



North Carolina Cooperative Extension

2003 Major Program Accomplishments

OVERVIEW

Enhancing agricultural, forest and food systems

Developing responsible youth

Strengthening and sustaining families

**Conserving and improving the environment
and natural resources**

Building quality communities

North Carolina Cooperative Extension

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. 2003 was the initial year that programming was conducted in the new dynamic plan which focuses 30 focused objectives. The new objectives continue to address the five program areas undertaken by Cooperative Extension, which are:

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

Program Accomplishment Report

Extension's programs are approved through the Extension Council, which includes representatives from 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 report reflects that broad reach, as well as the deep impact that Extension programs make in advancing the state's economy, the environment and the quality of life.

Overview

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NORTH CAROLINA COOPERATIVE EXTENSION

2003 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. 2003 was the initial year that programming was conducted in the new dynamic plan that embraces 50 focused objectives. The new objectives continue to address the five priority program areas undertaken by Cooperative Extension, which are:

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

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 2003.



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2003 Program Accomplishment Overview

Enhancing Agricultural, Forest and Food Systems

Extension programs in the agricultural, food and forestry programs are quite diverse, and encompass all facets of the production, management, and marketing aspects associated with the enterprises and audiences involved in these systems. There are 16 specific educational objectives in this program area, and those range from livestock and crop production to wildlife and fisheries management to food and forest manufacturing, worker safety, urban pest control, consumer horticulture, and programs focused on youth and volunteer involvement. Audiences of all demographic groups and economic levels are provided information via this broad range of programs. Each of the 16 objectives in this program area are presented along with a brief description of program focus and key accomplishments for 2003.

OBJECTIVE A-1: Animal, poultry and aquaculture producers including limited resource audiences will implement practices or enterprises that will achieve individual and family goals related to profitability and quality of life.

Program Description:

This program focuses on the production, management, and marketing of livestock and poultry, and also includes aquatic production. The species in which programs are conducted include Beef Cattle, Dairy, Hogs, Sheep and Goats, Poultry, and Aquatic animals. In 2003, producers gained \$12,180,557 by adopting practices that optimized income, such as improved nutrition, herd health, breeding, marketing, buildings, and business management. Educational programs in Objective E-1 that focus on economically and environmentally sound practices to manage water and waste materials for the purpose of improving air and water quality protection is very closely tied to the animal production systems efforts described in this objective. Altogether, reports indicate that 7,054 producers adopted best management practices in their production and marketing systems. Further, 2,011 were reported to have applied improved farm financial planning practices in their operations.

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

Program Description:

This program focuses on educating farm and urban citizens of the many facets of and various aspects of agriculture that result in the interface of those citizens. From public policy issues to urban encroachment into historical agricultural production areas, as well as youth gaining an understanding of where their food originates, are areas this program addresses. Agricultural producers are also able to gain an improved understanding and appreciation of their fellow citizens and neighbors who may not be connected to agriculture. In 2003, there were a reported 33,563 persons who gained a greater understanding of agriculture, while more than 1,350 farms

adopted appropriate management standards, practices and procedures that address agricultural issues that impact both farm and non-farm citizens, and 2,129 farms were documented to implement standards, practices or procedures that enhanced their likelihood of sustainability.

OBJECTIVE A-3: Youth involved in animal projects will improve personal development and learn leadership and life skills related to animal husbandry including: record keeping, finances, producing high quality animal products, sportsmanship, and appropriate treatment of animals.

Program Description:

This program is focused on youth development and participation in animal projects that give youth opportunities for gaining personal responsibility as well as leadership skills and knowledge of animal agriculture. Such projects allow youth to earn money from the sale of their project animals. In 2003, there were 2,307 youth who participated in livestock programs and activities, and they received almost \$605,000 from sales of their project animals, above the realistic market price. Also, 250 youth in 4H Livestock Programs received scholarships totaling over \$76,000 as a direct result of participation in the program. 1,771 youth demonstrated enhanced personal development and leadership skills, including speaking ability, decision making and volunteerism.

OBJECTIVE A-4: Field crop growers will implement recommended and potential production practices and systems, investigate innovative agricultural opportunities, develop business and human resource plans, and explore marketing options to ensure continued farm productivity and profits and quality of life.

Program Description:

This program focuses on field crop production systems management and marketing. The primary crops in which data are collected include Cotton, Grains, Tobacco, Peanuts, and Soybeans. Altogether, there was a reported improvement in net profits of \$80,262,608 as a result of adoption of Extension recommended practices. Many strategies that were adopted resulted in millions of dollars each to the growers. These included improved marketing strategies resulting in gains of nearly \$6.8 million, equipment adaptation at \$9.7 million gain, improved labor management and efficiency resulting in over \$17.1 million gains, fertility management at \$9.1 million, and use of optimum tillage systems netting growers an additional \$12.4 million. Other practices included new varieties, alternative practices, improved field selection, improved pest, disease, and weed management, improved varieties, crop rotations, and improved harvesting techniques. Altogether, the practices were implemented on an aggregate 6,072,662 acres, with a range of numbers of farmers from 8,105 implementing improved crop rotation practices to 1,899 farmers implementing new or alternative production systems or enterprises.

OBJECTIVE A-5: Commercial horticulture growers will implement recommended and potential production practices and systems, investigate innovative agricultural opportunities, develop business and human resource plans, and explore marketing options to ensure continued farm productivity and profits and quality of life.

Program Description:

This program is very broad, in that it encompasses the entire scope of fruit and vegetable production and marketing. Altogether, improved practices taught by Extension resulted in a reported income increase by fruit and vegetable growers of \$11,747,912. These practices include

such factors as improved varieties at \$1,761,859 gains by 349 growers on 10,144 acres; labor management and efficiencies at \$1,488,845 gains by 1,039 growers on 29,251 acres; marketing strategies at \$1,237,068 gains by 540 growers on 8,203 acres; new enterprises at \$868,200 gains by 230 growers on 2,175 acres, as well as many other factors such as pest control and weed and disease management, improved field selection and rotations, equipment adaptations and improved harvesting techniques.

OBJECTIVE A-6: Turf and Green Industry growers will implement recommended and potential production practices and systems, investigate innovative agricultural opportunities, develop business and human resource plans, and explore marketing options to ensure continued farm productivity and profits and quality of life.

Program Description:

This program serving the informational needs of turf and green industry growers results in highly significant outcomes each year. For instance, 576 nursery and turfgrass producers involved in 20,460 acres of production used improved marketing and risk management strategies to gain \$1.942 million additional income in 2003. Green and turf industry producers enhancement of weed, insect and disease management strategies produced a \$1.124 million economic advantage over the prior year. Adoption of improved practices for irrigation, optimum fertility management, labor management, improved varieties, and other business plan enhancements resulted in over an additional \$1 million in increased income for growers. As indicated in numerous success stories from across the state, this industry is offering opportunities for small and limited resource farmers as well as larger commercial producers to produce substantial income from their operations through the use of Extension recommended practices.

OBJECTIVE A-7: Part-time, limited resource and other farmers will increase the quality of life and the sustainability of their farms through crop diversification, integration of appropriate alternative opportunities and enterprises, intensive management practices, water and nutrient management, business management, and expanded markets.

Program Description:

This program specifically focuses on part-time and limited resource farmers in providing them information to seek new opportunities in niche crop and livestock production, enhance their current operational management systems, and utilize practices that are profitable and sustainable. These audiences indicated they gained an additional net income of \$978,832 by implementing best management practices. They also indicated a gain of \$402,138 in increased profits from their new or alternative crops/enterprises.

OBJECTIVE A-8: Manufacturers and consumers of wood products will increase the efficiency of utilization, minimize waste and optimize economics of wood product manufacture and utilization.

Program Description:

This is a wood manufacturing focused objective that is concerned in teaching new manufacturing techniques, developing business plans, increasing yields and efficiencies in wood manufacturing, as well as working to inform consumers of the importance of the wood products industry. Such efforts have helped both consumers and industry to save money as well as to become more

efficient. For example one firm that was marginally profitable has become sufficiently efficient whereby the net result is that the mill currently is employing 42 people and generated a profit conservatively estimated to be over \$600,000 this year. Consumers are reported to have saved a reported \$214,000 by adopting appropriate practices related to selection, use and maintenance of wood products.

OBJECTIVE A-9: Forestry and Christmas Tree conservation, management, and marketing program participants will improve the economic and environmental sustainability of North Carolina's forest resources and Christmas tree plantations.

Program Description:

This program focuses on boosting the economic health and sustainability of the state's forest industry, with a focus on private landowners and others employed in the forestry industry. Certification training for forestry professionals was one of the key areas of success in 2003, as well as providing information to land owners in using best management practices in replanting and restoring forests, as well as assuring environmental protection. Properly addressing tax laws when planning reforestation, timber sales, and other transactions were highlights of successes by program participants. Emphasis was also placed on educating land owners on ways and means for gaining additional income from their acreage such as collecting pine straw or leasing for recreational purposes producing a reported \$365,313 in increased income.

OBJECTIVE A-10: Wildlife and Fisheries Management: Participants will improve management of wildlife and fisheries resources.

Program Description:

This program focuses on protecting and utilizing natural resources in a beneficial and sustainable manner. This includes enhancing wildlife management practices, protecting streams and ponds, and utilizing appropriate wildlife and fisheries management practices for sustainable recreational opportunities as well as protecting the environment.

OBJECTIVE A-11: Food processors who participate in Extension programs will adopt new technology, hire and train qualified personnel, and develop in-house quality systems to ensure regulatory compliance along with sustained growth and profitability.

Program Description:

This program is one of the few programs that is conducted from the University departmental level, and results in considerable input from NCSU scientists and Extension specialists on topics described in the program objective.

OBJECTIVE A-12: New and potential entrepreneurs in food products manufacturing will benefit from programs in business setup, food safety and security, management, quality, technology and regulatory compliance.

Program Description:

Educational programs and initiatives were undertaken to enhance the knowledge of citizens in several counties regarding small scale food preparation for sale regulatory compliance

requirements. Other programs focused on collaborating with citizens and community leaders in efforts to establish new food manufacturing and storage facilities. Plus, knowledge of food selection and health practices were gained by many citizens.

OBJECTIVE A-13: Limited resource people and other audiences involved in various aspects of agriculture and natural resource management will understand the health and safety concerns inherent in their work and will develop skill and techniques allowing them to adopt appropriate practices to reduce illnesses and injuries.

Program Description:

This safety-focused program seeks to educate adult and youth as to the risks associated with farms and homes. Health and safety best management practices are taught to limited resource audiences and well as non-limited audiences.

OBJECTIVE A-14: Target audiences will adopt best management practices for residential, industrial and community pest issues.

Program Description:

This program focuses primarily on pest management and applicator certification programs for public facilities in residential, municipal and industrial settings. Integrated pest management practices are taught to citizens, municipal and industrial employees, with a focus on decision making regarding application of pesticides and targeting their use specifically as needed, with over 9,400 program participants adopting the IPM practices.

OBJECTIVE A-15: Through the consumer horticulture program, consumers will increase their knowledge and adopt practices concerning proper plant selection, cultural practices, and pest management strategies that maximize plant performance while minimizing inputs, and protect environmental resources.

Program Description:

This program focuses on the broad scope of consumer horticulture to include cultural, pest, selection, management, and environmental considerations. Home plant selection and care, gardening, landscapes, and related surroundings are included in this broad program effort. Numbers of citizens who participated in this program during 2003 is quite extensive, as indicated by the 445,292 who were reported as applying methods to prevent and manage pest problems (weeds, insects, diseases) through non-chemical methods and correct methods for pesticide application. A key component of this program involves one of Extension's most successful volunteer program that is called Master Gardener. These Extension trained volunteers provided information to more than 326,000 of the state's citizens.

OBJECTIVE A-16: Youth will increase their knowledge of plants, insects, and the environment while learning new gardening skills through participation in 4-H, school, and special interest classes, and activities.

Program Description:

Master Gardener Volunteers, public school, day care personnel and volunteers have played key roles in cooperating with Cooperative Extension in facilitating and participating in training youth in such topics as fruit tree pruning, beekeeping, vegetable gardening in community, home, school and other communal locations. Master Gardener Volunteers worked with youth in building a water and butterfly garden at one Lexington school, while some teens in Wake County who participated in the youth horticulture program demonstrated DNA extraction from an assortment of fruits and vegetables in producing a national 4-H biotechnology curriculum. Altogether, 11,274 youth participated in school based gardening activities and projects.

Conserving and Improving the Environment and Natural Resources

Production of livestock, poultry and agronomic, horticultural and forestry crops is economically important to the people of North Carolina, providing for nearly 22 percent of the gross state product. To ensure the long-term sustainability of this important industry, farmers, agribusinesses and government service agencies need new technologies and educational programs to help them make wise decisions to protect natural resources and the environment, and to form appropriate coalitions and partnerships to attain the very best possible delivery and implementation of such knowledge.

Some of the key goals of this program area include:

- helping crop and livestock producers and other agribusiness professionals adopt economically and environmentally sound practices to protect water and soil quality and manage wastes;
- helping producers and agribusiness professionals understand, plan and comply with environmental regulations;
- helping people not directly involved in agriculture understand and appreciate the complex relationships between agriculture, silviculture and the environment.

There are 8 primary objectives associated with this program focus. Those objectives and a brief program description are described in the following pages.

OBJECTIVE E-1: Livestock, poultry, and fish producers will adopt and promote economically and environmentally sound practices to manage water and waste materials for the purpose of improving air and water quality protection.

Program Description:

Cooperative Extension has major animal focused programs to help producers gain knowledge and skills, and to appropriately meet regulatory environmental requirements. Continuing education credit training is offered to make sure persons seeking waste applicator certification as well as certified operators have ample opportunity to receive necessary credits. Livestock producers are kept abreast of new and continuing regulations in waste management through newsletters, meetings, workshops, tours, fact sheets, etc. Assistance is provided to program participants on sludge management, irrigation calibration, record-keeping, manure sampling, and nutrient management plans. Farmers are also trained regarding nutrient management and regulations associated with the Neuse and Tar River rules where applicable. Septage applicators

also depend on Extension for nutrient plans and assistance with land application of seepage. The number of farms that continue to improve animal waste management continues to grow as is evidenced by improved record keeping and timely submission of waste, feed, plant and soil samples used to improve agronomic rate application of animal waste. Producers want to keep abreast of current environmental laws and cost-sharing programs as well. Other educational topics in this program include forage and pasture management, sludge survey methods, record keeping, composting and incineration procedures, and managing lagoons in chronic rainfall situations.

Hundreds of poultry producers have adopted incineration as a method for animal mortality disposal. Counties realized a cost benefit of thousands of dollars by utilizing animal waste as a fertilizer source. In Sampson County, approximately 125 producers representing 150 swine farms participated in animal waste analysis for nutrient concentrations. This BMP allowed them to prescription fertilize nitrogen to their crops, thereby reducing excess nitrogen from entering the environment. Also, forty-five Sampson producers representing 44 swine farms participated in a swine lagoon computerized records system that allowed them to monitor and plan nitrogen applications to their crops. In poultry producing areas, dry litter storage and management plan development as well as litter application as a fertilizer source resulted in significant growth of the industry and increased profitability of those farmers.

OBJECTIVE E-2: Field crop producers will adopt and promote economically and environmentally-sound practices to manage water, soil, nutrients and pesticides for the purpose of enhancing environmental quality.

Program Description:

This program reaches across the broad gamut of all field crop production in the state. Programs focus primarily on educating growers on improved and innovative practices as well as to guide them in meeting environmental regulations in the Neuse River Basin on nutrient management, and across the state in other regulated practices such as land application of animal wastes. IPM programs focus on teaching techniques such as crop scouting, insect and disease monitoring, and taking advantage of natural biological control practices as well as an array of progressive crop and soil management systems practices that promote water quality, enhance wildlife and produce quality products for the consumer. No-till planting and strip tillage are stressed as well as utilizing soil test reports for making informed decisions in applying nutrients, observing threshold limits before applying pesticides and utilizing conservation practices in an effort to ensure sound environmental concepts and reduce production costs for farmers. One example of the program impacts in conservation tillage practices in one county prevented approximately 27 tons of soil run off during 2003.

Waste application programs and regulatory compliance programs have resulted in many collaborative programs with state and federal regulatory agencies. Nutrient management plans and other environmental regulatory programs require close attention by farmers to apply waste products that do not exceed established limits for soil fertility, individual nutrient levels, as well as liquid retention to assure that surface and ground water remain unpolluted. In the process of gaining knowledge and meeting regulatory regulations, many farmers are using appropriate amounts of waste products to not only to relieve solid waste storage costs, but to significantly reduce the costs for commercial fertilizer as the organic nutrients serve as viable replacements for chemical fertilizers, with some farmers reporting a savings of \$30 per acre in their fertility costs.

OBJECTIVE E-3: Green industry, greenhouse, fruit, vegetable and turf growers, and landscape professionals will adopt and promote economically and environmentally sound practices to manage water, soil, nutrients and pesticides for the purpose of enhancing environmental quality.

Program Description:

This program area primarily focuses on educating green industry, greenhouse, fruit, vegetable and turf growers and landscape professionals on Best Management Practices that include water management, nutrient management, erosion control, disease control, and pesticide application practices to protect the environment. A considerable component of this program is the certification programs for landscape contractors, plant professionals, landscape technicians and pesticide applicators. Of these special certification programs, there were 3,627 certifications granted to persons completing and passing all requirements for these respective certification programs. Due to these programs, many persons receiving certification increased their incomes considerably by gaining new contracts, increased wages, adding efficiencies, or adding to the dimension of their marketable expertise.

OBJECTIVE E-4: Extension will network with agricultural service agencies and allied agribusiness professionals to promote economically and environmentally sound practices for the purpose of improving air and water quality protection.

Program Description:

This program is one that is focused on building and implementing collaborative programs that brings expertise together to accomplish major program impacts in the communities they serve. Some of the agencies that are involved in an array of environmental programs include the North Carolina Department of Agriculture & Consumer Services, Food and Drug Protection Division, Pesticide Section, Pesticide Disposal Program, County Health Departments, Natural Resources Conservation Services of North Carolina and Virginia, NCDEHNR and DWQ Natural Resources Conservation Service and Farm Service Agency Albemarle Resource Conservation and Development Commission, NC Solid Waste Div. (grantor), NRCS, and Soil & Water Conservation Districts, NC Forest Service, N.C. Wildlife Commission, agribusinesses and industry are prominently identified as environmental program collaborators.

Many of the joint efforts involve programs such as pesticide and hazardous waste collection, erosion control, waste management, habitat development, stream bank management, and potential pollutant collections such as used oil and hydraulic fluids. One special program in Iredell County involved cooperative efforts with the N.C. Wildlife Commission in the Cooperative Upland Restoration Establishment (CURE) Program which has been successful in the establishment of 200 acres of native warm season grasses for improved songbird habitat and erosion control. Others have involved the Farm Service Agency and NARCS in many counties working together with Extension in providing erosion control, soil management and other conservation programs plans and support information to local farmers. Localities such as the Town of Scotland Neck worked cooperatively with Extension in Halifax County to help promote and prepare for a joint meeting to offer information to area citizens on alternative uses for their farms.

OBJECTIVE E-5: Ecological Awareness: Participants, particularly youth, will increase their appreciation for and knowledge of biological diversity and ecosystem management.

Program Description:

This program focuses on educating citizens, and primarily youth, in gaining knowledge and appreciation for the environment and the ecosystem in which they live. Knowledge of the flora and fauna in their surroundings is gained through these programs. 5,578 citizens participated in special educational programs such as judging wildlife habitats, hunter safety, specific wildlife aquatic programs and other ecosystem programs. 332 volunteers to this effort contributed 985 hours.

OBJECTIVE E-6: Natural Resource Decision Making: Limited resource and other audiences confronted with a wide range of viewpoints on natural resource and environmental management issues will gain knowledge, awareness, understanding, and skills to develop plans for overcoming barriers that prevent them from realizing the link between informed decision making and the capacity to sustain natural resources.

Program Description:

This program effort focuses on citizen involvement in decision making processes relating to land use planning, natural resource management planning that involves their local communities. In 2003, over 500 persons were actively involved in this process, while 702 participated in educational programs focusing on land use planning and natural resource management. Altogether, the results of these educational programs saw 3,280 persons actually adopting practices related to these issues. Over 200 hundred volunteers also contributed 960 hours to related programs and projects.

OBJECTIVE E-7: Watershed Management: Watershed residents, businesses, industries, and government officials will adopt and promote effective practices to conserve and protect ground and surface water and other related natural resources.

Program Description:

This program primarily focuses on citizens gaining knowledge and appreciation for protecting their streams and water supply by implementing practices that make them better stewards of their environment. These practices range from removing debris from surface water to stream bank protection and riparian buffer development to filter runoff water prior to its going into streams and reservoirs. Private practices such as water conservation in homes, nutrient management for lawns and landscapes, car washing and other habits that can result in water savings are stressed. All are important as the water we depend on is protected and made safe for drinking, recreation, irrigation, and other valuable uses. An example of the water protection practices adopted was 6,711 citizens reduced fertilizer and pesticide usage in their home and business landscapes. Of these, nearly 5,400 based their decisions on knowledge gained by taking soil tests and knowing exactly what optimal levels were needed.

OBJECTIVE E-8: Pesticide Certification and Licensing Program: All commercial pesticide applicators, public operators, consultants, dealers and private pesticide applicators will be certified and trained in pesticide BMP to protect worker health, crop safety, beneficial insect populations and other environmental protection issues.

Program Description:

This program effort focuses on assuring that pesticide applicators are appropriately trained and certified to purchase and use pesticides correctly. This includes selection, application, safety, storage, proper disposal, and all other facets of best management practices for the safe and proper use of pesticides. In 2003, over 115,000 pesticide containers were recycled, saving more than \$275,000 in disposal costs at solid waste sites. Knowledgeable and appropriate use of pesticides resulted in more than \$3,115,000 in reduced costs to users by proper and more efficient use of pesticides. Training programs resulted in new certifications or recertifications of 23,478 persons in 2003.

Building Quality Communities

In North Carolina, several economic and social issues have emerged to challenge youths, families and communities. To help address these challenges, Cooperative Extension plans and delivers educational programs designed to:

- provide information and facilitation of programs to allow citizens to gain appreciation for and skills in becoming involved in community and public policy issues and decision making;
- assist community leaders who seek to implement policies promoting sustainable economic development;
- provide guidance for entrepreneurs designing and maintaining businesses;
- help consumers, families, and public officials understand the principles of water conservation and water supply protections;
- help families, consumers, and public officials gain knowledge and understanding of wastewater management, and waste management in non-farm environments;
- provide training and guidance for the organization and development of volunteer groups and organizations.

There are 8 educational objectives that focus specifically on building quality communities. Those objectives and brief program descriptions are provided in the following pages.

OBJECTIVE C-1: Citizens and local officials will become more aware, better informed, and more involved on issues regarding community growth and change, land use, and community design, community infrastructure, and organizational and community leadership.

Program Description:

This program effort focuses on empowering citizens to become involved in community issues, enhance problem solving skills, and to gain insights into development of public policy. A vast array of program accomplishments have occurred in counties across the state that focus on community development and associated issues. Community development and leadership development groups have gained knowledge and skills in strategically planning for issues in their

communities. Members of the groups developed skills in facilitation, strategic planning, community development and grantsmanship. For example, Duplin County provided such training to 8 community development groups, which resulted in the town of Kenansville raising \$126,834.00 to construct a community playground. More than 200 volunteers worked for five days to complete the project.

The Ashe County Agricultural Advisory committee, with Extension assistance, developed and implemented a voluntary farm land preservation program. In two years, over 9000 acres with 80 landowners has been enrolled. Cooperative Extension's work with the Community Development Program in Buncombe County centers on working with the fifteen organized community development clubs. Officers from each of these clubs participate in quarterly meetings where leadership development training, community process skills development and community planning techniques are provided. These community leaders then utilize these acquired skills in providing direction to their own community organizations.

Eastern Cabarrus Citizens Organization involved over 300 citizens in revising the county's plan for that area that included a proposal for a Voluntary Farmland Preservation District Ordinance. Union County has created committees whose responsibility is to study land use options aimed at sustainable development. Also, Cooperative Extension in Wayne County is facilitating the development of a Voluntary Agricultural Districts program in the county. Similar accounts of increased citizen involvement is occurring across the state as a result of Extension's active role in providing valuable information to local citizens, and in facilitating their organization and active involvement in community affairs.

OBJECTIVE C-2: Citizens and Private Community Leaders Will Use Business and Economic Development Concepts to Implement Sustainable Economic Opportunities and Enterprises.

Program Description:

This objective focuses on development and retention of jobs and economic opportunities. Programs primarily deal with educating local citizens in business development and management principles, as well as assisting community leaders in mobilizing resources for economic development opportunities. Local citizens have gained knowledge in initiating and managing new or expanding businesses, as well as creating opportunities for economic growth through new or innovative uses of available resources, such as the development of farmer's markets, craft cooperatives and fairs, festivals, and mobilizing cooperative relationships to create job training opportunities. Citizens and leaders are provided programs that help them to understand and influence public policies, such as adjusting local taxes on livestock farms in Johnston County.

A few examples of the economic activities include such things as agricultural tourism that has developed strongly with the help of Cooperative Extension in Rowan County. Several farms have increased the scope of their operations during 2003. They have increased their farm income, increased their public relations, and have increased their employee base. In Ashe County, a Farmer's Market has provided a market venue for both horticulture producers, nurserymen and craftsmen. Efforts on the part of the Farmer Market Committee to increase PR and recruitment of both vendors and customers has resulted in the need to increase market capacity. Similar examples exist in many counties across the state.

OBJECTIVE C-3: Limited resource and other non-traditional participants in public decision making will identify, investigate and resolve problems in their community and county that

impact the well-being of self, family and community and gain skills to participate in community development

Program Description:

This objective focuses primarily on non traditional audiences and those with limited resources. A number of special programs focus on leadership training and development. Such training has resulted in citizens across the state becoming empowered within their communities. Such empowerment has led to initiation of community projects, development of community facilities, involvement in organized group activities and events for the community citizens, and development of new economic activities. In many communities, there is a large percentage of limited resource citizens who do not understand the process in which decisions that affect their lives are made. Because they do not understand the process, they do not participate in the decision making process. Through special programs such as Community Voices and Voices Reaching Visions, and many more leadership initiatives of Extension, these individuals gain understanding of the process and feel comfortable participating.

Extension has played a lead role in setting up and conducting community meetings, and in the establishment of Community Development Councils to help start businesses. As the audiences learn that their best interests are at heart, they are more open to becoming a part of the community. As a result, there are many Hispanics and other audiences who are reported to be contributing through suggestions to the Council, actively recruit peers for community events, and working toward integrating the non traditional groups into the fabric of the communities.

OBJECTIVE C-4: Paid staff and volunteers working in partnership will design and manage volunteer systems where manager volunteers involve other volunteers to help accomplish mutual goals. (Master Gardener, other Master Volunteer Programs).

Program Description:

This objective focuses primarily on developing volunteers and volunteer systems. The volunteer groups identified as part of this objective are Master Gardeners, REINS, Master Wildlife, Master Forester, County Animal Response Teams (CARTS), and Western Community Development Club Leaders. The primary focus in 2003 was on Master Gardeners and CARTS, with recruitment and systems development producing highly positive results. This included 229 new volunteers recruited, 77 volunteer management systems developed and 580 Master Gardeners trained. Twenty-eight CARTS volunteers were recruited. Also, there were 32 new volunteers as Western Community Development Club Leaders.

OBJECTIVE C-5: Residential and Community Drinking Water Quality: Elected officials, community well owners, environmental health specialists and citizens will understand water regulations and implement strategies to protect and improve drinking water quality.

Program Description:

This objective focuses primarily on well water quality and protection. This includes practices to protect well heads and nearby areas by eliminating practices that can contaminate ground water, and implementing practices that assure that potential contaminants are eliminated or diverted. As housing developments are being built in areas without the presence of public water systems, private wells are being utilized. As the homes are becoming occupied with families without

previous experience with a well, educational programs are focusing on means for water quality to remain safe and healthy both for the surface and groundwater. A properly maintained well will also help in assuring the investment they have in their property. Participants are able to see how to protect groundwater from contamination, and are given information on protecting their water supply. Practices for protecting new wells and existing wells and the water they produce result in lower costs to home and landowners as well as protecting the health of users and ground water supplies. Altogether, 952 persons adopted recommended practices that resulted in their experiencing positive benefits in the forms of better tasting water, less coloration of clothes, negative tests for coliform contamination, and thousands of dollars of costs avoided in system replacements.

OBJECTIVE C-6: Residential and Community Wastewater Management: Elected officials, planners, public works staffs, contractors, and citizens will become aware of wastewater management options, associated consequences and applicable regulations and will develop skills to evaluate and implement economically affordable wastewater management strategies that protect public health and the environment.

Program Description:

Many counties are attracting residents into suburban areas that have never had a septic system on their property. These residents are reached by Extension with educational information on the proper maintenance of a system. A properly maintained septic system will help keep the family and the environment healthy. A variety of educational methods are used including newspaper and newsletter articles, county government cable channel, workshops and one-on-one conversations. Attendees of the programs gain an understanding of how systems are designed, function, and should be maintained. Also, septic system contractors are provided educational information to help them gain appropriate knowledge of wastewater management options as well as various strategies needed to protect their clients and the environment.

Objective C-7: Solid Waste Management: Elected officials, business and industry representatives, youth, educators, citizens and solid waste managers will learn solid waste management alternatives and their consequences and implement strategies that protect public health and the environment.

Program Description:

This objective is focused on educating citizens of the state to gain the knowledge and understanding needed to effectively manage and reduce levels of solid waste produced in households and communities. Some key accomplishments of these program efforts in 2003 included over 8,100 citizens adopting waste reduction strategies that included reuse and recycling. 2,732 pounds of household hazardous or special waste materials were diverted from going into the waste stream, as a result of special collection programs or proper use. Also, 822 diverted their solid waste products by adopting backyard composting programs.

OBJECTIVE C-8: Individuals, communities, and businesses will increase knowledge and adopt practices to improve preparedness and response to natural and man-made disasters and emergencies and to increase safety in the personal and work environment.

Program Description:

This objective focuses on development and training of County Animal Response Teams (CART) and other emergency teams that assures that county citizens and leaders are adequately prepared to deal with disasters and biosecurity problems that may occur at any moment and at any location. Such team efforts focus on the involvement of a large number of disparate agencies and individuals who must come together in times of disaster to deal appropriately with animal and plant protection. Such efforts led one volunteer to receive State Animal Response Team recognition in 2003 as an "Isabel Hero" in Onslow County for exemplary work during Hurricane Isabel by staffing a first ever pet emergency shelter. Preparation is the hallmark of CART teams as demonstrated by the Gaston County team which rated first among twelve counties in response and mobilization for a simulated nuclear plant disaster. In 2003, twenty-eight additional volunteers were recruited for CART programs. Altogether, over six thousand community citizens were reported to have implemented disaster prevention or preparedness practices.

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 over \$4 million annually in extramural resources from grants and contracts.

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

Family and Consumer Sciences educational programs help families and individuals develop and sustain economic and personal resiliency are based in five focus areas:

- Building Healthy Families
- Building Strong Families
- Fostering Resiliency For Families In Transition
- Developing Leadership and Community Capacity
- Promoting Safe and Healthy Environments

The following reports represent program accomplishments that have been collected within the reporting system for Family and Consumer Sciences. This captures a large portion of what occurs in local communities, however, some accomplishments are reported under other Extension objectives and new and emerging issues may not be captured within this reporting structure.

OBJECTIVE F-1: Building Healthy Families --- North Carolinians, including limited resource individuals/families, will improve the quality of their lives through eating healthy, being active, handling food safely, managing resources for food security, and practicing healthy promoting behaviors.

Program Description:

Eating healthy, being physically active and making positive lifestyle choices are key focuses in Building Healthy Families. Programs address making changes to diet that reduce the risk of diet-related morbidity and mortality from heart disease, cancer, stroke, diabetes and arteriosclerosis. Other significant diet-related concerns addressed are the prevalence of overweight and obesity, osteoporosis, food insecurity, foodborne illness and low birth-weight babies. Programs use the US Dietary Guidelines and the Food Guide Pyramid as key tools in helping the population evaluate their diets and health-related lifestyles. Enhancing food security is the focus of programs like the Expanded Food and Nutrition Program and food stamp funded programs like Partners in Wellness, Out for Lunch and Color me Healthy. Other programs address health related risk factors such as Give Your Heart a Healthy Beat, Moving Toward a Healthier You, SyberShop, Women Living Healthy, Women Living Well and the newest multi-discipline program Workable Wellness. Information is delivered in many formats to meet the needs of a time-stressed society. In-depth programming provided in a series of interactions is the preferred method of reaching the public with sufficient information for them to assess their diet, physical activity and lifestyle factors through could be changes to optimize nutritional status and health.

OBJECTIVE F-2: Building Strong Families --- Families, including those with limited resources, and those who work with families will gain knowledge and practice skills in understanding lifespan development, positive interpersonal relationships, and improving quality of life.

Program Description:

The Building Strong Families Focus Area of the Cooperative Extension Long Range Plan is working toward achieving its stated objective, i.e., Families, including those with limited resources, and those who work with families will gain knowledge and practice skills in understanding lifespan development, positive interpersonal relationships, and improving quality of life. Thousands of individuals and families across the state were contacted, taught, mentored, encouraged, and impacted by the combined efforts of 64 county partners working on one or more components of the Building Strong Families objective during 2003. Educational efforts focused on parent education, limited resource families, child care, individual and family wellness, stress management, family resiliency, marriage and couple relationships, elder caregiving, grandparents raising grandchildren, and positive aging. In addition, Extension personnel made appropriate referrals for family services, support services, and self-help support groups, when needed.

The results of the Building Strong Families educational programs conducted throughout the state in 2003 are quite impressive. Of the over 6,000 persons attending parenting education programs, a cumulative average of 54% of participants adopted practices in effective parenting, and in motivating, guiding and nurturing children. Over 4,000 child care providers/teachers improved their knowledge and skills in providing an overall better environment for the children under their care. As a result of Extension programs, over 650 individuals adopted one or more specific strategies in managing personal or family stress, and 338 of these indicated an enhanced quality of life because of reduced stress levels. Another 800 learners reported adopting practices in strengthening family relationships. Of the over 3,400 persons attending programs on positive aging, 65% reported a more positive attitude toward aging, 26% took action to prevent or delay problems associated with aging, and 51% reported a change in their use of negative language about aging.

OBJECTIVE F-3: Fostering Resiliency for Families in Transition --- North Carolinians, including those with limited resources, will develop skills and strategies to manage effectively their personal finances through expected and unexpected economic change and life events.

Program Description:

In 2003, many North Carolina families faced economic hardships as they struggled to maintain financial stability during job layoffs and plant closings. At one point during the year the unemployment rate for North Carolina (6.6) was higher than the national unemployment rate (6.1). Although, families are encouraged to establish an emergency fund consisting of 3 to 6 months of living expenses, most families do not practice this recommendation. Thus, when income is interrupted difficulty in meeting financial obligations is experienced immediately.

Families often lack basic skills in financial decision making, planning and stretching financial resources. They are also uncomfortable negotiating with credits when faced with financial problems. As a result, families in financially stressful situations are making decisions that cause long term serious financial consequences. Filing for bankruptcy and making late or no payments remains on a credit report for years and prevents families from successfully achieving future financial goals.

In an attempt to help families better understand the importance of being financially secure now and in the future, Family and Consumer Science Agents received training and resources to assist families developing basic skills such as: setting goals, developing a spending and savings plan, understanding credit and the credit report, reducing debt and preparing for retirement.

Family and Consumer Science Agents in 43 counties conducted educational programs on fostering resiliency among families in transition. These programs focused on equipping individuals and families with skills to help them better manage economic change that will occur throughout their lives. FCS Agents collaborated with county agencies and partners to develop, implement, and evaluate educational programs. County partners included: Senior Health Insurance agencies, county volunteers, local housing authorities, high schools, AARP, IRS, Even Start, Department of Human Services, Community Housing Development Corporations, EFNEP, and many others.

These program partners assisted Agents as they addressed basic financial budgeting and planning, community problem solving, credit use, estate planning, Medicare, employment skills, identity theft, affordable housing, home maintenance and repair, energy efficiency, and moisture control.

OBJECTIVE F-4: Developing Leadership and Community Capacity --- Individuals and groups will develop leadership skills and take action to maximize development and use of community resources leading to improve quality of life for all families.

Program Description:

Volunteerism and community involvement serve to improve the lives of North Carolina and its citizens. ECA continues to contribute to overall Extension and especially to Family and Consumer Science Program.

OBJECTIVE F-5: Promoting Safe and Healthy Environments ---- North Carolinians, including those with limited resources, will improve the safety and health of their working and living environments.

Program Description:

Both the working and living environments play a critical role in the health of and individual and their community due to their knowingly or unknowingly being exposed to natural and man-made chemical, biological, and/or physical hazards. A multitude of educational programs are currently being used by Extension Agents to help individuals make decisions about how to reduce their exposure to these three hazards. Specifically, the educational programs address the following high need areas: environmental health such as lead and radon, housing safety and accessibility, and food safety in the foodservice environment. Extension Agents also work on disaster readiness and response as North Carolina is one of four states most susceptible to natural disasters, including hurricanes, tornadoes and ice storms.

Developing Responsible Youth

One of the most pressing social issues we face in North Carolina is how to provide our youth with a solid foundation for life. The evidence that the foundation is fragile appears year after year in newspaper articles and scientific studies that call attention to the challenge and problems facing too many youth: persistently high rates of alcohol and other drug use, teenage pregnancy, violence, school failure, and many more. Simultaneously, new concerns are being voiced about whether we are building the kinds of skills and competencies needed to ensure a competent work force and an engaged citizenry.

Thus, the vast majority of young people are building their lives on a foundation that truly is fragile. Some – perhaps most – young people will still manage to navigate through adolescence into adulthood relatively unscathed, despite their circumstance and some of the harmful choices they make. Too many will not, however. For them, experiences in early years will leave scares that will take years to heal, if they heal at all. And some will become trapped in negative cycles of violence, addiction, and hopelessness that will deprive them and their community of potential and contribution.

But this is not the end of the story. The mosaic of young people's lives has a hopeful theme. That hope becomes evident in the potential that life skills and developmental assets have to shape young people's choices. Through its 4-H program, Extension is intentionally working to ensure that more young people experience many of the life skills and assets, which offer a positive and hopeful path to a brighter future for young people and society.

Through active 4-H participation 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, camps, 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.
- Provide unique opportunities for young people to participate in inquiry-guided learning opportunities with university scholars, researchers, faculty and community leaders.

Who is involved?

In 2003, 4-H involved 187,065 youth and 25,234 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 and caring citizens with their friends and families and in their schools and communities. They are actively involved in a variety of programs.

Delivery Mode	Male	Female	Total	Units
Organized 4-H Clubs	11,718	16,167	27,885	1,307
Special Interest	35,748	42,533	78,281	3,266
4-H Overnight Camping	2,030	2,599	4,629	292
School Enrichment	42,780	45,177	87,957	2,861
Individual Projects/Study	2,119	2,865	4,984	
School-Age Child Care	14,501	15,200	29,701	1,070
4-H Instructional TV/Video	501	611	1,112	
TOTAL	109,397	125,152	234,549	8,796
TOTAL (Duplications Eliminated)	86,882	100,183	187,065	7,212

- Data based on 2003 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 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:

Farms	13,726	8%
Areas of Under 10,000 and rural non-farm	105,340	56%
Towns and cities, with populations of 10,000 and up to 50,000	46,823	25%
Suburbs of cities over 50,000	8,605	5%
Central cities over 50,000	12,571	6%

Total	187,065	100%
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4-H takes pride in its cultural diversity. Youth are encouraged to become citizen leaders in service of their entire community.

4-H's Diversity:

White	119,461	63%
Black	54,999	30%
Hispanic	7,077	4%
Indian	4,530	2%
Asian/Other	998	1%
Total	187,065	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 2003, there were a total of 25,234 adult and youth 4-H volunteers.

Diversity of 4-H Volunteers:

Race	Adult Volunteer Service	Youth Volunteer Service
White	14,775	3,965
Black	4,551	1,241
Hispanic	227	153
Indian	182	80
Asian/Other	48	12
Subtotals	19,783	5,451
Totals	25,234	

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 conference center operations continue to grow in celebration of being exemplary units in the certification system managed by the American Camping Association. Over 4,629 youth has a 4-H camping experience in 2003.

Three thousand, one hundred twenty-one youth "discovered the world" during 16-units weeks of junior camping and 12 weeks of specialty camps including: Marine Science and Sailing, Cloverbud Camping (ages 6-8), Fur, Fish & Game Camp, Horsemanship, Shooting Sport, Adventure Camp, and Challenge Camp.

4-H plans to maintain our facilities in a safe manner and to continue to 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. Plans are underway to market expansion while nurturing relationships with our primary customers for the five centers.

An Initiative Welcome and Overview

Welcome to Developing Responsible Youth, one of the five statewide program initiatives of the North Carolina Cooperative Extension Service. Although the Initiative is managed through primary program resources made available through the North Carolina 4-H Youth Development Program and the Department of 4-H Youth Development in the College of Agriculture and Life Sciences at North Carolina State University, it is designed to drive collaboration with and among all agencies, programs and organizations dedicated to the well being of young people in our state.

Our initiative is designed to actively engage youth, volunteers, stakeholders, and youth development professionals "to create helping relationships to enable youths to become responsible, productive citizens." Through 4-H and other, allied youth development programs young people are empowered to invest and grow cognitive, social, physical and emotional skills to reach their full potential for becoming coping, competent and contributing participants in their friendship and peer groups, families, schools and communities.

The Initiative focuses on utilization of experiential, non-formal, community based youth development practices which recognize the worth and dignity of every individual, and believe that the development of life skills enables young people to become caring, coping and competent citizens who will build strong foundations for our future. In the spirit of this shared value, the initiative is committed to the well being of and seeks to maintain the confidence of youth, volunteers, stakeholders, the Extension System, and all youth development professionals.

The Initiative seeks to celebrate through action "The Power of Youth in a Changing World", the National 4-H Strategic Plan and its vision: "A world in which youth and adults learn, grow, and work together as catalysts for positive change;" and its mission: "4-H empowers youth to reach their full potential working and learning in partnership with caring adults." We also embrace that plan's belief that if we really care about youth, if we really want them to succeed, we must reorganize around them by transforming the relationships we have with youth in designing, delivering, and governing 4-H and other youth development programs to celebrate several critical dimensions of program excellence: the power of youth; access, equity, and opportunity; an extraordinary place to learn; exceptional people, innovative practices; and effective organizational systems.

The Initiative strives to encourage both youth development program design and content validity by encouraging youth development professionals to become actively involved in three overlapping, continuing domains of professional best practice: 1) Scanning the environment for youth development needs, 2) designing and delivering quality programs and 3) reporting and celebrating program impact. Major contemporary youth development paradigms being utilized include: life skills, internal and external assets, and resilience theory. These theoretically grounded paradigms when used individually or concurrently offer youth development program staff a full range of adaptation possibilities for assessing program impacts. Program staffs are encouraged to adapt educational programs to local situations in the context of the outcomes of the National 4-H Impact Assessment Project. That project created a list of program characteristics most likely to engender positive youth outcomes when incorporated into youth programming. Those critical program characteristics are:

- A positive relationship with a caring adult
- A physically and emotionally safe environment
- The opportunity to value and practice service for others

- An opportunity for self-determination
- An inclusive environment
- An opportunity to see oneself as an active participant in the future
- Engagement in learning; and
- Opportunity for mastery.

Developing Responsible Youth: A Cycle of Professional Action

The thirteen objectives listed under the eight focus areas in the Developing Responsible Youth Initiative are accomplished by teams of youth development educators. They continuously work to accomplish three related, overlapping focus area/objective specific processes. Each team works to build youth development professional capacity, develop and refine best professional practices and expand the rigor of impact evaluation as they:

- Scan the environment for emerging focus area specific youth development needs.
- Design and deliver programs responsive to those existing and emerging needs.

Design evaluation tools to facilitate program impacts for reporting into the Extension Reporting System.

Developing Responsible Youth is one of the five statewide program initiatives of the North Carolina Cooperative Extension Service. Although the Initiative is managed through primary program resources made available through the North Carolina 4-H Youth Development Program and the Department of 4-H Youth Development in the College of Agriculture and Life Sciences at North Carolina State University, it is designed to drive collaboration with and among all agencies, programs and organizations dedicated to the well being of young people in our state.

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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 adults-parents, mentors, tutors, or coaches,
- Access to safe places and structured activities,
- A healthy start,
- A marketable skill through effective education, and
- An opportunity to give back through community service.

There are thirteen primary program objectives that encompass the major program thrusts of the 4-H and Youth program in North Carolina. Those objectives and descriptions of each are presented on the pages that follow.

OBJECTIVE Y-1: Long-term support systems will develop competent youth by building internal and external assets through life skill development.

Program Description:

Americas youth have more options for educational experiences than ever before. Formal learning is only the beginning. Today, youth can gain information and knowledge through media, the World Wide Web, the workplace and community involvement. 4-H clubs offer non-formal, hands-on experiences as well as more traditional opportunities. A major goal of the 4-H Youth Development Program is to help young people develop life skills and assets that will allow them to become competent, caring and responsible citizens. In 2003, the 4-H Club Program, placed emphases on helping young people improve their decision-making skills, communication skills, managing relationship and serving their community.

In 2003, a total of 27,885 young people between the ages of 5 and 19 participated in 4-H club programs. The positive youth development of young people through 4-H club programs can be illustrated by the following program impacts: 22,026 youth have increased their decision making skills; 22,558 increased their communication and interpersonal skills 20,756 increased their knowledge of community service opportunities; 24,364 increased self-confidence; and 12,630 increased their competency in managing relationships.

OBJECTIVE Y-2: Limited resource youth residing in diverse/public housing will increase life skill development, which will ultimately result in making informed decisions about life choices to manage life situations and transitions.

Program Description:

Youth residing in public housing are no different in their basic developmental needs, but because of day to day situations, financial restraints, and stresses they face, they may need special program delivery techniques. Programs designed for public housing youth uses a variety of program strategies to help youth feel appreciated, valued, successful and competent. Creating programs that include teaching multiple lessons, setting achievable goals, promoting empowerment, offering tangible incentives, building on success, intense individual attention, and peers in leadership roles will enhance public housing youth life skill development.

Eight counties reported one thousand fifteen (1015) youth ages 5-19 participated in programs that helped them acquire skills in using the decision-making process, saying "no" to peer pressure, clearly defining aspirations, and increasing knowledge and skills in conflict resolution. Additionally, 1,203 youth, ages 8-13 participated in 36 hours of interactive entrepreneurial mini-society experiences through day camps, after school programs, community-based programs, and charter/home school programs. There were nine (9) 4-H clubs for the 5-8 year organized to help youth increase competency within their environment.

OBJECTIVE Y-3: Youth involved in Special Interest Programs will show increased life skill knowledge and subject matter skill

Program Description:

Special Interest programming involves volunteers to deliver short term (at least six hours) subject matter and life skills education. This delivery mode is designed for children and youth who often times wish a short term exposure to a particular subject matter area. These experiences are out of school and volunteer led

OBJECTIVE Y-5: Youth in high-risk environments will participate in community based programs resulting in opportunities for the youth to acquire internal and external assets.

Program Description:

The youth, families, and communities of North Carolina face challenges, which threaten their coping and healthy development. Reduced capacity in turn threatens the economic, social, and environmental well being of educational, corporate, and governmental systems on which the citizens of North Carolina depend.

The Resilient Youth, Families and Communities Long Range Focus Area 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 positive youth development, helping youth become fully prepared, not just problem-free. A wide variety of learning and leading experiences can help youth and empower families to avoid risks, build assets, and prepare for meaningful adult roles in family, work, and civic engagement. Working together, practitioners, researchers, and program participants can overcome challenges and set new standards for programming. Areas of high need are: improvement of youth health behaviors (drug/alcohol/tobacco abuse, teen pregnancy and sexually transmitted diseases, and youth violence), literacy and academic success, juvenile crime prevention and early intervention, migrant youth and families, relationship and life skills, support for positive parenting, and community economic development.

OBJECTIVE Y-6: Engaging families vulnerable to stress and crisis to help youth acquire resiliency skills to cope with hardships.

Program Description:

The youth, families, and communities of North Carolina face challenges which threaten their coping and healthy development. Reduced capacity in turn threatens the economic, social, and environmental well being of educational, corporate, and governmental systems on which the citizens of North Carolina depend.

The Resilient Youth, Families and Communities Long Range Focus Area 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 positive youth development, helping youth become fully prepared, not just problem-free. A wide variety of learning and leading experiences can help youth and empowering families to avoid risks, build assets, and prepare for meaningful adult roles in family, work, and civic engagement. Working together, practitioners, researchers, and program participants can overcome challenges and set new standards for programming. Areas of high need are: improvement of youth health behaviors (drug/alcohol/tobacco abuse, teen pregnancy and sexually transmitted diseases, and youth violence), literacy and academic success, juvenile crime prevention and early intervention, migrant youth and families, relationship and life skills, support for positive parenting, and community economic development.

OBJECTIVE Y-7: Youth and adults in communities will be strengthen capacities in understanding community needs, policy development, resource development, and collaboration through technical assistance.

Program Description:

The youth, families, and communities of North Carolina face challenges which threaten their coping and healthy development. Reduced capacity in turn threatens the economic, social, and environmental well being of educational, corporate, and governmental systems on which the citizens of North Carolina depend.

The Resilient Youth, Families and Communities Long Range Focus Area 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 positive youth development, helping youth become fully prepared, not just problem-free. A wide variety of learning and leading experiences can help youth and empowering families to avoid risks, build assets, and prepare for meaningful adult roles in family, work, and civic engagement. Working together, practitioners, researchers, and program participants can overcome challenges and set new standards for programming. Areas of high need are: improvement of youth health behaviors (drug/alcohol/tobacco abuse, teen pregnancy and sexually transmitted diseases, and youth violence), literacy and academic success, juvenile crime prevention and early intervention, migrant youth and families, relationship and life skills, support for positive parenting, and community economic development.

OBJECTIVE Y-8: To increase the quality of after school programs by helping to provide safe, nurturing and appropriate environments for children, through Cooperative Extension work.

Program Description:

Changes in the structure and employment of North Carolina families are having profound impacts on the care and supervision of youth, ages five and older. Increasing numbers of two-parent working families, single parent families, and increasing numbers of working mothers have created a need for high quality, year round care for school-age youth. School-age care (SAC), or after school care, involving structured, adult supervised programs offered to 5-18 year-old youth during after school hours, including teacher workdays, holidays, intercession, and summer months provide safe settings where youth can avoid risks and improve academic and life skills, enabling working parents to be more productive during the 3:00-6:00 PM time frame.

However problems with availability, affordability, and accessibility to high quality school-age care programs prevent many families from taking advantage of school-age care opportunities (Vandenbergh, Davis, Kirk, 2001). Even in communities where after school programs may be available, low staff wages and benefits, staff turnover, lack of staff training, high staff to child ratios, lack of transportation, lack of age appropriate curricula, and other obstacles create problems of offering quality programs and maintaining them (Vandenbergh, Davis, Kirk, 2001). Without appropriate training and support, after school staff may be unable to provide safe, enriching, fun, and supportive programs for youth. Therefore, there is a need for Cooperative Extension to focus significant resources to help improve the quality and availability of school-age care programs for NC families.

OBJECTIVE Y-9: To increase availability of quality school age care as a result of collaboration and/or increased resource development, through Cooperative Extension work.

Program Description:

Changes in the structure and employment of North Carolina families are having profound impacts on the care and supervision of youth, ages five and older. Increasing numbers of two-parent working families, single parent families, and increasing numbers of working mothers have created a need for high quality, year round care for school-age youth. School-age care (SAC), or after school care, involving structured, adult supervised programs offered to 5-18 year-old youth during after school hours, including teacher workdays, holidays, intercession, and summer months provide safe settings where youth can avoid risks and improve academic and life skills, enabling working parents to be more productive during the 3:00-6:00 p.m. time frame.

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OBJECTIVE Y-10: School Based youth educators and administrators will be actively engaged in design, delivery and revisions of programs which enrich school-based curriculum design and delivery; resulting in improved academic performance.

Program Description:

School-based programming involves teachers as 4-H volunteers in subject matter delivery of curriculum designed to meet the Department of Public Instruction's Core Competencies. All programs are at least six hours in length. In 2003, 33 counties (82% of them being classified as rural) reported against this objective. Counties reporting indicated that 13,248 (31.4%) students increased their grades when engaged in 4-H school enrichment.

OBJECTIVE Y-11: Provide youth experiential educational opportunities in cooperative, nurturing, residential camping environments that stimulate the development of life skills, while focusing on the mental, physical and social growth of the individual.

Program Description:

County youth development professionals in North Carolina are encouraged to actively engage young people in a week or more at one of five residential 4-H camps operated by the Department of 4-H Youth Development. Incorporating the camp experience as a "best practice" and including volunteer, 4-H parents, and 4-H clubs as a marketing assets, this objective focuses on the long-term value of the camping experience as a delivery mode.

OBJECTIVE Y-12: Youth and adult volunteerism will strengthen a community's capacity for positive youth development.

Program Description:

Objective Y-12 encourages NC youth and adults to pursue volunteerism as both a means to an end, and as an end in itself by focusing upon the gifts and assets that each individual volunteer has to contribute towards the CES and 4-H visions. County 4-H programs emphasize various "streams" of volunteerism for both youth and adults, including 4-H club leaders, special interest volunteers, school enrichment volunteers, day and resident camp volunteers, after school volunteers, master volunteers, and advisory leaders. The objective builds upon volunteerism research and best practices that contribute to meaningful and safe educational experiences for youth, volunteers, and paid staff.

OBJECTIVE Y-13: Youth and adults will be engaged in positive community leadership roles

Program Description:

Objective Y-13 emphasizes working with youth as equal partners and developing strong youth/adult partnerships through personnel and programmatic teamwork that interconnects people, programs, and events. Relevant subject matter is addressed through quality 4-H curricula and programs that empower, prepare, and engage teens for their current and future roles and responsibilities while focusing upon "value-added," lifelong learning and development for teens.

Key Statistics of All North Carolina Cooperative Extension Programs for 2003

Table 1: Program Volunteers, Hours Contributed, and Value for Each POW in 2003

POW	Volunteers	Hours Served	\$ Value @ \$16.54 per Hour
A-1	1,299	11,749	194,329
A-2	543	3,552	58,750
A-3	2,354	23,123	382,455
A-4	658	4,403	72,826
A-5	174	2,190	36,223
A-6	131	898	14,853
A-7	314	5,621	92,971
A-8	2	54	893
A-9	188	1,120	18,525

A-10	34	91	1,505
A-11	-	-	-
A-12	-	-	-
A-13	127	836	13,827
A-14	53	998	16,507
A-15	2,138	86,443	1,429,767
A-16	353	3,747	61,975
Y-1	8,509	88,092	1,457,042
Y-2	74	1,895	31,343
Y-3	3,643	25,734	425,640
Y-4	-	-	-
Y-5	990	22,583	373,523
Y-6	19	47	777
Y-7	-	-	-
Y-8	2,103	20,243	334,819
Y-9	1,850	9,971	164,920
Y-10	1,205	9,731	160,951
Y-11	115	3,642	60,239
Y-12	6,344	55,206	913,107
Y-13	1,152	24,205	400,351
F-1	7,052	40,504	669,936
F-2	779	7,116	117,699
F-3	283	1,637	27,076
F-4	12,631	156,176	2,583,151
F-5	1,843	9,197	152,118
E-1	131	1,229	20,328
E-2	138	2,666	44,096
E-3	98	460	7,608
E-4	94	649	10,734
E-5	332	985	16,292
E-6	201	960	15,878
E-7	149	631	10,437
E-8	699	4,610	76,249
C-1	1,807	13,757	227,541
C-2	241	1,717	28,399
C-3	513	13,555	224,200
C-4	2,118	37,884	626,601
C-5	15	150	2,481
C-6	-	-	-
C-7	57	320	5,293
C-8	113	232	3,837
TOTALS	63,666	700,609	11,588,072

**Table 2: Number of Known Teaching Contacts for
Cooperative Extension in 2003**
(Includes Face to Face and Known Non Face to Face Contacts)

POW	Face to Face	Non Face to Face	Total
A1	218,604	394,404	613,008
A2	29,196	34,527	63,723
A3	56,813	49,882	106,695
A4	90,113	200,922	291,035
A5	43,365	140,662	184,027
A6	11,176	20,591	31,767
A7	39,444	44,535	83,979
A8	13,187	3,372	16,559
A9	12,933	25,608	38,541
A10	2,691	5,602	8,293
A11	253	1,871	2,124
A12	2,187	4,741	6,928
A13	1,188	1,437	2,625
A14	7,319	97,607	104,926
A15	133,356	566,009	699,365
A16	34,018	21,617	55,635
Y1	154,265	397,385	551,650
Y2	18,523	7,419	25,942
Y3	84,291	145,799	230,090
Y4	8,233	6,178	14,411
Y5	71,669	44,104	115,773
Y6	6,361	1,178	7,539
Y7	2,005	848	2,853
Y8	77,001	31,794	108,795
Y9	16,254	18,643	34,897
Y10	37,816	57,490	95,306
Y11	50,964	69,767	120,731
Y12	37,796	64,299	102,095
Y13	20,431	13,666	34,097
F1	287,751	594,235	881,986
F2	55,274	150,445	205,719
F3	19,027	49,475	68,502
F4	59,475	88,756	148,231
F5	21,704	47,040	68,744

E1	14,717	13,843	28,560
E2	11,927	21,453	33,380
E3	9,502	28,904	38,406
E4	8,032	4,732	12,764
E5	10,523	9,742	20,265
E6	7,799	33,070	40,869
E7	6,281	7,477	13,758
E8	26,157	43,974	70,131
C1	43,564	72,119	115,683
C2	13,983	13,616	27,599
C3	16,662	17,279	33,941
C4	23,075	19,668	42,743
C5	1,922	1,473	3,395
C6	148	139	287
C7	1,271	790	2,061
C8	2,072	5,744	7,816
99	33,070	27,059	60,129
Total	1,955,388	3,722,990	5,678,378

Table 3: Number of Locations Reporting Per POW Objective 2003

Objective A	
A-1	52
A-2	34
A-3	47
A-4	58
A-5	42
A-6	19
A-7	31
A-8	2
A-9	24
A-10	11
A-11	0
A-12	0
A-13	3
A-14	12
A-15	60
A-16	23

Objective Y	
Y-1	67
Y-2	8
Y-3	59
Y-4	0
Y-5	30
Y-6	3
Y-7	4
Y-8	30
Y-9	8
Y-10	33
Y-11	29
Y-12	31
Y-13	26

Objective F	
F-1	84
F-2	63
F-3	40
F-4	62
F-5	46

Objective E	
E-1	28
E-2	19
E-3	24
E-4	22
E-5	14
E-6	6
E-7	12
E-8	66

Objective C	
C-1	38
C-2	13
C-3	12
C-4	17
C-5	6
C-6	3
C-7	4
C-8	8

Table 4: Reported Program Values to Targeted Audiences, Society and Program Costs for Each POW

POW	Value to Targeted Audience	Value to Society	Program Cost
A-1	8,559,271	26,483,268	655,167
A-2	2,599,038	1,135,535	90,802
A-3	1,573,519	2,342,866	271,121
A-4	27,102,303	28,773,819	776,115
A-5	20,418,053	38,269,917	3,396,514
A-6	13,214,750	3,577,000	178,392
A-7	1,170,559	2,736,761	1,358,716
A-8	91,000	214,000	16,402
A-9	213,222,030	27,005,762	70,364
A-10	81,508	165,240	8,346
A-11	-	-	-
A-12	-	-	-
A-13	89,500	114,500	6,600
A-14	734,664	333,000	47,983
A-15	17,092,229	9,046,696	1,887,167
A-16	230,260	371,435	47,492
Y-1	2,609,886	11,145,545	1,673,106
Y-2	6,156	7,500	10,525
Y-3	220,819	233,722	213,580
Y-4	-	-	-
Y-5	1,206,011	2,537,524	867,041
Y-6	869	744	869
Y-7	-	-	-
Y-8	2,011,192	10,008,796	877,063
Y-9	2,144,417	9,956,586	1,001,473
Y-10	49,727	74,701	30,385

Y-11	198,456	276,556	266,045
Y-12	606,932	859,036	1,114,687
Y-13	267,501	464,956	128,927
F-1	7,188,889	9,031,216	890,198
F-2	356,120	968,098	302,047
F-3	1,402,055	2,113,302	77,254
F-4	1,178,146	2,263,311	230,995
F-5	1,927,506	10,002,675	93,070
E-1	4,872,227	7,199,500	133,776
E-2	2,891,513	5,725,048	403,444
E-3	10,615,340	10,079,350	231,106
E-4	24,279,569	31,854,130	56,665
E-5	52,099	83,905	18,860
E-6	695,900	1,214,500	67,200
E-7	604,600	1,341,000	40,100
E-8	2,408,838	3,057,653	211,530
C-1	862,291	3,086,359	210,678
C-2	6,497,909	8,598,121	65,337
C-3	530,440	947,658	49,080
C-4	1,045,280	1,040,900	57,971
C-5	-	-	-
C-6	75,000	75,000	7,000
C-7	207,888	200,000	7,572
C-8	92,000	210,000	8,800
TOTALS	\$383,284,260	\$275,227,191	\$18,157,565

