pollution in the nation. Storm water runoff carries pollutants from our homes, neighborhoods, roads, farms, and logging areas into local waters. This pollution is difficult to regulate because it does not come from a single, identifiable source. The control of nonpoint source pollution depends on education and behavior changes that put water quality protection at the forefront of home, farm, workplace, community and municipal practices.

B. Program Description: Extension works at the grass roots level with science-based information to gradually change practices that affect water quality. These programs include information about how natural marine and aquatic systems work, the effect of contaminants in those systems, the connection between land use and water quality, and strategies for minimizing contaminant input. Typical audiences for programs include youth, volunteer water quality monitors, community leaders, watershed association members, agency staff, agricultural land managers and interested citizens. The results listed below contribute to the scientific knowledge base on the state's water resources and/or the education and empowerment of its citizens to reduce pollution and protect natural resources through better planning, policies and practices.

A. Impacts:

Contributions to the research base

- Well-designed monitoring programs on water courses and bodies that cross town boundaries
- Clearer recommendations on the length, width, and vegetation type for riparian buffers
- Investigation into the use of remote sensing for water quality and harmful algal bloom detection
- Investigation into the dynamics and efficacy of an integrated pest management (IPM) approach to milfoil control

Increased audience knowledge

- Greater individual knowledge in:
 - riparian buffer importance and guidelines
 - natural resource inventories
 - shoreland buffers
 - conservation strategies
 - wetlands
 - groundwater
 - forest ecology and land use history
 - pond care
 - marine and aquatic food webs
 - land protection for water quality benefits
 - home and farm assessment
 - private well water issues
 - nonpoint source pollution
 - water quality monitoring concepts
 - contaminant sources and effects
 - marine phytoplankton
 - buffering capacity
 - boat discharge issues
 - estuarine characteristics and estuarine research
 - Extension water and marine programs.
- Greater youth knowledge about watershed concept, nonpoint source pollution, groundwater basics, storm water pollution prevention, marine phytoplankton, food webs and water quality monitoring

Changes in audience attitude

- Increased willingness to adopt water quality friendly homes, yard and farm care practices
- Increased interest and concern for protection of coastal environments

Increase in individuals' skills

An increase in the number and skills of trained water quality monitoring volunteers in both fresh and salt water systems contributing to a 15-17% increase in sampling statewide and a 39% increase in the Lakes Region of the state. New skills for coastal monitors include phytoplankton monitoring and instream habitat assessment.

- Increase the ability of teachers to include environmental stewardship activities and service learning projects in the curriculum
- Increase the ability of conservation commission members and volunteers to conduct wetlands evaluations, design surveys, evaluate shoreland buffer areas, and interpret natural resource inventory maps

Increase in community capacity

- Greater capacity of municipal officials to conceptually connect land use and water quality and communicate natural resource protection goals to others
- Continued expansion of “neighbor to neighbor” effect of monitoring programs in which trained volunteers educate other members of their associations, commissions and towns. Over 500 active volunteers influencing greater than 5000 fellow association members
- Greater capacity of New England wide monitoring collaborative through NH participation. Greater capacity of other New England states (VT and ME) to expand training opportunities for watershed stewardship collaboratively. Adoption of NH monitoring program’s approach and methods by other states and countries. Greater capacity of community groups such as community water suppliers, conservation commission members, other municipal board members, community leaders, watershed association members, land trust members to plan watershed-based natural resource inventories, develop conservation plans, watershed conservation plans, natural resource protection plans and related action plans

Improved decision maker capacity

- Anticipating increased capacity of NH Department of Environmental Services to detect harmful algal toxins and use screening tools. Increased natural resource scientist, educator and decision-maker awareness nationally of integrated GIS watershed analysis approach. Anticipated improvement in decision making about riparian buffers based on applied research of water quality benefits. Continued contributions to the development of a New England-wide Watershed Assessment Strategy document for EPA New England
- Design and analysis of macro invertebrate monitoring and water quality monitoring for a conservation group. Assistance resulted in stronger multi-state (ME and NH) watershed collaboration
- Development of a process to respond to bacteria monitoring results with capital improvements

Changes in policy/decision making

- Volunteer collected data used by state/federal agencies helps determine shellfish bed openings and closures, coastal restoration project budgeting and in 305B report to Congress.
- Additional state and federal funding for volunteer monitoring programs help with local habitat restoration, storm water management, and baseline data collection.
- Additional state and federal funds directed to local projects as a result of water quality data collected.
- Lakes Lay Monitoring program data used as a basis to request EPA nonpoint source program funding from NH DES for two watersheds.

Changes in economic conditions

- Savings to communities in water quality sampling costs (almost \$18,000)
- Additional earnings to local environmental consulting firms and labs by providing low cost technical and laboratory assistance to them (\$50,000)
- Potential increases in property values (and tax revenues) around lakes because of improved water quality associated with WQ assessments and education on preventing degradation

Changes in water quality

- Continuing declines in in-lake nutrient concentrations over pre-BMP conditions enhanced through cooperative efforts between NH DOT, town of Tamworth and the Lake Chocorua Foundation to address existing highway and camp road erosion sites

- Reduced bacteria levels from storm water discharges in Dover as a result of infrastructure repairs

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E. Scope of Impact: Multi-state and integrated research and Extension

Wildlife Management - Darrel Covell

A. Situation: New Hampshire is home to more than 10,000 species of wildlife, including mammals, birds, reptiles, amphibians, fish, insects, and other invertebrates. This rich biological diversity depends on New Hampshire's forest, field and wetland habitats for survival. With a majority (70%) of the state's land in private ownership, the collective decisions of private landowners and their resource managers have a major impact on wildlife and their habitats.

New Hampshire's population has nearly doubled in the last 30 years. This growth and associated development place increasing pressures on the landscape. Each year, New Hampshire loses approximately 13,000 acres of habitat to development. In addition to the direct loss of habitat, continued land development leads to greater fragmentation of natural habitats with resulting adverse effects to fish and wildlife populations. The protection and enhancement of essential habitats is central to sustaining New Hampshire's fish and wildlife populations.

B. Program Description: For nearly 20 years, NH Fish and Game and UNH Cooperative Extension have worked together to provide a Wildlife Habitat Conservation Program in the state. Through this program, an Extension Wildlife Specialist, a County Extension Educator in Forest Resources, and a NH Coverts Coordinator provide technical assistance to key audiences including landowners, natural resource professionals, community leaders, land use planners, conservation groups and volunteers to help them identify, manage and protect critical and significant fish and wildlife habitats.

C. Impacts:

Land Management Assistance

This year, the Wildlife Specialist provided on-the-ground habitat recommendations to nearly 100 landowners and influenced the management of approximately 8,117 acres of land.

Recommendations and information were provided regarding beaver pond management, patch cuts to increase early successional habitat, winter deer yard management, maintaining wildlife travel corridors, snag and mast tree management, wildlife openings, old field restoration, field mowing, apple tree release, deer, turkey, grouse and woodcock habitat management, vernal pool and amphibian and reptile habitat, and grassland bird habitat management. As landowners incorporate habitat management considerations into their planning and activities, they increase the value of their land for a diversity of wildlife species.

Training for Natural Resource Professionals and Land Managers

Over 850 natural resource professionals (including foresters, loggers, biologists and others) participated in wildlife related workshops this year. Participants learned about wild turkey management, managing softwoods for deer and other wildlife, hawks and owls, forest

disturbance and management, and vernal pool identification and management. Natural resource professionals and landowners who attended these programs are better equipped to recognize and protect important habitat features and practice good stewardship on the lands they own and/or manage.

NH Coverts Project-“Volunteers Working for Wildlife”

This year, 23 enthusiastic volunteers were trained through the NH Coverts Project. These “Volunteers Working for Wildlife” learned about wildlife habitat, forest ecology and management, and land conservation in an intensive 3 ½ day training session. After their training, they bring this knowledge back to their communities and put it into practice, greatly expanding the reach of Extensions wildlife programming.

Following the initial training session, veteran volunteers become part of a network where they learn from each others’ experiences and connect with natural resource professionals as needed (through newsletters, a Coverts listserv, and annual alumni workshops).

Now numbering 240, Coverts volunteers reach thousands of NH citizens through woodland tours and demonstrations, educational programs, and natural resource related articles. Many of these volunteers also participate on land use related committees in their communities. An evaluation of NH Coverts Project participants conducted in 2002 found the program has been successful in motivating many participants to manage their own land. In addition, many volunteers indicated they now communicate more effectively in their communities on behalf of wildlife and land stewardship.

Community Conservation Planning

In the past four years, New Hampshire communities appropriated over \$100 million toward land conservation projects and initiatives across the state. Many communities identified wildlife habitat protection as a primary goal of these open space planning and conservation initiatives, yet they are grappling with identifying which lands are the most important ones to protect.

Over 350 people involved in community conservation efforts have participated in a series of workshops geared toward identifying and protecting significant wildlife habitats offered by the Extension Wildlife Specialist. Through NH Fish and Game, significant habitat maps were developed covering the entire state. Through workshops, the data was made available to communities, and they learned how to use the information to prioritize lands for conservation and to justify the expenditure of funds for land conservation projects which protect significant wildlife habitats.

Comprehensive Wildlife Conservation Planning

The Extension Wildlife Specialist also co-coordinates the development of New Hampshire’s first Comprehensive Wildlife Conservation Plan. This plan will serve as a blueprint for restoring and maintaining critical habitats and populations of the state’s species of conservation and management concern. It is a pro-active effort to define and implement a strategy to help keep species off endangered species lists, saving taxpayers millions of dollars.

To date, 105 species of concern have been identified. A wildlife summit has been held to define and prioritize issues affecting New Hampshire's wildlife, and a wildlife plan web survey created to gather public input (over 1,200 people have provided input through the web site). Ultimately, the plan will contain profiles of New Hampshire wildlife species, profiles of important habitats, and strategies for conserving them.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E. Scope of Impact: State specific

Goal 5 - Enhance economic opportunity and quality of life for Americans

Executive Summary

The largest number of staff contribute to programs related to this goal. UNH Cooperative Extension conducts a wide array of programs to enhance economic opportunities and quality of life for Americans including:

- Ag-Biz farm management
- Education for child care providers
- 4-H Afterschool programs conducted with PlusTime New Hampshire for statewide work and through Children, Youth and Families at Risk (CYFAR) work in two regions of the state
- UNH 4-H Camps focused on inclusion of disabled youth into camp programs and developing life skills for all campers
- Community Profiles initiated in a number of communities and other community development work
- Family financial management programs for individuals on public assistance, on probation, teachers, adults, youth, Earned Income Tax Credit recipients, and Medicare beneficiaries
- Farm safety for loggers, farm and forest landowners, and youth
- Leadership development to build leadership capacity through facilitation training and other educational efforts
- Parenting programs through various deliveries including a newsletter series, fact sheets, a web site, media, and workshops.
- Tourism education through technical training, economic analysis, financial planning, and organizational capacity building
- Workforce preparation for youth through UNH 4-H Camps programs and adults through the Family Lifeskills program
- Lifeskill development in youth through classic 4-H clubs, 4-H camping, school enrichment programs, and special interest groups
- Marine science education through the UNH Marine Docents and other educational efforts with teachers and citizens

Another key aspect of this goal includes the extensive use of trained volunteers for implementing UNH Cooperative Extension's programs. Volunteer Coverts Cooperators, Master Gardeners, Community Tree Stewards, UNH Marine Docents, Great Bay Coast Watchers, Lakes Lay

Monitors and 4-H Leaders in the last year contributed 95,745 hours of time saving tax payers \$1,645,856 that they would have paid for volunteer related educational services.

Select notable impacts include:

- Establishing community-based youth and adult educational programs that supports at-risk families
- Preparing youth and adults on public assistance for the workforce with over 40% of adults not returning to public assistance
- Accident prevention for loggers, landowners, and youth
- Recognition of UNH Cooperative Extension as the primary resource for educational programming for many of these programs
- The return rate of 4-H campers with special needs is 85%
- Many towns are implementing community action projects as a result of Extension Community Profiles and other Extension community development efforts
- 54% of participants in select family resource management programs reduced their debt
- Community organizations became more effective due to leadership training provided by Extension
- Youth participating in 4-H report improving skills in goal setting, communication, conflict resolution and accepting differences in others
- Participants in marine education programs report significant increases in knowledge about estuarine and near-shore environments

Changes in staffing and programming for this goal during FY2004 included loss of four agricultural resources staff, one water resources staff, two 4H youth development staff, two family and consumer resources staff, and one forestry and wildlife staff member due to retirements and separations. Three of those staff were replaced but the positions were held open for several months. As a result, one key theme not reported on during FY2004 include Youth Community Service. The Teen Assessment Project and Mini Society program were also discontinued during FY2004 and aren't reflected in this report. Due to increased program activity, a key theme report on 4-H Afterschool programs was added.

Total Expenditures: \$4,858,263

Funding: Federal Smith-Lever 3b&c - \$563,197
Federal Smith-Lever 3d - \$13,732
State matching funds - \$2,668,035
County appropriations - \$886,495
Grants, Contracts, Other - \$726,804

FTEs - 40

Agricultural Financial Management – Mike Sciabarrasi

A. Situation: Agricultural financial management and development of business plans are essential to the success of existing and new agricultural firms. Farms must assess whether they are meeting goals with respect to profitability, efficiency, liquidity, and solvency. New farms

and farms considering major changes must be able to realistically evaluate and project budgets for alternative enterprise combinations and size scenarios.

B. Program Description: Agricultural financial management programs train and assist agricultural professionals and farmers with financial management tools and business planning techniques. Programs are general in nature, applying to any type of farming enterprise, and commodity specific, targeting a given producer group. Program development and delivery often involves cooperation with industry and agency staff across the state.

Ag-Biz farm management programs are multi-state efforts that teach farmers business and financial management skills. These programs are run jointly by the Extension staff in New Hampshire and Vermont. Over several weeks, participants learn about record keeping, financial statements, and budgeting. Of the three programs conducted last year, one was located in New Hampshire.

Two beginning farmer seminars focused on the basics of record keeping and reporting. Small farms and new farms were the target audience for these programs. Record keeping and reporting requirements for hired labor were presented at three additional sites. Specific commodity financial analysis and planning programs targeted dairy farmers (Northeast Dairy Policy and Prices Summit), equine industry (NH Equine Seminar Series), small fruit/vegetable farmers and meat goat farms. Individual farm consultations dealt with long-term financial planning and business plans as well as specific recommendations regarding record keeping systems.

C. Impacts:

- 72 NH farmers improved financial analysis and business planning skills
- 45 NH farmers improved or adopted better financial record systems
- 65 NH farmers better understand labor laws and reporting requirements
- 150 New England professionals better understand the cost of producing milk on dairy farms
- 12 NH farmers evaluated tax and long term financial implications of enterprise/organization choices
- A new, multi-agency program to assist agricultural business plan education was initiated

B. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

C. Scope of Impact: Multi-state

Child Care/Dependent Care – Kathy Becker Blease

A. Situation: Child care needs increased tremendously over the past decade. In 2000, 65.3% of mothers with children under six were in the labor force (U.S. Department of Labor, Bureau of Labor Statistics). In most cases, these children are cared for by non-parental caregivers. It is well documented that increased education of child care providers significantly improves the care provided to children. It is often difficult for child care providers to find and afford quality in-service education.

B. Program Description: During the 2004 program year, UNH Cooperative Extension offered the Pennsylvania State University's satellite workshop program *Better Kid Care* in six counties. Program topics included Hot Topics for Center Directors: The Nuts and Bolts of Operating a Successful Center, The Art and Science of Playing with Young Children, Dealing with Anger - The Children's and Yours, See as A Child, Feel as A Child. Twenty-three BKC workshops were held reaching 262 child care providers including informal caregivers, family child care businesses, and child care centers.

Additional workshops offered in some counties included Cultural Perspectives on Parenting, Say No to Bullying!, Children and Money, and a babysitting course.

C. Impacts: Of those completing end-of-workshop evaluations for the Better Kid Care series, 70% stated they learned relevant information. Participants said they would use the information now (74%) or in the future (76%), and use or refer to the handouts again (78%). Comments from providers included:

- I will use charts/posters with skills and pictures of the skill, then clip the child's name to it to show the child has accomplished this skill
- I will let the children know I get angry too and it's ok – just learn how to deal with it
- I will try playing with toys to encourage the children to see how it works
- I will have children explain how the angry child's words are making them feel

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

E. Scope of Impact: State specific

4-H Afterschool Programs – Paula Gregory

A. Situation: NH's rural communities lack enough afterschool programs to meet current needs. Working parents want safe environments for school-age children, with opportunities to make friends, try new things, develop talents, and work on homework. Research shows quality out-of-school programs help children improve work habits, school attendance, interpersonal skills, and non-aggressive responses to peer conflict. Children who attend regularly are also less likely to drop out of school, use drugs, or become teen parents.

B. Program Description: A statewide 4-H Afterschool Team provided leadership to encourage the integration of the 4-H Youth Development program within afterschool programs across the state, and collaboration with key agencies and organizations. Support included dissemination of lessons learned from four community-based afterschool programs managed by UNH Cooperative Extension under Children, Youth and Families At-Risk (CYFAR) funds from 1991-1996 and 1998-2003. Training was provided for Extension staff and regional coordinators of PlusTime NH, a statewide agency that provides grants, technical assistance, and advocacy for after-school programs. Staff used the knowledge gained with community-based programs.

C. Impacts: Through efforts of the 4-H Afterschool Team, A *Memorandum of Understanding* clarified a partnership between UNH Cooperative Extension and PlusTime NH. As a result, a joint multi-year statewide plan was designed to strengthen the capacity of both organizations, enabling better overall support to community-based coalitions and after-school program staff through training, technical assistance, resources, and curriculum. The plan identified priority focus areas of youth/adult partnerships, family involvement, curriculum and methods, community collaboration, program administration, sustainability, and program evaluation, and marketing.

Three rural community afterschool programs, started under CYFAR funds, expanded and became fully sustained. Lessons learned helped enhance or create new programs in other communities. As a result 144 new child care slots were created, 1,220 children and 698 youth were served in programs receiving staff training and curriculum, and 385 inner city children and 35 youth participated in 4-H clubs organized in after-school programs in Manchester.

UNH Cooperative Extension staff used the national ECI (Extension CARES Initiative) Evaluation System, to systematically document training efforts, curriculum dissemination, primary and extended audiences, collaboration goals reached, and social and economic benefits. As a result, documentation from October 2002 through March 2004 indicates:

- 941 child care staff, 91 youth, and 136 other adults (parents, community members, and volunteers) received program management or curriculum training (524 hours reported). Training topics included child/youth development, developmentally appropriate practices, health and safety, curriculum planning, activities for children/youth, positive learning environments, program administration, behavior management, and family/community involvement. Forty-seven percent (47.1%, n = 443) of those trained completed surveys, reporting they would use the information to improve or enhance child care programs serving 3,653 preschoolers (ages 0-4), 6,597 children (ages 5-12), and 2,683 youth (ages 13-16).
- Afterschool program staff (n = 118) were trained to use peer-reviewed CES and 4-H curriculum in their programs. As a result, 2,153 children and youth participated in 4-H programs including *Aerospace*, *CARE Connection*, *environment and nutrition*, *gardening* and *Jr. Master Gardener*, *Project Learning Tree*, *Project Wild*, *JASON* and *Robotics*
- Six communities completed needs assessments related to child care and out-of-school time programs with major Extension involvement. As a result, four new coordinating committees/collaborations were formed to develop action plans to address child care issues, and two new programs were started
- Eight new child care-focused networks/collaborations were established through major Extension efforts. As a result, \$1.3 million in grant funds were acquired to support child care and after-school programs. These funds include \$1,002,935 for school-age care and \$326,142 for teen non-school programs. Additional in-kind donations are conservatively estimated at \$47,878 for school-age care and \$4,600 for teen non-school programs
- Sixteen community collaborations achieved goals with major involvement of UNH Cooperative Extension staff. Results include delivery of parenting education programs (*Dare to Be You*, *Strengthening Families Program*), preparation of grants for afterschool programs and family literacy, development of coalition leadership, sustainability of CYFAR funded after-school programs, collaboration with inner city youth agencies in providing multi-week programs in nutrition, environmental education, and gardening, engagement of youth as

partners in planning and implementing a variety of youth events, establishment of a city-wide task force on dropout prevention, programming on tobacco and drug prevention at teen centers, and enrollment of limited income children in the state's Healthy Kids program

Recognition of UNH Cooperative Extension as a resource for after-school programming, within the state and region, increased. As a result:

- A \$10,000 National 4-H Council/JC Penney grant was acquired to develop a New Hampshire model for delivery of 4-H programming within after-school programs of partnering youth organizations including HUD, Boys and Girls Club, Salvation Army, and 21st Century Community Learning Centers in Nashua, Manchester, and Hillsboro
- UNH Cooperative Extension collaborated on a multi-state National Science Foundation grant proposal. If funded, the project will involve after-school programs in California, Minnesota, New Hampshire, and Maine in a collaborative mentoring relationship with National 4-H Council, museum partners from California, Minnesota, and Boston, and Extension programs in the four partnering states
- The UNH Crimes Against Children Research Center was assisted in piloting a national follow-up Youth Internet Safety Survey. Four focus groups of youth, ages 11-17, were organized through UNH Cooperative Extension's links with afterschool and youth development programs

A. Source of Funding: Smith-Lever 3b & c, State matching funds, County funds, grant funds

E. Scope of Impact: State specific

Children, Youth and Families at Risk/UNH 4-H Camps – Chris Conlon

A. Situation: Opportunities for social recreation and out-of-school time supervision are limited in rural New Hampshire communities. The needs of families and youth in New Hampshire are rapidly becoming more diverse. There are more varied family structures, including single parents, blended and foster families, grandparents raising children, and families separated by military deployment. High rates of youth with disabilities, such as autism and ADHD, stretch the resources of families, schools, and communities. Over 65% of families in northern New England have both parents in the work force. These combined factors lead to an increasing need for quality out of school time activities that promote and use the components of positive youth development.

B. Program Description: University of New Hampshire 4-H Camps provide an opportunity for New Hampshire youth to enrich their lives while learning and practicing the skills and attitudes needed to navigate within an ever changing world. 4-H Camp provides campers the opportunity to create their own community and be an active participant within that community. Interaction between campers and staff from diverse backgrounds and abilities provides each camper with unique opportunities to learn about themselves, appreciate differences, and gain positive social skills. Campers spend 144 hours in contact with a carefully chosen, well-trained camp staff of carefully chosen young adults. To ensure camp staff are prepared to work successfully with a

diverse population of youth, the UNH Institute on Disabilities and Northeast Passage help provide extensive staff training on youth at risk and individual accommodations.

C. Impacts: UNH 4-H Camps believe that ample numbers of adult counselors available to support all youth creates a better camp experience. Camp staff, whether cabin counselors or program staff, provide professional expertise, serve as positive role models, and create a sense of fun and community during the camp week. The positive impact of UNH 4-H Camps is identified through end-of-camp surveys of parents, staff, and campers:

- For many families of children with special needs, 4-H Camps provide respite care during the day or as part of extended school year funding. Referrals from agencies and school districts in 25 different communities and state partner organizations provided the opportunity for 15 campers to attend with 1:1 supervision
- The return rate for campers with special needs is 85%. Parents report their child developed a strong positive connection to the staff and program. Parents and staff noted many of these campers required less intensive interventions, from 1:1 supports in the first year to general behavior guidelines and management plans shared with counselors in the second year
- Close to 60% of UNH 4-H summer campers come from rural areas, where parents report a lack of community or teen centers. Camp for many of these youth provides an active community of peers that encourages youth involvement. Over half of the surveyed parents report the camp experience helped their child increase their understanding of diversity, and awareness/interest in others, increase self-esteem and self-awareness, cooperation and working with others, and communicating and getting along with others
- Over one-third of parents reported improvements in their child's decision-making and problem-solving skills through the camp experience. They also reported increased interest in learning, and increased appreciation of environmental conservation

A review of 2004 program records and reports from referring agencies indicate the positive impact of UNH 4-H Camp on youth with special needs. The inclusive environment and individualized support provided by 4-H camp staff enabled at-risk children and their families to participate in a camp program.

- Approximately 20% of campers received some support for an identified disability or special need. Fifteen youth received extended school year funding and attended camp with a 1:1 aide to support him/her. These youth attended 50 camper weeks. In 2003, only 12 campers received extended school year funding. The expansion of this support indicates the 4-H camp placements have proven effective and valuable
- Incident reports were less numerous, and milder compared to previous years. For a second year in a row, no child was sent home for behavior reasons. UNH 4-H Camps believe in, and expect camp staff to problem solve and make program modifications necessary in an activity or schedule to enable all youth to participate in a meaningful way
- Over 70 community organizations and state agencies recognized the value of the UNH 4-H Camps program, and provided 228 families (22% of camp families) in need with scholarship support to help in providing quality affordable youth development opportunities

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, user fees

E. Scope of Impact: State specific

NH New Communities Programs for At-Risk Youth (CYFAR) – Paula Gregory

A. Situation: Middle school youth require safe, secure and structured out-of-school environments and activities to ensure they acquire the knowledge, skills, attitudes, and behaviors necessary for fulfilling, contributing lives. A 5-year CYFAR funded project is addressing critical needs in two rural communities – Hillsboro-Deering School District, and four Lower Seacoast communities. Both rural areas rank among the poorest elementary school districts, with high rates of participation in free/reduced lunch, high school drop-outs, limited family income, and police/court involvement.

B. Program Description: In this first year of the project, two different models of community-based programming are being developed to address locally defined goals for at-risk youth, grades 4-9. The Seacoast Youth Leadership Project provides an intense 10-week 20-lesson leadership and service learning experience, with extended opportunity for ongoing involvement in a community youth action group. The Hillsboro Area Afterschool Program engages at-risk youth, grades 4-8, in daily afterschool activities at the elementary and middle schools, and community teen center. The program strives to reduce negative outcomes resulting from being left unsupervised after school.

C. Impacts: Community partners came together in July 2003 to discuss proposals. Partners were helped with proposal design, and given ongoing guidance and support during the program start-up period. Project funding began in May 2004 and program delivery began in October. Progress in the first six months includes:

- Partnership commitments in the Seacoast Youth Leadership project include Seacoast Youth Services, three schools, a community coalition, mental health agency, two churches, City Year NH, and Big Brothers/Big Sisters
- Partnership commitments in the Hillsboro Area Afterschool Program include the school district, school board, private afterschool program, Office of Youth Services, parks and recreation, police, two family and adult literacy programs, and parents. The partnership secured \$100,000 additional funding for the middle school program through the NH Department of Education (21st CCLC)
- Both projects set program strategies, curriculum, finalized evaluation instruments and process, hired staff, recruited youth participants, established technology connectivity, and initiated programming with parents and youth
- Lessons learned from four previous CYFAR funded projects are incorporated in the planning and design of both projects

An evaluation team designed a comprehensive plan to assess the efficacy of each program's ability to achieve improvements on objectives for leadership, future aspirations, academic performance, social connectedness, social responsibility, life skills (goal setting, decision making, social skills, and communication), sense of self, parenting efficacy, community development, and technology/media literacy. The improvements were identified by working with community partners and by analyzing project logic models. Project impacts on participating youth, parents, and the community will be determined by using multiple methodologies. These include pre-test/post-test surveys and focus groups with youth, post-program surveys and focus groups with parents, and mid-year and post-program surveys with project staff, school staff, and

advisory committee members. Agreements between partners and program evaluators focus on evaluation, program objectives, content of consent/dissent forms and surveys, topics to be addressed and focus groups, timelines for implementation, and appropriate roles for project staff in assisting with evaluation. Pre-testing began as soon as enrollment stabilized, but since this program is still in its beginning stages, it is too early to report participant outcomes.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funding

E. Scope of impact: State specific

Community Development – Charlie French

A. Situation: New Hampshire communities face many challenges, including changing demographics, shifting economic structures, emerging societal crises, unprecedented growth in some regions, and decline in others. As a result, volunteerism has declined, population pressure is causing economic and societal stresses, certain parts of the state are losing jobs, and family and community crises are on the rise.

B. Program Description: Extension's community development program helps communities achieve long-term well being by building human, economic, social, and environmental capacity. To build communities' capacity, Extension Educators provide a variety of educational services to community residents, organizations, and local governments. Examples of these educational services include facilitation of community forums, training in leadership development, assistance with planning activities, and provision of technical assistance for economic development, tourism, and land use planning.

C. Impacts:

Societal

- Community Profiles, an action planning program for New Hampshire communities, reached over 800 residents in four New Hampshire towns last year. Each town formed an action plan, leading to the formation of 16 local action committees that address community issues. Action committee accomplishments over the past year include the formation of a community website to foster better communications and the development of a leadership training program, as well as three Plan NH charettes
- Over 45 community leaders were trained in the art of facilitation and participatory planning through three separate workshop series conducted by Extension. Of those trained, many engaged the public in local decision-making. For example, two helped facilitate a regional economic development forum, five facilitated Natural Resource Outreach Coalition community meetings, one coordinated a forum on educational quality, and two facilitated forums around community health. Several others assisted Extension to facilitate forums
- Extension conducted seven focus groups for the Arts Alliance of Northern New Hampshire and helped draft the North Country Cultural Plan. The plan is being implemented with the goal of strengthening the arts in the North Country
- Last year, Extension conducted two workshops to train community leaders to build action coalitions. Extension has since partnered with three organizations to provide technical assistance

to local citizen groups. Trainings and assistance provided by Extension contributed to collaboration around land conservation, provision of services to immigrants, and youth coalitions

- A Community Development Extension Specialist taught a UNH course entitled *Managing Conflict and Change in Communities*. The course introduced students to community dynamics and provided an overview of the skills needed to mobilize citizens to instigate community change. As a result of the course's applied focus, five students organized a seacoast coat drive, one student helped the city of Nashua conduct an action planning forum around walkability, and another student initiated a volunteer conservation easement monitoring program
- Extension provided board training to the Carroll County Friends of Families. As a result, the board decided to discontinue its 501c3 status, restructure their board leadership and redefine membership in the organization
- Extension conducted a workshop entitled "Dealing with Difficult People" for the New Hampshire State Fair Association. Post workshop evaluations indicated participants would use the information presented to improve their relationships at home, work, and community
- Three Extension Specialists were inducted as Outreach Scholars by the University of New Hampshire. Two inductees have worked with interdisciplinary teams of outreach scholars to develop a program to enhance the University's research-based outreach
- Extension is working with faculty and staff from UNH, U-Michigan, MIT and fishing organizations in the Northeast, to examine innovations occurring in coastal communities in response to fishing restrictions. Through key informant interviews, participatory research, and case studies, a "lessons-learned" web-based tool is being developed for coastal communities

Economic

- Extension held a strategic planning session for Androscoggin Valley Economic Recovery (AVER). The session was aimed at developing a plan for sustaining AVER over the long term, as well as redefining mission and goals. As a result of the strategic planning session, AVER reinvigorated the board with new members, mobilized volunteers to work on community projects, and improved their communication with the public
- As a result of a Profile, the town of Jackson conducted a three-session community design charette with over 90 residents participating. The goal was to design plans for the downtown center to make better use of public facilities space and to make various institutions more accessible. Overall, local volunteers, the Planning Board, town officials, and Plan New Hampshire donated nearly \$30,000 in funds and time
- Extension helped the NH Rural Development Council conduct a series of regional and statewide rural summits. The summits' goal was to identify key rural and economic development issues facing New Hampshire communities so the Rural Development Council can advocate for state and federal policy changes and spearhead new projects. Several state and national policymakers attended the summits and working groups have been initiated to address concerns
- Extension continues to provide organizational and management assistance to community Farmer's Markets in two counties. That assistance helps influence both markets' longevity

Environmental

- Extension's Community Development staff helped NH Fish and Game collect public input from a variety of stakeholder groups and incorporate this information into the State Comprehensive Wildlife Plan. As a result of the public input sessions involving over 400 stakeholders, several priorities identified in the plan are now being addressed (such as the implementation of new education and outreach programs)

- Extension helped organize and facilitate an open space charette for Goffstown to collect public input around the use of the community's existing open space – specifically the use of a railroad right of way for walking/hiking trails. The plan will be implemented
- As a result of a Community Profile facilitated by Extension in Sandown, the town is working to identify and protect priority open spaces in the community. A committee formed and is working in collaboration with town officials and the planning board
- Extension's Community Development Program continues to serve as a key partner in the development of the Center for Integrated Regional Problem Solving Clearinghouse, a repository of information and resources for land use planners and conservationists in New England. The clearinghouse was piloted with several New Hampshire stakeholders, including over 50 planners, faculty, and community contacts. All agree the clearinghouse will be an invaluable resource. The project was funded by the NH Estuaries Program, NH Charitable Foundation, and the Maine Community Foundation
- The Natural Resource Outreach Coalition developed and implemented an outreach model that provided five coastal communities with technical assistance and training on conservation.
- During the 2003-04 program year, dozens of volunteers trained by Extension's Coverts volunteer program and the Community Conservation Assistance Program helped communities with conservation efforts. These volunteers organized and conducted dozens of natural resource inventories and community cleanups
- Extension's Community Development Program hired three interns and grad students last year. Two have since secured professional positions – one as a recreation planner and the other as a conservation specialist. With regard to their impact on New Hampshire communities, they helped evaluate the impacts of Extension's programs, develop a web-based Community Capacity Index, facilitated and scribed for two Community Profiles, and fielded requests for information and technical assistance from multiple communities
- Several community landowners received education, training, and technical assistance that helped them place easements on their land to help preserve valuable natural resources/environments
- Extension provided planning assistance to Londonderry and conducted a stakeholder forum that engaged over 100 residents. The information from the forum was used to revise the Master Plan. The plan outlines strategies for protecting working farms, woodlands, and open space
- Extension provided board development training to the New Hampshire Association of Conservation Commissions. Training covered meeting management, ground rules, agenda development, and dealing with difficult people. As a result, the Association reported that ground rules are now used during meetings and the local website was improved

Health and Well Being

- Extension helped residents of Nashua's "Tree Streets District" organize and conduct an action planning forum. As a result, a citizen committee currently works to influence city officials to add crosswalks at key locations to improve pedestrian safety. The committee also wrote an arts grant to improve access to a riverfront park
- Extension used a technique called Open Spaces to help the Concord Substance Abuse Coalition address issues regarding funding and organizational issues. The technique helped the organization address several issues. As a result, a new person was hired to lead the Coalition, now looking carefully at how they present themselves to the public, gain public support, and address funding issues
- Extension staff helped kick off Operation Safe NH in collaboration with New Hampshire Public Television, Volunteer New Hampshire, and the New Hampshire Library Association. The

objective of the program was to enable residents and service providers in eight New Hampshire cities and towns to come together to discuss emergency needs/gaps and determine how local entities might collaborate to improve emergency services. As a result, emergency responders in all eight towns gained better understanding of the breadth of services provided by different entities in the community. According to anecdotal evidence, this resulted in better coordination among first responders

- Extension continues to be involved with New Hampshire Celebrates Wellness, an organization helping communities, institutions, and corporations form over 100 wellness teams around the state that engage people in physical activity. With Extension's help, the organization provided educational outreach to thousands of statewide residents

C. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

D. Scope of Impact: State specific

Family Resource Management - Suzann Knight

A. Situation: Americans in 2002 saved less than four cents of every dollar while 16 to 21 cents of every dollar went towards debt. Households are saving less and spending more, putting their financial security at risk. Spending habits start early. In 2002, American teens spent \$170 billion. The Jump\$tart Coalition for Personal Financial Literacy 2004 survey found 12th graders' personal finance knowledge level at 52.3%, a failing grade based on the typical grade scale. Young people could establish bad financial management habits, and stumble through their lives learning by trial and error.

B. Program Description: UNH Cooperative Extension increased financial literacy by providing education for participants to establish financial goals, reorganize their spending to start or increase saving, decrease their debt load, and follow a spending plan that leads toward achieving financial security now and in later life. Family resource management education is taught in every New Hampshire county through face-to-face education, learn-at-home publications, and the media. Audiences include individuals on public assistance, on probation to Individual Development Accounts, teachers, adults, youth, Earned Income Tax Credit recipients, and Medicare beneficiaries.

C. Impacts: During this reporting period,

- 674,637 people received family resource management education (2,566 adults and 4,576 youth through face-to-face education, 48,495 through learn-at-home publications, and 619,000 through print and nonprint media)
- Extension sponsored 31 workshop series for 257 adults. These adults provided education to another 557 adults within the Financial Security in Later Life national initiative with either the curricula "Taking Charge of Your Finances" or "Making Money Work For You." These series include pre/post/follow-up evaluation tools. As a result, 54% decreased debt, 51% are now saving, 47% plan to start saving, 67% now follow a spending plan, and 99% reported they felt more confident making money decisions. Furthermore, fewer participants indicated they were paying bills late at the end of the workshops

- Through “NH Saves,” 64 participants enrolled and are saving \$12,814 monthly or \$153,768 annually. Savings are earmarked for home buying, emergency funds, education, retirement, and business development
- Education was awarded “Linking Workers” with the Earned Income Tax Credit project. For Tax Year 2003, 59,252 low income New Hampshire workers gained \$88,188,395 by receiving the Earned Income Tax Credit which was primarily used to pay bills

To increase the number of students gaining from the High School Financial Planning Program (HSFPP), Extension teamed with NH Jump\$tart Coalition. At the annual NH Jump\$tart “Money Smarts” Conference for Teachers, two workshops focused on the HSFPP. As a result 4,576 students were reached. The evaluation results include: 47% knew more about credit costs, 37% improved skills for tracking spending, 45% started saving or began saving more, and 38% felt more confident about managing their money.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funding

E. Scope of Impact: State specific and multi-state. Integrated research and Extension.

Farm Safety - Sarah Smith

A. Situation: New Hampshire is 83% forested. New Hampshire's forest industries represent \$1.7 billion and employ over 16,000 people, thus a major emphasis in NH's Farm Safety Program is on the timber industry. Over 3,000 individual operations qualify as commercial farms in New Hampshire. Also, a growing number of people are undertaking farming and forestry related activities on a part-time basis. New Hampshire's forestland is owned by approximately 83,700 individuals. About 1,600 of these owners actively manage land through the NH Tree Farm Program. Many of these individuals have limited exposure to farm and forest related equipment and activities. In addition, many forest related operations are conducted periodically, increasing the likelihood that participants are unfamiliar with equipment and safety techniques. Particular safety needs for these operations include equipment safety, and the safe use, containment, and disposal of pesticides and other farm related chemicals.

B. Program Description: This past year, 48 safety related workshops were held for loggers, farm and forest owners and operators, and youth reaching over 1,100 participants.

Logger Safety Workshops

Nearly 200 loggers received first aid and CPR training. As a result of this training, participants are better able to respond to accidents or illnesses that may occur both on and off the job site. Fifty-eight loggers participated in Safe and Productive Felling Workshops which reinforce the use of personal protective gear. These programs also address chainsaw maintenance and use, hazard evaluation and the basics of felling trees.

Another 35 loggers participated in Advanced Felling Workshops covering the basics of felling and addressing felling difficult trees and removing hazards. Identifying and eliminating or avoiding hazards (ex., snags, widow-makers, spring poles, etc) reduces the chance of workers

sustaining serious injuries. Using protective equipment limits the severity of injuries sustained. Workers who accurately direct the fall of standing trees and utilize proper felling techniques improve safety and efficiency for everyone on the job.

Safety Programs for Farm and Forest Landowners

Over 500 farm and forest owners participated in Chainsaw Safety Programs/Safe Timber Harvesting Programs this year. They cut and use their trees for firewood and other purposes. Through safety training, participants learn how to properly care for and use equipment reducing operator fatigue and equipment malfunctions. Using protective equipment such as hardhats, eye protection, steel-toe boots and chaps reduces the severity of injuries people may sustain and allows for more reaction time to potentially avoid injuries.

Over 100 fruit and Christmas tree growers received training regarding pesticide toxicity, precautions to use when applying pesticides, ways to minimize the use of these chemicals to achieve desired outcomes, and proper storage of these materials. More than 50 vegetable growers learned how to reduce their risk of exposure to tick and insect-related illnesses such as West Nile virus and Lyme disease. A Farm Safety workshop covered safety with animals, tractors, and equipment for making silage and haylage. Farm safety with chemicals in the milking room was included as well. County Farm workers received training in safe logging techniques.

Youth Safety Education

A six-week Tractor Safety Training Certification Program was held for 4-H members in one county. The course covered topics such as power take off safety, rollover protective structures, tractor instruments and controls, tractor maintenance, operator safety, why farm machinery accidents occur, and hands-on tractor driving instruction.

Safety Messages Incorporated into Site Visits and Educational Programs

Extension Educators assisted Christmas tree growers in managing and caring for tree plantations, identifying and controlling Christmas tree pests and weeds, and using safe pruning and shearing techniques.

Extension participates in numerous programs with growers including maple producers, ornamental horticulture producers, corn and forage growers, dairy producers, and vegetable and berry growers. Equipment and pesticide safety messages and information are distributed to these audiences to raise awareness about safety issues and reduce the potential for injuries.

Extension Educators and Specialists establish and enforce safety rules for youth participating in 4-H and other youth development activities and programs.

C. Impacts:

As a result of Extension's Logger Safety Workshops:

- Response time for accidents was reduced on 100 rural forestry-related job sites in New Hampshire
- 93 rural forestry-related job sites workshop participants increased their capacity to reduce the occurrence and severity of job related accidents

As a result of Extension's Safety Programs for Farm and Forest Landowners:

- Farm workers more accurately formulate and use pesticides and minimize the exposure of themselves and others to unsafe chemical levels
- 100 fruit and Christmas tree growers increased knowledge on pesticide toxicity, precautions when applying pesticides, ways to minimize the use of to achieve desired outcomes, and proper storage of chemicals
- 50 vegetable growers learned how to reduce their risk of exposure to tick and insect related illnesses such as West Nile virus and Lyme disease
- County farm and forestry workers exposed to the greatest amount of danger in farm and forest operations have the capacity to reduce risk to themselves and others

As a result of Extension's Youth Safety Education:

- Youth participants are knowledgeable about operating tractors safely and minimizing the danger of injuries from improper tractor use

As a result of Extension's safety messages incorporated into site visits and educational programs:

- The exposure of prison workers to mechanical equipment was minimized by constructing protective gates around moving equipment, constructing an animal handling area for conducting health treatments on animals, the dangers of manure gases are known (and need for fans to circulate air), and a spotter is nearby during equipment repair
- Exposure of prison workers to the dangers of manure gases was reduced
- Safety components were integrated into the design of two manure storage pits to minimize potential accidents
- The Extension Forestry and Wildlife Program established a Safety Committee to set standard operating procedures for events where we have a number of people in a remote area or in close proximity to operating machinery. Some considerations include first aid and CPR training for all Forestry and Wildlife Staff, two-way radios for tour leaders to communicate when cell phone coverage is not reliable, and written directions to the event for each tour leader so that an ambulance can be directed to the site easily

D. Source of Funding: Smith-Lever 3b,c&d, State matching funds, County funds

E. Scope of Impact: State specific

Leadership Training and Development/Strengthening NH Communities – Charlie French

A. Situation: New Hampshire communities face many social, physical, economic, and environmental challenges. While some communities proactively responded to current and future issues, others lack the leadership structure and capabilities to address issues in an organized and effective fashion.

B. Program Description: Cooperative Extension's Strengthening New Hampshire Communities Program (SNHC) offers a variety of training programs aimed at building leadership capacity through facilitation training workshops, a community development academy, and other curricula.

C. Impacts:

- As a result of Extension's work with four New Hampshire towns that conducted Community Profiles (a community action planning program sponsored by Extension), organizational Assistance and facilitation training was provided to over 50 community volunteers. These volunteers helped facilitate breakout groups at their respective Profiles and at least five chaired local action committees
- Over 45 community leaders were trained in the art of facilitation and participatory planning through three separate workshop series conducted by Extension last year. Many of those trained engaged the public in local decision-making. For example, two individuals helped facilitate a regional economic development forum, five helped facilitate Natural Resource Outreach Coalition community meetings, one coordinated a forum on education, and two facilitated forums around community health. Several others assisted Extension to facilitate forums
- Extension provided board training to the Carroll County Friends of Families. As a result, the board decided to discontinue its 501c3 status, restructure their board leadership and redefine membership in the organization
- Extension's Community Development Program helped build the capacity of two graduate assistants and two student interns to provide community development assistance and outreach to New Hampshire communities in Coos, Merrimack, Rockingham, and Strafford Counties
- Extension's Coverts program (a conservation outreach and training program) trained dozens of community volunteers to provide leadership on community-based conservation efforts. They provided conservation education to individuals and groups across the state
- Extension conducted two workshops to train community leaders build action coalitions. As a result, Extension has since partnered with three organizations to provide trainings and technical assistance to local citizen groups. These trainings contributed to collaboration around land conservation, provision of services to immigrants, and youth coalitions
- Extension conducted a workshop entitled "Dealing with Difficult People" for the New Hampshire State Fair Association. Post workshop evaluations indicated participants would use the information presented to improve their relationships at home, work, and community
- Extension provided board development training to the New Hampshire Association of Conservation Commissions. The training covered meeting management, ground rules, agenda development, and dealing with difficult people. As a result, the association reported that ground rules are now used during meetings and the local website was improved
- The Community Development Specialist taught a course for students in UNH's Community Service and Leadership Program. The course provided 15 students with an overview of skills needed to mobilize citizens to instigate community change. As a result, five students organized a coat drive, one student assisted the city of Nashua conduct an action planning forum around walkability, and another student initiated a volunteer conservation easement monitoring program. All the students are community leaders
- Extension used a technique called Open Spaces to help the Concord Substance Abuse Coalition address issues regarding funding and organizational issues. The technique helped the organization address several issues. As a result, a new person was hired to lead the coalition, to look at how it presents itself to the public, gains public support, and addresses funding issues
- Extension conducted seven focus groups for the Arts Alliance of Northern New Hampshire and helped draft the North Country Cultural Plan. The plan is being implemented with the goal of strengthening the arts in the northern part of the state

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, user fees

E. Scope of impact: State specific

Leadership Training and Development/Volunteers – Wendy Brock

A. Situation: UNH Cooperative Extension provides New Hampshire citizens with research-based education and information, enhancing their ability to make informed decisions that strengthen youth, families, and communities, sustain natural resources, and improve the economy. As the state population grows, Extension receives an increasing number of requests from residents for information and education on a wide variety of topics. With limited numbers of paid staff, the mission is realized through the use of trained volunteers in all Extension program areas.

A. Program Description:

The NH Coverts Project

The NH Coverts Project trains volunteers to promote wildlife and habitat conservation and forest stewardship. They enhance, restore, and conserve habitat for the rich diversity of native wildlife in New Hampshire. They increase the amount of New Hampshire's public and private land managed with a stewardship ethic.

Extension Master Gardeners are trained volunteers who share their enthusiasm for gardening with the general public. By serving as volunteer educators in their communities, Master Gardeners provide practical solutions to everyday questions for the citizens of New Hampshire. Five hundred sixty active Master Gardeners contributed more than 11,000 hours of service.

The Community Tree Steward Program educates volunteers in community and urban forestry. Based in New Hampshire's more highly developed counties, the goals are to strengthen communities, promote social change, and enhance urban ecosystems. One hundred three New Hampshire Community Tree Stewards volunteered an average of 39.5 hours in 74 New Hampshire cities and town. Community Tree Stewards volunteered 1040 hours into land conservation efforts. Landscaping projects was the second area of focus with 540 hours.

The UNH Marine Docents are volunteers dedicated to the preservation and wise use of our marine resources.

Great Bay Coastal Watch volunteers protect New Hampshire's coastal waters through monitoring water quality and outreach education.

The New Hampshire Lakes Lay Monitoring Program (NH LLMP), founded in 1978, was conceived by UNH faculty as a way to involve local residents in collecting baseline lake water quality data for detecting long-term trends and locating problem areas. Outreach intentions are twofold: provide unbiased data for informed local lake management, and create an opportunity for participants to gain hands-on understanding of water resource concepts and issues. 500 Lake to Lake monitors volunteer 1500-plus hours conducting research at more than 300 lake sites and 370 tributary and outlet sites per year.

4-H Youth Development volunteers help youth acquire knowledge, develop life skills and form attitudes to enable them to become self-directing, productive and contributing members of society. Two thousand hours of volunteer time at UNH 4-H Camps in 2004 provided site upgrades that the budget could not support. As a result, a new rock-free playing field was

established, screens repaired in 24 cabins, and the outside of nine buildings painted. A critical element of a positive youth development program is having a young person interact with a caring adult. In New Hampshire, 2,275 volunteers provided that support to 28,400 young people in the 4-H Youth Development program. Forty-two percent (960) of the 4-H volunteers reported working 43,176 hours with youth to help them practice various life skills. Four hundred ninety-four adults worked in partnership with 3,215 youth to plan, implement and evaluate service projects in their various communities. This group spent more than 10,364 hours with the focus of service to others or developing a sense of generosity. Projects included support to families devastated by fire, community food banks or drives, beautification of community meeting halls or churches.

C. Impacts:

- Two hundred NH Coverts report land ownership of over 17,000 acres and management of an additional 30,000 acres. Of this land, 44,000 acres have management plans and 30,000 acres have conservation easements. Thirty-eight owners implemented some type of habitat management during the past 12 months
- Twenty-seven Coverts Cooperators are members of their town Conservation Commissions. Thirteen Coverts Cooperators are members of their town planning board, board of selectmen, or serve as state legislators. Eleven Coverts Cooperators helped initiate or complete a town natural resource or wildlife habitat inventory
- Master Gardeners responded to approximately 7,000 requests on the toll-free Information Line. A caller survey indicated 90% of callers were satisfied, and 83% were able to apply the education they received
- One hundred seventy-five Marine Docents provide volunteer support for marine education at Seacoast Science Center, Great Bay National Estuarine Research Reserve's Sandy Point Discovery Center, and programs with 4-H Clubs and school groups. This service equals \$400,000 had volunteers been paid staff. Over 100 UNH Marine Docents provided in-school and boat-based marine programs for over 3,000 students. Pre and post tests administered to samples of those students indicated a significant increase in their awareness of the marine environment
- As a result of activities conducted by marine volunteers, Newmarket middle school teachers worked to produce a Day of the Coast Celebration for grades 6-8. High school biology students taught younger students about shark biology and issues surrounding sharks. Teens reported they learned more while teaching the younger children
- One hundred seventy-four sixth grade students at Portsmouth Middle School were involved in a South Mill Pond project learning about phytoplankton and the aquatic food web. Their report shows greater understanding of the web and the place of phytoplankton in the web
- Great Bay Coast Watch volunteers come from a wide variety of contexts including age, address, educational background and interests. This year, many new volunteers were elementary, middle school and university students
- Statewide, NH LLMP data demonstrated a relationship between nutrient phosphorus and algae growth, in support of a ban on phosphate-containing detergents. LLMP water clarity data demonstrated the economic impact to property values when water quality declines
- 95,745 hours of volunteer time extended the educational scope of UNH Cooperative Extension to the residents of New Hampshire. Based on the Independent sector rate of \$17.19 per hour, this saved tax payers \$1,645,856 if they had to pay for this service

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

E. Scope of impact: State specific

Parenting – Kathy Becker Blease

A. Situation: Strong families raise children to become responsible, productive, and caring adults. Many parents lack the knowledge and skills to promote healthy development of their children. Child abuse and neglect continue to affect an unacceptably high percentage of children. Parents get advice from many sources, including reality television shows, the internet, and family members, but increasingly need objective, fact-based information to inform their decisions.

B. Program Description: During the 2004 program year, parenting education was delivered through a newsletter series, fact sheets, UNH Cooperative Extension's web site, and the media. Four hundred seventy-three parents were reached through Extension's face-to-face parenting programs, including one-on-one home visits, one-time workshops, and workshop series. Five thousand fifty-nine families with infants from birth to 12 months of age received the age-paced newsletter, Cradle Crier, and 4554 families with toddlers from 13 to 24 months of age received the age-paced newsletter, Toddler Tales. Over 9600 fact sheets were distributed on issues ranging from bullying to the impact of divorce on children. Approximately 250,000 people were reached per episode through 20 episodes of "Positive Parenting" - a three minute program aired biweekly on WMUR, NH's statewide television station. In addition, approximately 180,000 parents received monthly information through a statewide news article dealing with parenting and family issues.

C. Impacts: Parents are asked to complete a short evaluation of the Cradle Crier publication with the 12th (final) newsletter. Overall, between half and just over three-quarters of respondents reported they gained knowledge in areas including physical, emotional and intellectual growth, nutrition, and taking care of self. About half of all respondents report they changed specific behaviors because of the newsletter. For example, 62% reported they let their babies explore more and 54% talked more with their baby.

Some parents commented that the newsletter met goals of providing concise, timely, and authoritative information to busy parents who suffer from information overload. One parent wrote, "Of all the literature I read, I found this to be most helpful." Another wrote, "I like it as a reminder of what is happening developmentally and the letter is just the right length to read (not much time with two kids to read books)." One commented on the age-paced aspect of this publication: "It's so wonderful to read information about what your baby is doing or will be doing during this month."

Parents found the newsletters helpful for different reasons. For example, among households with annual incomes under \$20,000 per year, more parents reported the newsletter helped them feel more self-confident. Among parents with annual incomes above \$60,000, more parents reported the newsletter helped them talk with their partner about the baby. This could be because those with higher incomes are more likely to have a partner. Those who had a high school diploma or less education are more likely than more educated parents to say that the newsletters helped them

feel more self-confident and that the newsletters helped them talk to their partners about their baby. Overall, the newsletters are appreciated by parents of all income and education levels.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

A. Scope of Impact: State specific

Tourism - Charlie French

A. Situation: While most of southern New Hampshire experiences rapid job growth and an influx of new businesses and industries, northern New Hampshire continues to face economic crisis. Resource-based industries, including tanneries, paper mills, and manufacturing plants, in this rural part of the state have undergone stress resulting from international competition. Although job losses this past year were not as heavy as they were two years ago, the unemployment rate in the forest industry continues to rise. Because this region's natural beauty and wilderness resources are plentiful, the state has placed renewed interest in developing a viable tourism industry, particularly in northern counties.

B. Program Description: UNH Cooperative Extension helps New Hampshire communities, in partnership with businesses and industries, to analyze the existing tourism economy and assess the potential for maintaining or developing a viable tourism industry. Technical assistance and educational outreach are provided in technical training, economic analysis, financial planning, and organizational capacity.

C. Impacts:

- Extension helped the NH Department of Fish and Game collect public input from stakeholder groups and incorporate this information into the State Comprehensive Wildlife Plan. It was clearly recognized in the plan that the integrity of the state's wildlife habitat is inextricably linked to a healthy tourism industry. As a result, several priorities identified in the plan are now being addressed, such as the development of new educational outreach programs
- Extension held a workshop for community leaders and conservation organizations around the state on land preservation through conservation easements. Over 50 people participated in the workshop. Extension has since provided several landowners with technical assistance on easements
- Extension educators in Rockingham County continue to work with local residents to develop a community horticultural garden, that already draws hundreds of volunteers and visitors
- Extension's Master Gardener program spawned several beautification projects around the state, leading to improved aesthetics in parks, downtowns, schools, and along roads and highways. This helped enhance tourists' experiences when driving through New Hampshire
- Partially as a result of a Extension Community Profile held in Jackson, a sub-committee applied for, and was accepted as, a recipient of Plan NH's community architectural design assistance program. A charette conducted by Plan NH collected public input around better using downtown space and infrastructure that impacts the tourist infrastructure

- Extension facilitated strategic planning for the Androscoggin Valley Economic Recovery Corporation. One priority area in the strategic plan is capitalizing on the potential benefits of nature-based tourism to the North Country region of New Hampshire
- Extension continues to assist New Hampshire inns, resorts, campgrounds, hotels, and theme parks on landscaping, ornamental tree planting and insect control. This educational and technical assistance helped save inns and hotels money and improved their drawing power
- Extension continues to provide technical and organizational assistance to the Northern Forest Heritage Park in Berlin. The park, designed to educate citizens about the life and history of a mill town, continues to draw thousands of visitors to this depressed northern part of the state
- An Extension sponsored graduate assistant in the Resource Economics Department is working with several partner organizations to revise the “Saving Special Places” publication. His work focuses on helping communities to evaluate the cost of services for varying land uses, particularly open space. The publication will be used by planners, recreation professionals, and conservationists to maintain the natural character of New Hampshire’s landscape, and hopefully enhance tourism
- Extension’s Marine Docents program organized beach cleanups, provided pollution monitoring assistance, and implemented erosion mitigation projects, all of which contributed to the cleaning up of Southern New Hampshire’s beaches, making them more attractive for tourists
- Extension works with the timber industry and state and Federal agencies to promote best management practices with regard to timber harvesting. Extension also promotes "logging aesthetics", to help preserve multiple viewsheds, enhancing the visual experience for tourists and visitors to New Hampshire’s forested regions

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

E. Scope of Impact: State specific

Workforce Preparation/UNH 4-H Camps – Chris Conlon

A. Situation: University of New Hampshire 4-H Camps provide an opportunity for New Hampshire youth to enrich their lives while learning and practicing the skills and attitudes needed to navigate an ever changing world. For older teens and young adults, working at camp is often the first opportunity they have to practice life skills. 4-H seeks to nurture this in all young people. These skills include compassion, leadership, understanding differences, and healthy life choices. In rural areas of New Hampshire, many entry level and summer jobs are being filled by adults. UNH 4-H camps provide early work experiences for the rural youth.

B. Program Description: UNH 4-H Camps provide experiences in leadership, group interaction, teamwork, healthy lifestyle choices, good citizenship, and community service. Intensive staff development training prepares a carefully chosen young adult staff to work successfully with a diverse population of children. Multi-week Leader-In-Training (LIT) and Mentor Training sessions provide older teens with opportunities to explore careers and develop positive workforce skills.

Through staff training, camp staff learn to model an active participatory “third place” community, intentionally modeling communication, positive behavior, and attitudes commonly

accepted in the “first place” (home) and “second place” (school) of the child’s life. Camp is uniquely situated to assist youth who need to deal effectively with change, to become successful productive members of society. Campers are given an opportunity to reflect and apply their knowledge and learning in a supportive environment that acts as a learning lab to test new behaviors and attitudes between their home and other areas of their lives.

C. Impacts: The positive impact of intensive staff training is identified through end-of-camp surveys of parents, staff, and campers.

- 74% of parents surveyed after camp chose “quality of camp staff” as the most important factor in choosing UNH 4-H Camps. Among those who returned the survey, 50% represent families with campers who attended camp multiple years, indicating parent approval with the camp experience. Nearly 10% of all campers in 2004 attended multiple weeks of camp
- Over half the parents believe camp helped their child understand diversity and/or become more aware and interested in others. UNH 4-H camps have a summer staff, 75 representing 10 countries from around the world. This diversified camp staff helps youth gain an understanding and positive perspective of cultures unique to other parts of the world. This expanded view of the world helps youth understand their changing world

A review of program records reveals parent and/or camper satisfaction with the quality of the camp staff and program:

- 45% of enrolled campers attended camp in a previous year, and 450 campers (43.6%) attended more than two years
- Two-thirds of the camp staff (55 of 80 staff members) resides in New Hampshire. For many, camp provides work experience relevant to career goals. Six staff are students at UNH with majors ranging from education to occupational therapy. One staff member, an inclusion specialist, recently graduated from the UNH Recreation Management and Policy Department. This staff person worked at camp for three summers progressing from front line counselor, to 1:1 aide, to the role of supervisor
- The return rate of camp staff indicates staff believe they are well-trained and prepared to be successful in their jobs at camp. Over one-third (35%) of the camp staff returned from previous summers. The average tenure of key staff and middle managers is 4.5 years of staff experience
- The Leader-in-Training (LIT) successfully prepares a core of older teens for work within the camp setting. In 2004, 28 youth from rural communities participated in two-week leader training programs, consisting of group work, leadership skills, community service, and camp outdoor opportunities. Almost 40% of the parents reported their teens showed an increase in self-esteem and self-awareness after participating in the LIT program. Eighty percent of the teen participants disclosed an appreciation of the differences among their peers after spending three weeks together. These teens learned the value of intergenerational programs and their role within the camp setting. They also demonstrated an understanding of leadership models, the importance of playing an active role in the camp program, and the nature of program leadership within the camp setting
- The three-week Mentor Program prepares older teens for working with children in a camp setting. Program progression is planned for youth to make the transition from participant to camp staff, and professional role models. Over the course of several years, one staff person made a successful career development progression from camper, to general counselor staff,

to 1:1 aide. In addition, this young staff person is volunteering during the non-camp season with a local 4-H club to provide inclusion support for a young boy with disabilities

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, user fees

E. Scope of Impact: State specific

Workforce Preparation/Adults - Suzann Knight

A. Situation: Federal law requires most recipients of TANF public assistance to prepare for and find paid employment. Many TANF recipients need help mastering basic life skills to make a successful transition to paid work. Some people have difficulty managing time, conflict, anger, and stress. They may fear change or rejection. Some need help building support networks for themselves. Many people do not have successful role models for balancing paid work and family life. Some have family difficulties that undermine their ability to seek and find a job. Many need help with parenting skills and understanding the developmental needs of children. Often, parents worry about finding childcare or interacting with childcare providers. In addition, they need help developing a spending plan or preparing nutritious meals within their budget and time constraints.

B. Program Description: Extension's contracts with the NH Department of Health and Human Services, Division of Family Assistance to provide the Family Lifeskills Program. The Family Lifeskills Program provides TANF recipients with enhanced competencies that bring them into the job market. These competencies include: knowledge-based skills communicated through planned curriculum and personal/interpersonal skills enhanced through the group process. The 90-hour curriculum taught within the Family Lifeskills Program is titled Lifeskills for Employment, Achievement and Purpose (LEAP). The knowledge-based skill areas covered are divided into four sections: food and nutrition, money management, parenting skills, and personal skills facilitating balancing work and family. The personal skills gained through the group process include enhanced self-esteem and healthy social support networks.

C. Impacts: During this reporting time period, 536 TANF recipients attended the Family Lifeskills Program. The Family Lifeskills Program uses pre, post, and follow-up assessment tools. More than 90% of LEAP participants report they feel more prepared for the job market with 58% reporting they feel "much more" prepared, 94% reporting gaining knowledge about available services, and 90% felt better able to handle problems. Of particular note was the way in which adherence to workplace standards, such as punctuality and attendance, gave people incentive to complete the program. It was noted that the proper balance between promoting group bonding and responsibility to the group by showing up, being punctual, and dressing appropriately, seemed to facilitate self-esteem as well as a sense of responsibility necessary in securing and maintaining employment. Follow-up information on a random sample (n=353) of LEAP graduates found, as of June 2003 that 41% of the sample was employed and of these, 83% are working fulltime. The remainder of LEAP graduates continue to gain skills through the New Hampshire Employment Program.

- D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funding
- E. Scope of Impact: State specific and Integrated Research & Extension

Life Skills Development through 4-H – Paula Gregory and Lisa Townson

A. Situation: Changing demographics and a diverse family structure continue to be more the norm than the exception in New Hampshire. Rural youth often have limited opportunities for positive experiences out of school that contribute to their development, including the acquisition of critical life skills.

B. Program Description: Youth are New Hampshire's future and Extension's 4-H Youth Development programs deliver out of school educational programs through a variety of delivery methods (traditional 4-H clubs, 4-H camp, after school programs, and community youth coalitions). The goal of these programs is to develop life skills in youth. Caring adults, 4-H Cooperative Curriculum System curriculum, and educational events and activities are integral parts of the 4-H program in all ten counties of NH. During the current planning and reporting cycle, New Hampshire developed programs, and trained staff and volunteers to develop greater skills in goal setting, communications and accepting differences among youth. While the program remains comprehensive in developing many more skills than the three measured in this evaluation, specific programming was targeted to meet the goals of developing these important life skills. Program components contributing to the development of life skills in 4-H youth included: communications events, animal shows, planning and goal setting, recordkeeping documents, 4-H club work, state competitive events, and educational activities like Teen Conference, the State Horse Show and 4-H camp programs.

An evaluation of the development of life skills in 4-H youth, ages 12 and older, was administered through written surveys to youth, their parents, and volunteer judges attending county-wide 4-H presentation events. The survey was also administered to a random sample of volunteer leaders via a mailed survey. Identical items on each survey were designed to measure indicators of success for communications, goals setting and accepting differences life skills. Analysis of survey data was completed for half the counties representing 667 youth (ages 12 and over) enrolled in 4-H clubs in these counties. Of these youth, 212 participated in their county presentation events where the survey was used. Approximately 46 % of youth participants at these events ages 12 and over, completed surveys. This represents 15% of the 12-18 year old youth enrolled in 4-H clubs in the five surveyed counties.

C. Impacts: Youth, parents, and volunteer leaders recorded their views (or their children's) prior to 4-H participation and then after participation using a four-point scale (never, sometimes, usually, or always) for each item. Sixty-six parents and 97 youth completed surveys documenting the following changes in the 4-H youth:

Goals setting responses

- Over half of parents and youth indicated an increased use of a variety of methods to reach their goals

- Over half of parents and youth indicated an increase in breaking goals into logical steps to achieve them
- One volunteer reported a story of a young girl in her group that had, "...not only set goals about this (sewing) project, but she has goals about school and has even equated using a foot pedal on a sewing machine with her success in using the accelerator in learning to drive."

Communications responses

- Over two-thirds of parents and one-half of youth indicated an increase in knowing how to gather and organize information needed to make an effective presentation
- Two-thirds of parents and one-half of youth indicated the youth appears (felt) more confident speaking in front of others
- Half of the parents and 46% of the youth felt 4-H members are better able to present their thoughts clearly
- Over one-half of parents and 50% of the youth indicated an improvement in using words and actions creatively to persuade others
- Nearly two-thirds of parents and one-half of the youth indicated an increased use of suggestions from others to improve presentation skills

Conflict Resolution and Accepting Differences Responses

- One third of parents and youth felt the youth were better able to make friends who are a positive influence
- One third of parents and youth indicated an improvement in knowing how to solve conflicts in ways that are not hurtful to others
- 17% parents and 24% youth felt the youth were more likely to treat people who are different from him/her with respect
- A volunteer reported she watched some of the older members over the years, "...as they have developed wonderful skills with their animals. They have also taught the younger members and assisted in so many ways to run their club."
- A parent reports her daughter has been in 4-H for ten years and, "I've watched her through 4-H become a confident, capable young woman ready to pitch in or help organize different events."

Volunteer judges were asked to compare the 4-H youth they were judging with other youth of similar ages, using the same four-point scale and questions addressing the same areas of life skill development. Interestingly, the 30 judges and 136 volunteer leaders surveyed regarding their observation of the youth they worked with or evaluated, reported very similar results. That is, there were proportionately higher responses of improvements or growth for goal setting and communication items than for conflict resolution and accepting differences.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds

E. Scope of impact: State specific

Marine Science Education – Brian Doyle

A. Situation: For over 30 years, training the next generation of marine scientists, engineers, and technicians and seeking to provide the general public with marine-related information have been

key elements of the Sea Grant/Cooperative Extension mission at UNH. These two needs are even more important today as a growing population puts increasing pressure on natural resources, particularly on those in coastal zones.

The United States needs to continue to attract the best and brightest people to work on significant marine science issues, and train them in the use of advanced technology. Cooperative Extension and NH Sea Grant accomplish this mission by supporting graduate and undergraduate students through opportunities for them to work alongside leading research scientists and educators, receiving hands-on experience and learning practical skills to use throughout their careers.

Although science testing over the past decade consistently places US students below their peers on the international scale, recent test results show that our students are gaining ground at the elementary level. To continue to raise science literacy in students, teachers, and the general public, Sea Grant/Cooperative Extension seeks to leverage its efforts to use the marine environment as both a motivator and a laboratory to increase science skills and understanding.

B. Program Description: The marine science education program works towards accomplishing the following:

- Develop, enhance, customize, and field test multidisciplinary K-12 curriculum materials and programs that support state and national science standards
- Increase opportunities for K -12 NH teachers to improve their knowledge and skills in the marine science fields by providing appropriate training for pre-service and practicing teachers
- Build a marine literate citizenry by increasing public understanding of critical NH marine and coastal issues through up-to-date and relevant marine education programs focusing on the Gulf of Maine

C. Impacts:

- Marine Docents carry out the bulk of our marine science education programs. Currently, 175 active volunteers are involved, including 15 new docents who participated in the five-month training program offered by Sea Grant Extension. They delivered an array of programs to approximately 15,000 people and contributed 100,000 automobile miles to Extension's efforts. Of particular note, two week-long Elderhostel programs were planned and delivered by marine docents to 60 participants. These marine-issues oriented programs include lectures and activities in a New England town-meeting format. Participant evaluations indicated very high levels of satisfaction with the content and style
- Both the Great Bay Living Lab and the Coastal Floating Lab, boat-based education programs, were again popular with clientele. 200 students and teachers took part in six Great Bay Living Lab cruises that included multiple hands-on activities that complimented their classroom work. All four elementary school classes incorporated the program into their science curriculum. The two high school groups who participated responded positively and gained valuable on-board sampling experience for work they're doing with a UNH oceanographer. Also, one sixth grade teacher who participated in the Sea Grant Great Bay Living Lab for several years conducting his own version of the lab program independently
- The Coastal Floating Lab, held aboard a 65-foot charter fishing boat, had 500 students and teachers from grades 5-10 (20 classes) participating this year. The program's 200-page

curriculum and 3-hour program aboard the boat support the NH Science Frameworks with site information, classroom, and on-board activities. All except one school included this program in their regular curriculum. For example, Portsmouth Middle School includes the Lab as a part of a year-long study of the water-related environment for their entire 8th grade. A sophomore class at Coe-Brown Academy utilized this program for their biology classes for 3 years. Dover is restoring the Floating Lab as a part of their science curriculum for 2005. Several teachers who used the Floating Lab now conduct their own program, working with boat operators in Rye and Hampton. Milford High School's 4-year program, uses seniors as instructors aboard another charter boat operated out of Rye, with minimal assistance from Sea Grant Extension

- Discovery Cruises to Great Bay and Appledore Island are 5-6 hour boat-based programs designed to increase public knowledge about the natural resources and maritime history of the region. They offer an opportunity to present UNH educational opportunities and pertinent current research to a variety of audiences including clubs, families, 4-H members, and visitors. Hands-on sampling experiences aboard the boat, tours of the Shoals Marine Lab and Appledore Island, or Jackson Estuarine Lab and Great Bay help participants put abstract marine science concepts into perspective. This year, 400 people participated in the 17 cruises with on-board evaluations indicating that they had a significant increase in knowledge about estuarine and near-shore environments
- Two "Day of the Coast" programs were offered to 800 middle school students. These cooperative efforts between Sea Grant and the school involve a day of marine activities conducted by the marine docents. Teachers also involve their classes in both pre and post "Day" marine science activities. Two schools make this program a regular component of their 6th grade curriculum

D. Source of Funding: Sea Grant funding, grants

E. Scope of Impact: State specific

Management Goals

Multicultural and Diversity Issues – Bob Edmonds

A. Situation: Through programming and operations UNH Cooperative Extension must:

- Ensure that its staff and volunteers adhere to the law and the spirit of the law when developing and implementing programs
- Remain open to audiences protected under Federal statute, and be proactive in reaching out to people who would otherwise not participate in Extension offerings
- Serve as an example to other organizations and individuals regarding diversity principles

B. Program Description:

Staff and Volunteer Responsibilities

Staff and volunteer Extension County Advisory Council members are being trained regarding civil rights principles, practices and issues. Training includes the following:

- Every staff person received training and each staff person received a civil rights manual written specifically by and for Extension. Every person has his/her individual civil rights responsibilities spelled out in the manual
- New Extension staff receive civil rights training at new employee orientation program and civil rights guidance from their Program Leader. New employees are now receiving the *Civil Rights Guide for UNH CE Staff*
- Each Extension program person keeps an individual record of civil rights activities and impacts
- Each County Advisory Council receives training regarding civil rights principles, practices, and issues
- Each January, the Extension Dean and Director reaffirms in writing to all staff a strong commitment to diversity and ensures that everyone knows expectations of every individual to this effort

Reaching out to underserved audiences

4-H Youth Development

4-H Youth Development programs strive to reach youth with age and developmentally appropriate educational programs. Many youth who participate in local, state and regional events have documented learning disabilities. 4-H staff and volunteers make every effort to be sure they have a very positive experience. Staff learned to modify written, oral and physical tests for youth individually based on their needs. Some youth, are provided with a reader or a scribe, but other youth require a modified test or the allowance for physical help in the show ring or at the quiz bowl table.

With a history of 20 percent of the youth attending UNH 4-H Camps having a diagnosis of a physical, emotional, or behavioral disability, UNH Cooperative Extension provided intensive staff training, and reviewed the 2003 camp season to address future disability needs at the camps.

Inner-city multicultural work in NH neighborhoods

The Community Forestry Coordinator worked to secured two grants to increase outreach to multicultural audiences. Working in Manchester, outreach activities were designed after reviewing the makeup of neighborhoods in the targeted area of the inner city. To understand the makeup of the neighborhood, Extension spoke with residents directly and involved them in the planning process. Extension also engaged neighborhood organizations, including the Salvation Army, the International Center and the Manchester Neighborhood Housing Services. The information collected led Extension to a number of program components, including,

- Creating brochures and signage in three different languages
- Seeking out translators for workshops
- Working with children, with fewer language barriers or who are bilingual, to reach adult populations This helped with the language problem, but also brought families together
- Working to hold workshops specifically for adults at an accessible site and at appropriate times to fit their needs
- Considering cultural perceptions when working with sensitive issues
- Establishing neighborhood contacts from other cultures to help introduce people to the activities in the neighborhood

- Connecting participants through areas that interest them and connecting them with our activities by building on their interest and knowledge. Youth assist Extension with the translation of written materials
- Putting our information into the newsletters of organizations translated into multiple languages
- Attending meetings to discuss how Extension can best work with these new audiences
- Working with other Extension colleagues in an interdisciplinary effort to involve underserved audiences

Increasing inclusion of women in non-traditional farm and forest decision making

The Extension Agricultural Resources, Forestry and Wildlife, and Family and Consumer Resources staff worked together to include farm and forest families as a target audience. Traditionally, the male head of household has been in charge of the farm or family woodlot. With the importance of estate planning and inter-generational transfers of land, the appropriateness of including family members in discussions is increasing. This brings more than just the male component of a family into education and discussions.

Building Partnerships to serve multi-cultural audiences

The Community and Economic Development Specialist collaborated with the Lutheran Service Refugee Resettlement Program and other organizations to conduct a workshop titled *Building Partnerships to Serve Multi-cultural Audiences*.

Women and the Woods

Women and the Woods is a program developed by our Extension Professor and Specialist, Forest Resources, and a woman from the Maine Forest Service. It was designed to target women forestland owners. Traditionally, the male head of the household deals with the business related to woodlands. Women now own woods in their own name, share in the business decisions in a family wood lot, or are the principle manager in a privately held woodlot. This program targets a previously underserved female audience and welcomes women into an educational program about the business management aspect of woodland ownership. People from the target audience were engaged in the development of this program, as were Extension colleagues from other disciplines within UNH Cooperative Extension.

Women in Forestry, Wildlife and the Forest Industry

Extension Specialists serve on graduate committees of women in forestry programs at UNH. Our forest industry specialist hired a female natural resources student to implement a survey of New Hampshire loggers. The specialist also took UNH Natural Resources students to one of the state's largest sawmills because it is managed by a woman, as an encouragement to women students and to break down stereotypes. Extension hired female students to conduct a biotimber inventory of forest lands, developing and applying new cutting-edge technology on site. The Forestry and Wildlife Program provided a scholarship to one of the female biotimber inventory project leaders, to assist her with graduate studies. The Forestry and Wildlife Program offered employment to women, including a diversity of age and ethnic background. Women volunteers were trained, leading to entry into public policy involvement in their communities and some career changes. Extension has been a leader in gender diversity in the country in forestry organizations evidenced by its staffing and programs which actively seeks female participation.

Cambodian workers

Our forest industry specialist works with the University of Massachusetts Translation Center and the Cambodian Community in Lowell, MA (the largest Cambodian community in the US) to use certified translators to develop a video and materials to enhance Cambodian workers' abilities to work in New Hampshire's forest industry. Cambodians work in New Hampshire's sawmills, hired by agencies which provide temporary employees. Many develop relationships with the forest industries to which they are assigned. Extension provides materials in Cambodian, including signage, and oral information for those who may not be able to read their own language.

Farmer's Market

Extension staff helped underserved communities at several farmers markets in New Hampshire during the 2004 market season. Staff provided information and technical assistance to individuals qualifying for the WIC Farmers Market coupons that allow participants in the WIC program to purchase locally grown fresh fruits and vegetables.

Professional Logger Training

Bilingual training programs are offered in the Professional Loggers Training Program by the UNH Cooperative Extension Forestry and Wildlife Program and its partners. So far, bilingual training has been presented in northern New Hampshire, using people from the community to provide translation in French. The availability of the bilingual opportunity is made known in advance and at the workshops, a person makes the offer for translation assistance in French to the audience at the beginning of each workshop.

Sawing Up a Storm – Women in the Forest Industry

Our forest industry specialist conducted in-depth research and makes presentations around New Hampshire on women who ran the sawmill at Turkey Pond in Concord following the 1938 Hurricane and during World War II. Presentations included diverse audiences in the inner-city of Manchester through "Girls Incorporated," a program for Junior High girls oriented towards the building trades. Her presentations and industry trade magazine articles are a step in breaking down barriers for women in the traditionally male-oriented forest industry.

An example for other organizations

Extension partners with many organizations. Extension programs and practices often set the standard for how work is accomplished in the state. Except for large organizations or those with direction from the national level, diversity issues are generally brought to the forefront through Extension involvement.

C. Impacts:

4-H Youth Development

Increased requests for program delivery modifications were made as described above. Modifications are made each year as parents reveal to staff, "We never knew 4-H was willing to make these kinds of modifications for my child." Parents and volunteers expressed great appreciation in letting us know their children feel very welcome in 4-H. In 2004, NH 4-H modified event requirements for dozens of youth, and two youth with learning disabilities were given their first opportunity to represent NH at a regional competitive event. Their parents reported to staff the impact this opportunity had on their children - raised self esteem, greater

sense of belonging and a sense of mastery their children had not been able to experience in any other activity they have participated in.

UNH 4-H Camps have trained and experienced personnel on staff to provide behavioral supports to accommodate camper needs. The previous year provided positive results to support the value of intensive training, with no campers sent home due to unmanageable behaviors.

Inner-city multicultural work in NH neighborhoods

As a result of Extension urban forestry programs, inner-city residents “recaptured” their neighborhoods. Residents volunteered and took a new level of ownership, developed and improved inner-city parks and green spaces, and added green space and plantings to improve the character of where they live. As a result of these Extension-led efforts, Manchester police reported a reduction in calls to one neighborhood from 700 per year to 60.

Increasing inclusion of women in non-traditional farm and forest decision making

Women and other family members are increasingly more involved in farm and forest land decisions, especially when it relates to estate planning, inter-generational transfers, and conservation easements. Extension staff observed women taking leadership roles in community land conservation efforts and having an influence well beyond property in which they have a financial interest.

Building partnerships to serve multi-cultural audiences

As a result of the workshop, *Building Partnerships to Serve Multi-cultural Audiences*, Extension and Lutheran Services initiated a training program for Somalian refugees. Also as a result of Extensions partners serving multi-cultural audiences, the Nashua Tree Streets projects began to work with Hispanic residents in Nashua to enhance the livability and workability in the Tree Streets District.

Women and the Woods

This initiative helped women become more engaged in the development of this program. The effort is entering the implementation stage.

Women in Forestry, Wildlife and the Forest Industry

UNH Cooperative Extension hired women students to conduct a biotimber inventory of forest lands, developing and applying new cutting-edge technology on site. The Forestry and Wildlife Program provided a scholarship for a female biotimber inventory project leader, to help her with graduate studies. The Forestry and Wildlife Program offered employment to women, with diverse ages and ethnic backgrounds. Female volunteers were trained, leading to entry into public policy involvement in their communities and some career changes. Extension leads in gender diversity for forestry organizations locally and across the country, evidenced by staffing and programs that actively seek and involve female participants.

Cambodian Workers

This program enabled people of a foreign national origin and of a minority race to function effectively in their employment in New Hampshire. An employer reported to the Extension forest industry specialist a positive effect on employment security, safety, and morale. The employer uses the translated materials in employee training.

Farmer's Market

Women and minorities purchased affordable locally grown fresh fruits and vegetables that would otherwise be unavailable to them in their urban setting.

An example for other organizations

As Extension leads by example, partner organizations use Extension's formal civil rights statement on co-sponsored programs. The statement is also found in advertisements in partner organizations' periodicals. For example, the October, 2004 *Maple Digest*, which reaches maple syrup producers throughout the northern US and Canada, carried the full Extension civil rights statement and additional information relating to ADA accommodations and inability to pay.

The New Hampshire Tree Farm Program officially adopted UNH Cooperative Extension's ADA accommodation statement and civil rights statement as a part of its program notification. Extension made the commitment to handle accommodation issues on the Tree Farm Program's behalf.

The newly-formed Granite State Woodland Institute is adopting civil rights and ADA accommodation wording in their offerings as a direct result of Extension's work.

Bilingual workshops are being offered through the Timber Harvesting Council as a result of Extension's assistance.

Extension's partnership with the NH Division of Forests and Lands dates back to 1925. As a result of Extension's close partnership, Extension sits at the table during USDA Forest Service civil rights reviews and offers compliance information and practices to our partners.

D. Source of Funding: Smith-Lever 3b&c, State matching funds, County funds, grant funds

E. Scope of Impact: State specific

B. Stakeholder Input Process

UNH Cooperative Extension actively involves stakeholders in the Plan of Work development and the monitoring of its implementation and evaluation. County and State Cooperative Extension Advisory Councils, County Commissioners, state legislators, university administration and faculty, program committees, commodity committees, state agencies and organizations, volunteers, and clientele provide input which shapes development, implementation, and evaluation of the Plan of Work.

County Advisory Councils, designated by state statute, play a key role in development of the Plan of Work and in monitoring its implementation and outcomes. Each council includes 12 citizen volunteers plus a county commissioner and one local member of the state legislature. The State Advisory Council provides oversight for the statewide Extension program. The Council's 26 seats include two from each of the state's 10 advisory councils, the state CARET (Council for Agricultural Research, Extension and Teaching) representative and five members at large. Monitoring program outcomes and impacts is an appropriate role since council members

represent the state's population. Council members also assist with the program development process. During 2001 both county and state advisory councils, partners, stakeholders, and UNH faculty were actively involved in development of UNH Cooperative Extension's 2001-2006 Strategic Plan. In 2003, over 300 council members and other citizens identified local issues, Extension's role in addressing these issues, and ways to deliver educational programs through listening sessions held in each county by the Associate Director of Extension, on line surveys, and a statewide face-to-face caucus. Listening session and caucus participants received a final report from the Associate Director on issues to be addressed by the Plan of Work. Staff developed logic models for programs based on stakeholder feedback (see: <http://extension.unh.edu/AboutUs/UNHCEPOW.htm>)

Program outcomes and accomplishments are shared with advisory council members through program presentations, reports, and discussions during council meetings. Annual accomplishment reports and impact statements are widely distributed to advisory council members, elected officials, and other stakeholders. The UNH Cooperative Extension web page increasingly informs stakeholders and advisory council members of program development, implementation, and the value and relevancy of efforts and outcomes (see <http://extension.unh.edu/AboutUs.htm>). In addition, Extension works closely with many partners and other stakeholders. These include state and federal agencies, public and private organizations, foundations, University faculty, town government and non-profit agencies. Key individuals representing these partners and stakeholders routinely participate in Extension program planning, implementation, evaluation and reporting.

C. Program Review Process

No significant changes took place in the program review process through merit or peer review since development and submission of the FY2000-2004 Plan of Work. Formal program reviews for each program area will begin in calendar year 2005, with each program area being reviewed once every five years. The review will include Plan of Work related planning and impact.

D. Evaluation of Success of Multi and Joint Activities

1. Multi-state Extension activities include a wide range of long-term partnership and collaborative efforts. Many activities reported are joint efforts with CSREES, the Northeast Region and the New England region. Emphasis is placed on joint activities with other New England states due to common regional issues, program scale, close proximity to Extension staff in neighboring states and budget reductions. This joint work is enhanced through program funding made available from the New England Extension Consortium. Extension benefits from this relationship with multi-state research. The Agricultural Experiment Station at the University of New Hampshire functions under the Dean of the College of Life Sciences and Agriculture, while Extension remains a separate entity functioning under its own dean. This separate administrative structure limits collaborative efforts, but current joint activities demonstrate substantial progress in enhancing collaboration and partnerships

between research and Extension. The two units continue to explore producing a joint plan of work for 2007 and beyond.

2. Planned programs include targeting underserved and underrepresented audiences. The regional EFNEP and FSNE collaborations target this audience. It continues to succeed due to competent, experienced staff and supportive local advisory councils and decision-makers. Afterschool youth development programs and UNH 4-H Camps also target and involve underserved and low-income youth, including youth with disabilities. Several agricultural and forestry programs target women as an audience. These program groups also include financial management components important to producers whose income is limited by their business management skills.
3. All planned multi-state and integrated Extension and Research projects start with clear goals, objectives and expected outcomes. Staff focus on program evaluation as a planned part of all programming, with intended outcomes and impacts determined prior to program implementation. In 2001, UNH Cooperative Extension formally adopted the logic model for improved program development, implementation, evaluation, and reporting. Extensive staff training conducted from 2002 to 2004 to position the logic model as the basis for program planning, included development of the next Plan of Work. In 2003 each program area and the Associate Director created a five-year program vision in logic model format to prepare for future program development and evaluation. In 2004, interdisciplinary program and issue teams created logic models for programming. These logic models are posted internally and externally on our web site.
4. Both multi-state programs and integrated Research and Extension programs improve organizational effectiveness and efficiency. Through UNH Cooperative Extension's active partnership with CSREES, staff access and use resources and expertise from the total Cooperative Extension System. Joint planning strengthens the entire program development and evaluation system through agreement on common initiatives, goals, and procedures. This collaborative effort encourages and supports joint programming due to similar structures and operations easily connecting each partner. Integrated Extension and Research also improves effectiveness in New Hampshire. Due to Extension's responsibility to extend the university's knowledge and research for application throughout the state, joint work facilitates this process. As Extension Educators and faculty research scientists work more closely together, both entities benefit. Extension staff are more involved in research planning, informed of findings, and better equipped to convey research results to those who need it. Researchers, through their closer relationship with Extension, better understand research needs in the state and witness the practical application of their research results. For example, several Integrated Extension and Research projects focus on profitability and sustainability. Because of our short growing season, lack of fertile soils and limited open space, many agricultural producers have marginal profits and benefit from research addressing these factors.

E. Multi-State Extension Activities (Form CSREES-REPT)

<u>Title of Planned Program/Activity</u>	<u>Actual FY2004 Expenditures</u>
1. Multi-State Partnership Programming	\$209,539.00
2. New England, Regional & National Program Planning, Conferences and Professional Development, New England & Northeast Region Organizational Leadership and Development	\$ 20,541.00

Total FY2004 Expenditures: \$230,080.00	

Brief Report of Progress in Planned Multi-State Programs:

The University of New Hampshire Cooperative Extension collaborates with a vast array of local, multi-state, regional, and national partners and groups. Each partnership helps extend Land-Grant based research to address critical and emerging issues impacting the people of New Hampshire through efficiencies realized with combined human and fiscal capital.

1. Multi-State Partnership Programming

- New Hampshire continues its active partnership in the New England Extension Consortium. Multi-state grants are awarded to facilitate regional programming
- The Eastern States Exposition continues to provide valued youth education opportunities for 4-H members throughout New England. This opportunity provides a strong incentive for youth to set goals and reach their full potential. This event involves Extension paid and volunteer staff in planning, conducting, and administering regional youth development programs in partnership with Exposition staff
- New Hampshire partners with the Natural Resources Agriculture and Engineering Service (NRAES) to provide technical publication and educational support for Northeast states as well as critical coverage for technical expertise lacking in specialist staffing. These services are especially critical with staff downsizing. The NRAES membership assessment is paid through state funds
- The Northeast Forest Resources Extension Council (NEFREC) of Extension forestry professionals conducts multi-state programming that address forestry and wildlife issues
- During FY2004 New Hampshire Extension staff participated in regional and New England planning meetings for producer/grower association events, professional development conferences, and multi-state initiatives
- Specific New England, regional and national partnerships involving Extension in FY2004 include:
 - Integrated Pest Management (see page 25)
 - Extension Disaster Education Network
 - NEFREC (see above)
 - National Family and Consumer Science Plan of Work Impact Reporting – the document developed by this group will be used for setting UNH Cooperative Extension’s plan of work framework and related impact indicators.
 - NRAES (see above)
 - Expanded Food & Nutrition Education Program (see Goal 3 key theme reports)

- Food Safety (see Goal 2 key theme reports)
- Risk Management Initiative (see page 11)
- Whole Farm Management regional initiative
- Agricultural Profitability and Financial Management (see pages 5 and 36)
- Agricultural Engineering (see pages 5 and 22)
- Nutrient Management Initiative (see page 28)
- Fresh-Water Aquaculture (see page 8)
- Diversified and Alternative Agriculture (see page 8)
- Agricultural Waste Management (see page 22)
- Sustainable Agricultural Research & Extension Program (SARE)
- Dairy Management & Marketing (see pages 6 and 8)
- New England Vegetable and Berry Growers Association events
- New England Nursery Association and NE Growers Educational Conference
- NE Greenhouse Conference
- New England Tree Fruit Collaboration
- New England Green Pastures Program
- New England Regional Plant Diagnostic Project
- New England Water Quality Initiative (see page 30)
- New England Turf Conference
- New England Regional 4-H Events and 4-H Leader Training (see pages 51 and 58)
- New England and National Society of American Foresters
- Multi-state Fairs and Expositions
- Northeast Regional Center for Rural Development
- National 4-H Curriculum Committees
- Financial Security in Later Life national initiative (see page 46)
- Children, Youth & Families national initiative (see page 42)
- Program Development and Evaluation Support and Staff Training
- Rural Development Youth and Adult Partnership Initiative
- NE Fruit IPM (see page 25)
- ECOP Forestry Task Force
- Community Development Exchange with Cornell University
- Livestock and Pasture Management Workshops
- Greenhouse Plan Production and Nutrition Workshops
- Developing and Integrating Educational Components for Commercial Greenhouse Production Systems
- Flower Poinsettia Production, Post Harvest and Marketing Education
- Beginning and New Farmers Initiatives (see pages 8, 11, and 36)
- Ag-Biz Farm Management Course (see page 36)
- NE Small Farms Initiative (see pages 8, 11, 14, 22, 28, and 36)
- National Animal Waste Initiative (see page 22)
- Engaging Youth Grant
- Health Rocks Training
- American Distance Education Consortium

2. New England, Regional & National Program Planning, Conferences and Professional Development

- Both the Dean & Director and Associate Director are active participants in the Northeast Extension Directors meetings to promote multi-state Extension programs and further integration of Research and Extension throughout the Northeast
- New Hampshire actively participates in the American Distance Education Consortium and accesses numerous satellite training and educational opportunities through the consortium
- New Hampshire’s five state Extension Program Leaders actively participate in regional and national Program Leader meetings and committees for program planning, collaboration, networking, and implementation of multi-state, regional, and national initiatives. The Program Leader for 4-H Youth Development chaired the national Task Force on International Youth Programs
- In support of CSREES, New Hampshire’s Assistant Director for Finance & Human Resources, Director of Information Management & Distance Education, and the Educational Marketing and Information Manager participate in Administrative Officer meetings, National Leadership conferences, National Extension Technology conferences, and the Association for Communication Excellence meetings
- The Associate Director participates in the Northeast Extension Directors meetings, New England Extension Consortium, Community Development Society, ECOP Forestry Task Force, NEFREC, American Evaluation Association, and Outreach Scholarship Conference

F. Integrated Research and Extension Activities (Form CSREES-REPT)

Title of Planned Program/Activity	Actual FY2004 Expenditures
1. Dr. Peter Erickson	\$16,511.00
2. Dr. John Roberts	\$26,414.00
3. Dr. Catherine Neal	\$35,239.00
4. Dr. Paul Fisher	\$20,938.00
5. Dr. Charles Schwab	\$ 1,000.00
6. Dr. J. Brent Loy	\$ 1,000.00
7. Dr. William Trumble	\$ 6,805.00
8. JJ Newman	\$ 5,000.00
9. Tom Buob	\$ 3,480.00
10. Suzann Knight	\$ 3,420.00
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Total FY2004 Expenditures	\$119,807.00

Brief Report of Progress:

The University of New Hampshire Cooperative Extension engages in research and builds research partnerships that bring customers practical, useful information and in turn informs research based on expressed client needs.

1. Salary support provided for Dr. Peter Erickson, Extension Dairy Specialist, to conduct a research project: *Management Systems to Improve the Economic and Environmental Sustainability of Dairy Enterprises*.
2. Salary support provided for Dr. John Roberts, Extension Turf Specialist, who functions in a split Extension and Research position.
3. Salary support for Dr. Catherine Neal, Extension Ornamentals Specialist, to conduct a research project: *Cultural Factors Influencing Production and Landscape Establishment of Trees and Shrubs*.
4. Salary support for Dr. Paul Fisher, Extension Ornamental Specialist, to conduct research projects: 1) *Developing and Integrating Components for Commercial Greenhouse Production System* and 2) *Improving Micronutrient Nutrition for Container-Grown Crops*.
5. Salary support for Dr. Charles Schwab, Professor of Animal & Nutritional Science, to conduct research projects: (1) *Metabolic Relationships in Supply of Nutrients in Lactating Cows*; and (2) *Management of Systems to Improve the Economic and Environmental Sustainability of Dairy Enterprises*.
6. Salary support for Dr. Brent Loy, Professor of Plant Biology and Genetics, to conduct research projects: (1) *Conservation and Utilization of Plant Genetic Resources*, and (2) *Genetics, Breeding, and Physiology in Cucurbits*.
7. Salary support for Dr. William Trumble, Dean for the College of Life Sciences and Agriculture and Director, New Hampshire Agricultural Experiment Station, for joint administration of Integrated Research and Extension Activities.
8. Salary support for JJ Newman, Extension Aquaculture Specialist, to serve as UNH Cooperative Extension's representative on the USDA supported Northeast Regional Aquaculture Center including chair of this year's annual conference and serving on various technical committees.
9. Salary support for Tom Buob, Extension Agricultural Resources Educator, to conduct a research project: *Development and Implementation of Nutrient Management Practices*.
10. Salary support for Suzann Knight, Extension Family Resource Management Specialist to co-conduct a research project: *Rural Low-Income Families: Tracking Their Well-Being and Function in an Era of Welfare Reform*.