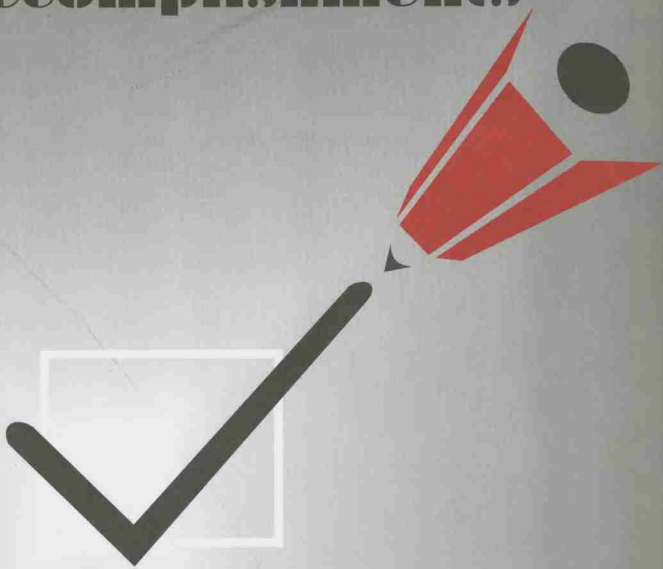


North Carolina Cooperative Extension

2001

**Major Program
Accomplishments**



Overview

NORTH CAROLINA COOPERATIVE EXTENSION 2001 PROGRAM ACCOMPLISHMENT REPORT

Program Overview

North Carolina Cooperative Extension delivers educational programs aimed at helping people put research-based knowledge to work for economic prosperity, environmental stewardship and an improved quality of life.

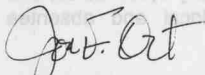
A partnership of N.C. State University and N.C. A&T State University, Cooperative Extension develops its programs through a continuous long-range planning and evaluation process designed to allow the organization to make continuous and rapid changes in response to emerging needs.

The plan consists of twenty Cooperative Extension Major Programs that address priority needs in five areas:

- Enhancing agricultural, forest and food systems
- Building quality communities
- Conserving and improving the environment and natural resources
- Strengthening and sustaining families
- Developing responsible youth

Extension's educational programs, carried out in all 100 counties and the Cherokee Reservation, are supported through the cooperation of county, state and federal governments, and a wide variety of organizations, groups, and individuals. Thousands of the state's citizens are also involved in planning and implementing programs.

Through this network of partnerships, Cooperative Extension reaches a vast proportion of North Carolina's population each year. The following pages reflect that broad reach, as well as the deep impact, that Extension's programs made in enhancing the state's economy, the environment and the quality of life in 2001.



Jon F. Ort
Associate Dean and Director



Ray McKinrie
Administrator/ Associate
Dean for Extension

COOPERATIVE EXTENSION MAJOR PROGRAM

ACCOMPLISHMENTS OVERVIEW

YEAR 2001

Agriculture, Natural Resources, Environment, and Community and Rural Development Programs

CEMP 2 – PUBLIC ISSUES EDUCATION

Land-use planning and community design are important issues in North Carolina and Extension is educating citizens and government officials about farmland preservation and growth management options. Farmland preservation areas and voluntary agricultural districts have protected over 6,200 acres so far in Ashe, Watauga, and Stanly counties. Cleveland, Caswell, Anson, Buncombe, Davidson, Sampson, Randolph, and Surry counties have developed or are in the process of developing land-use plans with input from the agricultural community – plans that consider agricultural land as a valuable resource. The issue of coastal erosion and maintaining a protective dune system was addressed in Brunswick County with volunteers providing labor to plant vegetation to protect dunes. Water quality issues addressed by NC Cooperative Extension include education about compliance with agricultural rules in some river basins. Farmer committees have provided input leading to a compromise on some rules to reduce the negative impact on farmers. Other water quality educational efforts involved meetings, newsletters, and slide sets to educate the public. Grants have been obtained for stream improvement and demonstration projects in the state's river basins. Other efforts have included dialogue with farmers about the upcoming farm bill, electricity deregulation, and adoption of a county environmental policy.

- Several counties are involved in the development and implementation of farmland preservation programs, growth management strategies, and land-use planning. Two counties have implemented programs that have preserved nearly 6,000 acres, and many counties have generated interest from numerous local and absentee landowners.
- Water quality is a high priority issue in most counties and communities in North Carolina. Extension programs have engaged and equipped over 750 citizens and public officials to address conflicts and reach consensus on water quality issues.

•Communities are increasingly faced with controversial and contentious issues. Extension has worked with communities to develop leadership capability and in 2001 has engaged with 96 communities to address conflicts and reach consensus on issues of community direction and action.

CEMP 03: AGRICULTURE AND THE ENVIRONMENT

The aim of this major program is to develop and implement educational programs to improve clientele understanding of the complex relationships between agriculture and the environment. The programs are targeted to livestock, poultry and aquaculture producers; field crop producers; nursery, greenhouse, turf and landscape professionals; agribusiness professionals; agricultural service agencies; special interest groups; and pesticide applicators. For program audiences identified above, the following number of counties reported against this major program:

Livestock, poultry and aquaculture producers—42 counties

Field crop producers—49 counties

Nursery, greenhouse, turf and landscape professionals—31 counties

Agribusiness professionals—17 counties

Agricultural service agencies—36 counties

Special interest groups—25 counties

Pesticide applicators—80 counties

In order for producers to comply with environmental regulations and maintain economic viability, many must implement management and or structural practices and other strategies to reduce sedimentation, nutrient losses, and off-target movement of pesticides. In addition, many farmers and other agriculturally related operators must now receive specific training and be certified to manage complex waste management, nutrient application, and pesticide use systems. Cooperative Extension provides most of the curriculum and training for these certification programs. This major program, including education, training and demonstrations, helps extension's customers make sound decisions that protect the environment and maintain productivity through adoption of sound practices to manage water, wastes, soil, nutrients and pesticides.

The following impacts to this program were reported statewide. Eighty-five percent of the animal waste operators implemented approved waste utilization plans on over 600,000 A. that used more than 44 million pounds of nutrients valued at \$10.3 million. Nutrient management plans for an additional 269,268 A. of cropland fertilized with commercial fertilizer reduced nutrient use by 147,100 pounds. Soil conservation best management practices applied to 2.2 million A. of cropland reduced soil erosion by 1.8 million tons. In excess of 50,000 new acres were established as field borders, filter strips and permanent cover, and 4,279 A. were established in new wildlife habitat. New riparian buffers were established on 1,897 miles of intermittent and perennial streams.

4 Farmers adopted nearly 8,700 new pesticide BMPs, such as scouting and biological control, on 690,000 A. and reduced pesticide use by over 56,700 pounds. In addition, over 172,500 pesticide containers were collected and recycled. 2,439 waste operators or applicators were certified to manage waste systems, and 3,190 nursery, greenhouse and turf professionals were certified. Pesticide applicator certifications or recertifications were received by 29,000 applicators.

Volunteer in-kind service: \$210,000

Specific Impacts:

- Nutrient testing procedures were promoted and explained to growers managing over 890,000 A. The nutrient tests enabled growers to properly use 18.4 million pounds of nitrogen and 21.9 million pounds of phosphorus.
- Pesticide container recycling saved growers and counties \$719,000 in landfill costs.
- Ornamental, turf and landscape management professionals implemented 19,167 new BMPs to conserve and protect the environment and reduce nutrient use on over 31,500 A.
- Biotechnologies and integrated approaches to pest management were associated with a reduction in pesticide use of 126,000 pounds of active ingredient, saving growers money and helping manage pesticides environmentally safely.

CEMP 04: ANIMAL PRODUCTION AND MARKETING SYSTEMS

The Animal Production and Marketing Systems major program focused on three objectives:

Producers and marketers of livestock, poultry and aquatic species will select, adopt and successfully implement practices or enterprises that will achieve individual and family goals related to profitability and quality of life (69 counties reporting);

Farm and non-farm citizens will address controversial issues of mutual concern that relate to animal agriculture (36 counties reporting); and

Youth involved in animal projects will improve personal development and learn leadership and other skills related to animal husbandry (44 counties reporting).

Program emphasized biosecurity, emergency preparedness, best management production practices, marketing strategies, financial management, food quality and safety, and leadership development.

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Selection, adoption and implementation of improved practices and enterprises helped animal producers achieve profitability and quality of life goals. Through extension program efforts, 21,393 producers increased awareness and knowledge of best management production practices, and 9,019 of these producers adopted management practices that optimized income. Almost 3,000 producers improved farm financial planning practices and procedures. Collectively, it was estimated that \$17 million in income accrued from adoption of recommended nutrition, breeding, marketing, building/facilities, health and general management practices. About 2,300 farms adopted standards, practices or procedures to address industry concerns related to environmental compliance, food safety, animal care, product quality assurance and other issues.

In youth animal related programs 18,462 youth demonstrated acquired skills and knowledge through participation in animal projects and events. Of these, 1,938 youth participated in multi-state, national or international events. 197 animal project youth participants received almost \$84,000 in scholarships. Also, 1,738 youth received \$601,552 above market price provided by community supporters of youth animal projects and sales. Enhanced personal development and leadership skills were demonstrated by 1,469 youth as a part of project related activities.

Volunteer in-kind service: \$389,520

Specific Impacts:

- Turkey health losses from immunodeficiency, enteric problems, and leg abnormalities have been largely alleviated through adoption of extension recommended improvements in nutrition and management, resulting in an economic benefit of \$4 million.
- Extension assisted beef cattle marketing efforts netted producers an added \$840,000 in state graded and truckload lot sales.
- Several counties have organized to purchase mineral supplements and other inputs for cattle producers; they have realized a savings of \$47,000.
- Extension educational programs and trouble-shooting mycotoxin problems in dairy herds benefit the dairy industry by \$4 million annually.
- Producers of ruminants are using extension recommendations to manage use of low cost byproducts in feeding programs, saving over \$1 million annually.
- Results of the North Carolina on-farm performance testing program for swine show a reduction of 2 days in days to 250 pounds and .05 in. less fat thickness. If the improvement in days to 250 pounds is applied to replacements associated with production of 1.25 million market hogs annually, the net benefit would be over

\$400,000.

- Forty-six percent of participants in horse short courses indicated an intention of implementing practices that would save or increase incomes by \$717,000.
- Livestock, poultry and aquaculture producers realized over \$16 million economic benefit from implementing strategies from extension programs to improve nutrition management, breeding strategies, marketing approaches, buildings and facilities improvements, and animal health management.

CEMP 6 – COMMUNITY AND ECONOMIC DEVELOPMENT

Extension programs in Community and Economic Development have stressed the importance of community organizations and leadership in those organizations and in local government. Extension has helped organize groups to address low achievement in schools by having families work together; to address conditions and circumstances in public housing; to improve the visual quality of the community through beautification, recycling, greenway trails, and antilitter efforts; and to rebuild after catastrophic events. Leadership is a significant component for communities to be vital and sustainable. Extension through Community Voices has assisted special audiences and others in building those leadership skills necessary to make a difference. Extension faculty have also become recognized as preferred providers in leadership development and having significant participation in Leadership Cherokee County, Natural Resources Leadership Institute and other leadership programs. The increasing Hispanic/Latino population has provided Extension with the opportunity to expand programs and provide assistance to this new audience. English as Second Language, driving, health and hygiene, and pesticide use are just some of the programs offered to Spanish speaking residents. Efforts are underway in Watauga County to organize Hispanic Women's groups so they can guide programs to support this community. Sustainable tourism continues to be a high need program for landowners and farmers as they wish to find ways to diversify their enterprise and make the farm profitable. In 2001 extension agents went through training on assisting individuals and local governments with tourism development and operation. Over 20 county extension programs currently have some effort in developing tourism as another economic resource. This number continues to grow. In addition programs continue on small and home-based businesses. In 2001 county extension programs resulted in attraction of 66 businesses in counties and 12 new start-up enterprises were created with a combined annual payroll of over \$650,000.

- The Hispanic/Latino population in North Carolina is growing rapidly. In several counties, Extension is taking the lead in assisting new residents in learning English and the various government services opportunities and responsibilities. One county has had to increase the number of English as Second Language classes from two per week to five per week because of the demand.

- Tourism from natural resources and agricultural enterprises is a growing opportunity for many in North Carolina. Numerous farmers and entrepreneurs take part in extension programs to learn more about the opportunities and how to conduct the enterprise. In one state-wide training 95% of the 34 participants felt they were sufficiently equipped to start a sustainable tourism enterprise.
- Extension educational programs have resulted in counties attracting 66 businesses having a payroll of over \$600,000.
- Twelve small and home-based businesses were established in 2001 with an initial payroll of \$69,500.

CEMP 07: CROP PRODUCTION AND MARKETING SYSTEMS

The aim of this major program is to develop and provide educational programs to enhance growers capacities to produce a wide array of field, horticultural, and ornamental crops profitably and in environmentally safe ways. Emphasis is given to providing program opportunities for part-time and limited resource farmers, agribusiness professionals, farm organizations and agribusinesses to effectively function in complex and global agricultural systems. Support for family farms and local communities to thrive economically in agriculture continues to be a major emphasis as well. Seventy-nine counties reported impacts under this major program.

The educational approaches of this program have been designed to help create and support the abilities and capacities of crop farmers to adapt to a variety of changes and sustain their operations economically, environmentally and in a manner, to support society. In some of the major commodity program crops, farmers have implemented alternative production practices, initiated new enterprises through diversification, and have learned to manage production and marketing risk to remain viable. An estimated additional \$21 million impact was realized from implementation of equipment adaptation, modified cultural practices and improved pest management systems. Profitability increased almost \$15 million through adoption of new tobacco marketing strategies. Part-time and limited resource farmers have used research based principles to add income through crop diversification, intensive management systems, improved water and nutrient management, and more effective marketing plans and strategies. By adopting new crop production practices, irrigation methods, intensive management systems and crop diversification, these farmers realized over \$4 million in added income. In addition, 412 farmers implemented specific sustainability based practices.

Growers and other agribusiness professionals have evaluated and implemented appropriate alternatives to conventional pesticides to enhance productivity, protect the environment, and add to profitability. Counties reported that through using Integrated Pest Management strategies, farmers reduced pesticide use by 234,534 pounds of active ingredient and reduced costs by \$3.75 million.

Farmers have learned about and integrated least cost methods to comply with environmental, safety, and other regulations to protect the environment, natural resources and farmers and their employees. By practicing wise use of soil, tissue and waste analyses, farmers were able to save \$2.9 million as they practiced effective nutrient management and helped protect the environment.

Farmers and the public have gained in their understanding and application of biotechnologies, both in terms of benefits and limitations. Growers have rapidly adopted bioengineered crops and have realized about \$5 million added income from increases in yields, reduction in labor and equipment costs and reduced pesticide use.

And finally, farmers, agricultural organizations and agribusinesses, are adapting to changing local and global markets to help optimize agricultural income to farms and rural communities. Increased income estimated at \$4.2 million resulted from improved marketing strategies and development and marketing of new products.

CEMP 10 – FOREST PRODUCTS MANUFACTURING

The main effort of the Forest Products Manufacturing program is to increase the competitiveness and profitability of North Carolina's wood products industry, improve markets, and increase consumer understanding of wood products and their proper use. To meet this goal, faculty conducted, organized or participated in 67 workshops, conferences, seminars, short courses, and classes for the wood products industry and consumer audiences. These efforts reached an estimated 3,710 individuals. These activities resulted in 100 firms adopting new manufacturing techniques, 91 consumers adopting practices related to the selection, use, and maintenance of wood products, 1,695 individuals increasing their knowledge of the economic importance of the wood products industry, and 795 consumers increasing their understanding of forest products and their proper use. In economic terms these activities resulted in the following impact: \$1,201,500 saved through improved utilization or productivity.

- As a result of extension educational programs and workshops, 100 forest products manufacturers adopted new manufacturing techniques to improve profitability and competitiveness.
- An extension educational program helped one upholstered furniture manufacturing firm decide against a large capital investment resulting in a savings of \$1,200,000.

CEMP 11: FOOD SAFETY, QUALITY AND MANUFACTURING

The objectives of this major program are: 1) participants will adopt behaviors that decrease the risk of foodborne illnesses; 2) people will increase knowledge of and confidence in the safety and acceptability of bioengineered foods and food products; 3) food processors will adopt new technologies, employ qualified personnel, and develop in-house quality assurance programs to ensure regulatory compliance, growth and

profitability; and 4) food products manufacturing entrepreneurs will implement business management, quality assurance, technology applications, and regulatory compliance to support sustained growth and profitability. Consumer-oriented programs are delivered primarily through the county food safety agents, while much of the work with food processors and food manufacturing entrepreneurs is provided by extension specialists in the Department of Food Science. Sixty-nine counties reported program measures of progress and impacts in this program area.

Food handler certification training programs were provided to 245 food handlers, service workers, regulators and others. Twenty-three additional people were trained to be trainers in food safety and handling. During the year, about 18,000 people who are in some way involved in food handling received educational programs in ways to reduce the risk of foodborne illnesses. Almost 2,000 received actual certification of their increased knowledge and capacity to apply and teach the principles of safe food handling. In addition, almost 18,000 consumers benefited from these programs. Two hundred fifty food processors adopted new manufacturing technologies to support regulatory compliance, food safety, profitability and growth of their businesses. Eighty new companies receiving information from the program began manufacturing food products.

Sixteen million dollars of value was added to the food system through greater understanding and application of biotechnologies and other food technologies. An estimated 15,000 safe food handling practices were implemented by consumers, food service workers, handlers, regulators and others. In addition, significant business activity and employment will result from the 80 new food manufacturing businesses established.

Volunteer in-kind service: \$42,500

Specific Impacts:

- 80 small food processing or manufacturing businesses complied with HACCP and other food safety regulations.
- Processing demonstrations on cold binding technologies helped Wanchese Fish Co. revolutionize production of their scallop medallion products. They are expanding their operation to other new value added products in a 170,000 sq. ft. state-of-the-art operation in southeastern Virginia.
- Poultry plant HACCP-trained employees will conduct in-plant HACCP audits, saving the average poultry processing plant \$15,000 in training and consulting fees.
- In response to a listeriosis outbreak in the Winston-Salem area, a team of professionals, including Cooperative Extension workers, determined the cause and developed educational materials for the Hispanic consumers, cheese-makers, and others to avoid the potential for listeria in these locally-produced cheese products.

The team also worked with the dairy that produced the milk to revise teat preparation before milking and equipment cleaning procedures to enable the farm to produce listeria-free milk.

- With support of a USDA grant, faculty in Horticultural Science and Food Science, developed and provided training to over 200 extension agents from across the southeast region in principles of Good Agricultural Practices in the production of fresh and minimally processed fruits and vegetables. The aim of the system of GAPs is to reduce the introduction of human foodborne pathogens in these foods.

CEMP 14 ACCOMPLISHMENT REPORT OVERVIEW

CEMP 14 is focused on assisting both commercial and small, part-time and limited resource producers identify, analyze, select and implement alternative opportunities to increase their income. Program efforts have been made in developing and disseminating information on commercial horticulture specialty crops, niche markets and agri-tourism. The team continues to emphasize business planning to address issues of risk in production and marketing. It also helped in developing and disseminating information to assist farmers in coping with change as alternative enterprises are considered in response tobacco quota reductions and continued low commodity prices. The team also provided information to help these audiences respond to the effects of Hurricane Floyd.

Reporting units documented the following accomplishments. Over 2,800 producers became aware of opportunities and indicated an interest in developing alternative enterprises. Of those, 910 growers actually initiated use of new methods, new practices or tried new enterprise production, and 2,827 producers gained knowledge about alternative production and marketing strategies. Approximately half of the beneficiaries of this program were small, part-time and limited resource farmers and their families.

Statewide impacts indicate significant incremental income as a result of producers exploring and implementing new production and marketing practices and new enterprises. These impacts included:

Producers invested \$2,428,250 in the production and marketing of alternative enterprises and related strategies.

These new investments produced additional gross income estimated at \$2,066,075 to these producers.

Volunteer involvement multiplies the educational capacity of this program. During 1999, 389 volunteers contributed 8,257 hours of time and effort, valued at \$82,570.

CEMP 15 - NATURAL RESOURCES CONSERVATION AND MANAGEMENT

The Natural Resources Conservation and Management program focuses on the significant forest, wildlife, water and fishery resources in the state of North Carolina. Particular programmatic emphases are on youth and adult environmental education that improve understanding of ecological processes and management techniques that conserve the environment, provide economic return, or provide other benefits to society. Over 5,698 youth and adults participated in Extension environmental education programs. Many of these were programs conducted at schools, field days, 4-H and scout meetings and camps as well as traditional workshops and demonstrations. Another area is in the enhancement of decision-making regarding natural resources issues. The intent is to assist in this process as well as provide programs that improve the quality of the decisions being made. This resulted in over 3,272 people participating in programs that increased their awareness of people's involvement in the environment. A result is that there has been an increase in 1,984 people participating in forums and public meetings related to land use and natural resources planning. The forest resource in North Carolina is a significant economic and natural resource. Landowners and professionals benefit from learning about new management techniques, marketing strategies and tax laws. Over 92,000 acres of forestland have protected water quality because of Extension-endorsed "Best Management Practices." The Natural Resources Conservation and Management program produced over 6.6 million dollars in value to our clients and utilized 987 volunteers as they invested 7,030 hours of their time.

- Extension provides continuing education opportunities for natural resources professionals. Over 60 professionals have been trained, and the Forestry Issues Forum Teleconference in one day awarded 315 Continuing Forestry Education credits and did so at a savings of \$18.84 per \$1.00 invested by using distance education technology. Total savings for participants for that one program was \$13,470.
- Landowners are often contacted by individuals wanting to buy their timber. Extension programs and contacts assist landowners in obtaining professional assistance. In just three incidents in 2001, extension saved landowners at least \$316,500 over what they would have received if they had sold to the initial buyer, and in one case the logger was arrested for timber trespass and theft.
- Estate, income and property tax laws can be confusing for forest landowners. Extension programs on these laws increased the after tax income of 471 landowners.
- An important aspect of forestry, conservation, management and marketing programs is the adoption of best management practices to protect water quality. In 2001 an additional 92,925 acres were put under best management practices increasing the protection of water for all citizens.

CEMP 17: RESIDENTIAL AND COMMUNITY HORTICULTURE, TURF, FORESTRY, AND PEST MANAGEMENT

The aim of this major program is to increase the knowledge of North Carolina citizens and nonprofit organizations in consumer horticulture and structural pest management. Through a variety of programs, gardeners, homeowners, and landscape caretakers acquire knowledge and skills to install and maintain gardens and landscapes that are productive, aesthetically pleasing, and economically viable while ensuring environmental stewardship. The following numbers of counties reported against the program objectives:

- best management practices for residential and public facility pests—39 counties
- plant selection, cultural practices and pest management—68 counties
- youth programs in gardening, plants, insects and the environment—43 counties

This major program emphasized several elements. First, integrated pest management (IPM) principles were taught and promoted, in which efforts are required to determine when, where and how pests are becoming a problem. Then, decisions are made and strategies employed to deal with the pest problem(s) in an effective, economical and environmentally safe manner. Second, selection of plant materials, cultural best management practices and environmental stewardship are emphasized as important elements in garden and landscape design, installation and maintenance. Significant resources are devoted to training and deploying Master Gardener trained volunteers in support of this major program. School learning experiences, community demonstration gardens and Junior Master Gardener are some of the major program elements in the youth objective.

Statewide, 155,000 participants adopted IPM practices, including improved decision-making in determining the need to spray pesticides and/or use professional pest control services. Over 161,000 people reduced their risk of insecticide exposure through targeted use of insecticides. Almost 72,000 people adopted two or more recommended cultural practices that enhance plant growth while minimizing inputs, and 66,487 participants adopted two or more practices that reduce pesticide or fertilizer misuse and water consumption. Program participants save \$1.3 million by selection of proper cultural and pest management practices. Over 12,400 youth increased their personal responsibility by growing and caring for plants in their homes, home landscapes or gardens. Another 14,726 youth demonstrated increased proficiencies in understanding and application of horticultural skills.

Master Gardener Volunteer in-kind service: \$2.22 million (time, effort, educational materials, travel and funds raised)

Specific Impacts:

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Specific Impacts:

- Over 2,900 Master Gardener volunteers donated 184,000 hours to answering telephone calls, diagnosing plant samples, manning exhibits, presenting TV or radio shows, writing news articles, presenting programs to groups, conducting school programs and developing school gardens.
- The consumer horticulture web site received over 10 million hits during the year.
- Mass media and seminar series were used help educate citizens and promote wise use of water in landscapes. One program focused on wise use of landscape irrigation water; subsequently, water use decreased by 15%; in another, participants began mulching their gardens and reduced irrigation by 29% and saved between \$10 and \$15 per household.
- Two programs in Buncombe county focused on gardening for at-risk youth and "Plant a Row for the Hungry." Together the two programs produced almost 16,000 pounds of produce for needy and at-risk families.
- "Trees of Strength" was born out of a Master Gardener's idea immediately after the disaster on September 11. The program promoted planting trees to remember those people lost on September 11 and to honor those who protect and defend our country. Master Gardener volunteers are coordinating efforts statewide to plant memorial trees at each fire and police station across the state, as well as at other public facilities and private homes.

Family and Consumer Science Programs

Strengthening and Sustaining Families

Family and Consumer Science programs are based on an ecological programming model, which focuses on the individual and family within the fabric of the community. Programs are designed based on demonstrated need for NC citizens, as identified by local advisory councils. They are supported by a base of university research and are linked to federal base programs and initiatives. Partnerships have been developed with other agencies and organizations who have an interest in family well-being. Many of these programs are enhanced by nearly \$14,000,000 annually in extramural resources from grants and contracts.

These programs form the base of education for Family and Consumer Education. They have been documented as valued and successful over time.

Family Resource Management

The Family Resource Management program promotes informed personal finance and other consumer decision making by individuals and families. The program contains four major focus areas: money management and financial planning, consumer decision-making, affordable housing and the housing environment, legal issues affecting families and small businesses.

Food and Nutrition/Wellness

The food and nutrition/wellness program promotes optimum nutrition and healthy lifestyle management for positive outcomes throughout life. Nutritional status has a direct impact upon health, quality of life and the ability to achieve physical and mental potential. The program contains three major focus areas: nutrition, health issues related to nutrition, and food safety for people of all ages.

Human Development

The human development program deals with strengthening the family as a basic unit of society, through educational programs for parents, families, parents and others who care for dependent children and the aging. The program contains five program focus areas: child development and care, parenting, family relationships, adult development and aging, and community strategies for helping families become self-sufficient.

Volunteer Leadership Development

Leadership development builds the capacity of individuals, groups and organizations to address issues in a community. Volunteer development enhances the potential for beneficial community service. Volunteer leadership development enhances human capacity at the individual and community level. The program contains four program focus areas: designing and managing volunteer systems; collaboration with volunteer partners such as Extension and Community Association and master volunteers; creating a network of community leaders and resources; and mentoring.

Initiatives and emerging issues increase the dimensions and value of the Family and Consumer Science educational program. These include programs on: Public Policy and Community Capacity Building; Hispanic-Latino Programming; and Rural Health. In 2001, Family and Consumer Science education programs targeted the emerging issue of biotechnology and food safety for individuals across the state working with consumer food safety.

Educational programs that help families and individuals develop and sustain economic and personal resiliency are based in six Cooperative Extension Major Programs: Aging With Gusto, Family and Consumer Economics, Family and Parent Education, Health and Human Safety, Nutrition and Wellness, and Residential and Community Water and Waste Management.

CEMP 01 - AGING WITH GUSTO!

The Aging with Gusto! Program is designed to help adults of all ages understand and prepare for the challenges and opportunities of life in the middle and later years. The program is multidisciplinary and includes topics from all the fields of family and consumer education. Individuals who participated in educational programs related to aging placed a value of nearly \$582,119 on increased financial status, improved health benefits, and improved medicine and food safety practices as a result of these programs.

A large number of individuals (5466) reported increased awareness and knowledge of financial management techniques and consumer issues, while 2695 reported changing behaviors in this area. 2389 persons reported an increased awareness and knowledge of estate planning and 872 reported adoption of new practices with regard to estate planning. 1911 people increased awareness and knowledge of retirement planning practices and 351 reported adopting new practices. The impact of these programs include development of estate plans (700), development of plans for possible future incompetency and dependency (702), improved financial status (2739). The value of increased savings and/or retirement contributions is estimated at \$332,151.

Over 16,000 (16,196) increased awareness and knowledge of healthy behaviors such as lowering fat intake and increasing fruit and vegetable intake. Over 800 (893) increased knowledge of community resources.

1,115 volunteers gave 3,944 hours @\$10/hour for a total value of \$39,440.

CEMP 08 - FAMILY AND CONSUMER ECONOMICS

Family and Consumer Economics promotes informed personal finance and other consumer decision making by individuals and families, emphasizing education to prevent financial problems. For persons who already have serious financial problems, Family and Consumer Education Agents make informed referrals to counseling and intervention services. Individuals who participated in family and consumer economics programs reported increased income, debt reduction, improved savings and other income benefits valued at more than \$2,845,850.

Programs in 63 counties assisted 62,113 individuals in increasing their awareness and knowledge of money management, financial/consumer decision making, financial resources, and or practices to extend or increase income. 1931 volunteers gave their time to Family and Consumer Economics programs with a value of time of \$205,060.

1,911Volunteers gave 20,506 hours @\$10/hour for a total value of \$205,506

Limited resource families continue to develop skills and adopt behaviors which allow them to reach their financial goals, including debt reduction and increased savings. Consumer decision programs in 28 counties focused on selecting consumer products

and services such as: financial services (credit, saving and investing options); health insurance (Medicare+Choice and LTC); and recognition/ avoidance of consumer fraud (telemarketing, credit, and Medicare fraud). Strong partnering with Seniors Health Insurance Program (SHIP) and the Attorney General's Office continued in most counties.

Seventeen counties conducted educational efforts to help families extend income.

Objective one states:

5,231 people in 34 counties reported increased awareness and knowledge about money management and decision-making processes; 2028 wrote personal financial goals. Debt was reduced by \$73,012, and more than \$70,497 dollars were saved.

Agents continue to partner with community organizations and agencies to reach audiences and develop new programming including Goodwill, YMCA, Community Colleges, Consumer Credit Counseling Agencies, Family Resource Centers, Work First participants, correctional and parole units, DSS, the Faith Community, FEMA and Habitat for Humanity.

Objective two states:

In 25 counties, 1631 people demonstrated success in planning the use of financial resources. 1188 demonstrated ongoing use of budgeting and record-keeping skills. 664 developed and implemented a life-cycle plan. 946 improved financial status from using best management financial practices, estimating their debt reduction to be \$10,889, and estimating savings/investment increases at \$400,385.

Agents continue to partner with community organizations and agencies to reach audiences and develop new programming.

Objective three states:

In 25 counties, 930 people demonstrated success in finding and securing affordable housing. 2541 avoided costs through routine maintenance and repair, estimating \$1,837,311 in cost avoidance (an average of \$723 per person). 1710 increased house value through addition of home improvement (an average of \$817 per home).

Objective four states:

In 28 counties, 1905 people avoided costs through appropriate selection and care of consumer goods, estimating \$77,209 in cost avoidance. 2278 avoided costs through appropriate selection of consumer service, estimating \$201,346 in cost avoidance. 2144 improved financial status through adoption of best management practices. 272 increased participation in public policy debate on consumer issues.

Consumer decision programs in 28 counties focused on selecting consumer products and services; health insurance and recognition/ avoidance of consumer fraud. Strong partnering with SHIP and the Attorney General's office continued in most counties.

Objective five states:

In 17 counties, 1894 people extended income through use of best management practices, resulting in an estimated income extension of \$175,201. Programs resulted in an estimated dollar value of \$367,411 from new or improved employment situations and an estimated dollar value of \$64,558 from new or improved self-employment situations.

CEMP 09 - FAMILY AND PARENT EDUCATION

The Family and Parent Education Cooperative Extension Major Program is helping parents and families acquire and develop skills needed to foster responsibility, cooperation, courage and self-esteem. More than 11,500 participants reported increase in knowledge of these skills. In addition 7,315 individuals reported adopting practices that would improve their personal or family life, and 3,085 reported learning new skills to deal with the challenges of life. According to 3,194 learners, stronger family relationships were achieved, and an overall improvement in the quality of life was reported by 3,633 program participants.

Objective 1: More than 6,900 parents in 60 counties reported increasing their knowledge and skills in parenting practices, and 2,717 parents reported increased involvement in educational and community functions. More than 750 individuals volunteered 4284 hours in support of parenting education with an economic value of \$42,840.

Objective 2: In 29 counties individuals and families enhanced personal development in family relationship and management skills. 3,085 individuals adopted personal development practices, 3,194 adopted family relationship practices, and 2,446 adopted family management practices. An enhanced quality of life was reported by 3,633.

CEMP 12 - HEALTH AND HUMAN SAFETY

Health and Human Safety addresses pressing health concerns at the individual, family and community level. NCCES community-based health promotion and disease and injury prevention educational programs increase the capacity of families to make informed health and health care decisions resulting in improved physical, mental and social health.

Participants in health and human safety educational programs reported \$1,060,217 in cost avoidance from reduction in high risk behaviors and reduced illness and injury.

37,198 participants reported increasing knowledge about health practices for improving health status 1,469 volunteers contributed 5,742 hours valued at \$57,420 to support health educational programs.

Objective 1: In 15 counties, 20,259 individuals reported increased knowledge of the determinants of health and recommended health practices. 59 communities reported

increased participation in health and health-related coalitions, and in health care policy setting arenas.

238 community based health promotion and disease prevention activities were conducted with an increase of 1,959 participating in health screenings.

One community-based coalition was awarded \$90,000 to continue and expand cancer outreach prevention education in western North Carolina.

Objective 2: More than 14,000 individuals in 20 counties reported increasing their knowledge of practices for creating a safe and health home or work environment, with 4,129 adopting these practices.

Objective 3: 2,939 individuals in 12 counties increased knowledge of agricultural health and safety issues with 1,528 adopting best management practices.

634 participants reported they were able to respond effectively in an emergency situation as a result of their new knowledge.

40 health professionals reported they have provided better service to patients as a result of increased knowledge of agricultural health issues.

CEMP 16 - NUTRITION AND WELLNESS

The Nutrition and Wellness Cooperative Extension Major Program provides nutrition education to all North Carolinians to promote optimum nutrition and healthy lifestyle management for positive outcomes throughout life.

Educational programs addressing diet, health and chronic disease prevention were offered to North Carolinians of diverse income levels, age groups, genders and/or cultural backgrounds across the state. Participants included children, adults and the elderly, day care workers, hospital employees, housing authorities, Head Start, Red Cross, food banks and community coalitions.

24,222 participants improved diets to be more consistent with dietary guidelines for good health and the Food Guide Pyramid

2,057 participants decreased their high blood cholesterol level

2,108 participants decreased excess weight

2,722 children and 3031 parents adopted food behaviors consistent with Dietary Guidelines and the Food Guide Pyramid

2,461 women practiced behaviors to help improve their chances of delivering a normal weight baby.

3,545 adopted behaviors such as seeking prenatal care

12,089 participants changed their meal planning to improve their diets.

8,497 individuals volunteered 45,723 hours toward nutrition and wellness education with an economic value of \$457,230.

Members of the CEMP team have been awarded more than 11 million dollars in grant and contract funds in support of Nutrition and Wellness programming.

CEMP 18 - RESIDENTIAL AND COMMUNITY WATER AND WASTE MANAGEMENT

Residential and Community Water and Waste Management impacts the private and public sectors economically and environmentally. Drinking water quality, waste water management, watershed management and waste management are key elements of Extension's educational programs.

More than 32,000 people in 32 counties increased their awareness and knowledge of practices to protect water quality. 44,400 people increased knowledge of solid waste reduction strategies, and approximately 13,200 people adopted one or more practices.

Water screening programs in 6 counties reached 722 people.

Water system replacement costs of \$433,103 were avoided through implementation of proper well construction and/or protection practices.

Over \$1,830,000 was estimated in savings in on-site waste water treatment replacement costs as a result of preventative maintenance practices.

7,425 acres of urban and residential watersheds were improved by best management practices, along with 17,020 feet of streams

Over 12,273,500 pounds of waste was diverted as a result of Extension education programs, including 992,260 pounds of non-hazardous materials, 459,544 pounds of household hazardous materials, 12,481 pounds of white goods, and 18,433 pounds of home use pesticides.

Businesses, industries and institutions reported saving \$44,351 through implementation of waste reduction strategies, and local governments saved \$190,000 through citizen implementation of waste reduction strategies

FAMILY AND CONSUMER SCIENCE PROGRAM SUMMARY

The North Carolina Family and Consumer Science education program has effectively provided opportunities for individual and families to improve the quality of their lives, through better nutrition practices, family resource management skills, parenting and family education skills, improved health and safety practices, skills for adapting to aging, and improved water and waster management practices.

This year, through the CEMPS, 387,379 North Carolina individuals and families participated in Family and Consumer Science educational programs.

4-H Programs

Developing Responsible Youth

Our future in North Carolina lies in our youth. Through its 4-H program, Extension helps youth to gain the knowledge and skills they need to become productive and responsible citizens. Youth learn to manage relationships, make decisions, become resilient enough to overcome the risks they face, become better communicators, and serve their communities. 4-H's hands-on, learn-by-doing approach reaches hundreds of thousands of North Carolina's youth each year in schools, in community clubs, and in other settings. 4-H Youth Development programs:

- uniquely extend research-based curricula to youth, families, and educators in response to their expressed needs.
- support legislatively mandated university outreach to K-12 schools.
- work in partnership with other youth-serving agencies and sponsoring organizations.

Who Is Involved?

In 2001, 4-H involved 183,081 youth and 22,170 adult and youth volunteers in local 4-H programs supported by the resources of the Cooperative Extension System at North Carolina State University and North Carolina A&T State University. The North Carolina 4-H Youth Development Program operates in a spirit of excellence to "make the best better." Youth from 5 to 19 years of age use 4-H to become responsible, productive citizens with their friends and families and in their schools and communities. They are actively involved in a variety of programs.

| | Male | Female | Total | Units |
|---------------------------------|---------|---------|---------|-------|
| * Organized 4-H Clubs | 13,560 | 16,477 | 30,037 | 1,595 |
| * Special Interest | 37,479 | 44,366 | 81,845 | 3,043 |
| * 4-H Overnight Camping | 3,046 | 3,373 | 6,419 | 341 |
| * School Enrichment | 37,923 | 39,654 | 77,577 | 2,395 |
| * Individual Projects/Study | 1,577 | 1,631 | 3,208 | 451 |
| * 4-H Child Care Education | 13,955 | 15,649 | 29,604 | 807 |
| * 4-H Instructional TV/Video | 151 | 133 | 284 | 16 |
| TOTAL | 107,691 | 121,283 | 228,974 | 8,648 |
| TOTAL (Duplications Eliminated) | 85,983 | 97,098 | 183,081 | |

* Data based on 2001 participation numbers from the federal ES-237 report.

Focusing Our Challenge

4-H designs and delivers programs that empower personal, local action in response to risk factors such as juvenile crime, teen suicide, school drop-out, child abuse, alcohol and drugs, family dissolution, and sexual activity.

4-H supports every youth's right to lead a healthy and productive life filled with protective factors such as:

an ongoing relationship with a caring adult-parent, mentor, tutor, or coach.

access to safe places and structured activities.
a healthy start.

a marketable skill through effective education.
an opportunity to give back through community service.

4-H programs are:

Relevant - respond to the needs of today's youth.

Productive - deliver positive impacts for specific program users.

Economically efficient - acquire, budget, and spend resources to produce value-added outcomes.

Broad in public appeal - deliver programs that benefit large numbers of youth, families, and communities.

Unlimited in potential - encourage youth to be all they can become and to experience state, national, and international opportunities.

4-H Programming Is Relevant

4-H'ers live on farms, in suburbs, and in towns and cities. Programs are designed to meet the needs of youth, families, schools, and communities.

4-H'ers and where they live:

| | | |
|-----------|---------|------|
| Farm | 16,894 | 9% |
| Towns | 111,884 | 61% |
| Big Towns | 32,767 | 19% |
| Suburbs | 10,064 | 5% |
| Cities | 11,472 | 6% |
| Total | 183,081 | 100% |

4-H takes pride in its cultural diversity. Youth are encouraged to become citizen leaders in service to their entire community.

4-H's diversity

| | | |
|----------|---------|-----|
| White | 119,327 | 65% |
| Black | 54,402 | 30% |
| Indian | 3,301 | 2% |
| Hispanic | 4,924 | 2% |

| | | |
|-------------|---------|------|
| Asian/other | 1,127 | 1% |
| Total | 183,081 | 100% |

Who Are 4-H Volunteers?

Dedicated adult volunteers provide the helping relationships that enable youth to become responsible, productive citizens. These volunteers also provide the basis for both the fiscal efficiency and productivity of 4-H. Youth also are actively engaged in community service and service learning through 4-H volunteering. 4-H volunteers encourage a sense of cultural diversity as they enable youth to become their "best selves." In 2001 there were a total of 27,554 4-H volunteers.

Diversity of 4-H Volunteers

| | Adult Volunteer Service | Youth Volunteer Service |
|------------|-------------------------|-------------------------|
| White | 15,761 | 4,651 |
| Black | 5,160 | 1,440 |
| Indian | 166 | 55 |
| Hispanic | 167 | 57 |
| Asian | 27 | 22 |
| Subtotals | 21,281 | 6,225 |
| Total..... | 27,506 | |

4-H Camping: A Legacy of Excellence

North Carolina's youth and families continue to "Discover the World Through 4-H Camps." Camps and educational center operations continue to grow in celebration of being exemplary units in the certification system managed by the American Camping Association. Over 5,000 youth had a 4-H camping experience in 2001.

Two thousand eight hundred seventy-eight (2,878) youth "discovered the world" during 20-unit weeks of junior camping and 12 weeks of specialty camps including: Marine Science and Sailing, Cloverbud Camping (ages 6-8), Fur, Fish, and Game Camp,

Horsemanship, Shooting Sports, Adventure Camp, Challenge Camp, and 4-H Forestry Camp.

We plan to maintain our facilities in a safe manner and develop programming that is relevant to our core audience. While maintaining our emphasis on youth development, we plan to increase marketing for conference and retreat programs. We plan to implement this market expansion without damaging relationships with our primary customers for the five centers.

4-H Programming is Productive

In addition to collecting annual program involvement data for youth and adults, 4-H collaborates in the 20 Cooperative Extension Major Programs and measures specific impacts in four:

- Child Care
- Leadership and Volunteer Development
- Resilient Youth, Families, and Communities
- Youth Development

CEMP 5 - CHILD CARE

The child care Cooperative Extension Major Program has two goals. These goals are to: (1) improve the quality of child care in North Carolina and (2) to increase the availability of child care in North Carolina.

The needs of the child care community are diverse. Primary among them is the need to improve the quality of care provided by staff through appropriate training. Agents report having trained at least 22,170 youth and adult child care providers in 2001. Cooperative Extension has offered a total of 24,669 training hours for these providers, which at \$20.00 per hour calculates to a cost benefit of \$493,380. More importantly, 1,819 of these providers report that they increased their knowledge, attitudes, and skills as a result of this training, and 556 report implementing quality child care practices in one or more of the state mandated functional areas (topics). It is not surprising, therefore, that parents, child care providers and school personnel report that 32,543 children improved in social/emotional, cognitive, and physical development in the centers where staff received CES training. Thus, the North Carolina Cooperative Extension Service has an important impact on the 43,575 children reached by these child care providers.

Child care continues to be an under-funded community need. The North Carolina Cooperative Extension Service has begun to seek collaborative relationships and grant funding to alleviate this need. Agents report developing or sustaining at least 9,538 collaborative relationships in support of child care and developed or sustained 5,571 community-networking relationships to support child care. No other agency, local or

statewide, could have such a statewide impact on the child care issue. Acting in collaboration with other community groups, Cooperative Extension agents have generated at least \$846,304 to support child care at the local level. In addition, agents report that they manage \$970,354 in child care dollars.

Increasing child care availability is sometimes a lengthy process that begins with technical assistance in the form of training, phone calls, and site visits. North Carolina Cooperative Extension agents report that 2,024 potential providers and 2,631 current providers reported improving knowledge and skills in increasing or maintaining child care availability due to technical assistance received through Extension.

Volunteers play an important role in the effort to increase availability and improve quality in child care. In the year 2001, 862 volunteers contributed 37,870 hours of service. At \$10 per hour this equates to \$378,700 dollars worth of service to the community. The most direct evidence of the impact of the work of CES agents is in the 2,919 new slots for children and the 62 new centers or family child care homes that were created across the state in 2001. This translates into 2,919 children who have care and 62 centers and homes that are now members of the child care industry because of the efforts of the agents of the North Carolina Cooperative Extension Service.

CEMP 13 - LEADERSHIP AND VOLUNTEER INVOLVEMENT

The goal of the Leadership and Volunteer Development Cooperative Extension Major Program is to build the capacity of individuals, community groups, and organizations for involvement in their community for the public good. The results reported by counties in this major program for 2001 indicate that educational experiences offered to the public have helped achieve this goal.

Citizens from varying socio-economic levels gained knowledge and skills that facilitated their participation in community problem solving and in local public policy decision-making. Local citizens (1955) improved their problem solving skills with 610 taking action and participating in the community/public policy process as a result of the training they received. A number of community issues (214) were addressed. Of those that were resolved successfully, local communities were spared \$312,879 in cost.

Limited resource and other non-traditional participants (2,581) were involved in leadership training. The participants identified community problems and took steps to solve them. Their actions resulted in 1,120 problems being resolved or projects completed to address the problems. To continue finding solutions to problems, these individuals formed 100 community organizations.

Many volunteers increased their capacity to lead and contribute valuable service to others. Those increasing knowledge they could pass on to others totaled 8,600. A number of these volunteers became part of volunteer management systems (2,413) where their advanced skills were used to facilitate the accomplishment of community projects or build skills in youth and adults that enhanced their personal development.

CEMP 19 - RESILIENT YOUTH, FAMILIES, AND COMMUNITIES

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 in 49 counties have benefited as a result of involvement in community based programs, which focus on building resilience. Youth in high-risk environments have increased coping skills, are making more informed decisions, and have a sense of purpose for the future.

Families in 15 counties have benefited from financial management programs conducted to help them learn basic money management skills such as budgeting and investing, allowing them to reallocate resources to meet pressing family financial demands. Volunteers have been trained and matched to mentor Work First participants. Through these efforts, program participants have become employed, retained employment, and improved employment status. Three primary themes have emerged from this objective this year. Family coping and nurturing programs were instrumental in providing families with parenting guidance, family communications skills and family violence prevention. Adolescent pregnancy prevention programs have targeted young men as well as young women. Thirdly, Mentor Education programs served to address day-to-day needs of those women who have been involved in Work First programs. Forty-nine (49) counties reported the establishment of collaborations, the initiation of prevention programs, and reduction in criminal activities in targeted communities.

CEMP 20 - YOUTH DEVELOPMENT

Youth Development focuses on three major aspects of the 4-H program that contribute to the life skill and asset development of young people: the long-term 4-H Unit/Club, 4-H School Enrichment Program, and the Diverse Housing Program. Four major factors have been identified that contribute to the successful development of a child: social competence, problem solving, autonomy, and a sense of purpose and future. Those factors, along with the Search Institute's developmental assets, are incorporated into 4-H experiences. 4-H club activities, presentations, record keeping, judging teams, school enrichment experiences, peer helper/mentoring programs, community service projects, and recognition programs are designed to give the participants an opportunity to develop the life skills/assets that any child will need to succeed in life.

During 2001, a total of 183,081 young people between the ages of 5 and 19 participated in 4-H programs with 3,246 participants involved in 4-H club and other long-term units,

school enrichment and diverse housing programs. The positive development of young people through 4-H participation can be illustrated by the following results from selected programs: 1) 32,251 youth increased their communication skills; 2) 31,262 youth have increased their decision making skills; 3) 40,857 youth increased their awareness of community service; 4) 65,758 youth increased their knowledge in various curriculum areas; and 5) 35,205 increased their self confidence. In addition, counties reported that as a result of the 4-H community service projects, their communities saved \$492,266.

4-H Summary

The North Carolina 4-H Program created helping relationships to enable youth to become responsible, productive citizens during the 2001 programming year. The youth, families, and communities of North Carolina were well served by the mission accomplishment of 4-H through the related missions of the North Carolina Cooperative Extension Service, the College of Agricultural and Life Sciences, North Carolina State University, and North Carolina A&T State University.

2001 proved to be a great year of productive traditional and innovative programs focusing on four of Extension's major state programs: Child Care; Leadership and Volunteer Development; Resilient Youth, Families and Communities; and Youth Development. A total of 6,225 youth and 21,281 adult and youth volunteers worked to involve 183,081 youth in 1,595 4-H Clubs; 81,845 youth in 3,043 special interest programs; 77,577 youth in 2,395 (K-12) school enrichment designs; and 43,575 young people in 556 after-school, child care settings. Over 5,000 youth "discovered the world" during 20-unit weeks of junior camping and 12 weeks of 4-H specialty camps.

Fifty-two counties targeted child care to train 8,539 child care providers. One million, five hundred eighty-six thousand, three hundred and eighty dollars (\$1,586,380) in resources was invested at 62 new centers to expand available child care slots by 2,919.

Sixty-four counties worked to expand Leadership and Volunteer Development by involving 1,548 participants to plan and implement 1,120 community based projects while forming 100 new community action organizations.

Forty-nine counties focused on Resilient Youth, Families, and Communities. Resilience programs reported 13,345 youth with increased life skills; 6,696 improved academic performance, 2,770 reduced drug and alcohol use, 1,223 reduced judicial involvement, and 1,081 reduced violence. Fifteen counties developed 120 money management plans. One hundred four (104) collaborations were established; and 71 prevention programs were developed.

Eighty-three counties targeted youth development and increased life skills in 2,581 youth while investing \$312,879 in community savings, youth scholarships, project work earnings, and project work savings. Studies representative of 4-H school enrichment programs indicated that 67% of the 25,157 students improved academic performance;

68% of 21,420 students improved completing homework; and 72% of 21,586 students received better science grades. Teachers reported these results plus savings to school systems.

4-H Programming Has Unlimited Potential

Extension's 4-H program has a proud history of excellence and an exciting future. By continuing to respond to locally determined needs with programs that are relevant, productive, economically efficient, and of broad public appeal, the future of 4-H is unlimited in potential. The Cooperative Extension 4-H Youth Development network opens doors of state and national opportunities to all North Carolina's children and their families and communities.

It is a treasure shared by our state's youth, families, and communities. It demonstrates the value of collaborating effort and fiscal efficiency in the spirit of locally based, educational design. Youth, parents, educators, community, and regional and state leaders work to create the treasure that is 4-H. In 2001 that treasure blazed brightly across the state of North Carolina.

Success Stories

Child Care

To fulfill training requirements, staff from day care homes and child care centers are required to obtain a specified number of hours (continuing hours of credit or CHC) each year. Cooperative Extension, in cooperation with the Randolph Community College and the Randolph County Partnership for Children, is committed to providing a wide selection of quality training opportunities. One hundred and thirty-nine (139) providers received training through Cooperative Extension at Randolph County Center for a total of 401 CHC's by participating in one or more of the following: Be Active Kids, Water Works Wonders, Active Learning for Ones, Safe Foods/Healthy Children, Stress Management for Adults, Theme Weeks with Science Activities and Sensible Safe Play. Each participant received a notebook of ideas, lesson plans, and resources to be used in the child care setting. As a result providers saved \$8,610.00.

Leadership and Volunteer Development

Paid and volunteer staff play an important role in extending the work of the 4-H staff. Twelve paid staff and 31 volunteers provided assistance to 4-H programs in Perquimans County over the past twelve months. Two Governor's One-On-One staff and volunteers provide one-on-one mentoring to court involved youth. One Americorp Fellow recruited program volunteers. The 4-H Tutoring Improves Performance Scores Program has six staff members who provide study assistance and tutoring in math and reading to 174 youth. Three SAC staff operate a small after school program for 20 youth in grades K-3. Volunteer & paid staff assist with 4-H club work and other 4-H events and activities. All

volunteers are provided orientation & on the job training. Paid staff are required to attend staff conferences and annual staff development and curriculum trainings related to their programs.

Resilient Youth, Families, and Communities

The goal of the 4-H Mountain Challenge program in Yancey County is to assist youth in becoming competent, coping, contributing youth by developing the following: communication, cooperation, conflict resolution, social skills, teamwork, character, self-responsibility, and resiliency using various "at-risk" resources and other planned activities. The target population served was at-risk youth from elementary, middle schools, and the high school. Forty-one youth were served during the year. One hundred percent of the youth served had no further involvement with the juvenile court system. Eighty-five percent of the youth had fewer out-of-school suspensions and office visits for behavior related issues. One hundred percent of participants received information on choosing alternatives to drug use and negative peer pressure. Eighty percent of participants modified negative behavior. Wayne County 4-H provides opportunities for middle school age youth to stay after school and anticipate in positive activities designed to enrich their knowledge in life skills and enhance their abilities to perform in class. This is done through funding from a "Support Our Students" grant and a 21st Century Grant. Students stay after school and participate in structured and free choice activities designed to increase their knowledge in life skills such as decision making, nutrition, safety and more. They also participate in community service projects. An outside evaluator found that the students that participated in the 4-H after school program increased the percent of students at grade level from 77% to 88%. Based on the Department of Education surveys, teachers reported that 92% of the students turned in their homework on time, with 88% improving in completing it to the teacher's satisfaction.

Youth Development

Youth development is not like observing the change in yield when a new practice is utilized in farming. It takes time to observe the growth of a child and for them to recognize what their 4-H experience did to make them what they are today. I had a former 4-H'er return to the county this winter. He came up to me and introduced his wife. He told her that I was his 4-H agent and responsible for his ability to speak in group meetings. He said that a day rarely goes by that he doesn't call on his 4-H presentation skills in his profession. He is a graduate of NCSU but he said he used his speaking skills from 4-H through his college career and it was also helpful for interviews in the job market. The 4-H program is still the only youth organization which helps youth develop this important life skill. Sometimes the rewards are a long time coming but they are always special in this job.

The county unemployment rate is currently 10.6% and looks to be even higher in the coming years with plants closing and lay offs. It has become increasingly important that

youth entering the work force have the necessary skills to compete in today's job market. To that end, North Carolina Cooperative Extension (NCCE) provided an opportunity for the youth of the county to "jump start" their employment education by providing CareerSmarts. This program is designed to help youth prepare for, enter and maintain stable employment. Provided to youth at three sites within the county, CareerSmarts engaged the youth in critical thinking skills about their futures. One youth wrote, "I really enjoyed this class and it was very helpful to me. I will make sure to use some of the skills mentioned to get a job. I liked it and appreciated it". More than 75% of the participants wrote, the classes were helpful in preparing for future employment and they would recommend them to their friends.

Many young people lack the aptitude to voice their ideas and speak publicly to groups. 4-H has traditionally touted an ability to develop skills in youth to speak before audiences, think on their feet, and present themselves confidently. Anson County put that claim on the line last fall by organizing a Presentations Club in the county. Led by a trained 4-H Master Volunteer, a total of 24 youth and volunteers met to learn the basics. Over the next eight months, youth wrote outlines, researched, developed presentations and practiced in front of one another. In the end, five 4-H'ers went on to competition while three younger 4-H'ers participated in presentations on the local level. Nine other youth learned the framework and techniques in preparing presentations. The growth of these young people confirm the 4-H claim to developing life skills and responsible adults for the future.

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Program Volunteers, Hours Contributed, and Value for Each Per CEMP

| CEMP | Volunteers | Hours Served | \$ Value @ \$10 per Hour |
|--------------|-------------------|---------------------|---------------------------------|
| 01 | 944 | 4,074 | \$40,740 |
| 02 | 717 | 6,132 | \$61,320 |
| 03 | 2,775 | 20,948 | \$209,480 |
| 04 | 5,348 | 38,957 | \$389,570 |
| 05 | 3,510 | 70,401 | \$704,010 |
| 06 | 1,093 | 13,995 | \$139,950 |
| 07 | 2,680 | 30,958 | \$309,580 |
| 08 | 870 | 12,526 | \$125,260 |
| 09 | 1,184 | 7,173 | \$71,730 |
| 10 | 2 | 28 | \$280 |
| 11 | 1,889 | 9,334 | \$93,340 |
| 12 | 849 | 4,357 | \$43,570 |
| 13 | 28,974 | 268,901 | \$2,689,010 |
| 14 | 461 | 3,440 | \$34,400 |
| 15 | 987 | 7,030 | \$70,300 |
| 16 | 17,485 | 54,042 | \$540,420 |
| 17 | 3,799 | 75,618 | \$756,180 |
| 18 | 559 | 2,767 | \$27,670 |
| 19 | 2,776 | 41,976 | \$419,760 |
| 20 | 16,199 | 230,240 | \$2,302,400 |
| Total | 93,101 | 902,897 | \$9,028,970 |

Program Face to Face Teaching Contacts, Non Face to Face Contacts and Total Number of Contacts

| CEMP | Face to Face | Non Face to Face | Total |
|--------------|---------------------|-------------------------|------------------|
| 01 | 99,999 | 130,988 | 230,987 |
| 02 | 12,336 | 26,527 | 38,863 |
| 03 | 140,327 | 194,902 | 335,229 |
| 04 | 158,098 | 261,117 | 419,215 |
| 05 | 109,195 | 204,609 | 313,804 |
| 06 | 56,518 | 46,086 | 102,604 |
| 07 | 145,833 | 342,184 | 488,017 |
| 08 | 37,116 | 342,394 | 379,510 |
| 09 | 45,213 | 195,193 | 240,406 |
| 10 | 505 | 1,205 | 1,710 |
| 11 | 21,938 | 371,474 | 393,412 |
| 12 | 28,438 | 198,747 | 227,185 |
| 13 | 157,894 | 209,859 | 367,753 |
| 14 | 19,084 | 56,366 | 75,450 |
| 15 | 29,093 | 66,945 | 96,038 |
| 16 | 348,335 | 739,067 | 1,087,402 |
| 17 | 224,545 | 725,432 | 949,977 |
| 18 | 16,976 | 173,160 | 190,136 |
| 19 | 155,845 | 64,839 | 220,684 |
| 20 | 411,227 | 681,809 | 1,093,036 |
| Other | 15,895 | 12,699 | 28,594 |
| Total | 2,234,410 | 5,045,602 | 7,280,012 |

Locations Reporting Per CEMP Objective

2001

| | <i>Objective 1</i> | <i>Objective 2</i> | <i>Objective 3</i> | <i>Objective 4</i> | <i>Objective 5</i> | <i>Objective 6</i> | <i>Objective 7</i> |
|---------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| CEMP 1 | 30 | 20 | 12 | 7 | 10 | | |
| CEMP 2 | 17 | 7 | 6 | | | | |
| CEMP 3 | 42 | 49 | 30 | 17 | 36 | 25 | 80 |
| CEMP 4 | 62 | 35 | 42 | | | | |
| CEMP 5 | 70 | 34 | | | | | |
| CEMP 6 | 24 | 10 | 7 | 9 | | | |
| CEMP 7 | 46 | 38 | 68 | 30 | 28 | 21 | 24 |
| CEMP 8 | 35 | 18 | 16 | 30 | 12 | | |
| CEMP 9 | 54 | 16 | | | | | |
| CEMP 10 | 3 | 1 | | | | | |
| CEMP 11 | 62 | 4 | 1 | 1 | | | |
| CEMP 12 | 19 | 17 | 17 | | | | |
| CEMP 13 | 27 | 64 | 34 | | | | |
| CEMP 14 | 28 | 15 | | | | | |
| CEMP 15 | 16 | 10 | 17 | 9 | | | |
| CEMP 16 | 76 | 38 | 16 | 61 | | | |
| CEMP 17 | 39 | 67 | 43 | | | | |
| CEMP 18 | 15 | 7 | 13 | 15 | 9 | | |
| CEMP 19 | 49 | 14 | 15 | | | | |
| CEMP 20 | 83 | 54 | 17 | 31 | | | |

\$ Value of Programs to Audience and Society

| CEMP - Objective | \$ Value to Targeted Audience | \$ Value to Targeted Audience Total | \$ Value to Society | \$ Value to Society Total |
|------------------|-------------------------------|-------------------------------------|---------------------|---------------------------|
| 1-1 | \$185,854 | | \$368,050 | |
| 1-2 | \$248,838 | | \$271,660 | |
| 1-3 | \$2,550 | | \$32,000 | |
| 1-4 | \$13,000 | | \$125,000 | |
| 1-5 | \$47,175 | | \$89,500 | |
| | | \$497,417 | | \$886,210 |
| 2-1 | \$111,139 | | \$285,725 | |
| 2-2 | \$43,160 | | \$110,080 | |
| 2-3 | \$67,209 | | \$753,829 | |
| | | \$221,508 | | \$1,149,634 |
| 3-1 | \$3,798,262 | | \$1,626,670 | |
| 3-2 | \$12,469,517 | | \$21,165,470 | |
| 3-3 | \$1,776,630 | | \$1,171,814 | |
| 3-4 | \$509,400 | | \$464,200 | |
| 3-5 | \$1,591,280 | | \$1,923,605 | |
| 3-6 | \$134,726 | | \$182,481 | |
| 3-7 | \$4,172,069 | | \$3,132,199 | |
| | | \$24,451,884 | | \$29,666,439 |
| 4-1 | \$7,259,134 | | \$26,454,242 | |
| 4-2 | \$904,170 | | \$1,570,000 | |
| 4-3 | \$657,394 | | \$1,095,430 | |
| | | \$8,820,698 | | \$29,119,672 |
| 5-1 | \$2,652,347 | | \$3,981,373 | |
| 5-2 | \$2,884,428 | | \$4,550,665 | |
| | | \$5,536,775 | | \$8,532,038 |
| 6-1 | \$183,048 | | \$349,718 | |
| 6-2 | \$174,036 | | \$515,090 | |
| 6-3 | \$177,400 | | \$158,400 | |
| 6-4 | \$223,501 | | \$558,503 | |
| | | \$757,985 | | \$1,581,711 |
| 7-1 | \$20,442,778 | | \$29,228,348 | |
| 7-2 | \$1,440,050 | | \$1,860,424 | |
| 7-3 | \$16,668,166 | | \$16,537,320 | |
| 7-4 | \$4,349,790 | | \$6,546,765 | |
| 7-5 | \$3,022,299 | | \$10,514,434 | |
| 7-6 | \$5,038,851 | | \$1,066,568 | |
| 7-7 | \$4,188,300 | | \$4,541,550 | |
| | | \$55,150,234 | | \$70,295,409 |

Value of Programs to Audience and Society

| \$ Value of Programs to Audience and Society | | | | |
|--|-------------------------------|-------------------------------------|---------------------|---------------------------|
| CEMP - Objective | \$ Value to Targeted Audience | \$ Value to Targeted Audience Total | \$ Value to Society | \$ Value to Society Total |
| 17-1 | \$1,048,448 | | \$4,109,373 | |
| 17-2 | \$12,236,229 | | \$13,355,898 | |
| 17-3 | \$226,273 | | \$3,353,705 | |
| | | \$13,510,950 | | \$20,818,976 |
| 18-1 | \$269,500 | | \$465,050 | |
| 18-2 | \$518,020 | | \$1,290,000 | |
| 18-3 | \$522,500 | | \$3,998,200 | |
| 18-4 | \$230,027 | | \$216,018 | |
| 18-5 | \$1,120 | | \$6,100 | |
| | | \$1,541,167 | | \$5,975,368 |
| 19-1 | \$2,011,778 | | \$11,410,763 | |
| 19-2 | \$470,865 | | \$946,381 | |
| 19-3 | \$409,062 | | \$1,525,790 | |
| | | \$2,891,705 | | \$13,882,934 |
| 20-1 | \$3,017,483 | | \$7,291,835 | |
| 20-2 | \$706,804 | | \$1,659,814 | |
| 20-3 | \$10,250 | | \$27,250 | |
| 20-4 | \$281,058 | | \$314,228 | |
| | | \$4,015,595 | | \$9,293,127 |
| Grand Totals | | \$163,680,534 | | \$243,002,802 |