

**NORTH CAROLINA
COOPERATIVE
EXTENSION**

**MID YEAR CEMP
ACCOMPLISHMENT
REPORT**

1998



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Mid Year 1998 PROGRAM ACCOMPLISHMENT REPORT

Program Overview

The mission of the North Carolina Cooperative Extension is to help individuals, families, and communities put research-based knowledge to work to improve their lives. To accomplish this task, North Carolina State University and North Carolina A&T State University collaborate in delivering Extension educational programs in each of the state's 100 counties and the Cherokee Reservation.

In 1996, Cooperative Extension initiated its long-range plan, *Foundations For The Future*, which consists of twenty Cooperative Extension Major Programs. Within the construct of Extension's mission, these programs address priority needs of the state's citizens. These educational programs were planned and implemented in collaboration with thousands of the state's citizens, and they reach all areas of the state and a vast proportion of the state's population. They are supported through the cooperation of county, state and federal governments, and a wide variety of organizations, groups, and individuals.

Included in this report are program accomplishments achieved during the first six months of 1998. The programs were evaluated to assess the resulting contributions to a profitable and sustainable agriculture; a protected and enhanced environment; stable communities; responsible youth; and strengthened families. They reflect the vast array of impacts that Extension programs are having on the state's citizens.

Jon F. Ort
Associate Dean and Director

Dalton H. McAfee
Associate Dean and Associate Administrator

CEMP # 1 - AGING WITH GUSTO

Brief Program Description. The issues of aging cover a broad spectrum of topics and concern diverse audiences. The aging process is a continuum, beginning at birth and ending with death. It is a relative process, different for each person. Some people feel old at 50; others age with gusto and feel 90 years young. Extension aging programs are designed to help people age with gusto by teaching them how to achieve optimum financial, physical, and mental well-being in their later years. Older adults learn how to prepare for and cope with problems related to finances, legal issues, health, caregiving, housing, and self-care.

Overall Narrative

Narrative for Objective 1: Older and mid-life adults received information through meetings, tours, educational publications, consultation, teletip, and/or videos on the following topics: consumer, telephone and credit card fraud, Medicare changes, Medicare eligibility, Medicare benefits, Medicare myths, Medicare managed care plans, supplemental policies, home safety (from crime, bathroom, kitchen, drug, and electrical safety), health insurance, advance medical directives, estate planning, estate planning for families with minor children, retirement planning, housing, healthy living, planning for possible future dependency, guardianship, durable powers of attorney, health care powers of attorney, living will, long-term care issues, physical and mental health, medical and financial information needed in cases of emergency, elder care plans, maintaining independence, health insurance for self-employed small business owners, financial management, Roth IRAs, investment options, accessible housing, warning signs of cancer, physical fitness and exercise, and nutrition.

Narrative for Objective 2: Older and mid-life adults received information through meetings, tours, educational publications, consultation, teletip, and/or videos on the following topics: nutritional needs of the elderly, how to change eating habits, exercise, information on strokes, reducing fat, health and disease prevention, diet and exercise, diet and disease prevention, lifestyle changes, health and wellness, how to reduce health care costs by better health and nutrition, positive outlooks on life, exercise in building self-esteem, how to prepare nutritional meals, growing intellectually as you age, nutrition, health and women over age 55, blood pressure, cholesterol, weight, resistance exercise, food safety, sodium, shopping and cooking for 1-2 people, choosing nutritious and tasty meals, decreasing fat intake when eating out, choosing foods low in fat and sodium, increasing vegetable and fruit consumption, using herbs to reduce fat and sodium, diabetes, increasing calcium intake, cooking class for low income seniors, and nutritional needs of cardiac patients.

Narrative for Objective 3: Older and mid-life adults received information through meetings, tours, educational publications, consultation, teletip, and/or videos on the following topics: community resources available to caregivers, elder care directories, caregivers support group, mental and physical stresses of caregiving, coping with caregiving, legal aspects of caregiving, health and well being of the caregiver, stress

reducing techniques, and Social Security benefits and financial benefits available to caregivers and care receivers.

Narrative for Objective 4: Older and mid-life adults received information through meetings, tours, educational publications, consultation, teletip, and/or videos on the following topics: accessible housing, maintaining independence, residence options for older adults, how to retrofit a home, community resources to help make the home more accessible, and affordable housing.

Narrative for Objective 5: Older and mid-life adults received information through meetings, tours, educational publications, consultation, teletip, and/or videos on the following topics: adopting better health practices, how to save health care costs, sharing the information learned, care management systems, long term care systems as part of the centralized care management system, fabulous and fit after 50 program, starting the day with a healthy breakfast, a fitness checklist, boosting body image, the importance of sleep, vitamins, supplements, herbs, sunshine, eating fruits and vegetables, coping with mood blues, and exercise, universal life span housing, vision and depth perception in the home, home safety, safe food handling, super foods for senior years, skin care, medication management, storing medications, discussing medications with your physician, heart disease, exercise programs for people over age 65, bone health and how to improve bone health, and food preservation practices.

Significant Accomplishment Numbers

Objective 1: 3232 people increased awareness and knowledge of financial management techniques and consumer issues. 931 people adopted financial management and consumer practices. 968 people increased awareness and knowledge of estate planning. 391 people adopted estate planning practices. 1332 people increased awareness and knowledge of retirement planning and savings. 590 people adopted retirement and savings practices. 890 people improved their financial status through adoption of consumer and financial management practices. People reported that they increased their savings and/or retirement contributions for future financial stability by \$167,220. 273 people developed and implemented an estate plan. 289 people developed and implemented a plan for possible future incompetency and dependency.

Objective 2: 1203 people adopted practices such as decreased fat intake, decreased sodium intake, or increased fruit and vegetable intake. 1987 people increased awareness and knowledge of healthy "behaviors" such as lowering the fat or increasing the fiber in their diets. 1367 people adopted behaviors to meet the Food Guide Pyramid guidelines. 977 people adopted practices which lead to healthy physiological changes, such as decreases in blood cholesterol, blood pressure, blood sugar, and/or excess weight. People reported avoiding \$435,369 of costs through reduced risk of chronic disease. People reported avoiding \$21,220 of costs through improved health status via fewer visits to physicians. 10823 people improved their health status through adoption of health practices.

Objective 3: 231 people adopted stress management and other self-care practices, including use of formal and respite services. 568 people increased awareness and

knowledge of community resources. 487 people increased awareness and knowledge of caregiving skills. 99 people adopted caregiving practices that improve the care of the impaired elder or other care receiver. 183 people increased awareness and knowledge about the need for coordinating legal, financial, and health care decision making. 171 caregivers reported improved quality of life and decreased stress. 66 people reported improved care for impaired elders and other care receivers. 76 people increased utilization of community resources by participants caring for older adults. 406 instances of improved interagency cooperation on aging and health promotion issues.

Objective 4: 914 people increased awareness and knowledge of housing options, financial options, and accessibility options that lead to affordable or accessible housing. 367 people adopted housing technologies that make housing accessible, such as design features, furnishings, and products. 8 collaborations and linkages with housing related agencies and individuals that foster affordable and accessible housing. 108 more people live in affordable housing. 227 people improved or increased their accessibility to housing.

Objective 5: 936 people increased awareness and knowledge of practices that promote health such as use of medicines. 904 people adopted practices that lead to improved health status. 452 people increased awareness and knowledge of practices that promote food safety. 392 people adopted practices that promote proper food storage and safety. People reported avoiding \$2,211 of costs through adoption of practices that lead to safe use of medicines. People reported avoiding \$11,050 of costs through adoption of practices that lead to proper food storage and safety.

Volunteers: 537 Volunteers donated 6,170 hours valued at \$61,700.

Number of Units Reporting

Objective 1. Financial. 24 Units Reporting Accomplishments

Objective 2. Health. 13 Units Reporting Accomplishments

Objective 3. Caregiving. 9 Units Reporting Accomplishments

Objective 4. Housing. 3 Units Reporting Accomplishments

Objective 5. Low Income. 9 Units Reporting Accomplishments

Success Story: Local System: buncombe

Person Reporting: Lynda Spivey

Changing the attitudes of senior citizens is sometimes a challenge, especially when they believe that it is too late to change eating habits because of their age. A special program was organized in a community to focus on the large number of widows and widowers that found it was too much trouble to cook for themselves. A meal was provided and the group has been meeting for six months. Extension has provided educational programs and a visual display of fat tubes, five pounds of fat, an artery with plaque, how to prepare a balanced meal and educational brochures. In a recent follow up the group leader reported that eighty five percent had changed their eating habits and started preparing more meals, and doing meal planning. They also reported that they believed they could make some changes in their health regardless of their age.

Persons Completing Report: Carol A. Schwab and Lucille Bearon

CEMP #2 - AGRICULTURAL AND NATURAL RESOURCES POLICY

Public policy issues recognize the need for both policy and technical dimensions in educational programs. **CEMP #2 focusses on improving the efficiency and effectiveness of agriculture and natural resource policy through better informed stakeholders, decision-makers, and the general public. Informed individuals and groups increase their knowledge of the policy-making process and become involved in it.** They increase their knowledge of how laws, rules and regulations are developed. They gain greater understanding and awareness of agriculture and natural resource issues and develop problem solving and consensus building skills to deal with them.

Controversial issues addressed through public issues education principles and concepts under CEMP #2 include: water quality, water use, animal waste management, economic development, the future of farm programs, agricultural rules and regulations, land use, zoning, and solid waste.

Many of the **program accomplishments** under Agricultural and Natural Resources Policy involved various River Basin Management Plans and citizen participation in the process of developing them. Educational efforts helped citizens understand how these plans affect them and what can be done to improve water quality through use of Best Management Practices such as riparian buffers, nutrient management, and stream channel restoration. Local monitoring efforts also involved citizens in providing water quality data for background information in policy development. Involved citizens had increased knowledge of how they are affected by water quality issues and how their activities impact water quality. They increased their knowledge and understanding of regulations (Neuse River).

Animal waste programs in many counties trained waste managers of livestock operations on technical matters of record keeping and responsible application of waste as well as rules and regulations. Participants increased their knowledge of waste management issues and regulations. Public education on animal agriculture issues resulted in support of farmers by county commissioners, greater knowledge and understanding from the general public, and a recognition of the value of agriculture to a community and the need to protect it. At an environmental education program, students in one county simulated county commissioners making a decision on hog farm expansion. They became aware of issues involved and how policy-making processes work.

Land use planning and considering environmental assets involved several counties. A survey of significant natural plant areas was used in land use planning. A natural resource alliance worked to help citizens understand environmental issues to make informed recommendations to county commissioners. Zoning for intensive livestock operations was postponed in one county as more information was presented and county commissioners gained more knowledge about this issue. Cooperative Extension personnel expressed concerns about an NC Department of Transportation project's runoff into septic system drainfields and a nearby creek. DOT listened and revised their plans.

Other programming issues included policy education about general environmental concerns and changes in USDA agricultural support programs, especially for peanuts and tobacco, and their effect on farmers.

Most measures of progress and impact indicators under the three objectives of CEMP #2 showed increased numbers for the first half of 1998 over what was reported in all of 1997. These increases from reporting accomplishments under CEMP #2 objectives instead of similar objectives of other major programs, or from increased programs, reflect a greater awareness and activity in the policy area.

There were 784 individuals who demonstrated increased knowledge and awareness of environmental legislation and regulations affecting agriculture, a large increase over 121 individuals in 1997.

Almost 200 more individuals were involved in programs dealing with understanding the process by which laws, rules, and regulations are developed, in the first half of 1998 than in all of 1997. 129 actually participated in the policy-making process so far in 1998, while 186 were reported involved in all of 1997.

In using principles of conflict resolution, facilitation, and collaborative problem solving, large increases in involvement for 1998 over 1997 were reported. Almost 4 times as many individuals participated in programs on public issues education and conflict resolution, with 169 adopting principles and techniques as compared to 60 in 1997. There were 5 issues resolved vs. 3 in 1997.

Volunteer involvement was also substantial. For all three objectives, a total of 195 individuals volunteered 2543 hours, total.

Counties reporting: Objective 1 - 6
Objective 2 - 5
Objective 3 - 3

Success story:

The state's Neuse River Basin Nutrient Management Strategy has caused a great deal of confusion among municipal officials, developers, industrial dischargers, farmers, and homeowners. This first-of-its-kind regulatory program is very complicated and has spawned much misinformation. The Person County staff and other members of the NC Cooperative Extension Neuse Education Team have held numerous meetings to explain our educational role in the Neuse Basin, clarify the intent of the rules, and help people become involved in the public policy process. At least 18 meetings were held. Constructive discussions always followed our presentations. Attendees have indicated that the sessions have been very helpful in understanding what they can do to protect water quality and comply with potential regulations. Forest landowners, in particular, have been grateful for our efforts since they are most affected by the temporary rule protecting forested buffers.

Persons completing report:

Marjorie Rayburn, Leon Danielson, (CEMP#2 co-chairs)

CEMP # 03 - AGRICULTURE AND THE ENVIRONMENT

The Agriculture and the Environment CEMP 103 is focused on developing and implementing educational programs to improve the targeted clientele understanding of the complex relationships between agriculture and the environment. The goal is to empower the clientele with the knowledge and skills (BMPs) to maintain economically viable and environmentally sound animal, field crop, horticultural crops, turf, and agribusiness operations. The program is intended to protect or enhance air and water quality through the promotion and implementation of economically and environmentally sound practices to manage air and water resources, waste materials, soil, nutrients, pesticides and petroleum products. The program captures the benefits of the wholistic farm and watershed based programming and promotes the collaboration with NRCS, SWCD related agencies/organization and Agribusinesses working to protect and enhance natural resources. Over 263 programs, meetings and/or shows were conducted jointly promoting sound agricultural practices and over 700 reports and publications were developed by multiagency groups. Programming is targeted toward but not limited to the following clientele groups: Livestock, poultry and fish producers; field crop producers, nursery, greenhouse, turf and landscape professionals; Agribusiness professionals; Agricultural service agencies; special interest groups; and pesticide dealers, handlers and applicators.

Number of counties reporting per objective: Objective 1, 35; Objective 2, 30; Objective 3, 22; Objective 4, 12; Objective 5, 30; Objective 6, 20 and Objective 7, 61. During the first six months of 1998 at least 75 counties reported against one or more of the objectives. Over 2540 volunteers contributed more than 14,374 hours to support the programming with an estimated value of \$143,740.00. To equip clientele to implement best management practices (BMP's) to improve air and water quality, NCCES faculty trained and certified 2,872 land application operators in land application of animal wastes, resulting in 143,295 acres being soil tested, 120,171 acres tested for waste analysis and 9,393 acres using plant tissue analysis. Training resulted in 226,485 tons of waste being composted and 48,595 acres undergoing conservation practices. The number of tons or economic value of livestock organic by-products captured included 17,550,794 pounds of nitrogen and 13,703,268 pounds P_2O_5 , valued at \$5,944,917.00.

Field crop producers implemented soil and water protecting BMP's thereby reducing soil erosion losses by 137,695 tons and reduced commercial fertilizer application by 20,244 pounds of nitrogen per acre and 57,754 pounds of P_2O_5 per acre. Conservation tillage counted for 268,251 acres compared to 541,988 acres of no-till. Field crops producers saw a reduction of 189,908 pounds pesticides used.

Over 2,778 farms reported 186,053 acres used in establishing field borders, filter strips and permanent wildlife cover plus 440 miles of vegetative buffer or forested riparian areas.

CES trained 3,899 nursery and greenhouse growers, turf and landscape professionals, resulting in 40 registered landscape contractors, 59 certified plant professionals, 40 landscape technicians and 703 licensed pesticide applicators for ornamental and turf. By implementing soil and water BMP's 7,595 tons of waste

products were utilized, 8,289 acres were under a water management program (re-use, irrigative conversation and/or scheduling) and 47,562 acres under a nutrient management program.

Also, 257 individuals reported adapting water reuse and/or cycled irrigation; 480 adopted a nutrient management plan; 592 started using split and/or slow release fertilizers; 375 adopted the use of foliar and soil test analysis; and 874 began an IPM program.

CES through its Pesticide Certification and Licensing Program certified or recertified 8,833 individuals with 7,311 reporting adapting at least one BMP concerning pesticide use. Growers recycled 6,868 pesticide containers, saving \$110,493 in land field charges. Growers reduced pesticide use by 204,893 pounds and thereby reducing cost by \$4,287,003.00.

Sample Success Story:

Local System: Iredell

Person Reporting: Joseph W. Massey

Over 800 poultry producers have received training on Dry Poultry Litter Nutrient Management in Iredell County and the surrounding counties since last Fall. This was accomplished because of collaborative effort by Extension Agents, NRCS, FSA, and poultry companies. The training was attended by 97 percent of the producers in the area. The training not only increased the knowledge of the environmental laws and the need to comply with them, it also demonstrated the importance of soil and water tests as a tool to maximize the benefits of proper nutrient management. It also included Best Management Practices that can and should be incorporated to prevent producers from causing a water quality problem. This training will be beneficial to the producers not only by preventing fines incurred by Water Quality problems but also by decreasing their need for commercial fertilizer thereby decreasing their operating costs.

Report submitted by: Allen E. Caldwell and Robert Evans, Co-Chairs CEMP #3

CEMP #4 - ANIMAL PRODUCTION AND MARKETING SYSTEMS

Objective 1: Producers of livestock, poultry, and aquatic species will select, adopt and successfully implement practices or enterprises that will achieve business, individual, and family goals related to profitability and quality of life.

54 Counties Reporting

Volunteers Involved: 1395 Hours: 15807 Dollar Value at \$ 10/hr: \$ 158070

Program Cost/Benefit Analysis: \$ Value to Targeted Audience: \$ 3979610

\$ Value to Society: \$ 832786 Estimated Program Cost \$: \$ 366790

Narrative: Objective 1

Extension agents reported that over 14,300 producers of livestock, poultry, and aquaculture products increased knowledge of improved management practices. Of these over 5,300 adopted practices to optimize income and 1,530 improved financial planning and management procedures. Collectively, improved nutrition, breeding, marketing, building and facilities, and general management practices adopted by these producers were estimated to be worth nearly 8.5 million dollars in the first half of 1998. Extension workers in the animal commodity areas also have made significant contributions to youth program efforts.

Aquaculture: Aquaculture continues to expand state wide and currently provides an estimated \$17 million dollars in on-farm income to approximately 200 farms in North Carolina. The Cooperative Extension Service provides daily assistance to this growing industry from the trout farmers in the west to catfish and striped bass farmers in the east. Each extension professional is also involved in development projects with industry partners. Some examples include: 1). a project to determine the feasibility of producing yellow perch in ponds in eastern North Carolina; 2). development of a large scale state-of-the-art catfish hatchery at Pantego Plantation Farms; 3.) development and construction of a large-scale tilapia hatchery and nursery in Franklin County. Cooperation with the College of Veterinary Medicine is underway to assist producers of hybrid striped bass in strategies to manage the yellow grub parasite on aquaculture farms.

Beef Cattle: The **North Carolina Certified Beef Production (NC CBP)** program was initiated in 1997 as a cooperative effort among Cooperative Extension and several partners including funding support from the NC Cattlemen's Beef Council and the NC Cattlemen's Foundation. To date, 63 extension agents, 61 producers and 14 veterinarians have been trained as certifiers for the program - exceeding the goal of 100 certifiers set for the program for the first five years! Agents then trained about 1,250 beef producers of which about 700 became certified beef producers almost at the 5-year goal of 750. Certified beef producers have qualified more than 3,000 calves as certified preconditioned animals. Major marketing opportunities will occur this fall including two special sales for certified calves and Farm Bureau's tele-auction of certified calves in truck load lots. Farmers from 13 counties received about \$58,000 premium (\$40 per calf) by selling 1,454 cattle through enhanced marketing strategies. Three large NC CBP displays were used in 15 two-hour educational programs for non-traditional extension audiences. Livestock auction markets sponsored and over 2,000 producers participated in those programs conducted by specialists and agents. Average evaluation rating for all sessions was 9.0 on a 10-point scale. Most (86 %) producers indicated they would improve some production practices; 26 % of the producers indicated earlier castration and dehorning to reduce stress to the animals and potentially increase net income by about \$225,000. In Iredell County alone, evaluations indicated that intended use of proper injection sites should increase value of cattle produced by about \$200,000. Another area of significant achievement has been the continued success of **Grazing Management Schools**. Two of these intensive training sessions have been conducted for **beef producers** in 1998 with 22 and 34 participants and a third school for 22 **goat producers**. All participants rate the

schools highly, encourage others to participate, and indicate that they plan to incorporate changes in their forage management systems.

Dairy Cattle: North Carolina hosted a **Large Dairy Herd Management Conference** in February that attracted over 100 participants from several states. Producers indicated that they would implement or improve: employee training; employee relations and motivation; written job descriptions; improved forage types and feed quality; cow/calf health management; risk management strategies; and use of PCDART software. Evaluation of the conference was 4.4 on a 5-point scale and 96 % of respondents indicated that they would participate in similar programs in the future. This conference idea was developed at an annual Tri-State dairy retreat among extension workers in VA, NC, and SC. Cooperative Extension has cooperated with various dairy interest groups in conducting various conferences, and about impacts of a Southern Dairy Compact on milk marketing and dairy farm competitiveness in the region. Extension workers assist dairy producers through on-farm consultations on a variety of management topics and issues. Collectively, extension agents report benefits to dairy producers for improved nutrition, milking management, breeding, equipment and facilities of over \$1 million in 1998. Dairy production systems based on intensive use of pasture are being examined at a new dairy facility at the Center for Environmental Farming Systems in Goldsboro.

Horses: The extension horse **short course and clinic series** attracted participants from throughout the US and several foreign countries. Nine courses and three clinics provided horse owners with detailed information on nutrition; forage management; health care; foal, broodmare, and stallion management; breeding; judging and selection; facility design; fencing; training; behavior and exercise physiology. Participants included 2,952 horse owners from 19 states whose surveyed responses valued the short courses at an estimated \$896,745. Horse management information was provided in five, two-hour **interactive television** broadcasts to 11 sites to over 700 participants saving 289 hours of professional time and over \$6,800 in travel compared to county meetings. The **Regional Equine Information Network System (REINS)** is in its third year and 19 new volunteers were trained bringing the volunteer total to 131. Three coordinator's courses were conducted in cooperation with agribusiness for 47 regional leaders. Content of courses focused on health care, ration balancing, and emergency management and disaster relief. REINS volunteers, working with 16 coordinating extension agents in 14 regions have provided 2,700 hours of volunteer service valued at \$40,500 and over 5,600 horse owners have received direct assistance through REINS.

Poultry: Poultry Science Extension faculty cooperating across departments and with industry, developed an educational and biosecurity monitoring program to combat **Poult Enteritis Mortality Syndrome (PEMS)**, a serious undefined turkey disease threatening the industry. Significant reductions in PEMS and other diseases were achieved by producers using the program. Moreover, one producer reduced medication costs by 0.6 cents per pound which translates into an annual savings of \$2.1 million dollars. Successful field trials by NCSU with feeding a **probiotic** have

resulted in over 200 **quail producers** feeding naturally occurring bacteria to day-old Bobwhite quail with a reduction in mortality of 10% resulting in annual savings for producers of approximately \$300,000. The **nutritional quality of NC grown wheat** intended for poultry diets was significantly improved through enzymatic modification of the non-starch polysaccharides in wheat. Birds fed the modified diet performed as well as birds fed corn or Canadian wheat-based rations. An economical and environmentally friendly method of grinding and **preserving poultry and swine farm mortality by lactic acid fermentation** or direct acidification with phosphoric acid was developed by NCSU Extension and Research faculty. It is estimated that greater than 10,000 tons of acid-preserved mortality will be processed by renderers into valued-added products. This should save poultry and swine companies in excess of \$2 million annually in transport and handling costs. An evaluation of mortality incinerators versus composting practices was published as an aid to poultry growers in selecting economical and environmentally sound mortality disposal systems.

Swine: The new **Nutrient Requirements of Swine** as prepared by the NRC were presented in a highly successful, two-day conference that combined lecture with hands-on learning with computer modeling. The producer participants in this program were collectively responsible for the nutrition programs for over 700,000 breeding swine and their offspring. Additional producer education on methods to reduce nutrient excretion by changes in the nutritional program has also been developed. **Pork quality and safety** have been identified as important areas by NCSU and the pork industry. Applied research was designed to investigate practices that will improve color and enhance processing characteristics of pork while reducing the prevalence of Salmonella and minimize lacerations of the intestinal tract during processing. Producers of over 50% of finishing swine in NC have adopted feeding practices that will improve fat quality. The **3rd International Conference on Salmonella and Pork** has also been organized. Four successful farm visits have been conducted by **Swine Management and Review Teams**. The S.M.a.R.T. teams are comprised of county and state faculty that provide broad expertise to solve specific production and management problems. Outcomes have been strategies for improvement in swine financing and the development of a plan for an independent producer to move gestation from dirt lots to confinement and a new production schedule that will allow more pigs to be marketed without increasing building needs or breeding herd numbers. Implementing recommended strategies on one farm in Pitt County is expected to increase annual productivity by about \$150,000. **State and Area Swine Conferences** continue to be important educational programs to reach producers and farm employees. Methods of euthanasia have been developed and demonstrated that are safer and minimize animal suffering. The second edition of the highly popular **Swine AI Book** has been published. An estimated 45% of swine production currently utilizes AI.

OBJECTIVE 2: North Carolina citizens (farm and non-farm) will address controversial issues(of mutual concern) that relate to animal agriculture, including human nutrition, nuisance identification, food quality assurance, quality of life, economic impacts, and the appropriate treatment of farm animals.

28 Counties Reporting

Volunteers Involved: Number: 362 Hours: 1963 Dollar Value at \$10/hr:
\$ 19630

Program Cost/Benefit Analysis: \$ Value to Targeted Audience: \$ 333200
\$ Value to Society: \$ 131935 Estimated Program Cost: \$ 35875

Narrative: Objective 2

Over 5,000 farmers and 92,000 non-farm clientele were provided information about animal agriculture issues and animal food quality standards through a variety of media and youth programs. Nearly 1,000 farms adopted appropriate standards, and procedures to address industry issues. A **Farm Animal Awareness Workbook** was developed in Lenoir County and distributed to nearly 1000 school children and the internet version has been accessed over 900 times. About 3,000 visitors to Hillsborough Hog Day went through Extension's **petting pasture** and learned positive aspects of agriculture in Orange County; About 20 % of 14,000 visitors to Ice Cream Days at the Triad Farmers Market visited the Extension display - "**Ruminant Recyclers**" that illustrated the variety of products a cow can eat in producing milk for various dairy products. "**Ruminant Recyclers**" and a "**Day at the Dairy**" along with many live animal exhibits were set up for over 6,000 visitors to NCSU's **Farm Animal Days** in Wake County. **Farm tour visits** to animal farms were provided for non-farm youth and adults in Forsyth County and to leadership groups sponsored by the Chambers of Commerce in Randolph and Onslow Counties; Extension agents in Buncombe County worked with other organizations to provide factual information to clarify errors in a local newspaper article about use of **bovine somatotropin (BST)** and the unrelated bovine disease (**BSE**); Jackson and Swain Counties worked with consumers to teach about animal and meat handling factors that affect meat quality. A **Farm Safety Day Camp** was held by Yadkin and Davie Counties involving 75 volunteers, 125 children and 75 of their parents. Organization of a **Livestock Producers Association** in Buncombe County and a **Pork Producers Association** in Columbus County will help provide public information on producer issues as well as support for producers. A pilot program committee including swine producers, public officials, and environmental group representatives was formed to address the issues of the swine industry in Columbus County. **Rabies** information was provided through offices of local veterinarians in Rockingham County; Concerns about **animal cruelty** issues in Currituck County have led to use of an objective body condition scoring system for horses.

Success Story:

Person Reporting: Donna Carver

County and area poultry Extension agents, and poultry Extension specialists from several NCSU CALS Departments worked with other researchers, integrator personnel and turkey growers to reduce production losses caused by disease exposure. Monitoring and educational programs were developed in order to combat Poultry Enteritis and Mortality Syndrome (PEMS) which resulted in growers implementing disease prevention and control measures. Educational efforts focused on "why" biosecurity is important in disease prevention. Monitoring efforts centered on the

presence and control of human traffic and pests in and around the poultry facilities. This initiative, along with other changes in production schemes, is credited with reductions in cases of PEMS and other diseases. Four turkey companies were involved and all reported improvements in disease control and bird performance. One company reported medication cost savings of 0.6 cents per pound. With production of over 350 million lbs., that's an annual savings of over \$2.1 million.

Report Completed by: Steve Washburn, co-chair, CEMP 04

CEMP # 5 - CHILD CARE MAJOR PROGRAM

The focus of the child care CEMP is to positively impact the quality, accessibility and availability of child care in North Carolina. The two objectives are (1) to improve the quality of child care and (2) to increase the accessibility of care. The most significant progress of the committee to date has been the work on identifying evaluation instruments that will measure the impact of agents programming in child care. We conducted a needs assessment of the 40 CEMP counties to determine their evaluation instrument needs and compiled the results of the survey. We are now researching assessment tools that are available and looking at reliability, validity, applicability and cost. When this stage is completed we will include sample assessment tools in a notebook that we are developing for CEMP 5 agents. We have a meeting planned for September at which we will examine the objectives and measures of progress and make recommendations for any changes deemed necessary. Training for CEMP 5 has been proposed for annual conference. This training will highlight the significant changes in child care legislation, specifically training requirements, that have taken place in this session of the legislature. In this way we will prepare agents for new rules that will impact their work. We will also discuss with agents, changes that might be needed in the objectives and measures of progress. For goal 1 the most significant accomplishment continues to be the number of child care providers trained by Cooperative Extension (121) followed by the increased number of child care sites licensed (7). Both of these are indicators of our work toward improving the quality of child care in North Carolina. Few organizations are capable of impacting quality at the same level. These numbers will most likely increase as we enter the fall training schedule that contains many conferences. Large numbers of providers will be trained through the conference format. Accomplishments indicated in goal 2 are even more significant. Numbers of volunteers (501) and their hours (5385) indicate that Cooperative Extension is having a positive impact by drawing volunteers into a field that is desperate for additional adult help. In addition the number of new slots created as a result of the work of agents (736) indicates that in the first six months we have already made an impact on this vital need in North Carolina.

Units reporting:

Objective 1 - 44

Objective 2 - 29

Success story

Because of the middle-school after school program in Ashe county, there has been an improvement in school grades, standardized test scores, and attendance by those youth attending the program. Given the need for the Department of Public Instruction to improve student performance, this is a significant achievement for the students personally and for collaboration with that agency.

CEMP # 6 - COMMUNITY AND ECONOMIC DEVELOPMENT

The focus of the program is to involve local groups in the community development process and to give local groups and leaders information and education that will help them improve the economic status of communities.

Overall Narrative: Significant accomplishments were reported for CEMP 6 during the first six months of 1998. The educational efforts reached large numbers of citizens. Over 1300 citizens reported gaining awareness and knowledge of the subject matter of the program. Also, over 1700 special audience citizens reported new involvement in the local community development process. Benefit/cost ratios were reported at 3.5 to 1 for targeted audiences and 25 to 1 for society. Over 700 volunteers, at a value of \$78,000, were also involved in the program.

Accomplishment Numbers:

Participants gaining awareness and knowledge: 1306
Conference attendees rating information as useful: 270
Additional special audience persons participating in the community development process: 1743
Application of fact sheets: 156
Application of computer models: 77
New community development projects formed: 33 projects

Value of programs to targeted audiences: \$134,400
Value of programs to society: \$954,700
Program costs: \$38,370

Volunteers Involved: 710

Dollar value of volunteers: \$78,840

Number of units reporting:

Objective 1:	11 counties
Objective 2:	7 counties
Objective 3:	5 counties
Objective 4:	6 counties

Success story: Residents of Jackson County indicated that communications about available services, programs, and information were significant needs. In response, the Cooperative Extension Service led an effort to raise over \$15,000 to purchase, establish, and maintain a computerized telephone information system. Jackson

CountyLINE is provided to all agencies and organizations in the county to record their public information. For example, teachers can record homework and other information, and the service can be used to announce closings due to snow. The system has received 56,000 calls during the first 18 months of operation. The system has additional potential when a new CountyLINE directory is published and distributed in the summer of 1998.

Report prepared by: Dr. Michael L. Walden

CEMP # 7 - CROP PRODUCTION AND MARKETING SYSTEMS

The focus of the Crop Production and Marketing Systems CEMP is to develop and deliver programs that improve the profits of North Carolina's agricultural industry, maintain environmentally safe farms and communities, and educate non-farm citizens about farming, food safety, and the importance of agriculture to our economy.

A total of 63 counties reported accomplishments under one or more of the seven objectives; 26 counties reported progress under objective 1, 23 for objective 2, 50 for objective 3, 30 for objective 4, 15 for objective 5, 17 for objective 6, and 16 for objective 7.

During the first six months of 1998, NCCES campus and county faculty offered unbiased, research-based information to North Carolina's full-time farmers, limited resource part-time farmers, non-farm public, and local, regional, and state decision makers. Educational programs on corn, cotton, peanuts, small grains, soybeans and tobacco helped growers make informed decisions about new varieties, nutrient management, waste application, IPM, no-till production, BMPs, use of irrigation, labor management, and many other farm practices. Programs were presented to North Carolina's vegetable, fruit, Christmas tree, greenhouse, and nursery industries enhancing producer knowledge about variety selection, IPM, specialty crops, marketing strategies, and environmental issues. On-farm tests and demonstrations were established in many areas to help evaluate new products and innovative production practices. These sites are particularly valuable as growers must comply with new environmental restrictions and changing government policies mean more strict farm management. Having the test sites localized provides endless teaching opportunities for agents, farmers, and agribusiness.

Weed management through the use of herbicide tolerant varieties of soybean, cotton, and corn were discussed at county meetings across the state. It is estimated that over 700,000 acres of Roundup Ready[®] soybeans were planted in North Carolina in 1998. County and campus faculty provided demonstrations and educational programs to help grower evaluate the fit of these crops in their farming system.

Information about disease management through the use of resistant varieties, disease forecasting, scouting, and pesticide selection were presented across the state to help

producers reduce production costs, reduce the use of pesticides and increase profits. IPM practices were demonstrated in many counties. Tobacco transplant insect management, tobacco blue mold management through timely fungicide application, the use of resistant varieties, disease forecasting for peanuts to reduce unnecessary sprays, scouting for insects in cotton and small grains are just a few examples of programs presented by agents and specialists. IPM programs were also presented for forestry, forage, ornamental, fruit, and vegetable crops. One county reported 4 nursery growers improved profits by \$11,000 by monitoring pests, altering herbicides, and installing drip irrigation. NCCES IPM programs reached over 4,300 individuals. An estimated 2,460 growers implemented IPM practices affecting over 207,000 acres. Across the state, adoption of IPM practices have the potential for saving growers almost \$3 million and represents a reduction over 277,000 pounds of active pesticide ingredients.

Tobacco is a major contributor to North Carolina's economy and producer are facing an uncertain future. NCCES county and campus faculty provided information on the proposed settlement, current status of government programs, and worked with producers to reduce production costs and implement alternative enterprises.

Educational programs also helped growers as they evaluated local, national, and global markets and their influence on prices. Growers were taught about different market options, contracts, futures and how to take advantage of markets to increase profits.

Success Story:

Person Reporting: Everett Davis

In an effort to assist local tobacco farmers evaluate possibilities for alternative crop production and alternative uses of farm lands, an intensive 7 day tour to south Florida was conducted. Thirty two tobacco producers participated. Visits were scheduled with 4 Florida tobacco producers that had diversified into other enterprises; numerous vegetable production, processing and marketing facilities; several farms that were managing large timberlands or rangelands with minimum inputs; and several sites that were dealing with environmental issues such as water quality, endangered species, and demands on farmlands from urban sprawl. Surveys indicated that 100% of participants gained valuable knowledge about alternatives. After 6 months, 8 participants reported attempts to diversify their operations.

CEMP #8 - FAMILY & CONSUMER ECONOMICS

Synopsis of CEMP program focus:

CEMP #8 - Family & Consumer Economics promotes informed personal finance and other consumer decision making by individuals and families, emphasizing education to reduce/prevent widespread problems reflected in all-time high credit card debt and filing for bankruptcy. FCE Agents in North Carolina receive materials and training re

major national focus on: Jump\$tart Coalition - 10-year commitment to K-12 personal finance education; need for and value of PFEE - Personal Finance Employee Education; and SAVER - Savings Are Vital for Everyone's Retirement. FCE Agents make informed referrals of clientele w/ serious financial problems to counseling and intervention services. Statewide and local partnerships are used effectively to enhance the delivery of high priority consumer decision-making programs on health/elder care (Dept. of Insurance, Div. of Aging, AARP), consumer fraud (Dept. of Justice), and three new programs for working poor families: EBT-food stamp debit card (DSS), EFT99-direct deposit for federal payment beneficiaries (U.S.Treasury), and IDA-individual development accounts (Depts. of Commerce and Labor, Corporation for Enterprise Development, and Self-Help community development bank)-- in addition to the EITC- earned income tax credit program (IRS). To help people extend and increase income, FCE Agents provide resource management training for families and family businesses, and organize experienced volunteers to deliver skill training to youth and adults.

Overall Narrative of Program Accomplishments (January-June 1998)

8.1 - Agents are providing extensive support for WorkFirst and other working poor families with lessons on basic budgeting and credit control, including programs for housing authority residents and both pre- and post homebuying education for Habitat families.

8.2 - Additional agents introduced organized Women's Financial Information Program, and more agents provided employee education, especially on the need for earlier retirement planning. Agents in Onslow and Craven continue to support the pilot test for the U.S.Marine Corps of Command Financial Specialist training to reduce personal finance problems that interfere with military readiness.

8.3 - Agents reported more training on home maintenance and repairs (including housing-related fraud), and more agents offered multi-session courses on homebuying and post-homebuying workshops.

8.4 - Most consumer decision-making programs were on fraud prevention (telephone fraud, credit fraud, and health fraud) and Medicare/other senior health insurance issues.

8.5 - Skilled volunteers donated training on marketable skills in 11 counties, with significant extended income and cash earnings.

Significant Accomplishment Numbers

8.1-mp-1 2145 increased awareness and knowledge about money management and the decision making process

8.1-mp-5 \$77160 of debt reduced

8.1-ii-3 \$11953 dollars saved or reallocated to meet family needs

8.2-mp-3 1839 increased knowledge of best management practices (increased savings and investments, reduced consumer debt, more money designated for retirement management)

8.2-ii-1 998 demonstrated success in obtaining, protecting and using financial resources

- 8.3-mp-2 790 increased A&K about housing financial decisions
- 8.3-mp-4 994 increased A&K about housing maintenance &/or repair
- 8.3-mp-5 1058 increased A&K on selection of affordable home furnishings and home improvements
- 8.3-ii-1 116 demonstrated success in finding, securing and maintaining housing
- 8.3-ii-3 1006 demonstrated success in budgeting for repair, maintenance and/or remodeling costs
- 8.4-ii-1 2584 demonstrated increased skill and satisfaction with consumer decisions
- 8.4-ii-2 \$72500 costs avoided through selection and care of consumer goods
- 8.4-ii-3 \$85076 financial status of individuals & families improved
- 8.5-mp-3 832 adopted practices to extend or increase income
- 8.5-ii-1 \$19786 dollars saved through practices to extend income
- 8.5-ii-3 \$33188 increased income through self-employment

Volunteers Involved	Number	Hours	\$ Value
8.1	75	457	4570
8.2	172	1739	17390
8.3	59	204	2040
8.4	257	2073	20730
8.5	127	1822	18220

CEMP #8 TOTALS 690 6295 \$ 62950

Number of units reporting per objective (51 counties - 97 reports)

8.1 - 23 8.2 - 21 8.3 - 12 8.4 - 30 8.5 - 11

Success Story - a combination of basic money management for LRA (8.1), affordable housing (8.3), and consumer decision making (8.4)

In recent years, individuals receiving public assistance have been forced to restructure their spending practices due to welfare reform and cuts in government funding in general. To address this problem, a program was implemented in Guilford County with the objective of teaching basic money management principles, entitled "Money Talks." The four-week series was conducted for twenty individuals who reside in two government-subsidized housing communities in collaboration with Westminster Properties. As a result of the program, all 20 individuals reported that they developed and were using a personal budget, and all 20 individuals set personal financial goals. The participants reported a combined savings of approximately \$1000 from utilizing information received from the program. The resident services manager for both communities said the program was "super," and indicated that she felt the program had greatly benefited both communities.

Person completing report: Janice Holm Lloyd, Co-Chair

CEMP # 09 -FAMILY AND PARENT EDUCATION

Synopsis of CEMP program focus:

The Family & Parent Education State Major Program helps parents and families acquire and develop the skills needed to foster qualities of responsibility, cooperation, courage and self-esteem. Appropriate actions are being taken to provide quality information on how to strengthen family relationships through improved parenting skills, financial management, problem-solving skills, empowerment, conflict resolution, effective communication, and stress management. In addition, Extension personnel are equipped to make appropriate referrals for family services, support services, and self-help support groups.

Overall Narrative describing program accomplishments for the first six months of 1998 only:

The cumulative efforts of participating counties resulting in the impacts mentioned below involved educational programming and collaboration which increased the awareness and knowledge of 27,860 learners as pertaining to: 1) the developmental stages, basic needs, and appropriate behavior of children; 2) appropriate discipline practices; 3) techniques to control stress, time, and energy; 4) strategies to resolve family financial conflicts; 5) critical nurturing practices; 6) skills in critical thinking, communicating, leadership, and managing stress; and 7) community service agencies available to assist families. Of these learners, 10,954, or approximately 39 percent, reported actually adopting skills, practices, or behaviors in these areas as a result of the programs they attended.

Any Accomplishment Numbers deemed significant:

Impacts reported by CEMP 09 participating counties:

- Improved quality of family life — 3,903
- Improved responsibility of parents and children — 1,829
- Increased family stability — 1,878
- Improved self-esteem of family members — 1,031
- Improved interpersonal skills — 458

Cumulative cost analysis of CEMP 09 Programs:

- Dollar Value to Targeted Audiences: \$201,800.
- Dollar Value to Society: \$776,415.
- Estimated Program Costs: \$160,733.

Volunteers involved:

- | | | |
|---------|---------------------------|-----------|
| To Date | Number: | 616 |
| | Hours: | 2,455 |
| | Dollar Value at \$ 10/hr: | \$24,550. |

Number of units reporting per objective:

- Objective 1: 38 Counties reporting
- Objective 2: 11 Counties reporting
- Objective 3: 8 Counties reporting
- Objective 4: 9 Counties reporting

Success Story:

In *Union County* Parenting Education classes are a need that several agencies have networked to offer. Educational classes, transportation, children's snacks, parental incentives, child care, and educational instruction were provided to 13 parents who were referred by the courts system, DSS, and health department workers. If this preventive education were to prevent or eliminate foster care for 26 children (number involved), that would be a savings of \$375 per month per child. For the 10 families involved to be removed from the DSS roles, that would be a savings of \$150 per month per family. The economical impact of this supposition would total \$13,000 over a five week period. 100 percent of the parents answered "yes" to: "This class has taught me to be a better parent by teaching me to take care of myself, and to understand, teach and protect my child(ren)."

Person(s) completing report: Wayne Matthews, Co-chair CEMP 09
Georgia Kight, Co-chair CEMP 09

CEMP #10 - FOOD and FOREST PRODUCTS MANUFACTURING

Synopsis of Food Science CEMP Program Focus:

Food Manufacturing programs have centered on Objective 1, we are working to make the North Carolina food industry more profitable by assisting them in adopting new management and technology strategies.

With the concerns raised about food borne illness over the last several years, much emphasis has been placed on adoption of HACCP methodologies to identify hazards in the process and to establish and monitor critical control points to prevent these hazards from occurring. This year, a number of plants have faced mandatory implementation of HACCP regulation from USDA and FDA. Both seafood plants and large meat and poultry plants were required to have qualified HACCP plans in place. Medium and small meat and poultry plants will be required to implement mandatory HACCP regulations over the next two years. FDA has proposed to require HACCP for juice operations and the Interstate Milk Shippers is considering voluntary HACCP as an alternative to the current inspection-based system for milk regulation. Other foods will doubtless fall under mandatory HACCP systems in the near future.

Food Science extension specialists work with food companies to assist in compliance with mandatory HACCP. In those situations where operating under a HACCP plan is not mandatory, specialists are advising establishment of voluntary HACCP plans in food operations as the best available practice.

Overall Narrative:

In all cases where HACCP is implemented, training is a prerequisite. Food Science extension specialists have been assisting the industry in many ways. Dr. Donn Ward has chaired the curriculum committee for the Seafood HACCP Alliance to develop training materials for that industry. He and Dr. David Green have conducted numerous train-the-trainer workshops that have reached all NC seafood processors. Dr. Dwain Pilkington has been working to help meat processors to prepare for compliance. In addition he has served on a USDA task force to assist small processors in preparing for compliance for mandatory HACCP requirements. Dr. Patricia Curtis has worked with the U.S. Poultry and Egg Association to develop curriculum materials for poultry and egg processing industries. Dr. John Rushing has been serving on the HACCP implementation committee for IMS, which is the regulatory arm for fluid milk processing.

In addition to curriculum development for training individuals in HACCP, Food Science specialists have been providing guidance in development of Sanitation Standard Operating Procedures, evaluation and identification of hazards, and development of verification systems to evaluate HACCP plans. This will continue to occupy a large amount of time for the next few years.

SYNOPSIS OF WOOD & PAPER SCIENCE PROGRAM FOCUS

The North Carolina Cooperative Extension Service, Department of Wood and Paper Science works to increase the competitiveness and profitability of North Carolina's forest products industry, improve markets, and increase consumer understanding of forest products and their proper use. Wood Products Extension concentrates its efforts on providing educational opportunities for managers and key personnel of primary and secondary wood products firms and the consumers of wood products.

NARRATIVE SUMMARY

Faculty participated in 22 seminars, workshops, and other educational opportunities reaching 863 individuals. These activities have resulted in the following program accomplishments: \$1,070,000 saved through improved utilization or productivity; \$1,000,000 saved through improved yield, efficiency, productivity, and marketing; 60 firms adopting new manufacturing techniques; 90 consumers adopting practices related to selection, use, and maintenance of wood products; 345 individuals increasing their knowledge of the economic importance of the wood products industry; and 329 consumers increasing their understanding of forest products and their proper use. Helping producers and buyers in solving problems or answering their

questions associated with the production and use of wood products is also an important activity. Many of these problems and questions require extensive time in gathering the information needed by an agent, industry or final consumer. Faculty handled 101 requests of this type during the first half of 1998.

SUCCESS STORY

There is a great need to increase the competitiveness and profitability of North Carolina's forest products industry. Extension educational programs focused on educational and technical assistance to North Carolina forest products manufacturers resulted in one sawmill establishing monitoring procedures to identify yield losses. The results reported by this one sawmill indicated annual savings of \$950,000. While the entire wood products industry is served by Wood Products Extension, this one example is indicative of the many impacts occurring as a result of useful educational opportunities being provided in a timely and inclusive manner.

REPORT PREPARERS:

John Rushing, Food Science
Larry G. Jahn, Wood & Paper Science

CEMP # 11 - FOOD SAFETY AND QUALITY

Synopsis of CEMP program focus:

The food safety and quality CEMP focuses on increasing knowledge and encouraging the adoption of safe food handling practices of food service workers, consumers, youth and other diverse audiences.

Overall narrative describing program accomplishments for the first six months of 1998 only:

County offices throughout North Carolina provided a variety of food safety programs (safe food handling, hand washing, food preservation, food service, master food preserver, sanitation, youth cooking classes, etc.) to diverse audiences (children, high school students, adults, senior citizens, Work First clients, child care providers, garden and civic clubs, Extension Homemakers Clubs, Meals on Wheels volunteers, college students, limited resource families, etc.). A growing number of agents are cooperating with others (Department of Aging, Environmental Health, Universities, Community Colleges, etc.) to provide various programs. One examples of this type of cooperative programing is the SERVSAFE program.

Two train-the trainer workshops were held and 58 environmental health specialists, extension agents, and child nutrition consultants were certified to be SERV SAFE instructors. Nine county extension centers, in conjunction with their local health department, offered the program and certified over 150 food service workers.

The 1998 Food Science, Poultry Science, Food Safety and Food Quality (FSQ) Symposium. Program was held on the NCSU campus July 6 to 11. Twenty teen participants and one adult leader participated in the week long Symposium. The attendees participated in hands on workshops which included Seafood Safety, Microbiology of Muscle Foods, DNA Fingerprinting of Poultry, Egg Quality School, Food Colors that Change with pH, Sensory Evaluation and Rheology, Freezing Foods, and Career Exploration in Animal Food Production.

Extension faculty in the Department of Food Science are provided in-depth food safety training to a select group of twelve county agents. The agents enrolled in a three-week graduate level course (FS 591Y, Food Safety for Non-Food Science Majors) that taught the scientific principles on which food safety regulations and recommendations are based. In addition, the agents worked in teams to develop educational materials that enhance extension food safety education programs in the areas of child care, food preservation, food service, and consumer food handling. Agents will provide presentations on their projects during the November staff conference. Professional development opportunities were also provided, such as attending the annual meeting of the Institute of Food Technologist.

The Food Safety Website, developed by specialists in the Department of Food Science, was rank "Among The Best", by Tufts University, as an authoritative resource for finding accurate food safety information on the Internet. "Among The Best" ratings are only awarded to Websites that serve as outstanding resources and maintain a high level of integrity in reporting. The system was designed to be a gateway to all of the food safety information on the Internet. This recognition acknowledges the North Carolina Cooperative Extension Service as leader in the electronic food safety and nutrition information arena.

Any accomplishment numbers deemed significant:

8038 consumers increased their knowledge about safe food handling. 4816 consumers adopted one or more safe food handling practices. Adoption of these practices has the potential to reduce the incidence of foodborne illness.

1171 food service workers increased their knowledge about safe food handling. 1105 food service workers adopted one or more safe food handling practices. Adoption of these practices has the potential to reduce the incidence of foodborne illness.

Volunteers involved: 274

Number of units reporting per objective: 38

Success story:

Foodborne illness resulting from improper food handling is a major public health problem in Forsyth County, with over 1000 food service establishments. The Cooperative Extension Service had two 2-day certification trainings for 88 food

service managers with assistance from the Health Department, Appalachian State University and the Dept. of Aging. One food safety training was held for 21 child daycare workers. Participants increased their knowledge and improved attitudes about the need to handle food safely. Evaluations will be done in the future to determine how many have adopted safe practices. The Virginia Cooperative Extension Service estimates the cost of \$942 per case of foodborne illness per year. If each of the 109 participants changed behavior that reduced just one case of foodborne illness, it could mean \$102,678 saved.

Person(s) completing report: Patricia Curtis & Sandra Woodard

CEMP # 12 - HEALTH AND HUMAN SAFETY

Synopsis: Health and human safety are pressing public concerns at the individual, family and community levels. NCCES develops community-based programs to enable individuals and communities to address health and safety needs including 1) healthy lifestyles, 2) home safety and crime prevention, 3) agricultural health and safety, and 4) community capacity building.

Narrative: Through the implementation of Extension programs, program participants have increased their awareness and knowledge of topics related to health and human safety. These include proper diet, exercise, as well as improved safety in the home. More than 4,800 people were noted to have changed their lifestyles or adopted behavior which was safer.

On the farm, an increased awareness of chemical exposure was recorded with actual behavioral changes being documented. These changes could result in increased profits to the farm level. The adoption of practices such as changed diet, installed ventilation systems, and the use of personal protective equipment were among those lifestyles which were listed. Other changes were in costs avoided by participants.

Objective 1 - 11,989 participants increased their awareness and knowledge of preventative health behaviors such as eating properly, exercise, and safety in the home. 3,020 participants adopted recommended health care practices such as dietary intake. It has been estimated that more than \$1.7 million in costs have been avoided due to Extension efforts.

Objective 2 - 758 individuals adopted practices to remove safety hazards in the home and 513 adopted practices to increase home safety. 603 individuals adopted preventive measures including installing ventilation systems, radon, and carbon monoxide tests.

Objective 3 - 1147 participants were reported to have increased their awareness of agricultural (chemical) exposure and other agriculturally related health risks. 836 participants increased their awareness and use of personal protective equipment. It

was determined that \$104,500 was avoided in costs through reduced agricultural illnesses and injuries.

Objective 4 - 9 strategic partnerships/coalitions have been formed for improving health statuses. 7 new on-going systems were established to monitor health status and needs on the local level.

Volunteers Involved: In the 33 counties reporting impacts, it is estimated that 1100 volunteers contributed 8,461 hours to local programs impacting on health and human safety. The dollar value of these contributions is estimated at \$84,610.

Units Reporting:

Objective 1 (17)	Objective 3 (9)
Objective 2 (7)	Objective 4 (3)

Success Story

While the use of pesticides is necessary in crop and livestock management, some of these chemicals can harm humans. Thus, proper laundering of pesticide-soiled clothing is important to protect the applicator, person doing the laundry, and the entire family from pesticide residues. Many consumers are not aware first, of the need for proper care and second, the proper procedures. To address this void, Susan Noble, Family and Consumer Science Agent in Robeson County, worked with Charlie Lowery, Extension Horticulture Agent to present information on handling pesticide-soiled clothing to participants in pesticide license re/certification classes. Thus far in 1998, 117 participants have been made aware of the need to properly handle pesticide-soiled clothing. Of these, 40% indicated (via survey) they will share the specific how-to information with the person doing the family laundry. Two more classes are scheduled in the fall.

CEMP 12 CO-CHAIRS: Sarah Kirby
Mitch Smith

CEMP # 13 - LEADERSHIP AND VOLUNTEER DEVELOPMENT

CEMP13 Program Focus: The focus of CEMP#13 is to build the capacity of individuals, groups and organizations to resolve community issues. Volunteer Development is intended to develop individual and group potential for community service.

Overall Narrative: Limited resource and non-traditional leaders completed 333 community projects. 504 persons participated in the policy process at the community level as a result of leadership training experiences. An additional 1689 persons demonstrated newly acquired or improved facilitation knowledge and skills. 1821 volunteers participated in collaborative undertakings addressing 88 separate

community issues across the state. These volunteers contributed approximately 20,323 hours of their time, which when valued at \$10 per hour represents a contribution of \$203,230. In addition, an estimated \$54,100 was saved as a result of achieving the successful resolution of the 88 community issues.

Accomplishment Numbers:

Number of volunteer systems established:
Number of systems: 409

Number of persons who participated in community/public policy process as a result of leadership training experience
Number: 1914

Dollars saved as a result of achieving successful resolution of community issues
Dollars: \$197700

Number of project completed/problems resolved
Number: 312

Volunteers involved:
Objective 1: 2249
Objective 2: 7683
Objective 3: 1856

Number of units reporting:
Objective 1: 23
Objective 2: 43
Objective 3: 26

Success Story:

Ashe County: As a result of collaboration between Region D Council of Governments, County Government and the local volunteer coalition, a volunteer center with volunteer coordinator has been established to increase the number of volunteer, training opportunities and placements of volunteers in Ashe county organizations and agencies. In addition, community needs from volunteers have been entered into a computerized system, HELPLINE. A local volunteer summit involving over 100 people make it possible for county leaders to see the needs of agencies and volunteers and to develop a plan to meet the needs of both.

Persons completing report:
Claudette Smith, Co-Chair
Patricia Peele, Co-Chair
Simon Garber

CEMP # 14 - MARKETING AND PRODUCTION OF ALTERNATIVE INCOME OPPORTUNITIES AND ENTERPRISES

Synopsis of CEMP program focus:

The goal of the program is to assist commercial (objective #1), and small, part time and limited resource producers (objective #2), to select among and implement alternative opportunities so as to increase their income. Program efforts have been made in commercial horticultural production and marketing, specialty crops and niche markets, livestock, small scale agriculture, and natural resources. The CEMP team focused on business management issues in the past year along with developing connections with research (the Center for Specialty Crops and CEFS), non-government organizations such as RAFI-USA and CFSA (especially through the W.K. Kellogg PIA Project) and with county programs to develop market outlets and to provide resources for the development of enterprises which could be supplementary to tobacco (both flue cured and burley).

Narrative:

There is on-going collaboration with CFSA in offering organic schools in the mountains, piedmont and coastal plain. Producers are looking for new niches (organic Christmas trees), more efficient use of assets on hand (poinsettia production and ginseng production in tobacco transplant greenhouses). They are developing management plans (Columbus Co.), new marketing techniques (Robeson, Franklin, Onslow) and alternative enterprises (pumpkins, raspberries, horse boarding, Chinese melons), as well as improved production practices (strawberry irrigation for frost protection, drip irrigation, composting and small scale greenhouses). Lenoir, Watauga, Columbus/ Robeson, Onslow and Alleghany Counties can be singled out as having taken important steps in developing comprehensive CES programs to provide the educational support to the citizens of their counties exploring issues about alternative enterprises.

STATEWIDE MEASURES OF PROGRESS TOTALS

Objective #1

1. *Producers indicating interest in developing alternative enterprises
NUMBER 383
2. *Number of producers who try alternative enterprises, methods and practices
NUMBER: 187

Objective #2

1. *Number of producers interested
NUMBER: 220
2. *Number of producers who try alternative enterprises, methods and practices
NUMBER: 129

STATEWIDE IMPACTS TOTALS

Objective #1

1. *Dollars of new investment in production and marketing of alternative enterprises.

DOLLARS: \$1,071,108.

2. *Dollars of gross income resulting from new investment and marketing of alternative enterprises.

DOLLARS: \$1,321,875.

3. *Number of producers who gain knowledge about alternative production and marketing practices.

NUMBER: 934.

Objective #2

1. *Number of producers who gain knowledge about alternative production and market practices.

NUMBER: 189

2. *Funding support obtained

DOLLARS: \$18,400

3. *Dollars of gross income resulting from use of an integrated approach to implementing alternative agricultural opportunities and enterprises.

DOLLARS: \$266,500.

VOLUNTEERS

Objective 1:

49 volunteers provided 260 hours of volunteer assistance valued at \$2600.00.

Objective 2:

48 volunteers provided 425 hours of volunteer assistance valued at \$4250.00.

UNITS REPORTING ACCOMPLISHMENTS:

Objective #1: 16 counties

Objective #2: 10 counties

No accomplishments: 6 counties

6 counties.

SUCCESS STORY:

1. A farmer/ direct marketer in the Long Branch Community in Robeson County has been working closely with Cooperative Extension since he has been wanting to increase his income from his 8 acre small farm. During the past year, he attended the NCCES/ NC Vegetable ProducersU Assoc.-sponsored Veg Expo in December in Greensboro to learn more about intensive small scale production and marketing from researchers and successful producers and marketers. In addition, this past winter

and spring, by participating in his county's CEMP 14 educational program, he developed an overall farm and marketing plan. He has been able to develop his roadside stand and uses the honor system as customers serve themselves by selecting their own items and then putting their money in a locked and secured box in the stand area. He expects to gross approximately \$24,000 off his 8 acres this year and is looking forward to an even better year in 1999.

PERSONS PREPARING REPORT:

John M. O'Sullivan, Bill Jester (Co-chairs)

CEMP #15 - NATURAL RESOURCE CONSERVATION AND MANAGEMENT

PROGRAM FOCUS

The Natural Resource Conservation and Management program encompasses environmental and natural resource fundamentals and management of natural resources to benefit society. Educational programs span the range from understanding ecosystems, dealing with community decisions regarding environmental concerns, to managing forested and farmed properties to attain landowner and societal benefits.

OVERALL NARRATIVE

Educational programs on environmental education, directed mainly at 4-H youth, and programs to enhance natural resource decision making, were delivered to over 8,900 people by 479 extension-trained volunteers, generating an estimated net benefit to target audiences and society of more than \$600,000. The Forest Stewardship Program resulted in 80 new stewardship plans, while existing Stewardship lands generated nearly \$12 million from timber sold and additional \$300,000 from recreational leases. All of the forestry, fisheries and wildlife extension publications are available through the Natural Resources website (<http://www.ces.ncsu.edu/nreos>). New technology is being tested to cost-effectively increase desirable wildlife on farmlands in North Carolina.

VOLUNTEERS

Volunteer educators for environmental education and natural resource decision making totaled 479 in the first six months of 1998.

NUMBER OF UNITS REPORTING

Objective 1 - 10; Objective 2 - 7; Objective 3 - 16; Objective 5 - 3

SUCCESS STORY

Randolph County, Extension Lynne Qualls reported the following:

Randolph County Extension Service has established and conducted an environmental education program for fifth graders since 1986. Seven schools have been chosen for the program; others have requested it. By providing hands-on learning experiences, youth have learned new skills, practiced decision making, and demonstrated cooperative work. For many youth, this 2-day program is their first overnight experience. Feedback from teachers and parents confirm how much youth learn; teachers report improved test scores from having certain subject matter included in the program. Demand from parents and school personnel indicates program success; one school now conducts their own program. In 1998, 307 youth benefited from the programs conducted by 53 instructors including university faculty, agency professionals, and private organizations. 84 volunteers supported the program with an average time spent of eight hours each, at a value of \$6,720.

PREPARED BY: Dr. Peter T. Bromley, Co-Chair, Zoology Department Extension Leader

CEMP # 16 - NUTRITION AND WELLNESS

Synopsis of Program Focus: The Nutrition and Wellness Major Program promotes optimum nutrition and healthy lifestyle management for positive outcomes throughout the life continuum. It is based on the fact that nutritional status has a direct impact upon health, quality of life and the ability to achieve physical and mental potential. Fundamental to its concepts is the recognition that diet-related risks involved in chronic diseases can be lowered through improved (healthier) behaviors and that healthier pregnancy outcomes can result from better prenatal nutrition.

Overall Narrative: Promoting health and preventing disease in all North Carolinians regardless of age, gender, income, or cultural background form the main focus of the Nutrition and Wellness Cooperative Extension Major Program. Education programs addressing diet, health, and chronic disease prevention were attended by North Carolinians of diverse income levels, age groups, genders, and/or cultural backgrounds in every county of the state and on the Cherokee Indian Reservation. Programs offered included Give Your Heart a Healthy Beat, Healthy Heart, Our Destiny Is Our Decision, Active for Life, Noonliting, Healthy Eating for Life Program, HomePlate, Out For Lunch, Expanded Food and Nutrition Education Program and the Breast Feeding Program. Programs were held in various settings including schools, worksites, churches, government buildings, businesses and outdoors, and for various lengths of time. Various methods (including the Internet, mailed materials, media, one-on-one contacts, and public meetings) were used to reach different audiences, such as day care workers, hospital employees, Head Start, Red Cross, food banks, housing authorities, and community action groups. Tools used in programming included the Dietary Guidelines, the Food Guide Pyramid and food label reading. Coalition building and collaborative partnerships with groups such as state and community agencies, universities, and private industries increased visibility, resources, and depth and breadth of the programming. As a result of the programming, during the first half of 1998 participants not only increased awareness of their need to have good nutrition

habits, but also changed diet and lifestyle habits, and improved their quality of life and the quality of life of others.

Because increasing numbers of North Carolinians live on fixed incomes and in poverty, these limited resource audiences (including the elderly, mothers with young children, youth, and people of diverse cultures including Asians, Hispanics and Native Americans) were specifically targeted with educational programming. Hispanics represent approximately 2% of the population, however the numbers of migrants are growing. North Carolina has Native American tribes located across the state and one federally recognized tribe, the Cherokee. North Carolina is one of the fastest growing states in the nation in the number of citizens over the age of 65. Also, many women are entering the work force for the first time as part of the "Work First" program. Through the many programs, including Our Destiny Is Our Decision (for Native Americans), Healthy Eating for Life Program (for older adults), Out For Lunch (for mothers and young children) and EFNEP (for mothers and young children) people have improved knowledge and skills in meal planning, wise use of their food dollar, food safety, and time management related to food preparation. These skills are enabling them to feed themselves and their families healthier meals and delay or prevent chronic diseases.

Accomplishment Numbers:

- 42,601 participants increased their knowledge of nutrition and diet.
- 29,335 increased knowledge that promotes health.
- 31,015 increased attitudes and aspirations that are indicative of need for good health
- 14,666 improved diets to be more consistent with dietary guidelines for good health and the Food Guide Pyramid.
- 1,302 parents and children participated in food and nutrition activities together.
- 1,702 children adopted improved food behaviors.
- 772 women practiced behaviors to help improve their chances of delivering a normal weight baby.
- 4,500 changed their meal planning to improve their diets.
- 4,339 decreased fat consumption
- 2,680 decreased sodium consumption
- 2,967 increased fruit and vegetable consumption
- 2,651 increased calcium consumption
- 7,119 gained in knowledge that leads to reduced risk for chronic disease
- 5,105 increased skills that lead to reduced risk for chronic diseases
- 629 decreased their high blood cholesterol level
- 507 decreased their high blood pressure level
- 410 decreased their high blood glucose level
- 905 decreased excess weight

Volunteers Involved: 2096 volunteers gave 12,574 hours

Number of Units Reporting per Objective: Objective 1: 69 units reporting
Objective 2: 39 units reporting
Objective 3: 18 units reporting
Objective 4: 31 units reporting

Success Story: Osteoporosis is a painful disease affecting 1 in 2 adult women, causing 1.5 million debilitating bone fractures a year in the U.S. Last Fall NCCES developed a program to educate women how to reduce their risk of Osteoporosis and presented it to 23 groups reaching 250 people. Forsyth Bone Density Imaging Center assisted by providing literature and complementary bone density scans to two agents presenting the programs. A survey conducted in March, 1998, of the participants showed that 88 percent had made changes in diet/lifestyle to reduce risk of the disease, 54 percent had talked with their doctors, and 23 percent had bone density screening done as a result of the program. The Virginia CES estimated the yearly dollars saved if the condition is avoided is \$11,582 per patient. Thus, for the participants who responded that they had a bone density scan done as a result of the program and who had made changes in diet and lifestyle, there should be a significant saving in money and quality of life in the future.

Persons Completing Report: Co-chairs: Nancy Smith, Jackie McClelland,
Team members: Carolyn Lackey, Carolyn Dunn, Susan Baker

CEMP # 17 - Residential and Community Horticultural, Turf, Forestry, and Pest Management

Synopsis:

The educational programs under this CEMP aim to increase the knowledge of North Carolina citizens in consumer horticulture activities and structural pest management. Programs primarily target home owners who seek knowledge about controlling structural pests, installing and maintaining their home landscape, and vegetable and fruit gardening. However, programs are also provided for community gardening projects and for caretakers of community property such as parks and recreation grounds personnel. Through the increased knowledge provide and adoption of practices, this program aims to improve the economic and aesthetic value of private and public property while ensuring environmental stewardship.

Overall Narrative and Accomplishment Numbers:

Educational programs on pest management helped more than 19,600 people increase their knowledge of Integrated Pest Management practices. Of these, nearly 11,700 adopted IPM practices in their pest management strategies. This saved nearly \$200,000 through reduced pesticide use. Counties reported that \$181,090 was also saved through reduced pesticide-related contamination problems, e.g. runoff into municipal sewer systems and container disposal problems. About 11,600 people reported reducing risk of their own and their pets exposure to insecticides through more knowledgeable use. Now 14,200 citizens have a better understanding of how IPM can enhance their ability to be good environmental stewards.

The programs on federal guidelines governing wildlife control and depredation reached more than 7,000 people. This audience increased their awareness and knowledge of these guidelines.

Programs on proper plant selection, proper plant management and proper plant pest management helped over 197,000 people increase their awareness and knowledge of these areas. From this group, 124,000 increased their skills and awareness in best management practices (BMPs) and proper pesticide use to further their role in protection of the environment and urban ecosystem. Skills specific to ornamental tree, shrub and turf care were acquired by almost 110,000 people. About 94,600 felt the knowledge gained and subsequent actions taken increased their satisfaction with the appearance and environmental protection of their residential or community landscape. Approximately \$5 million was estimated as the increase in property value due to application of the knowledge and skills gained from these programs. Nearly 109,000 people were reported to have employed proper techniques of plant growth and health care and integrated pest management to protect the environment in their community.

Gardeners numbering near 32,000 participated in educational programs for fruit and vegetable gardening represented over 90 non-commercial acres.

Nearly 14,000 of these gardeners adopted Best Management Practices (BMPs) for their gardens which provided them with \$317,000 in avoided costs. About 85% of the gardeners adopted BMPs that minimized water pollution and maximized water conservation, reducing water usage by over 2 million gallons.

Volunteers Involved:

Objective	#1	564
	#2	1376
	#3	879

Number of Units (Counties) Reporting:

Objective	#1	29
	#2	53
	#3	32

Success Story

Dalton Dockery, Columbus County:

I received a call from a homeowner who is 70+ years old. She informed me that she was not able to get out and plant her ornamental garden like she had done in years past. She was disabled and could not tolerate a lot of heat. One of our Master Gardeners, took on the project and it was a great success. Without the help of Columbus County Master Gardeners this elderly lady would not have been able to fulfill her dream of having an ornamental garden. If you could have only seen the smile on her face when it was finished; you can not begin to put a value on human satisfaction. To us it was worth a million dollars.

CEMP # 18 - RESIDENTIAL AND COMMUNITY WATER AND WASTE MANAGEMENT

SYNOPSIS

Residential, community water and waste management issues have come to the forefront in the decade of the 1990's. This trend is due to the increased awareness and concern for the environment by the general public. Drinking water contamination, pollution of surface waters, septic system failures, community waste treatment system failures and residential and commercial land development have become headline news and more common events. CEMP 18 is an educational program that addresses these issues and works on solving these important environmental problems.

NARRATIVE

Measures of progress in water quality included 2086 persons indicating an increased knowledge and awareness of quality water best management practices to prevent contamination of water. 889 persons adopted quality water best management practices to prevent contamination of water. There were 36 decreased cases of water contamination resulting from adoption of best management practices to detect and treat contaminated water. \$223,000 was saved through improved water quality, decreased cases of water contamination and increased detection and treatment of contaminated water.

The wastewater management program had 575 persons with an increased knowledge and awareness of waste water systems. 196 persons adopted best wastewater treatment plans. \$442,750 was saved through decreased incidences of water borne diseases and reduced incidences of failed septic systems.

Participation in the watershed management program included 332 persons adopting best management practices to conserve industrial and residential water and 2102 persons having an increased knowledge and awareness of need for water quality and conservation. A total of \$324000 was saved through improved residential water quality, a decreased use of residential water and a decreased use of public water.

Work in waste management has been very active with 33408 persons having an increased knowledge and awareness of waste management principles. There were 210 recycling programs implemented with 50 industries/municipalities and 2417 consumers adopting improved waste management practices. There was 27732 gallons of used oil recycled by farmers and do-it-yourselfers with a total of 91997 pounds of household hazardous materials collected for recycling/ reuse.

For the total Residential Water and Waste Management Program there were 549 volunteers contributing 5232 hours at a value of \$52,320.

Number of volunteers involved: 549

Number of Units Reporting:

- Objective 1: 15
- Objective 2: 7
- Objective 3: 6
- Objective 4: 17

Success Story: Caldwell County

\$50,000 in grant and matching funds were secured to establish a waste paper reduction program in Caldwell County. The program targeted county departments, the school system and communities. A recycling and composting brochure was developed, printed and distributed with 5000 brochures going to convenience site operators, users, schools, and local businesses. 879.19 tons of mixed paper, 1079.15 tons of cardboard and 25.08 tons of aluminum cans were removed from the Caldwell County waste stream.

Submitted by: Wilma Hammett and George Autry

CEMP # 19 - RESILIENT YOUTH, FAMILIES, AND COMMUNITIES

Synopsis:

The "Resilient Youth, Families, and Communities State Major Program" of the North Carolina Cooperative Extension Service takes action to strengthen the resiliency of youth, families, and communities. Resiliency is the ability to cultivate strengths to positively meet challenges. The program focuses on prevention programming which strengthens "protective factors" and reduces "risk factors." Participants bring together and involve educators, researchers, agency and organizational personnel, youth, families, communities, advocates, and practitioners who share an interest in strengthening the resiliency of North Carolina's youth, families, and communities.

Youth:

Twenty-six counties report 9,362 youth with increased communicating, decision-making, working in groups, understanding self and relating to significant adults; 5,111 increased literacy; 2,754 increased community involvement; 4,808 increased knowledge and awareness of and alternatives to drugs and alcohol use.

Thirty-one thousand, one hundred and sixty-four increased life skills (31,164); 4,096 improved academic performance; 1,691 reduced use of drugs and alcohol; 380 reduced judicial involvement; 500 reduced incidences of violence.

Volunteers:

Five hundred and ninety-five volunteers donated 13,654 hours valued at \$136,540.

Success Story:

In Wayne County, teachers report that 52% of the students involved in two after-school programs for limited resource middle school youth increased their class performance and that 66% of the students increased the quality of their homework.

Families:

Ten counties reported programs targeting families. Financial management programs have been conducted for North Carolina's Workfirst and court-mandated families. Participants learned basic money management skills such as budgeting and investing, allowing them to reallocate resources to meet pressing family financial demands. Behavior modification and parenting programs seek to strengthen family ties and foster parent-child relationships.

Four hundred sixty-seven (467) families learned to save/reallocate \$21,442 through effective money management. Two thousand four hundred nineteen (2,419) families developed effective communication skills, allowing them to reduce conflict and strengthen interpersonal communications. Two thousand three hundred sixty-three (2,363) families increased knowledge and awareness of family coping and nurturing practices, allowing 2,308 to adopt appropriate skills.

Volunteers:

Three hundred fifty-one volunteers were involved.

Success Story:

Financial Management and behavior modification classes were conducted for Workfirst and court-mandated parents. The participants indicated that they gained an increased level of understanding about how to develop and utilize a budget and how to reallocate resources to improve family living. All of the Workfirst participants felt that they had learned some basic skills, which would help them to present themselves in a positive manner when seeking employment.

Communities:

Fourteen counties reported programs targeting communities. Communities become stronger when citizens become involved. As a result of Extension programming, over 2,600 citizens have increased their knowledge of and skills to participate in community-based collaborations and prevention programs. Additionally, 377 citizens reported increased leadership skill development.

Volunteers:

Six hundred twenty-six volunteers were involved.

Success Story:

City and county bureaucracy work together! Some say it wouldn't happen --- but in Durham County it is. As a result, the Northeast Central Durham Community is stronger. Under the leadership of Cooperative Extension, funding is being shared, and agencies are coordinating services to the citizens of this high-risk community. Replication to additional communities is one of the goals for both the city and county.

Persons Completing Report:

Thearon McKinney

Millie Bruton

Ellen Smoak

Robin Roper

CEMP # 20 - YOUTH DEVELOPMENT

CEMP 20 focuses on life skills development taught through a broad spectrum of subject matter in setting such as 4-H clubs, school enrichment and special interest programs. Some skills are more important than others at different ages, however, in 4-H major emphasis is placed on helping youth to develop competencies in self-expression, acquiring knowledge, managing relationships, making decisions, self-confidence and citizenship/community service. The Youth Development Major Program has three major initiatives; youth development through participation in the 4-H Club program, improved academic performance through participation in 4-H School Enrichment, and life skill development for youth living in diverse housing.

In the first 6 months of 1998, young people participating in 4-H clubs, school enrichment and other long term experiences, have had opportunities to learn written and oral communication skills, to learn how to think critically and plan well, to develop a sense of independence, and to develop a citizenship and community service ethic. Focusing on the 4-H club activities and experiences, 4-H youth in 71 counties increased their competencies in the following areas: 14,799 youth, managing relationships; 19,847 youth, communication skills; 18,901 youth, making decisions; and 21,598 youth, self confidence. Community service is an important part of the 4-H experience. Agents reported involving over 17,000 young people in a variety of community service projects saving their communities an estimated \$118,426.

The 4-H School Enrichment Program is one of the largest 4-H programs in North Carolina. The program is designed to provide school children with curriculum that can enhance and strengthen their standard school curriculum as well as improve academic performance. Teachers in 42 counties working with over 20,000 reported the following improved academic performance among students that participated in 4-H School Enrichment: 13,476 student improved class attendance, 10,681 students improved the amount of homework they completed, 10,797 students improved the quality of their homework, and 12,791 improved their science grades.

Limited income youth residing in Diverse Housing is a targeted audience for CEMP 20. Agents in 20 counties reported working with 975 youth through programs targeting diverse housing. Agents reported that the following skills were improved by the youth: saying no to peer pressure, 504 youth; skills in conflict resolution, 450 youth; and defining aspirations, 433 youth.

Volunteers Involved:

Number: 8,203
Hours: 122,752
\$ Value: \$1,227,520

Units Reporting:
Objective 1: 71 counties
Objective 2: 42 counties
Objective 3: 20 counties

Success Story:

Many high school students do not have the opportunity to see first hand what is involved in a career of their choice. Wayne County 4-H collaborated with a civic club to conduct a shadowing program in which 102 students experienced a day with an adult in a career of their choice. Each student had to write an essay about their experience and included remarks such as: " This day had helped me decide what I want to go to college for". Another student commented, "Through the 4-H career program I learned that what I thought I wanted as a career was not really for me. This program helped me see this before I invested my time in college preparing for this career". Submitted by Howard Scott, Wayne County.

Report Prepared by: Dr. Candace Goode