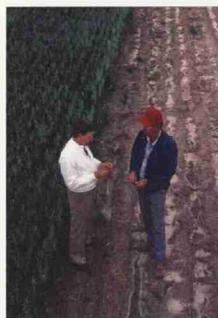


2004 MAJOR PROGRAM

Accomplishments



REPORT



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

2004

Program Accomplishments

Report

NORTH CAROLINA COOPERATIVE EXTENSION

2004 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. 2004 marked the second year that programming was conducted in the dynamic plan that embraces 50 focused objectives. These 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 2004.



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2004 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 2004.

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 also includes aquatic production as. The species in which programs are conducted include Beef Cattle, Dairy, Hogs, Sheep and Goats, Poultry, and Aquatic animals. In 2004, producers gained \$14,139,267 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, that 20,301 producers adopted best management practices in their production and marketing systems. Further, 9,250 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 2004, 42,953 persons gained a greater understanding of agriculture, while more than 4,220 farms adopted appropriate management standards, practices and procedures that address agricultural issues that impact both

farm and non-farm citizens, and 2,549 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 2004, youth received almost \$648,012 from sales of their project animals, above the realistic market price. Also, 304 youth in 4H Livestock Programs received scholarships totaling over \$147,489 as a direct result of participation in the program. 2,422 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, profits were improved by over \$41.1 million by growers adopting Extension recommended practices. Strategies adopted and their resulting net gains included improved marketing strategies (\$6.6 million), improved pest management strategies (\$12.3million), fertility management (\$3.9 million), and improved varieties (\$4.3 million).

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 an income increase by fruit and vegetable growers of \$10,904,251. These practices include improved disease, weed, and insect management resulting in gains of \$4.5 million, new or alternative production systems that increased growers' income by over \$2.8 million, optimum fertility management by 796 growers on 21,943 acres for gains of nearly \$1.3 million, and new marketing/risk management strategies by 962 growers on 20,909 acres for gains of \$3.2 million

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, nearly 1,000 nursery and turfgrass producers involved in 41,255 acres of production used improved marketing and risk management strategies to gain \$4.8 million additional income in 2004. Green and turf industry producers enhancement of weed, insect and disease management strategies produced a \$1.65 million economic advantage over the prior year. 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 in formation to seek new opportunities in niche crop and livestock production, enhance their current operational management systems, and utilize practices that are profitable and sustainable. Over 683 growers indicated they gained an additional net income of \$724,966 by implementing new or alternative crops/enterprises recommended by extension. Over 4,000 producers increased profits by \$1.89 million through improved marketing strategies they learned from extension.

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 focused on 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 become more efficient and save money. Consumers are reported to have saved \$530,000 by adopting appropriate practices related to selection, use and maintenance of wood products. About \$3.5 million was realized by the industry through improved yield, efficiency, utilization or marketing 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. By educating landowners on ways and means for gaining additional income from their acreage, such as collecting pine straw or leasing for recreational purposes, the producers reported \$365,313 in increased income. Forest landowners increased income over \$2,299,565 resulting from improved reforestation, timber management and timber marketing practices adopted. About 430 landowners afforested, reforested, or placed under Extension recommended forest resource management program 88,482 acres. Christmas tree grower income was increased by \$2,424,300 due to improved tree and seedling production practices.

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. About 122,250 acres of land leased for hunting, fishing, and enjoyment of wildlife and fishery resources produced an income of \$584,500.

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:

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

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 6,225 program participants adopting the IPM practices and over 5,000 who reduced their risk to exposure to insecticides through target uses.

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. About \$4.2 million was saved by consumers by using recommended practices. About 226,330 of those consumers received their information from Master Gardener volunteers. Over 50,000 citizens adopted two or more practices to reduce pesticide or fertilizer misuse and resulting water contamination.

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 composting, pollution, wildlife, beekeeping and vegetable gardening in community, home, school and other communal locations. Master Gardener Volunteers worked with court-referred youth on gardening and landscaping projects to teach them life long skills and help them make restitution payments. Altogether, 13,539 youth participated in school based gardening activities and projects including landscape design, installation, and maintenance, vegetable production, and weather station establishment and monitoring.

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 and spreader calibration, record-keeping, manure and sludge 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 septage. 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.

A Spanish language guide has assisted poultry producers in many counties with communication among employees. In efforts to prepare for changing rules on phosphorus area poultry agents are using the Phosphorus Loss Assessment Tool (PLAT) with producers. The first plan including PLAT has been written and helped producers determine schedules for litter application.

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.

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.

OBJECTIVE E-3: Green industry, greenhouse, fruit, vegetable, and turf growers and turf 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 2,105 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, many of the Divisions of the North Carolina Department of Environment and Natural Resources, 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. Others have involved the Farm Service Agency and NRCS in many counties working together with Extension in providing erosion control, soil management and other conservation programs plans and support information to local farmers.

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. 11,105 citizens participated in special educational programs such as judging wildlife habitats, hunter safety, specific wildlife aquatic programs and other ecosystem programs. 492 volunteers to this effort contributed 2,949 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 2004, over 500 persons were actively involved in this process, while 1107 participated in educational programs focusing on land use planning and natural resource management. Altogether, the results of these educational programs saw 683 persons actually adopting practices related to these issues. Over 2,946 hours were contributed by 93 volunteers 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.

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 2004, over 140,000 pesticide containers were recycled, saving more than \$340,000 in disposal costs at solid waste sites. Knowledgeable and appropriate use of pesticides resulted in more than \$2,470,000 in reduced costs to users by proper and more efficient use of pesticides. Training programs resulted in new certifications or recertifications of 19,891 persons in 2004.

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. Farm land preservation was focused on in many counties, in the formation of agricultural districts or other initiatives to enroll agricultural lands for their protection and preservation. Citizens committees undertook tourism development projects, local infrastructure development and stimulation and jobs training programs. Millions of dollars in grants were obtained through community collaborative and cooperative initiatives for enhanced community development and advancement.

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 support for job high tech job training program development.

A few examples of the economic activities include such things as agricultural tourism that has developed strongly with the help of Cooperative Extension in several counties across the state. Increased farm incomes, mostly for small growers, have resulted from the continuing focus on further development and expansion of farmers markets in Richmond, Moore, Durham, and Ashe Counties. A considerable number of counties worked closely with community leaders in grant writing training, and in developing economic development focused grants requests that were highly successful in bringing in external funds for enhancement of local communities and their economies.

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 are 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 Mater Gardeners, REINS, Master Wildlife, Master Forester, County Animal Response Teams (CARTS), and Western Community Development Club Leaders. The primary focus in 2004 was on Master Gardeners, CARTS, and the Western Community Development Clubs, with recruitment and systems development producing highly positive results. This included 379 new volunteers recruited, 127 volunteer management systems developed and 543 Master Gardeners trained. Twenty CARTS volunteers were recruited. Also, there were 30 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.

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 2004 included over 10,770 citizens adopting waste reduction strategies that included reuse and recycling. Over 4.9 million 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, 885 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. For example, NC Cooperative Extension-Buncombe County Center teamed with FEMA and State Emergency Management persons to provide needed information to county residents affected by flood waters created by Hurricanes Francis and Ivan. Extension in several mountain counties assisted disaster victims in on-going educational programs addressing stream restoration issues, reclamation of flooded fields, correcting soil fertility problems and dealing with crop disease issues. Further, Extension in Beaufort County produced brochures in Spanish that were distributed to 500 Hispanic families, to help them to be prepared for future natural disasters.

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:

Poor food selection and eating habits and lack of physical activity are contributing factors to diet related disease, overweight and obesity and poor physical condition. Programming focused on reducing the risk of diet-related morbidity and mortality from heart disease, cancer, stroke, and diabetes. Other significant diet-related concerns addressed were overweight and obesity, osteoporosis, food insecurity, and food borne illness. Consumers often are confused about how to make proper dietary choices. Additionally consumer research shows that many consumers do not know proper safe handling practices or they simply do not apply them. Thus, consumer education focused on the basic principles of good nutrition and safe food handling.

Programs are delivered to the general youth and adult populations and to specific audiences such as food service workers, childcare providers, high school youth, limited resource children and adults, diabetics, the elderly and persons with diet-related chronic diseases. Dietary Guidelines for Americans and The Food Guide Pyramid were used to help individuals evaluate their diets and lifestyles. Enhancing food security is a focus of the Expanded Food and Nutrition Program, Partners in Wellness (food stamp funded) and Out for Lunch (food stamp funded). Other programs address health related risk factors such as Give Your Heart a Healthy Beat (cardiovascular disease risk reduction), Black Churches United for Better Health (cancer risk reduction), Dining with Diabetes (diabetes risk reduction), Moving Toward a Healthier You (weight management), Women Living Healthy—Women Living Well, SyberShop, Color Me Healthy and Workable Wellness. Multiple delivery strategies are used: series of hands-on classes, distance education, compute-assisted learning, demonstrations, and one-on-one interactions. State specialists and Family and Consumer Science County Agents collaborated with other agencies to address the food and nutrition education needs of North Carolinians.

Eighty-nine (89) of the 101 county units chose Building Healthy Families as a clientele need. New teaching and educational materials were available for programming such as a website of food and nutrition questions and answers for agent and consumer use (under FAQ at www.foodsafety.gov), computer assisted learning for making smart food choices (SyberShop and Women Living Healthy, Women Living Well), and power point presentations (Give Your Heart a Healthy Beat).

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 68 county partners working on one or more components of the Building Strong Families objective during 2004. Educational efforts focused on parent education, limited resource families, childcare, 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 2004 are quite impressive. Of the over 5,000 persons attending parenting education programs, a cumulative average of 59% of participants adopted practices in effective parenting, and in motivating, guiding and nurturing children. Over 6,000 childcare 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 1,180 individuals adopted one or more specific strategies in managing personal or family stress, and 1,001 of these indicated an enhanced quality of life because of reduced stress levels. Another 1,564 learners reported adopting practices in strengthening family relationships.

Twelve counties implemented the *Parenting Matters* curriculum this year. By attending at least seven of the eight sessions, one hundred twenty-eight (128) court-mandated or referred parents were recognized as having completed the training. This program has provided an estimated \$13,062,912 in potential savings or costs avoided (256 children not placed in foster care @69.90 per day for an average of 730 days or two years).

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

Program Description:

In 2004, many North Carolina families faced economic hardships as they struggled to maintain financial stability during job layoffs and plant closings. 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. 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 51 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.

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:

Developing Leadership and Community Capacity captures and guides NCCE's efforts to recruit, mobilize, train and assist citizen in making positive impacts in their communities. Areas of impact are: Recruitment and training of Volunteers; Community Capacity Building; Policy Development and Community Assessment. Research indicates that all Community and Leadership building falls into one of these four areas with Cooperative Extension providing leadership and opportunities in each.

Communities are stronger when citizens are involved and informed and when there are community groups that are working to address real problems and issues. Cooperative Extension provided training and leadership for citizen volunteers to develop essential skills and knowledge. This includes 2356 volunteers gaining knowledge of diversity and multiculturalism; a key need in communities as the diversity of the state increases. Additionally, Extension programs lead 2007 citizens to gain knowledge of how policy and procedure decisions are made and how to participate in political processes. NC Extension and Community Association groups support 393 communities and the families who live in them.

Public discussion and deliberation contribute to positive citizen involvement and more grassroots support for community change. NC Cooperative Extension led 21 public discussions and 265 citizens reported increased knowledge of working with stakeholders. Additionally, 354 citizens reported increased knowledge in Group Facilitation and 56 in conflict management. Over 460 citizens were involved in new community leadership roles.

OBJECTIVE F-5: 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 can play a critical role in the health of individuals because they knowingly or unknowingly are exposed to chemical, biological, and physical hazards that can harm them. The exposure to hazards can be further increased due to the occurrence of natural and man-made disasters. Extension professionals at both the state and local levels develop and/or deliver educational interventions that address four key areas that promote safe and health environments – environmental health, disaster preparation and response, safe and accessible housing, and food safety in foodservice.

Environmental Health

North Carolina Cooperative Extension (NCCE) specialists and field faculty work diligently to promote and expand the Children's Environmental Health Initiative by targeting audiences across North Carolina. Extension programs specifically focus on the prevention or abatement of seven environmental health issues -- asthma, mercury, mold/moisture, outdoor air, pesticides, and secondhand smoke. The incidence of these health issues can be effectively reduced through appropriate educational interventions that promote behavior change.

Safe and Accessible Housing

The majority of older adults age in place. Older adults may face age-related changes that affect their mobility, reach, strength, stamina, vision, hearing, sense of smell, tactile, and thermal touch. These changes can affect their ability to care for themselves independent of help. The ability to function independently is an important determinant in an individual's ability to remain

at home. Extension home modification programs help to identify those areas in the home that are unsafe and hazardous. These programs identify home modifications that can compensate for those physical changes that occur as a part of the aging process. In addition, these programs provide practical solutions for the older person so that accidents and injuries can be avoided.

Disaster Preparation and Response

North Carolina is one of four states most susceptible to natural disasters. In 2004, North Carolina felt the effects of a combined total of six hurricanes/tropical storms. The western part of the state was particularly hard hit. In addition, North Carolina experienced several major winter storms. While the knowledge level of citizens is increasing, many citizens do not prepare for a disaster until it is too late; then they suddenly realize how unprepared they are for the enormous changes it makes in their lives. In many disasters, local services and officials become overwhelmed and it takes time for emergency response personnel to reach everyone who needs help. The purpose of NCCE's Disaster Readiness, Response and Recovery Program is to help families prepare for and respond to natural and man-made disasters. Families that prepare for disasters ahead of time can reduce the fear, confusion, and loss that often come with disaster.

Food Safety in Retail Foodservice Establishment

The restaurant industry employs an estimated 11.6 million people making it the largest employer outside of government in the U.S. In North Carolina, there are nearly 27,000 foodservice establishments employing nearly a quarter million people. The challenges faced by this industry include high rates of turnover and language and literacy barriers. As a result many foodservice operators, do not have the resources to provide in-depth training in the area of food safety. Without proper training, foodservice workers could commit errors that could result in foodborne illness. The most recent summary of foodborne illnesses in the U.S. shows that nearly 50% of all reported illnesses are due to improper handling in the foodservice environment.

Foodborne illness is nearly 100% preventable if the food handler knows and applies safe food handling practices. Education is a cost-effective option for prevention of foodborne illness. Many areas of the U.S. rely solely on a regulatory approach for the prevention of foodborne illness in the foodservice environment. As a result, foodborne illnesses might not be prevented from occurring. Educating workers is essential. Chain operations have the advantage of access to corporate staff that can provide training free-of-charge. Small independent restaurants and some institutional operations have fewer resources available to them for training. County Extension Centers have been meeting the needs of both small and large operations since 1996 by providing low cost, high quality training that is accessible and that can be tailored to meet their specific needs.

Developing Responsible Youth

4-H Programs

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, youth obesity 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 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 scars that will take years to heal. And, some will become trapped in negative cycles of violence, addiction, and hopelessness that will deprive them and their community of valuable contributions. 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 life skills and developmental assets available 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, 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 2004, 4-H involved 181,145 youth and 23,782 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, ages 5 to 19, use 4-H to become responsible, productive and caring citizens within their friendship circles, families, schools, and communities. They are actively involved in a variety of programs.

Delivery Mode	Male	Female	Total	Units
Organized 4-H Community Clubs	8,512	13,051	21,563	1,069
Organized 4-H Home-School Clubs	1,139	1,444	2,583	126
Organized 4-H After-School Clubs	4,793	6,218	11,011	337
Organized 4-H Military Clubs	76	219	295	29
TOTAL ORGANIZED 4-H CLUBS	14,520	20,932	35,452	1,561
Special Interest	28,107	35,286	63,393	3,191
4-H Overnight Camping	1,765	2,489	4,254	358
4-H Day Camping	4,258	4,900	9,158	507
TOTAL 4-H CAMPING	6,023	7,389	13,412	865

School Enrichment	38,270	40,141	78,411	2,747
Individual Projects/Study	2,121	2,419	4,540	
School-Age Child Care	13,530	14,254	27,784	740
4-H Instructional TV/Video	1,794	2,116	3,910	
TOTAL	104,365	122,537	226,902	
TOTAL (Duplications Eliminated)	83,743	97,402	181,145	8,094

- Data based on 2004 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, mentors, 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	11,200	6%
Areas of Under 10,000 and rural non-farm	102,490	57%
Towns and cities, with populations of 10,000 and up to 50,000	44,336	24%
Suburbs of cities over 50,000	10,876	6%
Central cities over 50,000	12,243	7%
Total	181,145	100%

- Data based on 2004 participation numbers from the Federal ES-237 report.

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

4-H's Diversity:

Racial Groups	Hispanic Ethnicity	Not Hispanic Ethnicity
White or Caucasian (only)	5,769	112,610
Black or African American (only)	337	50,115
American Native Indian or Alaska Native (only)	846	3,200
Asian (only)	3	1,115
Native Hawaiian or Pacific Islander (only)	30	90
White & Black or African American	79	4,522
White & American Indian or Alaskan Native	18	188
Black & American Indian or Alaskan Native	0	307
White & Asian	7	132

Balance (other combinations)	1,585	192
TOTAL HISPANIC	8,674	
TOTAL NOT HISPANIC		172,471
TOTAL YOUTH	181,145	

- Data based on 2004 participation numbers from the Federal ES-237 report.

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 2004, there were a total of 24,974 adult and youth 4-H volunteers.

Diversity of 4-H Volunteers:

Racial Groups	Hispanic Ethnicity	Not Hispanic Ethnicity
White or Caucasian (only)	446	17,860
Black or African American (only)	16	6,138
American Native Indian or Alaska Native (only)	11	252
Asian (only)	5	112
Native Hawaiian or Pacific Islander (only)	3	3
White & Black or African American	2	44
White & American Indian or Alaskan Native	0	25
Black & American Indian or Alaskan Native	0	6
White & Asian	1	7
Balance (other combinations)	30	13
TOTAL HISPANIC	514	
TOTAL NOT HISPANIC		24,460
TOTAL YOUTH	24,974	

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 13,412 youth participated in 4-H day and residential camping in 2004.

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 are 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

Teams of youth development educators accomplish the thirteen objectives, listed under the eight focus areas, in the Developing Responsible Youth Initiative. 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.

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

Program Description:

Youth of this country have more opportunities for educational experiences in their daily lives 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 modes of learning. 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 2004, 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 2004, a total of 35,452 young people between the ages of 5 to 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: 33,126 youth have increased their decision making skills; 28,175 increased their communication and interpersonal skills; 19,471 increased their knowledge of community service opportunities; 32,970 increased self-confidence; and 17,717 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.

Seventeen (17) counties reported 13,815 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, 1,168 youth participated in hands-on conflict resolution programs. Thirteen (13) 4-H clubs for youth ages 5-8 were organized to support life skill development in limited resource communities.

OBJECTIVE Y-3: Youth involved in special interest educational programs will show increased life skill knowledge and subject matter skill

Program Description:

Special Interest involves out of school programming lasting at least 6 hours with youth who are taught by 4-H volunteers.

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 increasing pace of life, economic instability, and social isolation from family and friendship networks challenges North Carolina youth, families, and communities. Limited resources and risky behaviors increase challenges. Programs targeted to building assets and preventing risk behavior foster positive developmental outcomes for youth. Communities across the state increasingly engage 4-H programs to help youth at risk to learn health and life skills, science and technology, entrepreneurship and career skills, and academic skills. Mentoring and community restitution programs connect youth to positive role models and relationships. 4-H county programs are innovators in involving youth with limited resources or behavior problems in positive, transformative programs.

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

Program Description:

The increasing pace of life, economic instability, and social isolation from family and friendship networks challenges North Carolina youth, families, and communities. Limited resources and risky behaviors increase challenges. Programs targeted to building family resiliency and preventing risk behavior foster positive developmental outcomes for youth. Although only a few counties engage in family resiliency work, such programs are critical. From a practical point-of-view, families spend more time and have more direct influence, even on teenagers, than any source except peers. Families provide an important buffer against stressors and monitor behavior standards and social support of young people. Many youth-at-risk programs require parent participation, recognizing that strengthening the child's home base increases his or her chances for risk avoidance and asset building.

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 increasing pace of life, economic instability, and social isolation from family and friendship networks challenges North Carolina youth, families, and communities. Limited resources and risky behaviors increase challenges. Programs targeted to youth assets and family resiliency must be grounded on citizen commitment to building positive neighborhoods, schools, work and play spaces, social services as well as volunteer commitments. Thus building community awareness, partnerships, and cooperative solutions for youth and families is critical to positive youth development. Although only a few counties engage in community resiliency work, such efforts illustrate that there is more to youth programming than offering youth activities. From a practical point-of-view, the physical, moral, social, intellectual, and economic climates in which youth and families spend time powerfully influence their well-being and future prospects. Community development requires tireless long-term efforts but provides the best foundation for sustained youth and family resiliency.

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:

Available and quality after school programs provide safe, supportive, and stimulating environments for youth and help working parents balance work and family. North Carolina 4-H continues to be a leader in after school training and programming at the community, state, and national level. NC 4-H staff served as leaders and facilitators in the first NC Center for After school Programs conference in Greensboro. NC 4-H was among the leading states in disseminating the 4-H After school Model and was selected as training leader for the Model to states in the Southern Region. Basic School-age Care, developed by 4-H to orient providers, continues to be the most widely utilized training in the state. 4-H curricula are among the most popular enrichment resources for after school sites.

Demand for after school training and program leadership continues to grow. Federal grants for 21st Century Community Learning Centers represent the largest and most rigorous funding source for after school, and several county 4-H programs are primary partners with local schools on proposals funded in 2004. The Department of 4-H Youth Development marked a decade of training and technical assistance to Support Our Students (SOS), the state's largest after school network, serving over 20,000 youth. 4-H-led SOS community programs continue to be among the leaders in quality environments and student academic and behavioral outcomes.

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:

Available and quality after school programs provide safe, supportive, and stimulating environments for youth and help working parents balance work and family. North Carolina 4-H state and county staff provide leadership to state and national organizations promoting affordable, quality after school care. State and county 4-H programs contributed to a dramatic increase in after school capacity in the past decade. However, increasing demands by all families and declining subsidies for limited resource families mean that quality after school care is unavailable to many North Carolina youth. This fact was dramatically illustrated when the

state Division of Child Development identified unmet needs for summer care for some 75,000 youth. Through a grant from the Division, NC 4-H School-age Care program staff at NCSU funded 9 programs in 8 counties to provide 433 youth with quality youth development experiences while their limited resource parents were at work.

NC 4-H state and county staff continue to work with schools, churches, community-based organizations, parent groups and business groups to meet school-age care needs in ways that foster positive youth development. Declining resources and increasing demands for performance outcomes increased the difficulty of this task. Nevertheless, 4-H staffs have been equal to the task, and funding for Extension-managed as well as Extension-supported programs continues to increase. This trend is due, in large part, to the skills of 4-H state and county staff in building collaborations, then writing high-quality grant proposals, then providing training, and learning resources to implement programs once they are funded.

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

Program Description:

School based curriculum delivery focuses on the training of teachers who then serve as volunteers in the delivery of the curricula to the students. In order to be an acceptable school-based program there must be 6 hours of subject matter delivered by a teacher during school hours. Through school enrichment, a delivery mode used in the 4-H Youth Development Program, 78,411 youth received a minimum of 6 hours of instruction. 4-H agents trained 2,747 teachers in experiential learning processes. Each of the subject matter curricula that are used in this effort is correlated with the Standard Course of Study adopted by the Department of Public Instruction.

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:

Objective Y11 encourages youth in North Carolina to take advantage of a week, or more, at one of five residential 4-H Camps operated by the Department of 4-H Youth Development at NC State University. Field Faculty (4-H Agents and Program Assistants) are encouraged to recognize the value of the camping experience as a "best practice" and incorporate camp as one of their delivery modes. The objective encourages 4-H professionals to utilize their volunteer leaders, parents of 4-H'ers and 4-H clubs as the core of their recruiting efforts.

Y11 also encourages the participation in the variety of "specialty camps" offered by the 4-H Centers as well as traditional, county-led camping groups.

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 emphasis volunteers, school enrichment volunteers, day and resident camp volunteers, after school volunteers, master volunteers, and advisory leaders. A target focus is for teen 4-H members to volunteer as teachers of younger youth, while coached by adult volunteers, in the new NC 4-H Teens Reaching Youth through Innovative Teams (TRY-IT) program. 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.

4-H Summary

The North Carolina 4-H Program created helping relationships to enable youth to become responsible, productive citizens during 2004. The youth, families, and communities of North Carolina were well served by the mission accomplishments of 4-H through the related missions of the North Carolina Cooperative Extension Service, the College of Agriculture and Life Sciences, North Carolina State University, and North Carolina A&T State University. 2004 was a cutting-edge year of innovative and traditional programs focusing on three of Extension's major state programs: Child Care; Resilient Youth, Families, and Communities; and Youth Development. A total of 181,145 youth participated in 4-H programs across the state with over 113,863 involved in 4-H Clubs and School Enrichment; 63,393 involved in Short-term/Special Interest activities; 27,784 involved in 4-H child care programs; and over 4,254 "discovered the world" of 4-H camp.

Thirty-six counties targeted child care to train 1,602 childcare providers. 4-H implemented 30 new programs statewide and generated 1,060 additional spaces for youth to enjoy quality after school programming. Two hundred and seventeen (217) collaborations serving children and families were sustained and 498 new collaborations were formed to support quality school-age care. In addition, school-age programs engaged 1,843 volunteers for 18,304 hours, with a dollar value (at \$17.19 per hour) of \$314,645.

Youth in 40 counties benefited as a result of involvement in community-based programs that focused on building resilience. Resilience programs reported 4,445 youth increased life skills; 3,326 youth increased academic performance; 2,208 youth engaged in community service; and 2,556 youth engaged in fewer risk-taking behaviors. But perhaps, the most telling impact of this program was the 1,642 youth that experienced decreased involvement with juvenile courts. An estimated \$2,537,524 was gained in reduced costs of responding to high-risk behaviors or educational value of the programs offered to youth.

The North Carolina camping program reported that 4,245 youth participated in 2004. Two hundred and forty-two (242) of these youth were from limited resource families. In addition, the

Key Statistics of All North Carolina Cooperative Extension Programs for 2004

Table 1: Program Volunteers, Hours Contributed, Client Contacts and Value for Each POW for 2004

POW	Volunteers	Hours Served	\$ Value@ \$17.19 per Hour	Known Client Contacts by Volunteers
A-1	2,688	12,378	\$212,777	3,164
A-2	744	5,631	\$96,796	6,791
A-3	3,217	21,929	\$376,959	28,149
A-4	740	5,732	\$98,533	913
A-5	205	2,652	\$45,587	112
A-6	290	2,239	\$38,488	155
A-7	1,124	11,020	\$189,433	6,420
A-8	12	24	\$412	35
A-9	177	754	\$12,961	1,330
A-10	2,510	2,043	\$35,119	16
A-11	0	0	\$0	0
A-12	4	6	\$103	1
A-13	54	417	\$7,168	2
A-14	3	16	\$275	30
A-15	2,230	67,778	\$1,165,103	92,452
A-16	427	8,556	\$147,077	4,885
Y-1	8,722	86,901	\$1,493,828	44,942
Y-2	920	13,067	\$224,621	9,328
Y-3	3,377	20,138	\$346,172	16,248
Y-4	0	0	\$0	0
Y-5	915	19,224	\$330,460	794
Y-6	30	40	\$687	10
Y-7	100	1,000	\$17,190	0
Y-8	1,114	14,108	\$242,516	2,076
Y-9	729	4,194	\$72,094	614
Y-10	1,749	26,067	\$448,091	9,878
Y-11	123	2,367	\$40,688	213
Y-12	5,716	63,618	\$1,093,593	10,840
Y-13	1,933	48,953	\$841,502	14,310
F-1	2,724	35,358	\$607,804	19,233
F-2	1,016	6,140	\$105,546	5,239
F-3	458	3,163	\$54,371	2,809
F-4	6,588	212,425	\$3,651,585	38,528
F-5	617	5,289	\$90,917	1,338

E-1	198	1,276	\$21,934	333
E-2	149	1,679	\$28,862	82
E-3	270	1,508	\$25,922	2,048
E-4	168	603	\$10,365	92
E-5	492	2,949	\$50,693	1,149
E-6	93	2,569	\$44,161	620
E-7	319	988	\$16,983	246
E-8	356	1,824	\$31,354	1,306
C-1	1,799	25,784	\$443,226	2,391
C-2	216	1,540	\$26,472	430
C-3	696	7,649	\$131,486	222
C-4	1,166	35,871	\$616,622	29,399
C-5	5	77	\$1,323	106
C-6	0	0	\$0	0
C-7	25	360	\$6,188	958
C-8	297	164	\$2,819	186
TOTALS	57,535	788,068	\$13,546,866	360,423

Table 2: Program Face to Face Teaching Contacts, Known Non Face to Face Contacts and Total Number of Contacts for 2004

POW	Face to Face	Non Face to Face	Total
A1	211,946	395,051	606,997
A2	46,438	49,731	96,169
A3	60,273	32,585	92,858
A4	94,123	177,847	271,970
A5	42,422	122,819	165,241
A6	15,681	21,500	37,181
A7	84,933	68,137	153,070
A8	453	1,925	2,378
A9	14,411	27,452	41,863
A10	2,316	3,226	5,542
A11	210	81	291
A12	1,007	1,528	2,535
A13	3,889	1,807	5,696
A14	2,962	134,131	137,093
A15	149,590	553,017	702,607
A16	38,181	11,153	49,334

Y1	157,002	450,424	607,426
Y2	18,443	11,649	30,092
Y3	161,840	257,036	418,876
Y4	5,689	2,451	8,140
Y5	49,475	28,719	78,194
Y6	5,438	2,391	7,829
Y7	567	375	942
Y8	143,104	46,191	189,295
Y9	20,470	15,980	36,450
Y10	57,796	26,724	84,520
Y11	43,311	25,171	68,482
Y12	36,875	40,821	77,696
Y13	19,368	15,555	34,923
F1	284,516	564,952	849,468
F2	86,110	240,724	326,834
F3	22,635	73,652	96,287
F4	59,360	108,378	167,738
F5	26,919	48,042	74,961
E1	25,600	30,952	56,552
E2	11,542	20,831	32,373
E3	11,916	27,968	39,884
E4	7,011	4,508	11,519
E5	12,784	12,199	24,983
E6	5,815	7,546	13,361
E7	9,557	8,147	17,704
E8	28,644	51,099	79,743
C1	54,940	44,260	99,200
C2	16,793	7,219	24,012
C3	16,121	18,291	34,412
C4	17,388	21,785	39,173
C5	457	21	478
C6	1,427	1,378	2,805
C7	2,541	2,613	5,154
C8	3,641	12,385	16,026
99	41,170	60,740	101,910
TOTALS	2,235,100	3,893,167	6,128,267

Table 3: Number of Locations Reporting
Per Objective
2004

Objective A	
A-1	55
A-2	31
A-3	47
A-4	61
A-5	45
A-6	20
A-7	38
A-8	2
A-9	24
A-10	12
A-11	0
A-12	1
A-13	6
A-14	6
A-15	64
A-16	29

Objective Y	
Y-1	71
Y-2	17
Y-3	72
Y-4	0
Y-5	28
Y-6	2
Y-7	2
Y-8	33
Y-9	10
Y-10	40
Y-11	32
Y-12	37
Y-13	36

Objective F	
F-1	89
F-2	68
F-3	51
F-4	67
F-5	61

Objective E	
E-1	30
E-2	23
E-3	24
E-4	23
E-5	22
E-6	9
E-7	13
E-8	67

Objective C	
C-1	39
C-2	12
C-3	11
C-4	23
C-5	5
C-6	2
C-7	3
C-8	11

Table 4: Program Values to Targeted Audience, Society and Cost for Each Per POW for 2004

POW	Value to Targeted Audience	Value to Society	Program Cost
A-1	\$7,011,161	\$9,009,520	\$682,124
A-2	\$591,143	\$1,432,067	\$73,174
A-3	\$1,400,328	\$1,656,276	\$243,762
A-4	\$27,838,681	\$49,929,116	\$790,283
A-5	\$9,013,070	\$14,356,959	\$331,865
A-6	\$5,369,302	\$1,295,882	\$180,012
A-7	\$5,868,543	\$28,054,954	\$904,879
A-8	\$5,000	\$5,000	\$400
A-9	\$4,315,710	\$8,504,300	\$117,488
A-10	\$274,550	\$314,850	\$2,710
A-11	\$0	\$0	\$0
A-12	\$6,000	\$30,000	\$780
A-13	\$38,000	\$46,000	\$6,360
A-14	\$105,000	\$49,000	\$893
A-15	\$9,781,263	\$12,103,953	\$902,322
A-16	\$185,964	\$294,479	\$55,217
Y-1	\$3,416,052	\$6,623,204	\$1,493,295
Y-2	\$3,000	\$28,200	\$37,210
Y-3	\$2,304,916	\$1,770,952	\$364,928
Y-4	\$0	\$0	\$0
Y-5	\$1,505,772	\$8,653,795	\$755,624
Y-6	\$25,000	\$50,000	\$1,500
Y-7	\$0	\$0	\$0
Y-8	\$1,011,258	\$4,188,602	\$513,802
Y-9	\$1,214,299	\$3,948,791	\$588,664
Y-10	\$175,860	\$266,203	\$48,744
Y-11	\$108,712	\$205,008	\$66,141
Y-12	\$1,124,901	\$787,575	\$720,478
Y-13	\$210,040	\$467,016	\$99,324
F-1	\$1,430,230	\$5,845,324	\$559,097
F-2	\$828,601	\$11,928,000	\$398,320
F-3	\$818,481	\$2,475,320	\$90,334
F-4	\$100,789,257	\$102,583,734	\$145,016
F-5	\$105,836,477	\$126,596,248	\$238,638
E-1	\$5,206,291	\$8,223,441	\$110,184
E-2	\$3,361,309	\$11,604,889	\$228,716
E-3	\$2,471,960	\$5,417,020	\$102,052
E-4	\$5,473,344	\$13,264,943	\$88,588
E-5	\$5,209,910	\$6,027,040	\$41,617
E-6	\$370,900	\$995,500	\$31,750
E-7	\$1,523,750	\$2,235,350	\$113,360

E-8	\$1,701,179	\$3,340,154	\$200,553
C-1	\$1,103,274	\$6,196,829	\$696,194
C-2	\$114,419,528	\$115,721,528	\$62,750
C-3	\$696,568	\$811,977	\$288,902
C-4	\$528,300	\$830,645	\$96,722
C-5	\$16,000	\$10,000	\$3,840
C-6	\$101,500	\$101,500	\$7,200
C-7	\$261,125	\$272,808	\$20,000
C-8	\$5,687,024	\$1,622,825	\$62,807
TOTALS	\$440,738,533	\$580,176,777	\$12,568,619

Program
 Accomplishment Report
 2004

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A - ENHANCING AGRICULTURE, FOREST AND FOOD SYSTEMS

OBJECTIVE A-1 - Accomplishment Report

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 also includes aquatic production as. The species in which programs are conducted include Beef Cattle, Dairy, Hogs, Sheep and Goats, Poultry, and Aquatic animals. In 2004, producers gained \$14,139,267 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, that 20,301 producers adopted best management practices in their production and marketing systems. Further, 9,250 applied improved farm financial planning practices in their operations.

Measures of Progress With Statewide Totals:

Adoption of best management practices that optimize income

NUMBER OF DAIRY, BEEF, HOG, HORSE, SHEEP OR GOAT, POULTRY AND
AQUATIC SPECIES PRODUCERS ADOPTING

Number: 14702 Non-Limited Resource

Number: 5599 Limited Resource

Application of improved farm financial planning practices and procedures

NUMBER OF DAIRY, BEEF, HOG, HORSE, SHEEP OR GOAT, POULTRY AND
AQUATIC SPECIES PRODUCERS APPLYING

Number: 6789 Non-Limited Resource

Number: 2461 Limited Resource

Impact Indicators:

Income optimized through adoption of recommended nutrition practices

DAIRY, BEEF, HOG, HORSE, SHEEP OR GOAT, POULTRY AND AQUATIC
SPECIES PRODUCERS, DOLLARS GAIN

Dollars: 3955208 Non-Limited Resource

Dollars: 559421 Limited Resource

Income optimized through adoption of recommended breeding practices

DAIRY, BEEF, HOG, HORSE, SHEEP OR GOAT, POULTRY AND AQUATIC
SPECIES PRODUCERS, DOLLARS GAIN

Dollars: 2242356 Non-Limited Resource

Dollars: 388558 Limited Resource

Income optimized through adoption of recommended marketing practices

DAIRY, BEEF, HOG, HORSE, SHEEP OR GOAT, POULTRY AND AQUATIC
SPECIES PRODUCERS, DOLLARS GAIN

Dollars: 2549232 Non-Limited Resource

Dollars: 368809 Limited Resource

Income optimized through adoption of recommended building/facilities practices

DAIRY, BEEF, HOG, HORSE, SHEEP OR GOAT, POULTRY AND AQUATIC
SPECIES PRODUCERS, DOLLARS GAIN

Dollars: 957187 Non-Limited Resource

Dollars: 182616 Limited Resource

Income optimized through adoption of recommended health and general management practices

DAIRY, BEEF, HOG, HORSE, SHEEP OR GOAT, POULTRY AND AQUATIC
SPECIES PRODUCERS, DOLLARS GAIN

Dollars: 2481519 Non-Limited Resource

Dollars: 454361 Limited Resource

Volunteers Involved and Value:

2,688 volunteers contributed 12,378 hours at a value of \$212,777 and reached 3,164 clients

Success Stories:

Beaufort

Excessive vegetative growth in cotton causes delays in crop maturity, increased boll rot, and can negatively impact insect control. N.C. Cooperative Extension Beaufort County Center On-Farm-Testing program in cotton evaluated brand name and generic growth regulators for controlling excessive vegetative growth in cotton. In three years of testing there have been no significant difference in growth and crop yield between products. The generic products performs the same tasks at a savings of \$9.00 per over the brand name. Due to these findings 75% of the growers use generic brands. this is a saving to area producers of \$400,000.00.

Jones

A hybrid striped bass hatchery faced difficulty when harvesting fingerlings. Aquatic weeds threatened their removal from the pond. Past losses of fish in similar circumstances have resulted in over 80% mortalities. Contact was made with the Area Aquaculture Extension Agent for assistance. The Agent developed a pragmatic, timed treatment protocol of approved aquatic herbicides and dyes which was followed by the producer. Approximately one week post-treatment, most of the weeds had been eliminated. The fish were then harvested without undue losses. With over 1.5 million fingerlings affected, this treatment saved the producer an estimated \$240,000.

Chatham

Ruminant animal producers in Chatham County, NC have historically planted 100% of their pasture acreage in cool season forage. During the mid-summer months, they would have little or no forage to graze and that which was there was very poor quality. Through several series of meetings, workshops and field days conducted by the Chatham County Center of the North Carolina Cooperative Extension Service, producers were educated on varieties of warm season forages and encouraged to plant 25% of their total acreage in those forages. Chatham County producers have planted 2500 acres of warm season forages which has resulted in more available summer feed and increased weight gains in cattle. This has created an additional \$125,000.00 in earnings to those producers who have participated in this pasture improvement project.

Poultry Science

Improving Nutrient Utilization in Poultry: The environmental impact of mineral emissions from concentrated poultry operations must be reduced by improving dietary nutrient utilization and utilizing animal by-products as added-value nutrient resources. Through the use of lactic acid fermentation and extrusion processing, poultry protein by-products can be converted into protein meals for fish feed that are about 15% more digestible than protein meals produced by conventional rendering methods. Appropriate dietary supplementation of enzymes, amino acids and organic minerals to poultry feed have been demonstrated to reduce the emissions of phosphorus, nitrogen, and other minerals by improving diet digestibility over 5%. The use of enzymes and feed additives reduce feed costs by at least \$0.25 per ton resulting in a potential annual savings of over \$1.2 million for the NC poultry industry.

Caswell

Following Extension recommendations, one beef cattle producer started feeding a citrus by-product material from the Demonte Processing Plant. As a result, the producer lowered his feed costs by \$8,400 per year while the processing plant saved \$60,000 per year in landfill disposal costs.

Impact Bullets:

- Animal, poultry and aquaculture producers gained \$14,139,267 by adopting practices that optimized income, such as improved nutrition, herd health, breeding, marketing, buildings, and business management.
- Producers of rainbow trout, bait eels and hybrid striped bass gained \$825,000 by adopting Extension-recommended practices.
- Dairy producers gained \$1,325,721 by adopting by adopting Extension-recommended practices.
- Beef cattle producers gained \$6,766,662 by adopting Extension-recommended practices
- Hog producers gained \$1,124,495 by adopting Extension-recommended practices
- The horse industry gained \$1,448,831 by adopting Extension-recommended practices
- Sheep and goat producers gained \$1,395,769 by adopting Extension-recommended practices
- Poultry producers gained \$864,764 by adopting Extension-recommended practices

Report prepared by NCCE Program Personnel

OBJECTIVE A-2 - Accomplishment Report

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 2004, 42,953 persons gained a greater understanding of agriculture, while more than 4,220 farms adopted appropriate management standards, practices and procedures that address agricultural issues that impact both farm and non-farm citizens, and 2,549 farms were documented to implement standards, practices or procedures that enhanced their likelihood of sustainability.

Measures of Progress With Statewide Totals:

NUMBER of citizens gaining knowledge and understanding of agriculture

Number: 32421 Non-Limited Resource

Number: 10532 Limited Resource

Impact Indicators:

NUMBER of farms newly adopting appropriate standards, practices, and procedures to address industry concerns and issues

NUMBER ADOPTING

Number: 2085 Non-Limited Resource

Number: 464 Limited Resource

NUMBER of farms sustained or that continue to operate by implementing practices, standards or procedures that enhance sustainability

NUMBER SUSTAINED

Number: 3868 Non-Limited Resource

Number: 352 Limited Resource

Volunteers Involved and Value:

774 volunteers contributed 5,631 hours at a value of \$96,796 and reached 6,791 clients

Success Stories:

Rockingham

With the continual demand of our resources, it is important that youth are exposed to programs that teach the science in the world that we live. With this need to educate and improve the general public's knowledge, understanding and appreciation of the environmental sciences and animal agriculture, the North Carolina Cooperative Extension Service and other Agricultural Agencies in Rockingham County conducted numerous programs, demonstrations, and activities which worked with youth and adults about ecology, livestock, livestock production management, our food supply, water quality, and soil and water conservation. In 2004, over 1000 school youth, teachers, citizens and producers had hands on activities through this program which focused on livestock, animal husbandry & health, products of animal origin, the practices utilized by livestock producers to ensure a safe food supply, the economic impact to North Carolina and how dependent man is upon animals. Through these programming efforts over 2350 known contacts have been made under this objective of the livestock program. 900 citizens demonstrated improved knowledge and attitudes about animal agriculture and increased understanding of food supply facts and quality standards.

Pasquotank

Dialogue between the general population and the agricultural sector must occur in order to maintain a viable and responsible community. In order to enhance this relationship, local

businesses, the Farm Service Agency and other community leaders implemented an "agricultural friendly" soybean festival which attracted over 425 local residents who learned about the "soybean" and the importance of agriculture to the community. Exhibits, soybean food tasting and other such activities allowed participants to gain hands on knowledge during the event.

Orange

In order to help promote a better understanding of agriculture among the general public, the Cooperative Extension Service sponsors an Extension Petting Pasture at Hillsborough Hog Day. Hillsborough Hog Day is a festival put on by the Chamber of Commerce involving businesses in the county and other government agencies. The Extension Petting Pasture was visited by approximately 4,500 people attending Hillsborough Hog Day who hopefully came away with a better appreciation of agriculture in Orange County. Agricultural Agents Karen McAdams and Royce Hardin coordinated this educational effort.

Chatham

Youth are not very familiar with the poultry industry in this South Central North Carolina area. The Area Poultry Ext. Agent along with 4H agents set up a series of 4H summer camps. Over 200 youth gained knowledge on how important the poultry industry is to South Central North Carolina. Due to the overwhelming response from the young people and their parents we will continue to do programming like this annually.

Randolph

Since youth are the future leaders of this county, informing them about agriculture and its importance to the county is needed more than ever. The Extension Service hosted an Agriculture day, part of the Chamber Commerce's Student LIFT (Leadership Information For Tomorrow) Program, a year long leadership program for 26 juniors and seniors from all county and city high schools. The students toured a large contract swine facility, a goat dairy that makes cheese, a family owned dairy, and a contract poultry farm. From the evaluations, participants indicated that the day was very insightful and helped them realize how diverse and how very important agriculture is to the economy of the county. They also said it helped form a more favorable opinion of agriculture and showed that agriculture is a very important industry in the county. The program is planned to be continued.

Chatham

Chatham County is a leading county in beef cattle production in North Carolina and is home to the largest stockyards in the southeastern United States, Carolina Stockyards. Sandwiched between the Triad and Triangle metropolitan regions of the state, there are also three major U.S. highways in the county. The county has a large number of temporary workers employed in both the poultry and construction industry. With consideration of all of these factors, the county was determined to be at high risk for a bio-terrorism attack. In response, to this threat, the Chatham County Center of North Carolina Cooperative Extension working with the Chatham County Family Resource Center and the Chatham County Sheriff's Department representing Homeland Security organized and facilitated a table top training exercise for implementing the county's County Animal Response Team (CART) plan. During this exercise, the CART plan was implemented.

Cabarrus

During the Agribusiness and Environmental School Days in the fall, sixth graders from all the county's public, private, church and home schools participated in 36 different interactive learning activities. More than 100 volunteers, farmers, agribusiness owners, government employees, FFA

high school students and home-schooled students contributed more than 3,400 volunteer hours valued at \$57,800 to plan and conduct these opportunities for children to get their hands in the soil to plant seeds, see food crops ready for harvest, milk a cow, churn cream into butter, watch a hen lay an egg and begin to understand agriculture and the importance of caring for the environment.

Harnett

Government agencies are consistently training employees and volunteers on how to handle the threat of bioterrorism. Cooperative Extension, representing the County Animal Response Team, partnered with the North Carolina Department of Agriculture and North Carolina Department of Crime Control and Public Safety to provide a field exercise on handling a suspected outbreak of Foot and Mouth disease. The participants included the Salvation Army, Cumberland County Emergency Management, State Animal Response Team, and area emergency departments. A Cumberland swine farmer volunteered his facilities and land to be used in the field exercise. Agencies and volunteers were able to gain experience using the Incident Command System to quarantine the farm. All traffic in-and-out of the farm as well as a two-mile check-point system on the roads was established in two hours and thirteen minutes. Everyone was able to see the difficulties and challenges they would face if there was a bioterrorism attack.

Impact Bullets:

- 42,953 gained knowledge regarding agricultural issues that are of mutual concern to both farms and non-farm citizens.
- Over 3,549 farms adopted appropriate management standards, practices and procedures that address agricultural issues that impact both farm and non-farm citizens.
- Over 4,220 farms were documented to implement standards, practices or procedures that enhanced their likelihood of sustainability.

Report prepared by NCCE Program Personnel

OBJECTIVE A-3 - Accomplishment Report

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 2004, youth received almost \$648,012 from sales of their project animals, above the realistic market price. Also, 304 youth in 4H Livestock Programs received scholarships totaling over \$147,489 as a direct result of participation in the program. 2,422 youth demonstrated enhanced personal development and leadership skills, including speaking ability, decision making and volunteerism.

Measures of Progress With Statewide Totals:

Youth demonstrating increased skills/knowledge gained by participation in animal projects and events

NUMBER IN DAIRY

Number: 234 Non-Limited Resource

Number: 30 Limited Resource

NUMBER IN BEEF

Number: 1677 Non-Limited Resource

Number: 1316 Limited Resource

NUMBER IN SWINE

Number: 1698 Non-Limited Resource

Number: 1126 Limited Resource

NUMBER IN HORSES

Number: 1990 Non-Limited Resource

Number: 1182 Limited Resource

NUMBER IN SHEEP

Number: 1931 Non-Limited Resource

Number: 1186 Limited Resource

NUMBER IN GOATS

Number: 1974 Non-Limited Resource

Number: 1370 Limited Resource

NUMBER IN POULTRY

Number: 1357 Non-Limited Resource

Number: 1230 Limited Resource

NUMBER IN RABBITS

Number: 1244 Non-Limited Resource

Number: 1074 Limited Resource

NUMBER IN AQUATIC

Number: 1075 Non-Limited Resource

Number: 1065 Limited Resource

Number of youth demonstrating advanced skills and knowledge through participation in multi-state, national, or international events

NUMBER PARTICIPATING

Number: 503 Non-Limited Resource

Number: 34 Limited Resource

Impact Indicators:

Scholarships received by youth animal project participants

SCHOLARSHIP DOLLARS RECEIVED

Dollars: 132549 Non-Limited Resource

Dollars: 14940 Limited Resource

NUMBER OF YOUTH RECIPIENTS

Number: 277 Non-Limited Resource

Number: 27 Limited Resource

Income above realistic market price provided to youth by community supporters of youth animal project activities and sales

PROJECT DOLLARS (above market price) RECEIVED

Dollars: 599332 Non-Limited Resource

Dollars: 48680 Limited Resource
NUMBER OF YOUTH PARTICIPANTS
Number: 2106 Non-Limited Resource
Number: 389 Limited Resource

NUMBER of youth who have demonstrated enhanced personal development and leadership skills as a result of participation in animal-related projects and events: i.e. public speaking skills; improved decision making; effective assistance with other youth projects

NUMBER DEMONSTRATING
Number: 2199 Non-Limited Resource
Number: 323 Limited Resource

Volunteers Involved and Value:

3,217 volunteers contributed 21,929 hours at a value of \$376,959 and reached 28,149 clients

Success Stories:

Lenoir

Youth continue to be the focus every spring in the southeast. The 64th annual Coastal Plains Livestock Show and Sale boasted 120 children from 10 Southeastern counties in North Carolina. Extension sponsored the show along with the extensive cooperation of local volunteers and parents. Over \$55,000 was raised for the support of the children and their livestock projects. The youth gain valuable life skills such as responsibility, accountability, and dependability.

Columbus

In order to address this situation, the North Carolina Cooperative Extension Service in Columbus County, the Youth Livestock Show and Sale Committee, the County Fair Board and various businesses throughout the region came together and hosted the 36th Annual Youth Livestock Show and Sale. This event brought 27 youth with cattle, swine, and goats from across the county together to show off their skills and broaden their experience with livestock. Approximately \$12,000 in scholarship money was awarded to the youth participating.

Pasquotank

Youth livestock programming continues to provide tangible and intangible outcomes to 4-H youth, i.e. personal effectiveness, leadership, responsibility and lifestyle management. As a result of livestock judging, local and statewide exhibitions and tours, just over \$51,000 was earned by 4-Hers through animal science projects. Additionally, 26 different youth received a combined 1700 plus hours of training through seminars, local and state contests (Elizabeth City, Rocky Mount, Wilson & Raleigh) and a tour to Pennsylvania. Two of the participants will be attending N. C. State University in the fall of 2004.

Johnston

Activities for youth that help build positive esteem and promote responsibility as well as being financially rewarding are becoming fewer in today's society. The Johnston County North Carolina Youth Livestock Program exceeds the challenge. Children from ages 5 to 19 raise and exhibit livestock from 4 different species. They begin their projects months before the yearly show and sale. Taking care of a living breathing thing over a long period of time promotes responsibility and develops goal setting skills. Parents of younger youth are often educated along with their children and are exposed to the benefits of agriculture in their lives. The 2004 Youth Livestock Show and Sale netted the 137 participants \$125,744 for an average of \$781.00 per

child. Over 300 buyers were on hand to show their support of this worthy program. Over 90% of the children report holding their money for future education.

Pitt

The Pitt County Fair provides the opportunity for youth to exhibit their livestock and poultry projects each year; this year's fair was held October 4-9. Cattle, sheep, and goat shows were held for youth as well as exhibition of these livestock plus poultry and rabbits. The shows and exhibition of livestock allowed young folks (149) to demonstrate to the public their showmanship skills and put on display the animals that they had raised and cared for throughout the year. In addition, about \$9000 in premiums and awards were earned by these exhibitors.

Impact Bullets:

- 304 youth in 4H Livestock Programs received scholarships totaling over \$147,489 as a direct result of participation in the program.
- 2,495 youth participating in livestock programs and activities received almost \$648,012 from sales of their project animals, above the realistic market price.
- 2,522 youth demonstrated enhanced personal development and leadership skills, including speaking ability, decision making and volunteerism.

Report prepared by NCCE Program Personnel

OBJECTIVE A-4 - Accomplishment Report

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, profits were improved by over \$41.1 million by growers adopting Extension recommended practices. Strategies adopted and their resulting net gains included improved marketing strategies (\$6.6 million), improved pest management strategies (\$12.3million), fertility management (\$3.9 million), and improved varieties (\$4.3 million).

Measures of Progress With Statewide Totals:

**COTTON, GRAIN, PEANUT, TOBACCO, AND SOYBEAN GROWERS IMPLEMENTING
New marketing/risk management strategies**

Number: 3860 Non-Limited Resource

Number: 936 Limited Resource

Acres affected

Number: 609113 Non-Limited Resource

Number: 24734 Limited Resource

New or alternative production practices

Number: 3822 Non-Limited Resource

- Number: 284 Limited Resource
- Acres affected
 - Number: 801068 Non-Limited Resource
 - Number: 22987 Limited Resource
- Improved field selection
 - Number: 4032 Non-Limited Resource
 - Number: 1003 Limited Resource
- Acres affected
 - Number: 603618 Non-Limited Resource
 - Number: 21966 Limited Resource
- Improved pest management strategies(weeds, insects, diseases)
 - Number: 6791 Non-Limited Resource
 - Number: 1630 Limited Resource
- Acres affected
 - Number: 1400136 Non-Limited Resource
 - Number: 67736 Limited Resource
- Improved varieties
 - Number: 6044 Non-Limited Resource
 - Number: 1175 Limited Resource
- Acres affected
 - Number: 847058 Non-Limited Resource
 - Number: 39745 Limited Resource
- Optimum tillage systems
 - Number: 3865 Non-Limited Resource
 - Number: 888 Limited Resource
- Acres affected
 - Number: 685393 Non-Limited Resource
 - Number: 27015 Limited Resource
- Optimum fertility management
 - Number: 5646 Non-Limited Resource
 - Number: 755 Limited Resource
- Acres affected
 - Number: 1028627 Non-Limited Resource
 - Number: 38724 Limited Resource
- Crop rotations
 - Number: 5784 Non-Limited Resource
 - Number: 577 Limited Resource
- Acres affected
 - Number: 919735 Non-Limited Resource
 - Number: 35427 Limited Resource

Impact Indicators:

- Increased net income from implementing:*
- COTTON, GRAIN, PEANUT, TOBACCO, AND SOYBEAN GROWERS IMPLEMENTING**
- New marketing/risk management strategies
 - Added net income: \$6,663,548
- New or alternative production systems/enterprises
 - Added net income: \$2,300,241
- New or alternative production practices

Added net income: \$2,153,485
 Improved field selection
 Added net income: \$2,334,979
 Improved pest management strategies (weeds, insects, diseases)
 Added net income: \$12,297,325
 Improved varieties
 Added net income: \$4,276,276
 Improved harvesting techniques
 Added net income: \$1,308,669
 Improved labor management/efficiency
 Added net income: \$915,084
 Optimum tillage systems
 Added net income: \$974,431
 Equipment adaptation
 Added net income: \$1,166,577
 Optimum fertility management
 Added net income: \$3,951,004
 Crop rotations
 Added net income \$2,815,108

Volunteers Involved and Value:

740 volunteers contributed 5,732 hours at a value of \$98,533 and reached 913 clients

Success Stories:

Johnston

Soybeans compose Johnston County's largest acreage of field crops, but are next to last in profitability. Extension began an educational program in 2001 to address this issue. Extension Crops, Marketing, and Seeds Specialists along with Seed Producing Agribusinesses assisted in conducting educational programs to inform local farmers about the opportunity to grow seeds and address crop management expectations. As a direct result of these long range Extension programs, 2 companies are contracting with 25 local growers to produce over 20,000 acres of soybeans, and wheat for seeds. Participating farmers reported a 6 bushel yield increase compared to traditional seeds by growing the better quality, higher yielding varieties provided by the companies. Growers also received a financial premium and increased market price for producing high quality seeds which increased their income by \$600,000

Beaufort

Beaufort County farmers produced 60000 acres of soybeans this year. I have spent many hours in the field performing side by side variety trials to furnish farmers with the best information possible in terms of variety selection. Based on this information, 115 soybean producers choose varieties that yielded on average 1.0 bushels more than the variety they replaced. On 45000 acres, this increased income by 315,000.00, or \$2740.00 per farmer.

Edgecombe

Peanut growers in Edgecombe County, facing a serious drop in pricing due to the end of the federal allotment program, have faced the challenge of cutting costs and/or increasing production. Extension programming efforts have focused on several "feasible" ways to do this. Integrated Pest Management is one of the best ways to do this. Through our meetings,

newsletters, pest management workshops, our weather/computer modeling for disease prediction and our Edgecombe County "Crop Line" peanut growers were able to save \$180,000 using economical thresholds for insects and spraying only as needed for leafspot disease control.

Davidson

Since the origination of Roundup Ready Soybeans, the technology fee associated with purchasing the seed significantly increased seed cost. The soybean specialist has statistically proven maximum profit can be achieved with as little as 50,000 seed per acre. Most growers were planting 150,000 seed per acre. While growers, due to equipment accuracy and land variability, have been reluctant to make this drastic cut, most reduced 2004 seeding rates by 30,000 seed per acre. This equals \$5.00 per acre less cost. It occurred on over 11,000 Davidson and Randolph County acres in 2004, representing a total saving of more than \$55,000.00.

Impact Bullets:

- Producers of field crops implementing Extension-recommended production and marketing practices increased their net income by over \$41 million.
- Field crop growers who adopted insect, disease, and weed management practices recommended by Extension increased their net income by over \$12 million.
- By implementing Extension recommendations:
 - cotton producers increased their net income by \$5,765,732
 - grain producers increased their net income by \$9,991,254
 - peanut producers increased their net income by \$4,664,097
 - tobacco producers increased their net income by \$11,754,945
 - soybean producers increased their net income by \$8,980,700

Report prepared by NCEE Program Personnel

OBJECTIVE A-5 - Accomplishment Report

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 an income increase by fruit and vegetable growers of \$10,904,251. These practices include improved disease, weed, and insect management resulting in gains of \$4.5 million, new or alternative production systems that increased growers' income by over \$2.8 million, optimum fertility management by 796 growers on 21,943 acres for gains of nearly \$1.3 million, and new marketing/risk management strategies by 962 growers on 20,909 acres for gains of \$3.2 million.

Measures of Progress With Statewide Totals:

New marketing/risk management strategies
FRUIT GROWERS IMPLEMENTING

Number: 357 Non-Limited Resource
 Number: 80 Limited Resource
 Acres affected
 Number: 7681 Non-Limited Resource
 Number: 294 Limited Resource
VEGETABLE GROWERS IMPLEMENTING
 Number: 391 Non-Limited Resource
 Number: 134 Limited Resource
 Acres affected
 Number: 12453 Non-Limited Resource
 Number: 481 Limited Resource
New or alternative production systems/enterprises
FRUIT GROWERS IMPLEMENTING
 Number: 276 Non-Limited Resource
 Number: 56 Limited Resource
 Acres affected
 Number: 5073 Non-Limited Resource
 Number: 340 Limited Resource
Optimum fertility management
FRUIT GROWERS IMPLEMENTING
 Number: 213 Non-Limited Resource
 Number: 26 Limited Resource
 Acres affected
 Number: 3243 Non-Limited Resource
 Number: 69 Limited Resource
VEGETABLE GROWERS IMPLEMENTING
 Number: 347 Non-Limited Resource
 Number: 110 Limited Resource
 Acres affected
 Number: 18405 Non-Limited Resource
 Number: 226 Limited Resource
Crop rotations
VEGETABLE GROWERS IMPLEMENTING
 Number: 249 Non-Limited Resource
 Number: 102 Limited Resource
 Acres affected
 Number: 18896 Non-Limited Resource
 Number: 385 Limited Resource

Impact Indicators:

Increased net income from implementing:
New marketing/risk management strategies
FRUIT GROWERS NET DOLLARS ADDED
 Dollars: 309800 Non-Limited Resource
 Dollars: 68400 Limited Resource
VEGETABLE GROWERS NET DOLLARS ADDED
 Dollars: 2676251 Non-Limited Resource
 Dollars: 177900 Limited Resource
New or alternative production systems/enterprises

FRUIT GROWERS NET DOLLARS ADDED

Dollars: 278080 Non-Limited Resource

Dollars: 118340 Limited Resource

VEGETABLE GROWERS NET DOLLARS ADDED

Dollars: 1085475 Non-Limited Resource

Dollars: 227900 Limited Resource

New or alternative production practices

FRUIT GROWERS NET DOLLARS ADDED

Dollars: 212840 Non-Limited Resource

Dollars: 43000 Limited Resource

VEGETABLE GROWERS NET DOLLARS ADDED

Dollars: 812000 Non-Limited Resource

Dollars: 80120 Limited Resource

Improved disease management strategies

FRUIT GROWERS NET DOLLARS ADDED

Dollars: 359300 Non-Limited Resource

Dollars: 98400 Limited Resource

VEGETABLE GROWERS NET DOLLARS ADDED

Dollars: 1003900 Non-Limited Resource

Dollars: 187300 Limited Resource

Improved insect pest management strategies

FRUIT GROWERS NET DOLLARS ADDED

Dollars: 316100 Non-Limited Resource

Dollars: 111675 Limited Resource

VEGETABLE GROWERS NET DOLLARS ADDED

Dollars: 1029400 Non-Limited Resource

Dollars: 419200 Limited Resource

Optimum fertility management

FRUIT GROWERS NET DOLLARS ADDED

Dollars: 277700 Non-Limited Resource

Dollars: 22440 Limited Resource

VEGETABLE GROWERS NET DOLLARS ADDED

Dollars: 927320 Non-Limited Resource

Dollars: 61400 Limited Resource

Volunteers Involved and Value:

215 volunteers contributed 2,802 hours at a value of \$48,166 and reached 112 clients

Success Stories:

Beaufort

Strawberry production suffered from heavy disease pressure in 2001-2002. After investigating the potential for disease free plants originating from the NCSU Micropropagation Unit, I urged my growers to secure plants from this source if possible. One grower secured these plants as well as plants from an outside source. The difference in yield between the two plant sources was approximately 20,000 pounds per acre. At \$.85/lb., income was increased by \$17,000.00 per acre.

Pasquotank

Thirteen farmers in the potato industry again followed integrated pest management spray recommendations from Extension for insects and diseases in potatoes. An estimated \$104,000 was saved by eliminating several unnecessary pesticide sprays and timing those that were made so they would be efficient.

Hyde

Low commodity prices in recent years has Hyde County farmers looking for more sustainable crops to plant. Cooperative extension provided educational programming for county farmers to investigate innovative agricultural opportunities and to develop new crop mixes in their farmer enterprise. Twenty farmers attended meetings and tours that provided knowledge of alternative crops to corn, wheat, and soybeans. As a result five Hyde County growers planted 25 acres of bell peppers and 400 acres of slicing cucumber for the first time. It is estimated that this will increase the gross revenue of each farmer by \$120,000.

Impact Bullets:

- New or alternative production systems or practices increased growers' income by \$2,857,755
- Fruit and vegetable growers improved disease, insect and weed management, resulting in increased production efficiency and quality associated with \$4.5 million additional returns.
- Fruit and vegetable growers implemented improved marketing and risk management strategies that increased income by \$1.83 million.
- Growers planting improved varieties of fruits and vegetables gained an additional \$1.53 million.

Report prepared by NCCE Program Personnel

OBJECTIVE A-6 - Accomplishment Report

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, nearly 1,000 nursery and turfgrass producers involved in 41,255 acres of production used improved marketing and risk management strategies to gain \$4.8 million additional income in 2004. Green and turf industry producers enhancement of weed, insect and disease management strategies produced a \$1.65 million economic advantage over the prior year. 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.

Measures of Progress With Statewide Totals:

New marketing/risk management strategies

GREEN INDUSTRY GROWERS IMPLEMENTING
 Number: 427 Non-Limited Resource
 Number: 75 Limited Resource
 Acres affected
 Number: 12395 Non-Limited Resource
 Number: 590 Limited Resource

TURF PRODUCERS IMPLEMENTING
 Number: 476 Non-Limited Resource
 Number: 20 Limited Resource
 Acres affected
 Number: 27270 Non-Limited Resource
 Number: 1000 Limited Resource

Improved pest management strategies
 GREEN INDUSTRY GROWERS IMPLEMENTING
 Number: 655 Non-Limited Resource
 Number: 145 Limited Resource
 Acres affected
 Number: 13120 Non-Limited Resource
 Number: 1348 Limited Resource

TURF PRODUCERS IMPLEMENTING
 Number: 1068 Non-Limited Resource
 Number: 255 Limited Resource
 Acres affected
 Number: 26403 Non-Limited Resource
 Number: 3500 Limited Resource

Improved varieties
 GREEN INDUSTRY GROWERS IMPLEMENTING
 Number: 414 Non-Limited Resource
 Number: 79 Limited Resource
 Acres affected
 Number: 10255 Non-Limited Resource
 Number: 762 Limited Resource

TURF PRODUCERS IMPLEMENTING
 Number: 260 Non-Limited Resource
 Number: 9 Limited Resource
 Acres affected
 Number: 10342 Non-Limited Resource
 Number: 350 Limited Resource

Optimum fertility management
 GREEN INDUSTRY GROWERS IMPLEMENTING
 Number: 646 Non-Limited Resource
 Number: 88 Limited Resource
 Acres affected
 Number: 17250 Non-Limited Resource
 Number: 653 Limited Resource

TURF PRODUCERS IMPLEMENTING
 Number: 1197 Non-Limited Resource
 Number: 500 Limited Resource
 Acres affected
 Number: 38092 Non-Limited Resource

Number: 1500 Limited Resource

Impact Indicators:

Increased net income from implementing:

New marketing/risk management strategies

GREEN INDUSTRY GROWERS ADDED NET INCOME

Dollars: 3426505 Non-Limited Resource

Dollars: 52500 Limited Resource

TURF INDUSTRY ADDED NET INCOME

Dollars: 1324500 Non-Limited Resource

New or alternative production systems/enterprises

GREEN INDUSTRY GROWERS ADDED NET INCOME

Dollars: 281000 Non-Limited Resource

Dollars: 120200 Limited Resource

New or alternative production practices

GREEN INDUSTRY GROWERS ADDED NET INCOME

Dollars: 381800 Non-Limited Resource

Dollars: 112600 Limited Resource

Improved pest management strategies

GREEN INDUSTRY GROWERS ADDED NET INCOME

Dollars: 1084385 Non-Limited Resource

Dollars: 567210 Limited Resource

Improved labor management/efficiency

GREEN INDUSTRY GROWERS ADDED NET INCOME

Dollars: 224500 Non-Limited Resource

Dollars: 51500 Limited Resource

Optimum fertility management

GREEN INDUSTRY GROWERS ADDED NET INCOME

Dollars: 204400 Non-Limited Resource

Dollars: 154800 Limited Resource

TURF INDUSTRY ADDED NET INCOME

Dollars: 143000 Non-Limited Resource

Volunteers Involved and Value:

295 volunteers contributed 2,264 hours at a value of \$38,918 and reached 155 clients

Success Stories:

Pender

A three-county "So You Want to Be a Landscaper" series was held in New Hanover County and conducted by Extension Agents Jerry Dudley (Pender), Al Hight (Brunswick) and Matt Martin (Area Specialized Agent). Attendance averaged 50 participants with a high of 74. Topics covered were: turf management, insect and disease identification and management, weed identification and control, soils and soil fertility, and bidding landscape jobs. Fifty (50) participants responded to the evaluation instrument at the end of the final class. Almost half (48%) listed "Take better care of my own landscape" as reason for taking part. Thirty-two (32) per cent chose to participate to "Enhance knowledge for existing business" and 16% chose "Help me decide about starting a

business." Fifty-nine (59) per cent valued the series between \$50 and \$250, and 20% checked the "more than \$450" choice. Based on this formula the respondents valued the series at \$8600.

Pitt

The Pitt County Extension Horticulture Program provided training to individuals in the nursery and landscaping business who were seeking to become Certified Plant Professionals through the NC Association of Nurserymen. Participants took part in 7 days of training over several weeks learning plant care and identification of the 300 plants and pests on the Certified Plant Professional list. Individuals taking the exam that were not in the Extension training class had a passing rate of 47% compared to those that took the Extension training class that had a passing rate of 83%. Certified Plant Professionals make \$2000 more on average than those without the certification.

Caldwell

Nursery growers in the foothills are growing up to 300 species of ornamental plants. Some growers planting these trees and shrubs have had little exposure to the vast array of potential pest problems. 520 growers and employees attended IPM seminars and on-farm scouting workshops to learn techniques for scouting nursery fields for potential pest problems. 122 growers participating in the 2004 program realized a savings of \$1,098,000 on chemical, labor and equipment costs by adopting and implementing IPM on 4,488 acres planted in ornamental plants. Those participating in the 2004 program have indicated that implementing IPM helped them to grow better plants by staying on top of potential pest problems.

Impact Bullets:

- Nursery and turfgrass producers using improved marketing and risk management strategies gained \$4.8 million additional income.
- Growers implementing new or alternative production systems, practices and enterprises generated an added income of \$895,600.
- Green industry producers enhanced weed, insect and disease management strategies associated with a \$1.65 million economic advantage.

Report prepared by NCCE Program Personnel

OBJECTIVE A-7 - Accomplishment Report

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. Over 683 growers indicated they gained an additional net income of \$724,966 by implementing new or alternative crops/enterprises recommended by extension. Over 4,000 producers increased profits by \$1.89 million through improved marketing strategies they learned from extension.

Measures of Progress With Statewide Totals:

Adoption of best management practices such as irrigation systems, nutrient management, etc.

Installed/improved irrigation systems

Number Growers

Number: 137 Non-Limited Resource

Number: 179 Limited Resource

Acres affected

Number: 2482 Non-Limited Resource

Number: 773 Limited Resource

Improved nutrient management

Number Growers

Number: 328 Non-Limited Resource

Number: 641 Limited Resource

Acres affected

Number: 47254 Non-Limited Resource

Number: 5851 Limited Resource

Implemented improved marketing practices

Number Growers

Number: 1971 Non-Limited Resource

Number: 2143 Limited Resource

Acres affected

Number: 5936 Non-Limited Resource

Number: 3321 Limited Resource

Producing new or alternative crops/enterprises

Number Growers

Number: 1678 Non-Limited Resource

Number: 1861 Limited Resource

Acres affected

Number: 4108 Non-Limited Resource

Number: 3619 Limited Resource

Implemented new crop production practices

Number Growers

Number: 223 Non-Limited Resource

Number: 460 Limited Resource

Acres affected

Number: 6864 Non-Limited Resource

Number: 3068 Limited Resource

Enhanced sustainability practices

Number Growers

Number: 298 Non-Limited Resource

Number: 596 Limited Resource

Acres affected

Number: 12617 Non-Limited Resource

Number: 7184 Limited Resource

Impact Indicators:

Increased net income from implementing:

Installed/improved irrigation systems

- Added net income
 - Dollars: 185200 Non-Limited Resource
 - Dollars: 333017 Limited Resource
- Improved nutrient management
 - Added net income
 - Dollars: 232562 Non-Limited Resource
 - Dollars: 200638 Limited Resource
- Implemented improved marketing practices
 - Added net income
 - Dollars: 503921 Non-Limited Resource
 - Dollars: 1385347 Limited Resource
- Presence in multiple markets
 - Added net income
 - Dollars: 452461 Non-Limited Resource
 - Dollars: 1891928 Limited Resource
- Producing new or alternative crops/enterprises
 - Added net income
 - Dollars: 724966 Non-Limited Resource
 - Dollars: 783142 Limited Resource
- New/improved crop production practices
 - Added net income
 - Dollars: 208630 Non-Limited Resource
 - Dollars: 318369 Limited Resource
- Enhanced sustainability practices
 - Added net income
 - Dollars: 195728 Non-Limited Resource
 - Dollars: 209342 Limited Resource
- Implementation of farming systems
 - Added net income
 - Dollars: 167528 Non-Limited Resource
 - Dollars: 124004 Limited Resource
- Optimum business decisions
 - Added net income
 - Dollars: 380342 Non-Limited Resource
 - Dollars: 214133 Limited Resource

Volunteers Involved and Value:

1,154 volunteers contributed 13,470 hours at a value of \$231,549 and reached 6,495 clients

Success Stories:

Forsyth

As the county continues to experience urban sprawl, many small farmers are going out of business. The Cooperative Extension Service and these farmers recognize the need for an alternative agriculture enterprise. Through on-site demonstrations 5 small farms have shifted to growing fruit and vegetable products for sale directly to the consumer. Through innovative practices and marketing provided through training by Cooperative Extension \$18,000 in production value has been returned to these farmers.

Robeson

Limited resource farmers are struggling to find ways to decrease expenses while increasing profits on family farms. Extension provided information to farmers about alternative crops through on farm demonstrations. Seven (7) farmers began using plastic and drip irrigation of which two (2) erected greenhouses to sell vegetable transplants and flowers. The seven (7) farmers that participated in on farm demonstrations, increased their income approximately \$15,000 during 2003. The Robeson County Extension Center will continue to use on farm demonstration as a teaching tool in the future.

Robeson

Part-time and limited resource farmers in Robeson struggle to determine which alternative crops provide the greatest opportunity for profits. Based on a growing demand for fresh fruits, surveys from farmers and feedback from advisory committees. Martin Brewington and Nelson Brownlee, Extension staff members working primarily with these audiences, began an intensive effort in 2002 promoting commercial peach production with the help of Extension specialists. Initially, (5) farmers were growing peaches; by spring 2004, producers had increased to (13), with approximately (20) acres. Surveys indicate that (10) more producers will add approximately (7) more acres during the year. When these trees reach bearing age income for these producers should increase by more than \$40,000 gross income. Extension will continue to working with these growers and additional growers to increase the number of peach trees in the county and will provide additional training to marketing peaches.

Guilford

The Guilford County field crops/commercial horticulture agent worked with 5 growers on their newly established mushroom production and marketing. Networking with specialists at NCA&TSU, growers were able to begin production at a low cost due to a grant. To qualify for the grant, the growers were required to keep records of their production and marketing efforts. Working with two growers, the agent was able to assist them in selling at multiple markets. The efforts of all the growers are estimated to be valued at more than \$25,000.

Impact Bullets:

- Small and part time farmers who adopted New/improved crop production practices produced added net income of more than \$529,999
- Small and part time farmers who implemented improved marketing practices produced added net income of more than \$1,889,268.
- Small and part time farmers who began producing new or alternative crops/enterprises had an added net income of more than \$1,508,108
- About 900 growers implement standards, practices or procedures on 19,801 acres that enhanced their likelihood of sustainability.

Report prepared by NCCE Program Personnel

OBJECTIVE A-8 - Accomplishment Report

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 focused on 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 become more efficient and save money. Consumers are reported to have saved \$530,000 by adopting appropriate practices related to selection, use and maintenance of wood products. About \$3.5 million was realized by the industry through improved yield, efficiency, utilization or marketing of wood products.

Measures of Progress With Statewide Totals:

NUMBER firms adopting new manufacturing technologies

Number: 435 Non-Limited Resource

NUMBER new business management plans developed

Number: 498 Non-Limited Resource

NUMBER consumers increasing knowledge of economic importance of the wood products industry

Number: 2437 Non-Limited Resource

Number: 186 Limited Resource

NUMBER Consumers adopting practices related to selection, use and maintenance of wood products

Number: 67 Non-Limited Resource

Number: 14 Limited Resource

Impact Indicators:

Added income realized through improved yield, efficiency, utilization or marketing

INCREASED INCOME

Dollars: 3500000 Non-Limited Resource

Number of new wood products firms established

NEW FIRMS

Number: 31 Non-Limited Resource

Increased Economies resulting from consumers adopting appropriate practices related to selection, use and maintenance of wood products

DOLLARS SAVED

Dollars: 390000 Non-Limited Resource

Dollars: 140000 Limited Resource

Volunteers Involved and Value:

12 volunteers contributed 24 hours at a value of \$412 and reached 35 clients

Success Stories:

Wood and Paper Science

Phil Mitchell became involved with a furniture manufacturer that was experiencing glue line failures due to loose face veneer that resulted in rejected tops. Their reject rate for this high quality product had soared to almost 50%, resulting in a total product loss to the company of devastating \$32,000 for one month alone. With Phil's assistance, the problem was identified and

the reject rate was brought back down to typical levels. At a cost of \$7200 per percent reject (for this product alone), the company is continuing to strive to improve their process and quality with Wood Products Extensions help.

Wood and Paper Science

Joe Denig conducted a follow up study on an optimized edger that had been replaced in a hardwood mill based on a study he had conducted in the past. Based on the current study the mill is realizing over \$600,000 annually due to increased yield at the edger.

Guilford

There are many individuals in Guilford County that own land outside of the county and could financially benefit from this natural resource. "Money Does Grow on Trees" was a workshop held to help these individuals learn more about the value of their commodity. The North Carolina Cooperative Extension in Guilford County, North Carolina Forest Service, Guilford County Tax Department and North Carolina State University Forest Resources Department partnered to educate forty clients. Participants indicated on evaluation forms that they saved approximately over \$21,000 by attending this workshop.

Wood and Paper Science

Assisted a senior vice-president a bank to better understand the business aspect of lumber manufacturer that they had loaned money to. I also assisted the lumber producer to understand what the bank wanted. Based on this a loan over \$2,000,000 in value was not called. This prevented the firm from defaulting and saved their business and the bank's money that they would have to write off.

Wood and Paper Science

Over the last year I worked with a hardwood manufacturer on updating their debarking system. The manufacture reports an eleven percent yield increase due to a better log surface, resulting in better scanning. Based on 10,000 MBF annual production and a \$550 average selling price, he is producing \$650,000 more in revenue with no additional log costs.

Wood and Paper Science

Another manufacturer assisted in a debarker project reports 500 Bf more per hour production and 50,000 lbs less of chips per week. The reduction in chips, based on 6500 pounds per MBF and a 650 average selling price translates into \$225,000 extra lumber yield.

Impact Bullets:

- \$530,000 was saved in increased economies resulted from consumers adopting appropriate practices related to selection, use and maintenance of wood products
- About \$3,500,000 was realized through improved yield, efficiency, utilization or marketing of wood products.

Report prepared by NCCE Program Personnel

OBJECTIVE A-9 - Accomplishment Report

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. By educating landowners on ways and means for gaining additional income from their acreage, such as collecting pine straw or leasing for recreational purposes, the producers reported \$365,313 in increased income. Forest landowners increased income over \$2,299,565 resulting from improved reforestation, timber management and timber marketing practices adopted. About 430 landowners afforested, reforested, or placed under Extension recommended forest resource management program 88,482 acres. Christmas tree grower income was increased by \$2,424,300 due to improved tree and seedling production practices.

Measures of Progress With Statewide Totals:

Number of acres protected with Forestry Best Management Practices (BMP) to protect water quality

ACRES: 169368 Non-Limited Resource

ACRES: 30879 Limited Resource

Number of landowners increasing after tax income due to increased knowledge of estate, income and property tax laws as well as informed timber marketing decisions and economically sustainable decisions

NUMBER INCREASING

Number: 888 Non-Limited Resource

Number: 286 Limited Resource

NUMBER of landowners enrolled in forest resource management cost-share programs

Number: 508 Non-Limited Resource

Number: 94 Limited Resource

MEASURES OF PROGRESS FOR CHRISTMAS TREE PROGRAMS:

Growers adopting improved seedling production

No. of growers: 386 Non-Limited Resource

No. of growers: 153 Limited Resource

Acres affected: 851 Non-Limited Resource

Acres affected: 66 Limited Resource

Growers adopting improved shearing practices

No. of growers: 151 Non-Limited Resource

No. of growers: 226 Limited Resource

Acres affected: 5277 Non-Limited Resource

Acres affected: 3719 Limited Resource

Growers Demonstrating optimum fertility management

No. of growers: 543 Non-Limited Resource

No. of growers: 387 Limited Resource

Acres affected: 7571 Non-Limited Resource

Acres affected: 3967 Limited Resource

Growers adopting improved IPM practices such as timely systematic scouting using treatment thresholds; appropriate pesticide selection, timing and application; and/or reduction of pest damage include deer

No. of growers: 381 Non-Limited Resource

No. of growers: 275 Limited Resource

Acres affected: 9968 Non-Limited Resource

Acres affected: 3230 Limited Resource

Growers demonstrating improved BMP adoption such as site selection, site preparation, ground cover management, farm road construction, and/or stream bank stabilization

No. of growers: 236 Non-Limited Resource

No. of growers: 195 Limited Resource

Acres affected: 4569 Non-Limited Resource

Acres affected: 2578 Limited Resource

Growers adopting New marketing strategies

No. of growers: 194 Non-Limited Resource

No. of growers: 67 Limited Resource

Acres affected: 3687 Non-Limited Resource

Acres affected: 1719 Limited Resource

Impact Indicators:

INCREASED INCOME resulting from improved reforestation, timber management and timber marketing practices adopted by forest landowners

Dollars: 2111565 Non-Limited Resource

Dollars: 188000 Limited Resource

INCREASED INCOME from recreation and other non-traditional forest uses such as pine straw, firewood, etc

Dollars: 101650 Non-Limited Resource

Dollars: 14150 Limited Resource

Number of acres of forestland afforested, reforested, or placed under recommended forest resource management program by Extension program participants

No. of acres

Number: 67926 Non-Limited Resource

Number: 20556 Limited Resource

No. of landowners

Number: 346 Non-Limited Resource

Number: 83 Limited Resource

IMPACT INDICATORS FOR CHRISTMAS TREE PROGRAMS:

INCREASED INCOME due to increase in tree grade or reduction of tree losses resulting from improved production practices including site selection and preparation, shearing, fertility, IPM and BMP adoption, harvesting and storage, new or alternative production practices, improved marketing strategies, and improved labor management efficiency

Dollars: 1156900 Non-Limited Resource

Dollars: 246750 Limited Resource

INCREASED INCOME resulting from improved seedling production

Dollars: 920350 Non-Limited Resource

Dollars: 100300 Limited Resource

ACRES of land improved by adoption of IPM and BMP practices

ACRES: 9267 Non-Limited Resource

ACRES: 5458 Limited Resource

LANDOWNER: 281 Non-Limited Resource

LANDOWNER: 153 Limited Resource

STREAMS enhanced by BMP practices.

Feet of stream: 5654 Non-Limited Resource

Feet of stream: 1351 Limited Resource

REDUCED EXPOSURE to pesticides and other workplace hazards through IPM adoption, pesticide training, and increased workplace safety.

People impacted: 4180 Non-Limited Resource

People impacted: 2096 Limited Resource

Volunteers Involved and Value:

181 volunteers contributed 774 hours at a value of \$13,305 and reached 1,330 clients

Success Stories:

Watauga

Over the last five years, Choose-and-Cut Christmas tree farms have become increasingly popular agritourism destinations and enterprises in Watauga County. However, due to limited resources, growers have struggled to increase their marketing efforts to grow the industry. In 2004, the County Extension Agent assisted the Watauga County Nurserymen's Association (WCNA) and its 21 Choose and Cut farmers in their marketing efforts and presented a grant proposal to the county's Economic Development Committee which awarded the WCNA \$10,000 in marketing funds. As a result of increased marketing, including grower participation in regional trade shows, production of a choose and cut brochure, radio advertisement, collaboration with area lodging facilities, and farm tours, Watauga's Choose and Cut growers reported an increase in 2004 sales of more than 30%.

Forest Resources

Extension specialists and county extension agents along with an agricultural technician, Doug Hundley, held several meetings this spring for Fraser fir Christmas tree growers. Various topics were given including weed control, fertility, post-harvest quality, business management and IPM techniques and pest control. There were 332 people attending four meetings with 47.6% responding to an after-meeting survey. Of these, 100% responded they gained knowledge; 98% said they would use the information gained, 96% said it would help them grow a better Christmas tree, and 92% said the information would help them make more money. Fifty survey respondents estimated that the information gained would make them with an average of \$3,360 per person for a total of \$168,000.

Watauga

The spread of the Hemlock Woolly Adelgid in western North Carolina has become an epidemic infestation, over half of the hemlocks in Watauga County being infested. The Watauga County Ag Agent is working with surrounding county Ag Agents, Commercial Pesticide Applicators, and the Mountain Conifer IPM Specialist, to address the problem. In May-July 2004, Jim Hamilton produced and released three articles in local media that reached over 5,000 area property owners. One article was released on the AP wire and picked up in newspapers as far as Charleston and Myrtle Beach SC. As a result, the Watauga Extension office has responded to over 200 inquiries regarding controls for the pest in the landscape and it is estimated that over 1,000 hemlocks in Watauga County will be preserved.

Impact Bullets:

- Forest landowners increased income over \$2,299,565 resulting from improved reforestation, timber management and timber marketing practices adopted.
- Forest landowners increased income over \$365,300 resulting from recreation and other nontraditional forest uses such as pine straw, firewood, etc.
- 429 landowners afforested, reforested, or placed under Extension recommended forest resource management program 88,482 acres.
- Christmas tree grower income was increased by \$2,424,300 due to improved tree and seedling production practices

Report prepared by NCCE Program Personnel

OBJECTIVE A-10 - Accomplishment Report

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. About 122,250 acres of land leased for hunting, fishing, and enjoyment of wildlife and fishery resources produced an income of \$584,500.

Measures of Progress With Statewide Totals:

Adoption of wildlife and fishery management practices

Number of managers ADOPTING

Number: 165 Non-Limited Resource

Number: 47 Limited Resource

Impact Indicators:

ACRES of land enhanced by adoption of wildlife management practices

Number: 17766 Non-Limited Resource

Number: 4852 Limited Resource

Streams and ponds enhanced by adoption of enhanced management practices Feet of Stream

Number: 33487 Non-Limited Resource

Number: 23 Limited Resource

Acres of Ponds

Number: 284 Non-Limited Resource

Number: 33 Limited Resource

Increased income from fee access for hunting, fishing or enjoyment of natural resources

Dollars: 86200 Non-Limited Resource

Dollars: 10900 Limited Resource

Land leased for hunting, fishing, and enjoyment of wildlife and fishery resources ACRES

Number: 116115 Non-Limited Resource

Number: 6135 Limited Resource

INCOME PRODUCED

Dollars: 480000 Non-Limited Resource

Dollars: 23550 Limited Resource

Volunteers Involved and Value:

2,512 volunteers contributed 2,047 hours at a value of \$35,187 and reached 16 clients

Success Stories:

Columbus

Many landowners and outdoorsmen obtain great joy and satisfaction from the time spent outdoors hunting and fishing. Many outdoorsmen are looking to enhance their outdoor experience through habitat management and/or improving the habitat. These individuals and groups want to improve wildlife on their property or hunting leases. This desire pertains mainly to deer, turkey, quail, and fish ponds, but such work benefits many other wildlife species as well. Many of these individuals who come to the Cooperative Extension Service for information and assistance have varying degrees of agronomic knowledge. Some have almost no experience even growing a garden. The Cooperative Extension Service has provided assistance to all of these clients in addressing their wildlife habitat needs. In 2004 clients planted an estimated 50+ acres of wildlife plantings that received Extension Service assistance and information. Most of these wildlife plots are approximately ½ acre in size, so this represents a large number of plots. One group came to The Cooperative Extension Service after experiencing two years of failure with wildlife plots. With advice from the Extension Service concerning soil sampling, liming, fertility needs, and plant selection, the group had success in establishing a wildlife plot. The hunters reported that the deer were feeding heavily on their food plots, and thanked Extension for the help.

Swain

Many urban and rural homeowners place a high value native songbirds as part of the local wildlife population. Most people lack the sound, scientific information to manage different habitats for native songbirds. N. C. Cooperative Extension developed a program to teach basic songbird facts, management strategies and planning for healthy bird populations. Participants in the program learned about songbird identification, supplemental feeding and watering basics, providing cover and native foods and many other helpful bird management techniques. Healthier and more numerous local songbird populations should result from this educational wildlife management program.

Pasquotank

Wildlife control and habitat for wildlife is ever increasingly important in the eastern part of the state. Youth related programs as well as opportunities that are available for landowners are ways to create awareness about the importance of preserving this entity. Through educational outreach over 50 contacts were made to address this initiative. Also, five additional landowners have been notified about programs available using the proper conservation practices.

Impact Bullets:

- 122,250 acres of land leased for hunting, fishing, and enjoyment of wildlife and fishery

resources produced an income of \$584,500

- 33,827 acres of streams and ponds improved by adoption of enhanced management practices
- 22,618 acres of land was enhanced by adoption of wildlife management practices

Report prepared by NCCE Program Personnel

OBJECTIVE A-11 - Accomplishment Report

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:

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

Measures of Progress With Statewide Totals:

None reported

Impact Indicators:

None reported

OBJECTIVE A-12 - Accomplishment Report

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.

Measures of Progress With Statewide Totals:

NUMBER of direct contacts with food industry representatives

Number: 2 Non-Limited Resource

NUMBER of companies represented by direct contacts

Number: 2 Non-Limited Resource

NUMBER of product analyses, labels, and food product process compliance determinations issued to food processors

Number: 1 Non-Limited Resource

Impact Indicators:

DOLLARS value of applied research in support of industry

Dollars: 3000 Non-Limited Resource

Volunteers Involved and Value:

4 volunteers contributed 6 hours at a value of \$103 and reached 1 clients

Success Stories:

Pasquotank

Discussion about future extraction of industrial and medicinal compounds were held at a regional high-tech extraction factory with their chief executive officer. Another company requested assistance locating wild specimens of plants they wished to extract chemically in order to supply the extract to medical researchers. Plants of this type were found in the wild and provided to the chemist for extraction.

Impact Bullets:

None

Report prepared by NCCE Program Personnel

OBJECTIVE A-13 - Accomplishment Report

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.

Measures of Progress With Statewide Totals:

Number of people who adopted health and safety best management practices to reduce illness and injury

Number: 17 Non-Limited Resource

Number: 122 Limited Resource

Impact Indicators:

Number of people who indicated reduced illness, injury or stress

Number: 5 Non-Limited Resource

Number: 15 Limited Resource

Number of people implementing practices to prevent illness and injury associated with illness and injury by implementing best management practices

Number: 16 Non-Limited Resource

Number: 39 Limited Resource

Number of people who indicated they responded effectively to emergency situations

Number: 2 Non-Limited Resource

Number: 3 Limited Resource

Number of health professionals who indicated they have better served patients because of increased knowledge of agricultural illnesses and injuries

Number: 2 Non-Limited Resource

Volunteers Involved and Value:

54 volunteers contributed 417 hours at a value of \$7,168 and reached 2 clients

Success Stories:

Watauga

Watauga Pesticide Education Coordinator received funding to pay for personal protective equipment and conduct pesticide safety education training to Hispanic workers in the Christmas tree industry in Spanish. In April, 5 growers were contacted and agreed to include their workers in this program. 55 workers have been trained in proper use of personal protective equipment and were educated in the types of safety procedures and chemicals used in Christmas trees. These workers are now properly applying pesticides with appropriate protective equipment.

Ashe

The Ashe/Alleghany Farm Safety committee planned a Homestead Safety designed to reach farm and non farm rural families with safety information about issues these groups encounter. Sixty five people attended the Sunday afternoon workshop and became more aware of safety issues surrounding items such as lawnmower and other small power equipment, ATV's, tractors, and pesticides. The program was a success because of the volunteers and the interagency cooperation and planning. New ideas and teaching techniques were learned thru a national safety leadership conference in Iowa, funding supplies by grants from Agro-medicine Foundation and Farm Safety 4 Just Kids. We were able to design "safety soap" containers that promote farm safety slogans and use the soap as door prizes, providing a lasting reminder of the Homestead Safety program.

Ashe

Because of the success of the Ashe/Alleghany farm safety program, Vickie Young, co-chair of the safety committee, and I, were asked to work with the Carroll Co. VA Farm Bureau Young farmer and rancher group in presenting a farm safety program to the members and families. Cooperating with Matt Miller, CES, Carroll Co., we provided an opportunity for these families to learn ways to ensure their safety on the farm as well as methods to encourage them to work with other family members and neighbors to promote thinking safe in rural areas. Several of the participants were EMS personnel and talked about possible training for their squads, so the long term affect should be multiplied

Pasquotank

After repeated attempts were made over several years to educate them towards compliance with

Agricultural Health and Safety regulations, two vegetable growers were visited by regulatory personnel. The two growers cooperated to comply with all regulations affecting their workers' safety and health under supervision by regulators and with counseling from extension. The two farms are continuing their questions regarding how to comply with labor health and safety regulations.

Impact Bullets:

- 192 people adopted health and safety best management practices to reduce illness and injury

Report prepared by NCCE Program Personnel

OBJECTIVE A-14 - Accomplishment Report

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 6,225 program participants adopting the IPM practices and over 5,000 who reduced their risk to exposure to insecticides through target uses.

Measures of Progress With Statewide Totals:

Number of public facilities managed by trained pest management professionals

NUMBER FACILITIES MANAGED

Number: 18 Non-Limited Resource

Number of public facilities pest management plans implemented

PLANS IMPLEMENTED

Number: 6 Non-Limited Resource

Adoption of IPM practices, including improved decision-making abilities in determining the need to spray and/or use professional pest control services

NUMBER ADOPTING

Number: 4162 Non-Limited Resource

Number: 2063 Limited Resource

Impact Indicators:

Reduced risk of exposure to insecticides through targeted use of insecticides

NUMBER ADOPTING

Number: 3410 Non-Limited Resource

Number: 1753 Limited Resource

Number of public facility applicators trained/certified

NUMBER CERTIFIED

Number: 17 Non-Limited Resource

Number: 3 Limited Resource

Volunteers Involved and Value:

3 volunteers contributed 16 hours at a value of \$275 and reached 30 clients

Success Stories

Buncombe

Controlling the Asian Tiger Mosquito in the yard during the summer months is an issue since the West Nile Virus is a health concern. The majority of homeowners are unaware that this species of mosquito is a container breeder. Buncombe County Extension collaborated with the Buncombe County Health Center to write two television scripts. One targeted self-protection methods and the second on eliminating backyard mosquito breeding sites. Extension then recorded the segments on location for the county government television channel. The segments ran 82 times throughout the mosquito season and will continue to be used in 2005 to educate Buncombe County residents. Educating homeowners as to the specific breeding sites results in the reduction of the Asian Tiger Mosquito population and its subsequent health impacts. The use of mass media to educate the population also allows Extension to reach new and broader audiences each time the program is shown.

Impact Bullets:

- 5,163 consumers reduced risk of exposure to insecticides through targeted use of insecticides.
- 6,225 persons adopted IPM practices, including improved decision-making abilities in determining the need to spray and/or use professional pest control services

Report prepared by NCCE Program Personnel

OBJECTIVE A-15 - Accomplishment Report

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. About \$4.2 million was saved by consumers by using recommended practices. About 226,330 of those consumers received their information from Master Gardener volunteers. Over 50,000 citizens adopted two or more practices to reduce pesticide or fertilizer misuse and resulting water contamination.

Measures of Progress With Statewide Totals:

Application of appropriate watering practices and water conservation methods

NUMBER DEMONSTRATING

Number: 192887 Non-Limited Resource

Number: 4726 Limited Resource

Implementation of BMPs for plant fertilization and methods of application

NUMBER DEMONSTRATING

Number: 252259 Non-Limited Resource

Number: 5462 Limited Resource

Apply methods to prevent and manage pest problems (weeds, insects, diseases) through non-chemical methods and correct methods for pesticide application

NUMBER DEMONSTRATING

Number: 262475 Non-Limited Resource

Number: 6782 Limited Resource

NUMBER of persons receiving information from Master Gardner volunteers

Number: 212850 Non-Limited Resource

Number: 13480 Limited Resource

Impact Indicators:

Adopting two or more recommended practices that enhance plant growth (or yield) while minimizing inputs

NUMBER ADOPTING

Number: 46638 Non-Limited Resource

Number: 2935 Limited Resource

Adopting two or more recommended practices that reduce pesticide or fertilizer misuse and water contamination

NUMBER ADOPTING

Number: 45953 Non-Limited Resource

Number: 6087 Limited Resource

Money saved (by consumers) through utilizing appropriate cultural and pest management practices

DOLLARS SAVED

Dollars: 3849835 Non-Limited Resource

Dollars: 344162 Limited Resource

Volunteers Involved and Value:

2,270 volunteers contributed 68,378 hours at a value of \$1,175,417 and reached 92,452 clients

Success Stories:

Burke

64 homeowners in Burke County now understand the basic guidelines for successful lawn maintenance as outlined by the agent. These homeowners agree that they will each save about \$100 dollars in unnecessary chemicals for their lawns after attending this lawn care seminar. They learned about the importance of timely fertilizer and pesticide applications as well the importance of correct mowing techniques and correct turfgrass sowing practices. Proper grass seed selection was discussed by the agent and most agreed that they would save time and money (total of \$5,000 to \$6,000) by following the sowing and seed selection practices emphasized.

Wilson

Because of the need for more gardening education the Annual Spring Symposium was held in March. Over 175 people participated in this one day event sponsored by the NCCES, Wilson Appearance Commission and the Wilson County Master Gardeners. From a survey all participants gained knowledge and learned at least one useful gardening practice. The average cost savings per person was \$175 for a total of over \$30,000.

Guilford

People of all classes desire attractive landscapes to help increase the curb appeal and salability of their homes. Many however, can not afford to hire professional landscapers. A 4-week program was developed by the North Carolina Cooperative Extension in Guilford County to educate citizens. These classes provided homeowners the skills necessary to not only design an attractive landscape but also to install it and maintain it themselves. A total of 65 participants attended the first of three sessions offered this year. Participants indicated on a survey that they would save over \$180,000 total by gaining these skills.

Onslow

Onslow county homeowners desire localized information on plant selection and proper pest identification in landscapes around their homes. Master Gardener Volunteers responded to 1,030 inquiries during 2004 with a value to consumers of \$103,000. In addition to those diagnosed in the local plant clinic, 60 plant, insect, disease and weed samples were accurately diagnosed with the aid of the NCSU Plant Disease and Insect Clinic at a value of \$18,000 enabling homeowners to utilize proper control measures. Eighteen new Master Gardener Volunteers completed the 40 hour course of instruction in February and March. They joined returning volunteers in manning the local plant clinic and working on community beautification projects. A total of 2,373 MGW hours were recorded in 2004 at a value to Onslow County of \$40,791.

Pitt

Once phythium root rot has been identified in the tobacco greenhouse, growers must take corrective action by making applications of a fungicide known as Terramaster. This fungicide kills this deadly fungus and restores seedlings to proper growth. With the increase in the number of Pitt County tobacco farmers making acid applications until transplanting, it is believed that the need for Terramaster was reduced in 2004. According to a county grower survey which was conducted in September 2004, a decrease in the total amount of this product occurred by 340 pounds. In 2003, 34% of tobacco greenhouse operators applied this product to their greenhouses versus 24% in 2004. In addition to the benefit to the environment due to the reduction of the actual product, seventeen Pitt County growers realized a total potential savings of \$9,675 as a result of Extension.

Caldwell

A series of workshops on landscape IPM were held for 290 landscapers and their employees in 2004. This series focused on innovative landscape techniques and IPM for the landscape. Participants increased their knowledge on the prevention and management of pest problems through non-chemical methods. To date, 99 (34% in attendance) have implemented one or more of the recommended practices resulting in a savings of \$33,930 in chemical and labor costs. Those practices related to IPM have resulted in less pesticides being applied to the environment, and has created an awareness among landscapers and employees on how to become better environmental stewards.

Impact Bullets:

- \$4,193,997 was saved (by consumers) through utilizing appropriate cultural and pest management practices
- Master Gardener volunteers provided technical information and assistance to 226,330 of the state's citizens.
- 257,721 program participants Implemented Best Management Practices for plant fertilization and methods of application
- 269,257 program participants applied methods to prevent and manage pest problems (weeds, insects, diseases) through non-chemical methods and correct methods for pesticide application.

Report prepared by NCCE Program Personnel

OBJECTIVE A-16 - Accomplishment Report

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 composting, pollution, wildlife, beekeeping and vegetable gardening in community, home, school and other communal locations. Master Gardener Volunteers worked with court-referred youth on gardening and landscaping projects to teach them life long skills and help them make restitution payments. Altogether, 13,539 youth participated in school based gardening activities and projects including landscape design, installation, and maintenance, vegetable production, and weather station establishment and monitoring.

Measures of Progress With Statewide Totals:

Youth actively participating in school gardening activities and projects

Number: 10823 Non-Limited Resource

Number: 2716 Limited Resource

Youth actively participating in 4-H horticulture activities and projects

NUMBER PARTICIPATING

Number: 4957 Non-Limited Resource

Number: 621 Limited Resource

Impact Indicators:

Youth demonstrating increased personal responsibility by growing and caring for their own plants at home

NUMBER DEMONSTRATING

Number: 2657 Non-Limited Resource

Number: 1168 Limited Resource

Youth demonstrating increased proficiencies in application of horticulture skills and knowledge

NUMBER DEMONSTRATING

Number: 8102 Non-Limited Resource

Number: 1429 Limited Resource

Volunteers Involved and Value:

427 volunteers contributed 8,556 hours at a value of \$147,077 and reached 4,885 clients

Success Stories:

Northampton

To assist teachers meet the requirements of the End-Of-Grade tests, the North Carolina Cooperative Extension Service in Northampton County offered the Junior Master Gardener program to two schools. Fifteen fourth graders and 20 fifth graders completed the Level I curriculum. Thirteen fifth-graders graduated from Level II. Youth showed exhibited increased understanding of plants, insects, soil and other horticulture topics and increased their public speaking ability.

Stokes

Through the horticulture program at South Stokes High School, I worked with the students and horticulture professor on a landscape design project to teach the students about proper plant placement and installation and beautify the grounds. Each year, the school would spend thousands of dollars on annual plants to beautify the grounds. Working with the students, we designed a low maintenance permanent landscape for the major, highly visible areas of the campus. With this project, the students learned how to design a landscape project, how to properly install, space and maintain a landscape. In addition this project saved the school over \$3000 per year on cost of new plants. Over 10 years, that equals \$30000!!

Chowan

Habitat for wildlife can dwindle and species can become extinct as urbanization increases. Many youth are unaware of the importance of wildlife habitat as well as the aesthetic pleasures it can give. Through the Junior Master Gardener Program, approximately 24 youth were trained in the brand new Wildlife Gardener series. Through instruction and hands on activities, the youth worked to understand the various components of habitat while working to create a garden suitable for wildlife. Progress was measured through before and after garden design. After a week of education, the student was able to incorporate the most important aspects of habitat into their final garden designs, unlike when the original designs done at the beginning of the week. Verbal interpretation of the various habitat features in the living garden was also given by the students to instructors and visitors.

Lenoir

Lenoir County Master Gardeners collaborated with Lenoir County 4-H Summer Fun Program to provide a gardening workshop to help the youth gain life skills. Fifteen 4-Hers age 4 to 12 were guided by 10 Master Gardeners, in three sets of workshops. Cloverbuds planted a "five senses" garden using plants that displayed a variety of features including smells, colors, tastes and different textures, this workshop will also be administered to local kindergarten classes. Sixty students will increase their knowledge of horticulture and gardening. Teen 4-Hers along with master gardeners created a "clay pot" person. This was such a hit that these clay pot people will be seen at homes, the county fair and used as a marketing tool for a roadside stand. The 4-Hers

increased awareness of value and uses of plants, gained confidence in working together as a team, practiced communication skills and increased self confidence.

Henderson

Boys involved in Scout Troops are taught leadership skills in an interesting way. They learn by teaching and managing each other. In October 2004, I worked with John Logan, a young man working on his Eagle scout badge. We in conjunction with 2 garden centers joined forces to teach 15 young boys a new life skill. We planned and designed a perennial garden over a few months. I worked along side the scouts teaching them to prepare, plant, and care for every bed. I truly believe I taught them a skill that will be valuable for eternity. The outcome of this project resulted in 100% of participants learning how to plant and care for a perennial garden.

Rowan

The 4-H Junior Master Gardener Program was started in 2003 with 12 students. The students formed a viable 4-H special interest club with 5 students participating in the local county fair, public speaking and project records. Twenty-five students are currently enrolled in the 2004-2005 Junior Master Gardener Program. The program is beginning also becoming very popular with private schools and public schools. One middle school has started an after school gardening club based on "Down To Earth Training" from Cooperative Extension. A private grammar school is starting a Junior Master Gardener Program in the spring as part of their teaching curriculum. Master Gardeners will help teach and tutor students at the private school.

Impact Bullets:

- 3,825 youth demonstrated increased personal responsibility by growing and caring for their own plants at home .
- 13,538 youth participated in school based gardening activities and projects.
- 9,531 youth demonstrated increased proficiencies in application of horticulture skills and knowledge.

Report prepared by NCCE Program Personnel

E - CONSERVING AND IMPROVING THE ENVIRONMENT AND NATURAL RESOURCES

OBJECTIVE E-1 - Accomplishment Report

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 and spreader calibration, record-keeping, manure and sludge 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 septage. 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.

A Spanish language guide has assisted poultry producers in many counties with communication among employees. In efforts to prepare for changing rules on phosphorus area poultry agents are using the Phosphorus Loss Assessment Tool (PLAT) with producers. The first plan including PLAT has been written and helped producers determine schedules for litter application.

Measures of Progress With Statewide Totals:

Number of land application operators trained and certified

NUMBER CERTIFIED

Number: 1350 Non-Limited Resource

Number: 139 Limited Resource

NUMBER MAINTAINING CERTIFICATION

Number: 2530 Non-Limited Resource

Number: 85 Limited Resource

Adoption of best management practices

ACRES soil test analysis

Number: 337423 Non-Limited Resource

Number: 38444 Limited Resource

ACRES waste analysis for land application

Number: 284155 Non-Limited Resource

Number: 22491 Limited Resource

ACRES plant tissue analysis

Number: 9542 Non-Limited Resource

Number: 4004 Limited Resource

NUMBER feed analysis

Number: 4698 Non-Limited Resource

Number: 97 Limited Resource

ACRES conservation practices implemented

Number: 52294 Non-Limited Resource

Number: 309810 Limited Resource

TONS waste composted

Number: 148824 Non-Limited Resource

Number: 10000 Limited Resource

NUMBER producers adopting proper manure application equipment calibration

Number: 1279 Non-Limited Resource

Number: 118 Limited Resource

Impact Indicators:

Tons of soil erosion (loss) reduced on pastures, feedlots, lounging areas and land application fields as a result of adoption of conservation practices

TONS REDUCED

Number: 145875 Non-Limited Resource

Number: 16440 Limited Resource

Number of tons or economic value of livestock organic by-products utilized (nutrients from waste, compost, etc)

TONS UTILIZED

Number: 35335107 Non-Limited Resource

Number: 3227923 Limited Resource

POUNDS Nitrogen

Number: 157169021 Non-Limited Resource

Number: 9550927 Limited Resource

POUNDS P2O5

Number: 175909205 Non-Limited Resource

Number: 28644312 Limited Resource

DOLLARS VALUE

Dollars: 106730671 Non-Limited Resource

Dollars: 5826633 Limited Resource

Producers utilizing approved waste utilization plans

NUMBER Producers utilizing plans

Number: 3056 Non-Limited Resource

Number: 160 Limited Resource

Number of farms adopting best management practices

FARMS adopting walking trails

Number: 58 Non-Limited Resource

Number: 12 Limited Resource

FARMS adopting stream crossings

Number: 64 Non-Limited Resource

Number: 2 Limited Resource

FARMS adopting managed streambank vegetation

Number: 411 Non-Limited Resource

Number: 10 Limited Resource

FARMS adopting mortality composting

Number: 307 Non-Limited Resource

Number: 24 Limited Resource

Volunteers Involved and Value:

198 volunteers contributed 1,276 hours at a value of \$21,934 and reached 333 clients.

Success Stories:

Duplin

On August 22, 2003, Perdue Farms closed their Robersonville broiler processing plant. 85 NC contract growers had their contracts terminated as a result of the closure. 41 former Perdue growers were identified in the SE District. The Area Specialized Poultry Agent and concerned former growers formed a steering committee to explore options for these growers. A notebook

was created that included pictures, maps, and descriptions of these farms. Copies of the notebooks were distributed to all local poultry companies and to other companies outside the area. As a result of this effort, at least 20 former growers have new contracts with other companies. The NC Poultry Federation, NCDA & CS, NCSU Poultry Extension and others were also involved in this process. It is anticipated that additional growers will sign new contracts.

Robeson

Twelve existing poultry farms had nutrient management plans (NMPs) updated for new house construction or cost-share - two due to farm sales. Seventeen new growers obtained Extension assistance with NMP development for new site poultry house construction. Plans are required by poultry companies, lenders and County Health Department before construction to ensure a viable economic and environmentally acceptable outlet for poultry manure by-product resource. Typical land application of poultry manure requires 45-135 crop acres per house depending upon crops, rotation soils, etc. - information the nutrient management plan reveals to the farmer. EACH new HOUSE, EACH YEAR produces: over \$300,000 of broilers (hatched, fed, trucked and processed); \$25,000 - \$37,000 gross grower income; over \$1,000 property taxes; and over \$2,000 worth of fertilizer nutrients from 180 tons of litter. Over 116 new poultry houses are under or construction or approved and awaiting construction in Hoke, Robeson and Bladen counties.

Chatham

A Lee County small flock owner wanted advice on how to make her web based egg business and small dairy goat business more profitable. The Area Poultry Agent with the help of the Livestock agent and a small business specialist from NCA&T met with the owner to discuss various niche marketing ideas for her to incorporate into her business plan. By implementing these changes she will be able to make over 5000 dollars in profit over the next year. She will continue to work with CES agents to maintain profitability in her business.

Lenoir

Lenoir and Greene Counties' hog producers use delicate irrigation equipment to pump their effluent out of the lagoon and onto sprayfields. This equipment, as mandated by DWQ, must be calibrated on a yearly basis to insure the amount of wastewater applied is accurate to prevent groundwater contamination and surface runoff. Extension educated thirty local producers during on-farm demonstration on the basics of irrigation calibration so they can calibrate the equipment themselves. This will save each producer \$200 every year. Accurately applying the wastewater will also protect our river basins and reduce the amount of nitrogen in our surface and groundwater. Extension is the only organization that provides this type of education to hog producers.

Impact Bullets:

- 1,489 land application operators trained and certified, plus 2,615 maintaining certifications.
- The value of livestock organic by-products utilized (nutrients from waste, compost, etc.) was over \$112,500,000.
- 38,563,030 tons of livestock organic by-products utilized.

Report prepared by NCCE Program Personnel

OBJECTIVE E-2 - Accomplishment Report

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.

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.

Measures of Progress With Statewide Totals:

Number of producers and number of acres treated with appropriate BMPs.

conservation tillage

Producers

Number: 745 Non-Limited Resource

Number: 121 Limited Resource

Acres

Number: 326454 Non-Limited Resource

Number: 7244 Limited Resource

no till

Producers

Number: 1105 Non-Limited Resource

Number: 248 Limited Resource

Acres

Number: 415195 Non-Limited Resource

Number: 9172 Limited Resource

residue management

Producers

Number: 562 Non-Limited Resource

Number: 113 Limited Resource
 Acres
 Number: 115329 Non-Limited Resource
 Number: 6572 Limited Resource
 nutrient management plan
 Producers
 Number: 434 Non-Limited Resource
 Acres
 Number: 161570 Non-Limited Resource
 controlled drainage
 Producers
 Number: 65 Non-Limited Resource
 Acres
 Number: 41431 Non-Limited Resource
 Number of producers and number of acres treated by
 IPM
 Producers
 Number: 1082 Non-Limited Resource
 Number: 88 Limited Resource
 Acres
 Number: 443501 Non-Limited Resource
 Number: 5422 Limited Resource
 biological control
 Producers
 Number: 647 Non-Limited Resource
 Number: 11 Limited Resource
 Acres
 Number: 192524 Non-Limited Resource
 Number: 782 Limited Resource
 Feet of vegetative buffer or forested riparian areas restored along intermittent and perennial streams
 FEET RESTORED
 Number: 53079 Non-Limited Resource
 Number: 4356 Limited Resource
 Number of farms (acres) establishing field borders, filter strips and permanent wildlife cover
 FARMS
 Number: 138 Non-Limited Resource
 Number: 23 Limited Resource
 Acres
 Number: 31650 Non-Limited Resource
 Number: 5 Limited Resource

Impact Indicators:

Reduction in number of pounds of pesticides (active ingredient) used

POUNDS (AI) current year

Number: 91627 Non-Limited Resource

Number: 6747 Limited Resource

DOLLARS saved

Dollars: 512352 Non-Limited Resource

Dollars: 45490 Limited Resource
Reduction in number of pounds of commercial fertilizer applied (compared to conventional use or previous rates)

POUNDS N/ACRE current year

POUNDS

Number: 327535 Non-Limited Resource

Number: 80 Limited Resource

Acres

Number: 115121 Non-Limited Resource

Number: 2106 Limited Resource

POUNDS P2O5/ACRE current year

POUNDS

Number: 64570 Non-Limited Resource

Number: 42560 Limited Resource

Acres

Number: 97746 Non-Limited Resource

Number: 2760 Limited Resource

DOLLARS saved

Dollars: 705977 Non-Limited Resource

Dollars: 77160 Limited Resource

Acres of wildlife habitat established to increase wildlife in farmed areas

ACRES ESTABLISHED

Number: 11964 Non-Limited Resource

Number: 900 Limited Resource

Volunteers Involved and Value:

149 volunteers contributed 1,679 hours at a value of \$28,862 and reached 82 clients.

Success Stories:

Robeson

Some weeds are becoming tolerant or are not controlled well with Roundup. Growers need information on how to control problem weeds in Roundup Ready crops. The Robeson County Extension Field Crops Agent assisted growers with herbicide recommendations in Roundup Ready soybeans, corn, and cotton. Herbicide recommendations for certain weeds in tobacco were also made. These recommendations save growers the expense of foreign matter dockage as the crop is harvested and also reduce herbicide use due to control with one application. Acreage affected was over 3,000. Savings for these growers amounted to \$9,700 in reduced herbicides and reduced dockage.

Pasquotank

As a result of field studies conducted in Pasquotank and other counties by an Extension Entomologist, a new class of insecticides, neonicotinoids, has been found to be quite effective to two of the major corn insects in the county, southern corn billbug and wireworms. In 2004, approximately 90 percent of the corn acreage was planted using neonicotinoids. This insecticide which is used as a seed treatment, has reduced the use of insecticides by 95% which equates to about 166,000 pounds less insecticides. In addition, insect damage from the two pests has been reduced and yields have been increased.

Impact Bullets:

- Over \$558,000 was saved by producers who adopted IPM practices and new varieties that resulted in a reduction in pesticide (AI) use of over 98,000 pounds.
- 1353 producers adopted no till as a practice on nearly 425,000 acres.
- Through fertility management or alternative nutrient sources, producers saved over \$780,000 in reduction of P2O5 applied compared to conventional use or previous rates.
- 12,864 acres of wildlife habitat established to increase wildlife in farmed areas.

Report prepared by NCCE Program Personnel

OBJECTIVE E-3 - Accomplishment Report

OBJECTIVE E-3: Green industry, greenhouse, fruit, vegetable, and turf growers and turf 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 2,105 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.

Measures of Progress With Statewide Totals:

Number of acres on which BMPs adopted

Acres of erosion control practices

Number: 46048 Non-Limited Resource

Number: 1048 Limited Resource

Acres of water management

Number: 18165 Non-Limited Resource

Number: 619 Limited Resource

Acres of nutrient management

Number: 56917 Non-Limited Resource

Number: 2709 Limited Resource

Increased adoption of environmentally friendly pest management practices.

NUMBER PEOPLE utilizing IPM current year

Number: 3011 Non-Limited Resource

Number: 346 Limited Resource

Number of professionals obtaining certification

NUMBER registered landscape contractors

Number: 44 Non-Limited Resource
Number: 32 Limited Resource
NUMBER certified plant professionals
Number: 56 Non-Limited Resource
Number: 158 Limited Resource
NUMBER certified landscape technicians
Number: 7 Non-Limited Resource
Number: 38 Limited Resource
NUMBER licensed pesticide applicators for ornamental and turf
Number: 1533 Non-Limited Resource
Number: 237 Limited Resource

Impact Indicators:

Quantity of waste products used or reused
TONS use/reuse of waste products
Number: 37801 Non-Limited Resource
Number: 27059 Limited Resource
Reduction in volume of water containing nutrients discharged to surface waters
Reduction in GALLONS of water discharged
Number: 13980505 Non-Limited Resource
Number: 19000 Limited Resource

Volunteers Involved and Value:

270 volunteers contributed 1,508 hours at a value of \$25,922 and reached 2,048 clients.

Success Stories:

Wilson and Pitt

The Eastern NC Landscape Conference was held in Wilson County for professionals in the green industry. Over 364 attended representing 872,019 acres of turfgrass and ornamentals maintained. Using a survey it was estimated that landscape companies average maintaining 11,038 acres, and manage an average of 52 acres of water. Each company averages reusing or using 65.8 tons of waste products. No one discharged nutrients into surface waters. It is clear that the green industry is a leader in environmentally sound practices.

Henderson

Preparing Green Industry Employees for various certifications continues to be one of Cooperative Extension's most popular programs. These programs typically require team work. This year's Certified Plant Professional Program brought together 4 agents from 3 counties and representatives of NC Association of Nurserymen. 29 out of 30 of the passing participants were members of the pre-test training program. The value of the certification, to the participants and/or their employers typically exceeds \$8,000.00 per year.

Pasquotank

Thirty-nine farmers of horticultural crops stay informed of pest developments and dynamic integrated pest management methods through winter educational meetings, timely newsletters, phone calls, emails, faxes, and individual farm visit consultations during their growing seasons. These 39 users of extension IPM information farm commercial vegetables on about 9,500 acres

in Pasquotank County. About 4,000 acres of the county's plowed fields are under water management through controlled drainage reducing about 1,360 million gallons of water containing nutrients discharged to surface waters annually. Approximately 14 acres are managed intensely with irrigation on high valued fruits or ornamentals.

Impact Bullets:

- Certification programs for landscape contractors, plant professionals, landscape technicians and pesticide applicators resulted in 2,105 certifications granted.
- 64,860 tons of waste products such as pesticide containers, compost materials, and waste water were used or reused.
- 3,357 people increased adoption of environmentally friendly pest management practices by utilizing IPM practices during the current year.
- Nutrient management BMPs were adopted on 59,626 acres.
- Water management and erosion control BMPs were adopted on more than 18,784 acres.
- Erosion control BMPs were adopted on 47,096 acres.

Report prepared by NCCE Program Personnel

OBJECTIVE E-4 - Accomplishment Report

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, many of the Divisions of the North Carolina Department of Environment and Natural Resources, 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. Others have involved the Farm Service Agency and NRCS in many counties working together with Extension in providing erosion control, soil management and other conservation programs plans and support information to local farmers.

Measures of Progress With Statewide Totals:

NUMBER of interagency coalitions established

Number: 192 Non-Limited Resource

Number: 47 Limited Resource

NUMBER of interagency coalitions maintained

Number: 254 Non-Limited Resource

Number: 51 Limited Resource

Impact Indicators:

Number of collaborative projects implemented

Number: 127 Non-Limited Resource

Number: 66 Limited Resource

Volunteers Involved and Value:

168 volunteers contributed 603 hours at a value of \$10,365 and reached 92 clients.

Success Stories:

Lenoir

Phosphorus has become increasingly important in Nutrient and Waste Management Planning. Until now, Waste Management Plans have been based on Nitrogen, but NRCS and DWQ have implemented new regulations that will affect local farmers and their ability to apply nutrients to their land. NRCS and Extension hosted a meeting to provide valuable information to the producers who will be affected by the new regulations. Over 150 farmers in Lenoir, Greene, and Jones counties will be affected and with the information provided they will be able to evaluate the impact on their farm. Extension will be able to help by teaching best management practices and proper record keeping to monitor phosphorus levels on their farms.

Nash

In April, the Nash staff of Cooperative Extension hosted a countywide pesticide disposal event in partnership with the NC Dept. of Agriculture and Consumer Services. At no cost to the county nor to participants, 13,652 lbs. of outdated, unwanted pesticides in 1,481 containers were collected for safe disposal. This was the highest volume of pesticides collected in Nash County's history of this disposal program. A prized collection piece was an originally sealed 55 gallon drum of Toxaphene/DDT dating back to the 1960's cotton boll weevil battles. The farmer disposing of this product said, "You don't realize how relieved I am to get this thing removed from our family's farm."

Craven

Current methods of disposal of unwanted or outdated pesticides is limited to annual or bi-annual county collection dates or approval of pick-up from the NCDA & CS. To better capture potential unlawful disposal of these products, Craven County Cooperative Extension, NCDA & CS and Coastal Regional Solid Waste Management Authority jointly established a regional pesticide disposal collection site for emergency storage. This facility will afford commercial users from Greene, Lenoir, Jones, Craven, Pamlico and Carteret counties the opportunity to deliver containers of unwanted pesticides for storage until proper disposal methods are available. Funds for materials was provided by a grant from the Pesticide Environmental Trust Fund and operation cost will be jointly between the partners.

Bertie

The Bertie County Cooperative Extension Center continues to provide leadership in an oil recycling project for farmers in the county. This project is a collaborative effort between the Extension Service and the Natural Resource Conservation Service of North Carolina and

Virginia. During 2004 an additional seven, 280 gallon, double walled, plastic approved storage tanks for recycling oil have been placed on farms. There are now a total of 17 tanks with the capacity to provide safe storage for 4760 gallons of used motor oil until it can be collected and recycled properly. A collection of used oil will be conducted in late summer of 2004.

Buncombe

Buncombe County residents needed assistance during two devastating hurricanes that damaged much of the farmland and late produce production. NC Cooperative Extension initiated networking with local newspapers and other media outlets to disseminate an integrated source of information on disaster assistance, eligibility requirements for federal programs, protocols for harvesting produce, and post-harvest food safety concerns. Federal, state, and local agencies involved FEMA, Buncombe Co Soil & Water, Farm Service Agency, NC Wildlife Resources, US Army Corp of Engineers, and NC DENR. Impacts were highlighted in the ability of extension to get agencies to form communication networks, less contaminated produce on market to consumers, and more clients able to apply for federal assistance. NC Cooperative Extension is sometimes the only agency that has close ties to the horticulture and agriculture industries, thus having effective communication lines with other regulatory agencies and federal response teams is essential to responding to clientele's needs.

Impact Bullets:

- 239 interagency collaborations were established and 193 collaborative projects were implemented.
- In 4 counties alone, 11,209 pesticide containers were collected and recycled and 19,509 pounds of unused and outdated pesticide were collected.

Report prepared by NCEE Program Personnel

OBJECTIVE E-5 - Accomplishment Report

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. 11,105 citizens participated in special educational programs such as judging wildlife habitats, hunter safety, specific wildlife aquatic programs and other ecosystem programs. 492 volunteers to this effort contributed 2,949 hours.

Measures of Progress With Statewide Totals:

NUMBER actively participating in environmental education programs (such as Project Learning Tree, Project WILD, Aquatic WILD, Catch Clinics, Wildlife Habitat Judging, Environmental field days, Hunter safety, etc.) and indicating new appreciation gains

NUMBER GAINING APPRECIATION

Number: 8174 Non-Limited Resource

Number: 2931 Limited Resource

Impact Indicators:

Increased knowledge of environmental realities

NUMBER INCREASING KNOWLEDGE

Number: 14511 Non-Limited Resource

Number: 4613 Limited Resource

Volunteers Involved and Value:

492 volunteers contributed 2,949 hours at a value of \$50,693 and reached 1,149 clients.

Success Stories:

Guilford

Youth in Guilford County need to become better educated about water quality and conservation. The City of Greensboro and the Guilford County Cooperative Extension sponsored the third annual poster contest with "Water - A Valuable Resource" - as the theme. Sixty first - fifth graders participated in this contest. The posters were judged and savings bonds of \$100 (first place), \$75 (second place) and \$50 (third place) were given to youth in the first - third grades and youth in the fourth and fifth grades. Money for the savings bonds was provided by the City of Greensboro Water Resources Department. Presentations of the savings bonds, certificates and ribbons were made during National Drinking Water Week at the Guilford County Commissioners monthly meeting. County Commissioners acknowledged these youth as well as being viewed by 100,000 viewers on the cable network where their meetings are aired. This successful program will continue each year.

New Hanover

Coastal management education for youth instills an appreciation for the coastal environment and the role it plays in North Carolina's economy. Understanding the issues facing coastal managers prepares youth to make future decisions that will impact this important resource. More than 100 students, teachers, and volunteers from South Brunswick Middle School learned how plants protect and benefit the coastal ecosystem during a field trip to the greenhouse and beach at Oak Island. The students learned how to propagate dune species from seeds and cuttings, and how to correctly plant the seedlings on the dunes. The students gained knowledge about the dune ecosystem and how sand is moved by factors governing beach dynamics resulting in a better understanding of issues such as beach nourishment and coastal erosion.

Forest Resources

The North Carolina WHEP State Competition was another big success! This was the first year we have moved it outside of the triangle, and despite the additional logistical arrangements that had to be made by the state programming staff and the teams, we still had an increase in participation. A total of 53 youth from eight different counties participated in the contest, held at Pee Dee National Wildlife Refuge in Anson County. In 2003, 42 youth from seven counties participated. We also had the highest number of senior teams competing in the competition ever - a total of five.

Forest Resources

The Fur, Fish, 'n Game Rendezvous had 90 youth participants, ranging in ages from 12-15. The Rendezvous is an opportunity for youth to earn their hunter safety certification while receiving interactive instruction regarding natural resources. Participants are also challenged to form their own outdoor ethic during the camp. The Rendezvous, hosted by Extension Forestry and Millstone 4-H Center, is in its 22nd year. Other sponsors of the Rendezvous include the Wake County Wildlife Club, NC Bowhunters Association, North Carolina Wildlife Resources Commission, North Carolina Wildlife Federation, the NC Falconers Guild, and the Eastern Carolina Hunting Retriever Club.

Haywood

Presented at seven (7) Annual Conservation Field Days across the district. I presented a 30 minute program on the benefits and impacts of conservation trees to 700 western North Carolina youth in Buncombe and Graham counties. Each 5th and 7th grade student received a "Norway Spruce" to take home and plant at their home in order to improve wildlife habitat, shade and beautification to their own personal landscape. The impact of this program with the NRCS and the county Soils and Water Conservation District will be noticed for generations by instilling in the youth the importance of planting trees and the proper practices of planting trees correctly for a higher survival rate.

Wake

The Wake County Center of the NC Cooperative Extension Service, in partnership with NCSU - Soil Science, Natural Resources Conservation Service (NRCS), and Soil and Water Conservation Districts (SWCD) partnered to hold a state-wide "Conservation Resource Education Workshop" targeting high school juniors and seniors. Almost 100 students representing most North Carolina counties attended. Extension utilized the "Soil and Water Environmental Technology Center" (SWETC) to provide students with hands-on training on on-site wastewater technologies and nutrients impact on water resources.

Impact Bullets:

- 19,214 citizens increased knowledge of environmental realities relating to the ecosystem in which they live.

Report prepared by NCEE Program Personnel

OBJECTIVE E-6 - Accomplishment Report

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 2004, over 500 persons were actively involved in this process, while 1107 participated in

educational programs focusing on land use planning and natural resource management. Altogether, the results of these educational programs saw 683 persons actually adopting practices related to these issues. Over 2,946 hours were contributed by 93 volunteers to related programs and projects.

Measures of Progress With Statewide Totals:

Increased active involvement in educational programs on land use planning and natural resource management

NUMBER ACTIVELY INVOLVED

Number: 572 Non-Limited Resource

Number: 535 Limited Resource

Impact Indicators:

Number of people adopting practices/techniques to promote sustainable ecosystems with reduced health risks

NUMBER ADOPTING

Number: 254 Non-Limited Resource

Number: 429 Limited Resource

Increased active involvement in decision making processes related to land use and natural resource planning

NUMBER ACTIVELY INVOLVED

Number: 283 Non-Limited Resource

Number: 305 Limited Resource

Volunteers Involved and Value:

93 volunteers contributed 2,569 hours at a value of \$44,161 and reached 620 clients.

Success Stories:

Cherokee Reservation

Eastern Band of the Cherokee Indians Cultural Resources, Western Carolina University Cherokee Studies and Cherokee Reservation Cooperative Extension organized a River Cane Symposium to bring scientists, historians, resource managers, traditional cane artists and harvesters together to share their experiences and knowledge about river cane. The facilitated open-exchange of knowledge focused on traditional knowledge; history and ecology of cane brakes; botany, propagation and restoration of cane. Fifty-four people attended the meeting from as far away as the Chitimacha Tribe in Louisiana and other experts from South Dakota, Kentucky, Georgia, and West Virginia. The out comes of the meeting included the formation of a River Cane Network, a management plan for the cane brake at the tribal farm at Kituhwa and a web-site to share information. Funded through the Cherokee Preservation Foundation and the sponsoring agencies.

New Hanover

Researchers are suggesting that *Vitex rotundifolia*, or beach vitex, could become the "kudzu of the beach." Efforts by the NC Cooperative Extension Coastal Management Agent have been successful in informing property owners along the North Carolina Coast about the problems associated with this exotic species. Programs for coastal municipalities, a front-page story in the

Wilmington Star-News, and a article in Coastwatch Magazine served to inform citizens of the invasive and aggressive nature of beach vitex. Educational efforts will result in selection and use of best adapted species to stabilize and build coastal dunes and discourage the use of beach vitex and other non-native species along our coast.

Watauga

There are economic and environmental benefits to a renewable energy transition. Appalachian Regional Initiative for Sustainable Energy (ARISE), with leadership from Cooperative Extension, is working to bring about such a transition. In 1999, Watauga County became a local partner in the Million Solar Roofs Initiative to combat global climate changes through the installation of 500 solar systems by 2010. ARISE received a \$10,800 grant in late 2003, and the following task were carried out: ARISE Action Plan completed; Solar Consumer Workshop held in September; ARISE exhibit displayed at seven events; Demonstration Materials and Equipment purchased; Sustainable Technology Assessment continued with 22 new homes being added; Five Teaching modules developed; Second Annual Bob Flora Derby held in May; Assisted with Green Building Tour of Homes in October.

Impact Bullets:

- Forestry Issues Forum teleconference resulted in an estimated \$42,373 in total cost savings for 88 participants from North Carolina, South Carolina, and Virginia.
- 683 citizens adopted practices related to land use, environmental and natural resources management issues.

Report prepared by NCCE Program Personnel

OBJECTIVE E-7 - Accomplishment Report

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.

Measures of Progress With Statewide Totals:

Number of residents who adopted best management practices to protect and improve surface and ground water.

NUMBER ADOPTING

Removed debris

- Number: 1303 Non-Limited Resource
 - Number: 64 Limited Resource
 - Used landscaping and lawn maintenance controls
 - Number: 605 Non-Limited Resource
 - Number: 33 Limited Resource
 - Adopted land use management practices such as buffers, easements, setback
 - Number: 236 Non-Limited Resource
 - Number: 15 Limited Resource
 - Used proper automotive maintenance (no leaking oil, etc.)
 - Number: 6623 Non-Limited Resource
 - Number: 3402 Limited Resource
 - Used native or water conserving plant materials
 - Number: 122 Non-Limited Resource
 - Used soil test to direct lawn and landscape management
 - Number: 1323 Non-Limited Resource
 - Number: 188 Limited Resource
- Number of businesses, industries, government officials and development professionals who adopted best management practices to protect and improve surface and ground water.

NUMBER ADOPTING

- Preserved riparian areas
 - Number: 12 Non-Limited Resource
 - Used less fertilizer and pesticides
 - Number: 258 Non-Limited Resource
 - Number: 233 Limited Resource
- Number of people who adopted best management practices to conserve surface and ground water.

NUMBER ADOPTING

- Installed water saving devices and fixtures
 - Number: 17 Non-Limited Resource
- Developed water saving habits when showering, bathing, etc
 - Number: 42 Non-Limited Resource
 - Number: 25 Limited Resource

Impact Indicators:

- ACRES of urban and residential watershed improved by best management practices adopted .
 - Number: 417 Non-Limited Resource
- LINEAR FEET of stream improved by best management practices adopted (Stream Restoration Projects should report here)
 - Number: 8961 Non-Limited Resource
 - Number: 600 Limited Resource

Volunteers Involved and Value:

319 volunteers contributed 988 hours at a value of \$16,983 and reached 246 clients.

Success Stories:

Craven
Residents of the Greenbrier community in New Bern, NC were concerned over sedimentation in

a pond caused primarily by erosion of the pond's north bank. The NC Cooperative Extension Service in partnership with the city of New Bern and the Greenbrier Garden Club, acquired a \$20,000 grant from NCDENR to install a wetland shelf to improve the water quality of the pond and help prevent further erosion of the pond's bank. NC Cooperative Extension provided the technical expertise for the pond shelf design and plant selection, the city of New Bern provided the heavy equipment and operators, and the Greenbrier garden club provided the volunteers for the planting and landscaping. The shelf was installed, the bank was stabilized, and over thirty volunteers helped in the planting of the wetland shelf. The water quality of the Greenbrier community was improved, and residents of the area were educated on stormwater BMP's.

Franklin

The Smithfield Selma Senior High constructed wetland continues to perform well and to exceed expectations. Water quality data collected from the wetland indicate that the wetland is extremely effective in reducing the temperature of runoff from an adjacent asphalt parking lot, thereby mitigating thermal shock to the receiving stream. Water quality data collected from November 2003 up to April 2004 show an 87% reduction in nitrogen and a 93% reduction in phosphorus in stormwater runoff being treated by the wetland.

Scotland

A local automotive garage was faced with environmental regulations when they decided to open a facility to park junked cars. Storm water leaving these sites can create environmental problems if not managed properly. These types of facilities need storm water management plans as well as monitoring to determine if oil, gas or antifreeze is leaking from the automobiles and creating environmental contamination. The N.C. Cooperative Extension, Scotland County Center worked with this small business owner to assist them with the creation of a storm water and solvent management plan. It is estimated these plans will save the owner over \$1000 per year by reducing the amount of monitoring that will be required. Over the life of this facility this assistance will result in substantial savings for this business.

Wake

The Wake County Center, in partnership with the Orange County Center, The Upper Neuse Non-Point Source Team, The Town of Hillsborough, The Stream Restoration Institute at NC State, and with funding provided by NC Department of Environment and Natural Resources has completed phase I of a stream restoration. Water quality improvements have reduced sediment entering the stream from an estimated 150 tons per year before the restoration to near 0 tons now. Once completed this fall, the restored section of the stream will be used as a demonstration area to showcase best management practices effective in urban areas. Cooperative Extension Master Gardener Volunteers in Orange County will help plan, establish plantings, and educate the community on the positive changes made at the stream site.

Guilford

Pond owners are impacted by runoff from neighboring property (woodland, farmland, residential). The Guilford County agent assisted over 100 pond owners in reducing excessive nutrient levels which lead to explosive weed infestations. By using grass carp, pond dyes and minimizing nutrient introduction, pond owners were able to save at least \$7,500 in herbicide costs. This also improved the water quality of the ponds which in turn improved the down-stream quality of the water.

Wake

Orange County Stream Restored - Stormwater runoff from impervious areas has caused Hazel

Parker Creek to become unstable. The Area Specialized Agent, in cooperation with the Orange County Extension Center, The Upper Neuse Non-Point Source Team, The Town of Hillsborough, The Stream Restoration Institute at NC State University, and with funding provided by NC Department of Environment and Natural Resources has completed restoring Hazel Parker Creek to a stable dimension, pattern, and profile using natural channel design. Water quality improvements along 750 linear feet of the stream and 45,000 sq. feet of stream bank have reduced sediment entering the stream from an estimated 150 tons per year to near 0 tons.

Impact Bullets:

- 9,561 linear feet of streams were improved by citizens adopting best management practices
- 10,025 citizens used proper automotive maintenance practices preventing leakage of oil and other contaminants
- Over 1,500 people based their landscape fertility management decisions on knowledge gained by taking soil tests and using the information for optimal use levels.
- One county saw a further reduction in nitrogen loss in agricultural systems to 41%, well below the targeted 30% mandated in the Neuse River Basin

Report prepared by NCCE Program Personnel

OBJECTIVE E-8 - Accomplishment Report

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 2004, over 140,000 pesticide containers were recycled, saving more than \$340,000 in disposal costs at solid waste sites. Knowledgeable and appropriate use of pesticides resulted in more than \$2,470,000 in reduced costs to users by proper and more efficient use of pesticides. Training programs resulted in new certifications or recertifications of 19,891 persons in 2004.

Measures of Progress With Statewide Totals:

Number of BMPs adopted concerning pesticide use
NUMBER ADOPTING ONE OR MORE BMP's
Number: 4081 Non-Limited Resource
Number: 1558 Limited Resource
ACRES pesticide BMPs treated
Number: 125268 Non-Limited Resource
Number: 21195 Limited Resource
Number of certifications and recertification

NUMBER CERTIFIED

Number: 4351 Non-Limited Resource

Number: 605 Limited Resource

NUMBER MAINTAINING CERTIFICATION

Number: 11880 Non-Limited Resource

Number: 3055 Limited Resource

NUMBER of pesticide containers recycled

Number: 125459 Non-Limited Resource

Number: 16513 Limited Resource

Impact Indicators:

Amount production costs reduced through proper and more efficient use of pesticides

Dollars: 2045395 Non-Limited Resource

Dollars: 424987 Limited Resource

Savings resulting from reduction in number of pesticide containers delivered to solid waste disposal sites (landfills).

DOLLARS disposal costs saved from recycled containers

Dollars: 259457 Non-Limited Resource

Dollars: 83762 Limited Resource

Volunteers Involved and Value:

356 volunteers contributed 1,824 hours at a value of \$31,354 and reached 1,306 clients.

Success Stories:

Warren

Stored pesticides are a danger to all. From theft and bio-terrorism to spills and contamination, pesticides can be a tremendous danger. To lessen this danger, Warren County Cooperative Extension planned and coordinated with NCDA&CS to conduct a free pesticide disposal day for Warren County. The collection day was set up at the local Southern States and a total of 1237 pounds of un-wanted pesticides in 71 different containers was collected from local residents. The free disposal of these pesticides saved these residents better than \$92,775, what would have been the average cost to dispose of them through a commercial hazardous waste facility, which is the only other legal disposal method. Societal benefits for this free program are valued at over \$450,000 for Warren County.

Robeson

Disposal of unwanted pesticides is a major problem for homeowners as well as for farmers. Unwanted, outdated, and surplus pesticides can cause serious environmental problems if old containers begin leaking and can pose health problems or death if accidental exposure occurs with farm workers, children or homeowners. The Robeson County Extension Director coordinated with the North Carolina Department of Agriculture pesticide division to conduct an Unwanted Pesticide Collection day. The Robeson County Fair donated the use of their exhibit hall for the collection. Extensive publicity was conducted prior to the scheduled collection day resulting in 307 containers with a total weight of 3,410 pounds being collected. Collected materials were transported to approved site for disposal. Due to the success of this effort this activity will continue to be provided bi-annually for the citizens of Robeson County.

Alamance

Alamance County does not have a permanent hazardous waste disposal site. Because of this the Landfill division of Environmental Health and the Cooperative Extension Service worked together to organize, advertise and conduct a paint and pesticide disposal day for county citizens. These pickup days are not on a regular schedule so it is important that the citizens are alerted to the opportunity to bring in their products. At the disposal day 638 vehicles brought 60,890 pounds of paint and 2139 pounds of pesticides for disposal. The disposal day saved the people who brought in products \$23,457.70 in disposal fees. Responsible disposal of these wastes helps to prevent unauthorized disposal of these products.

Harnett

Harnett County Cooperative Extension worked in conjunction with the NCDA&CS Special Programs area in hosting an Unused Pesticide Pickup. Over 1,500 pounds of old, unused, or otherwise unwanted pesticides were disposed of in an environmentally sound matter. Cost to the individual to dispose of unwanted pesticides would be \$3.00 or more per pound of product. For an individual to have a contractor to pick up unwanted pesticides would be a minimum of \$1,000 plus a charge per pound of pesticide. Thirty-three individuals disposed of pesticides at this event, representing a savings of \$38,500 plus the benefit to the environment.

Caldwell

Caldwell County Cooperative Extension Service has actively promoted its pesticide container recycling program. This year over 6,000 containers have been collected and recycled. This saves the county \$18,000 in landfill disposal costs (each cubic foot of landfill space is \$17.50). In addition, this program is a visible paradigm for recycling in the community and helps with other programs, for example; hero (oil recycling), corrugated box collection containers, and lead acid battery recycling.

Macon

Cooperative Extension receives many calls from agricultural producers, homeowners and businesses who need to dispose of old or unwanted pesticides. We log names and phone numbers of these callers and provide them with the information on storing these pesticides and the time of our next disposal day. This year, working with NCDA, we collected and disposed of more than 1600 pounds of pesticides and more than 400 pesticide containers. A local pesticide dealer was found to be storing hundreds of pounds of old and unusable pesticides in his storage area and was told by pesticide inspectors to dispose of the material. He was able to use the pesticide pickup day to dispose of the material and avoid violation of pesticide regulations.

Franklin

Area pesticide handlers were taught about the importance of pesticide container recycling at local pesticide training classes. The NCDA&CS and the Franklin County Solid Waste Department assisted in these trainings. The pesticide users were taught how to properly clean pesticide containers and where to recycle them. There are three pesticide container recycling locations in Franklin County. The Solid Waste Department monitors these locations. The Solid Waste Dept. assisted Franklin County Cooperative Extension in the production of two newspaper articles concerning the importance of pesticide container recycling. As a result, there have been over 1475 containers recycled. Therefore, \$25,075 has been saved. According to the pesticide coordinator at North Carolina State, it costs \$17.00 to dispose of one pound of recycled pesticide containers.

Jackson

Using pesticides is a necessary tool utilized by farmers, turf managers, homeowners and various public and commercial applicators. Inevitably, empty containers are brought to the local landfill for disposal. As a proactive measure to recycle empty containers, the N.C. Cooperative Extension Service in Swain and Jackson Counties in cooperation with the NCDA, collected 4400 empty containers, which equates to 3,200 lbs. Each of these items were recycled in a proper manner.

Person

Commercial pesticide applicators do not always have the skills necessary to properly calibrate their equipment. A calibration workshop was held for all commercial applicators in Person county. Applicators were required to properly calibrate granular, backpack, and pull type lawn sprayers. A follow up evaluation showed 18 of the 42 applicators returned to their business and properly calibrated their equipment. Eight reported that they were over or under applying by margins greater than 20%. This correction will not only save money by applying the correct amount, but will also protect the environment by not over application.

Halifax

In cooperation with the NCDA's Pesticide Division, the Halifax County Extension Service offered a pesticide disposal day for its citizens. During this event, we collected over 500 pesticide containers weighing 4126 pounds along with 1 drum of bulk liquid pesticide. These efforts have helped reduce the potential for property damage or personal injury due to these unusable or outdated pesticides. Several participants indicated they were extremely thankful to be able to finally get these pesticides off their property and dispose of them in a legal and environmentally safe manner.

Impact Bullets:

- More than \$340,000 in disposal costs were saved by the reduction of the number of pesticide containers delivered to landfills.
- Over \$2.47 million costs reduced by proper and more efficient use of pesticides.
- Nearly 20,000 pesticide applicators certified or recertified.
- More than 140,000 pesticide containers recycled.

Report prepared by NCCE Program Personnel

C - BUILDING QUALITY COMMUNITIES

OBJECTIVE C-1 - Accomplishment Report

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. Farm land preservation was focused on in many counties, in the formation of agricultural districts or other initiatives to enroll agricultural lands for their protection and preservation. Citizens committees undertook tourism development projects, local infrastructure development and stimulation and jobs training programs. Millions of dollars in grants were obtained through community collaborative and cooperative initiatives for enhanced community development and advancement.

Measures of Progress With Statewide Totals:

NUMBER of citizens and public officials participating in educational programs who gain increased knowledge of constructive solutions to community issues

Number: 14327 Non-Limited Resource

Number: 4105 Limited Resource

NUMBER of persons who demonstrated improved leadership and problem solving skills

Number: 1578 Non-Limited Resource

Number: 586 Limited Resource

NUMBER of persons who participated in a community collaborative problem solving process

Number: 2548 Non-Limited Resource

Number: 576 Limited Resource

Impact Indicators:

NUMBER of communities engaging in community visioning and planning

Number: 1035 Non-Limited Resource

Number: 559 Limited Resource

NUMBER of communities involved in community enhancement and revitalization efforts

Number: 443 Non-Limited Resource

Number: 69 Limited Resource

Dollars saved as a result of achieving successful resolution of (a) community issue(s)

Dollar: 1414256 Non-Limited Resource

Dollar: 534400 Limited Resource

Volunteers Involved and Value:

1,799 volunteers contributed 25,784 hours at a value of \$443,226 and reached 2,391 clients

Success Stories:

Franklin

Franklin County is one of the fastest growing counties in the state. Subdivisions and shopping centers are being developed each day in the county. Due to the rapid growth rate and need to preserve open, green space in addition to preserving agriculture, the Franklin County

Commissioners established an "Agricultural Board " for the county along with a "Voluntary Agricultural Districting Ordinance" in 2003. The NC Cooperative Extension Service, Franklin County Center, serves as the county liaison for landowners, farmers, etc. to register their land in the Agricultural District. The Service also serves as the advisor to the diverse 10-member Agricultural Board. An application procedure has been developed and the Board will begin reviewing landowner requests to be included in the program in March 2004. The Board also serves as the County Commissioners source for agricultural interests and needs in the county. This program is truly

Union

Over fourteen municipalities now exist in Union County. These new towns are facing a number of decisions with regard to land use planning, environmental protection, and determining which services and at what cost to provide. Cooperative Extension has worked closely with the towns of Waxhaw, Weddington, Wesley Chapel and Fairview in providing information relevant to these issues. As a result these towns recognize the expertise of Cooperative Extension with regard to land use and include them in planning decisions. The result is more balanced growth and increased sustainability of their communities.

Wayne

Suburban sprawl, land loss to highway construction, and increasing development into rural areas of Wayne County all are hindering farming efficiency and reducing open space in the county, in addition to creating road congestion and ill will between farm and non-farm citizens. Cooperative Extension, in concert with the Wayne County Commissioners, the Wayne County Planning Board, and the Wayne County Farm Bureau, developed and promoted a Voluntary Agricultural District Ordinance to enhance the image of agriculture in the county, protect its role as a key component of the economy, and possibly shield it from frivolous nuisance lawsuits. In August, The Wayne County Commissioners adopted the proposed Voluntary Agricultural Districts ordinance for Wayne County.

Cherokee

Leadership capability within a community is a valuable asset, which government agencies, nonprofits and private enterprises seek in increase. A program called asset mapping was conducted in various communities in Cherokee County. The training provides a tool that allows leaders in the community to assess the resources available to them in their community. During the trainings the communities discovered as many as 100 resources available to them in tackling issues/problems in their community. The training also allowed the communities to catalogue the assets so that they can be utilized for the future. One community estimated that it had saved them over \$60,000.00 in a year. Communities and organizations are requesting this training in 2005.

Greene

Cooperative Extension Greene Center played a vital role in the county developing a grant proposal for the Technology Opportunities Program (TOP), titled "Beyond Tobacco". The purpose of the project is to begin the development of wireless network that will provide citizens access to an array of information. Extension worked with One Economy Corporation to develop the agricultural part of the proposal dealing with providing farmers and their families access to innovative farm management skills, accounting practices and the latest information on the weather and marketing. The proposal was successful and Greene received \$540,000.

Randolph

There are approximately 158,000 acres of farm land in Randolph County. Each year, more farms

are faced with urbanization and encroaching development. As a result, Cooperative Extension helped establish a Voluntary Agricultural Advisory Board and wrote a Voluntary Agricultural District ordinance which was passed by the County Commissioners. The goals of the Voluntary Agricultural District is to preserve and maintain agricultural areas within the County and to inform the non-farming neighbors and potential land purchasers of the existence of farm operations. To date, 2,300 acres of land has been approved for inclusion in a Voluntary Agricultural District. As interest in the program grows, additional applications are being received daily.

Chatham

Chatham County is the 100th fastest growing county in the United States according to a 2004 report. Chatham County has always been a historically strong agricultural county in North Carolina and even with the influx of new residents in the past 20 years agriculture has remained strong. One reason for this is that many times larger farms are not broken up into housing developments but into smaller farms. Many of the newer farm owners in the county have long been interested in the concept of conservation easements in which they donate or sell the development rights of their property with assures that the land will remain in agricultural use even after they are gone. However, this concept over the years has not been well received by the "native" farmers in the county. The Chatham County Center of the North Carolina Cooperative Extension Service has continued to offer programs to all

Northampton

Agriculture is a vital part of Northampton County's economy and traditions, bringing over 92 million dollars to the county in 2001. However, Northampton farmers are faced with increased pressure from rural housing development. Noise, dust, odor, timber cutting, pesticide spraying and other farming practices are common but have resulted in nuisance suits being filed by new rural residents against their farming neighbors. In an effort to inform potential landowners about agriculture practices in Northampton, a Voluntary Agricultural District Ordinance (VAD) was passed. The Northampton County office of the North Carolina Cooperative Extension service spearheaded this program after being approached by a member of the Advisory Leadership System. The office wrote the ordinance, made numerous presentations to county officials, and now oversees administration of the program. The first farm was approved on July 8, 2004. In it's first year, there are six landowners with over 560 acres enrolled in the program.

Impact Bullets:

- Extension worked with One Economy Corporation to develop the agricultural part of the proposal dealing with providing farmers and their families access to innovative farm management skills, accounting practices and the latest information on the weather and marketing. The proposal was successful and Greene received \$540,000.
- Preservation of farmland initiatives have been undertaken in more than 10 counties with thousands of acres of farmland becoming enrolled.
- 1594 communities engaged in community visioning and planning.
- \$1,950,000 saved as a result of achieving successful resolution of (a) community issue(s)

Report prepared by NCCE Program Personnel

OBJECTIVE C-2 - Accomplishment Report

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 support for job high tech job training program development.

A few examples of the economic activities include such things as agricultural tourism that has developed strongly with the help of Cooperative Extension in several counties across the state. Increased farm incomes, mostly for small growers, have resulted from the continuing focus on further development and expansion of farmers markets in Richmond, Moore, Durham, and Ashe Counties. A considerable number of counties worked closely with community leaders in grant writing training, and in developing economic development focused grants requests that were highly successful in bringing in external funds for enhancement of local communities and their economies.

Measures of Progress With Statewide Totals:

NUMBER of Persons increasing their knowledge of economic development principles

Number: 537 Non-Limited Resource

Number: 284 Limited Resource

NUMBER of persons increasing knowledge of business management principles

Number: 232 Non-Limited Resource

Number: 227 Limited Resource

NUMBER of persons increasing knowledge of enterprise or economic development opportunities

Number: 785 Non-Limited Resource

Number: 296 Limited Resource

Impact Indicators:

Businesses or enterprises retained or saved with economic impact

Number: 1 Non-Limited Resource

Number: 3 Limited Resource

Dollars: 200000 Non-Limited Resource

Dollars: 15000 Limited Resource

Businesses or enterprises expanded with economic impact

Number: 90 Non-Limited Resource

Number: 209 Limited Resource

Dollars: 15113 Non-Limited Resource

Dollars: 3000 Limited Resource
Businesses or enterprises attracted or developed with economic impact
Number: 3 Non-Limited Resource
Number: 1 Limited Resource
Dollars: 20001 Non-Limited Resource
Dollars: 6000 Limited Resource
NUMBER of new jobs created
Number: 257 Non-Limited Resource
NUMBER of marketing venues established or sustained
Number: 130 Non-Limited Resource
Number: 10 Limited Resource
Dollars: 10000 Non-Limited Resource

Volunteers Involved and Value:

216 volunteers contributed 1,540 hours at a value of \$26,472 and reached 430 clients

Success Stories:

Richmond

1908 farms in Anson, Montgomery, Moore, and Richmond earned \$8 million in tobacco and \$9 million in fruits and vegetables in 2003. Increases in produce have offset declines in tobacco, but new customers are needed to increase sales. Produce is sold from stands along two-lane highways, which are being by-passed by new Interstates. Cooperative Extension assembled leaders in tourism, transportation, public utilities, the arts, and agriculture to form the Sandhills Agritourism Task Force. With grants from Golden LEAF, this Task Force trained 150 farmers in business plans, marketing, liability, and customer readiness. A new website and full color map shows locations and products of 60 farms. Surveys showed these farms on average gained 8 new customers, which spent \$13.60 per visit. Two farms began new agritourism ventures (corn maze and Alpaca farm). The Rockingham Farmers Market doubled its sales to \$20,000 per year.

Cherokee

Tourism is the number one industry in Western North Carolina. Cooperative Extension has joined with the local community colleges, area businesses, Cherokee Preservation Foundation, and the Southern Rural Development Center to develop a Customer Certification training program. Haywood Community College, Southwestern Community College, and Tri County Community College with Cooperative Extension and local leaders have developed a one day certification program to train front line employers on the importance of the customer in tourism. The project called Front Line/Bottom Line has received tremendous support including a \$30,000.00 from the Cherokee Preservation Foundation and support from the Southern Rural Development Center with Ford Foundation Funds leveraged through the Rural Community College Initiative. The program will provide training to employers and will provide better customer satisfaction and increase profits for the business owner.

Ashe

Ashe County Farmers Market has continued to grow, 75 in 2000 to 280 in 2004. As a result the Farmers Market Committee has attempted to provide the leadership and resources to support and enhance the growth. In order to accomplish these goals, the committee designed a Farmers Market Calendar/Cookbook promoting vendor artwork through the photographs in the calendar and vendor recipes throughout the calendar. The project raised \$2000.00 for the market to be

used for public relations and advertising and for other market needs. These efforts resulted in members of the committee increasing their skills and knowledge in resource development and in the vendors and market benefiting from the extension marketing and public relations that resulted.

Pasquotank

One client trained in the Master Gardener program from October 2003 to March 2004 immediately opened a business in retirement after training. The business focuses on design and installation of residential landscapes and grading. The client invested \$30,000 in power equipment and a trailer, business cards, and computers. He is happy with his supplemental income which more than meets his payments on his equipment. He emailed his agent (trainer) to thank him for "planting a seed" with him.

Johnston

In June 2004 construction began on the Johnston County Workforce Development Center. The beginning of construction was a significant step in preparing local citizens for employment. This project began when representatives of two pharmaceutical plants, Novo Nordisk and Bayer, met with the Johnston County Economic Development Department and Cooperative Extension to discuss their need for future employees to have a greater understanding of scientific principles. They also express the need to have employees take college chemistry classes. Cooperative Extension networking with the Johnston County Industrial Development Corporation, Johnston Community College, and Johnston County Schools facilitated a meeting of these groups with representatives of N C State University. As a result, funding for the \$3.2 million biotech skills training center was secured. The facility will include a "discovery center" that will be available for programs that enhance scientific literacy including those of Cooperative Extension.

Impact Bullets:

- Cooperative Extension assembled leaders in tourism, transportation, public utilities, the arts, and agriculture to form the Sandhills Agritourism Task Force. This Task Force trained 150 farmers in business plans, marketing, liability, and customer readiness.
- Ashe County Farmers Market has continued to grow, 75 in 2000 to 280 in 2004.
- The Edgecombe County Extension Center has been giving leadership to the effort of the East Carolina Livestock Arena Board in locating and building a new Agriculture & Education Center in Edgecombe County.

Report prepared by NCCE Program Personnel

OBJECTIVE C-3 - Accomplishment Report

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 are 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.

Measures of Progress With Statewide Totals:

NUMBER of participants who demonstrated proper application of leadership skills and problem solving techniques learned

Number: 710 Non-Limited Resource

Number: 5863 Limited Resource

NUMBER of participants who developed and implemented action plans to resolve community problems

Number: 310 Non-Limited Resource

Number: 830 Limited Resource

NUMBER of community issues resolved or community enhancement projects completed projects

Number: 60 Non-Limited Resource

Number: 124 Limited Resource

Impact Indicators:

Increase in the number of limited resource and non-traditional individuals with the capacity to provide valuable service to the community (assume some leadership roles in church, school, community etc., volunteer

Number: 307 Non-Limited Resource

Number: 612 Limited Resource

Dollars of economic value to community/county for community projects/solving community problems

Dollars: 234318 Non-Limited Resource

Dollars: 194841 Limited Resource

Community organizations developed to continue resolving community problems

Number: 57 Non-Limited Resource

Number: 76 Limited Resource

Volunteers Involved and Value:

696 volunteers contributed 7,649 hours at a value of \$131,486 and reached 222 clients

Success Stories:

Watauga

The Hispanic population continues to grow in the High Country. Although the migrant men, mainly from Mexico, are seasonal or otherwise employed, the women and children remain disenfranchised due to issues of communication, transportation and lack of skills. Extension worked with other agents, small farm owner, Master Gardeners, High Country Amigos, Blue Ridge Women in Agriculture and community volunteers to bring Mexican women and children in the community into a supportive environment by holding educational programs to overcome obstacles and build vital skills for success in their new environment. Programs included English as a Second Language classes, basket and note-card workshops, and agriculture and specialty crop classes. Given these opportunities, the women have been able to network and integrate into society, as well as add to the family income.

Haywood

There are 7 active community development clubs in Haywood County, and 4 active downtown development groups. The community clubs meet monthly, and come together quarterly as a "council" to share and work on county wide issues. Through time this group has learned how to work with decision makers to support their communities, the latest of which was working to defeat a proposal for water/sewer lines through a rural farming community.

Tyrrell

Community development is a goal of Cooperative Extension. One such means in Tyrrell County is through the annual La Posada, a Hispanic Christmas musical procession that ends with a Fiesta. Even with a generous donation of \$500 from the Chamber of Commerce, due to changes, new volunteers from the Hispanic community were needed to carry out this event. The Family and Consumer Sciences Agent worked with this, and three new Hispanic Volunteers emerged! These volunteers managed 13 new volunteers, and traditional Mexican dress, music, food and games were the result. This event is a learning and bonding experience for the community, and in 2004, approximately 200 people participated!

Cabarrus

Community groups are not recognized by local government! In 2000 The City of Concord implemented a neighborhood program to build relationships with other neighborhoods and city departments. Existing communities not registered and documented by city staff could not receive official representation from city departments. This agent transferred to the county of Cabarrus in August 2004 and assisted the 50 year old limited resource community by providing them with the documents required to become officially recognized by the city. As of November 2004 the community developed by-laws, elected new officers, set quarterly meeting dates/locations and submitted proof of existence to city officials. The recognition allows them to receive community policing, apply for matching grants with a maximum amount of \$3,000 for neighborhood improvements, a neighborhood liaison to attend meetings and network with 18 other recognized communities. Effective December 9, 2004 the 125 homes Sidestown/Shankletown community is officially recognized.

Pasquotank

Community service and civic education enables stake-holders and citizens to learn more about the community. During the fall of 04' a civic index community forum planning committee was held. This was an effort to involve local entities in a consortium which would be a benefit to non-profit agencies, Chamber of Commerce, local community partnerships, and other civic

organizations. Also, over \$10,000 was raised during the year to do community outreach using teens as the volunteers as well as extension staff to do leadership development in the community.

Montgomery

The construction of a new interstate highway is a major concern in the Sandhills area since it directs traffic away from local roadside markets selling peaches and other produce. Cooperative Extension took leadership for writing a grant with the Peach Growers' Society and the Peach Festival that resulted in their receiving \$7500 to use for marketing peaches. Other major players were the Town of Candor, several local businesses, local clubs, EMS and many citizens. The monies were used for TV, radio, newspaper, magazines, and festival publications advertising throughout the southeast. Printed materials were provided by NCDA and recipe brochures were printed with grant funds. The peach growers report that they met and exceeded their sales expectations during the time before, during and after the Peach Festival. They feel that developing greater traffic and visibility now will help them keep repeat buyers and gain new customers as the highway is completed.

Durham

The MR Babcock Foundation reaffirmed the success and positive impact of the Strengthening Families Team's (SFT) Parents & Family Advocacy and Support Training (PFAST) by awarding Durham Cooperative Extension a \$50,000 grant to continue and expand the efforts of the group. Parental involvement is proven to be a key in the academic success of children. This grant, renewable for three years, will allow the Strengthening Families Team (Durham Cooperative Extension, DPS Title I, parents/grandparents, UNC TV, UNC School of Government and Social Work, Research Triangle School Partnership) to provide advocacy and leadership training to over 100 Durham County guardians of children. As one parent stated, "Until this training I not only did not know my rights as a parent but felt very inadequate in helping my child. I was really at the mercy of the school during parent/teacher conferences. Because of what I learned through PFAST, this was the best

Impact Bullets:

- 6,573 program participants demonstrated proper application of leadership skills and problem solving techniques learned
- 133 community organizations were developed to address resolving community problems
- Over \$429,000 of economic value was gained by communities for community projects and solving community problems

Report prepared by NCCE Program Personnel

OBJECTIVE C-4 - Accomplishment Report

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 Mater Gardeners, REINS, Master Wildlife, Master

Forester, County Animal Response Teams (CARTS), and Western Community Development Club Leaders. The primary focus in 2004 was on Master Gardeners, CARTS, and the Western Community Development Clubs, with recruitment and systems development producing highly positive results. This included 379 new volunteers recruited, 127 volunteer management systems developed and 543 Master Gardeners trained. Twenty CARTS volunteers were recruited. Also, there were 30 new volunteers as Western Community Development Club Leaders.

Measures of Progress With Statewide Totals:

Number of new volunteers

Master Gardeners

Number: 283 Non-Limited Resource

Number: 33 Limited Resource

REINS

Number: 11 Non-Limited Resource

CARTS

Number: 20 Non-Limited Resource

Western Community Development Club Leaders

Number: 32 Non-Limited Resource

Impact Indicators:

Number of volunteer management systems established

Master Gardeners

Number: 106 Non-Limited Resource

Number: 8 Limited Resource

REINS

Number: 3 Non-Limited Resource

CARTS

Number: 2 Non-Limited Resource

Western Community Development Club Leaders

Number: 8 Non-Limited Resource

Number trained or certified volunteers (higher level of volunteerism)

Master Gardeners

Number: 522 Non-Limited Resource

Number: 21 Limited Resource

REINS

Number: 17 Non-Limited Resource

CARTS

Number: 14 Non-Limited Resource

Western Community Development Club Leaders

Number: 30 Non-Limited Resource

Volunteers Involved and Value:

1,166 volunteers contributed 36,042 hours at a value of \$619,561 and reached 29,399 clients

Success Stories:

Brunswick

Since Brunswick is such a large county, it is sometimes difficult for area residents to travel to the Extension Office to find answers to some of the questions they have on growing plants and managing various weed, insect and disease pests. Brunswick County Master Gardeners have developed an educational program that goes out into the community to help county residents with their landscape and gardening needs. Plant Clinics are put on by the Master Gardeners and feature two presentations at each site on a variety of gardening topics. Participants are encouraged to bring their plant problems to the clinics to be diagnosed and are given instructions on how to deal with their plant problems. (72) Clinics were held with 144 presentations made to over 1900 residents. They increased their knowledge on using best management practices to grow and maintain their plants which resulted in saving them time and money.

New Hanover

The Town of Carolina Beach requested help from the North Carolina Cooperative Extension to conduct a volunteer sea oats planting. NCCE has worked with the Town to grow more than 100,000 sea oat seedlings in their greenhouse. A program was conducted where town employees learned to correctly plant and fertilize sea oat seedlings. More than 300 students, teachers, and adults volunteered to help plant the sea oats on the Carolina Beach dunes.

Macon

Master Gardener Volunteers continue the development of a horticulture demonstration garden at the Macon County Environmental Resource Center. Under guidance of the MG Planning Committee, Master Gardeners have updated the 5-year development plan, raised over \$1500 in donations, donated over 1200 hours volunteer time and planted more than 50 new plant specimens. Macon County Master Gardeners, and Macon County entered into a collaborative effort in developing the Macon County Environmental Education Center in April 2000. The county has put over \$120,000 into the reconstruction of a dilapidated building located at the Macon County landfill. Master Gardeners have developed a five year plan to install horticulture demonstration/botanical garden for use by local citizens. Grant monies in excess of \$10,000 have been received for the purchase of plants, tools, equipment and a label machine. The project has also received extensive support in donations of material and labor from local

Currituck

2004 was a very successful year for the Currituck County Master Gardeners. Volunteers participated in numerous projects throughout the year. Seven landscaping projects were completed for the county for new and existing facilities. This was a savings of over \$30,000 dollars to the county. Volunteer time was at an all time high with well over 3,000 hours equating to over \$50,000 dollars. The Master Gardeners are to be commended for their constant hard work.

Buncombe

The population of Buncombe County has grown by 14 percent in the last 10 years. The influx of new homeowners not only increases the demand for reliable information on gardening and landscape maintenance, but also increases the potential environmental impacts of inappropriate gardening practices. Extension Master Gardener volunteers are increasingly important in enabling Extension to provide environmentally sound education to greater numbers of people. In 2004, 119 Master Gardener volunteers contributed more than 7,000 hours of volunteer service in Buncombe County, the equivalent of more than 3 full time employees. Through the garden

hotline, the Speakers' Bureau, and event staffing, the volunteers provided information for at least 12,000 people. Additionally, 46 "Ask A Gardener" columns were published in the Asheville Citizen Times (circulation 60,000). Training and managing volunteers is an effective way to expand the abilities of an agent many fold.

Craven

Master Gardeners serve as a volunteer resource which greatly expands Extension's ability to provide educational programming to the public. In 2004, Master Gardeners in Craven County reported a total of 2,700 hours which included educational efforts such as presenting Saturday workshops and other programs, maintaining demonstration vegetable and ornamental gardens, answering phone calls from the public, newsletter articles, publicity for events, Master Gardener training and beautification projects around the county. Using the current estimate of \$17.19 per hour for volunteer time, this amounts to a \$46,413 contribution to the county. This figure doesn't include an estimated total of \$9,000 in money raised and vegetable produce donated to individuals in need around the county.

Henderson

The Henderson County consumer horticulture program has become a staple to many residents in the county. The need for quality research based knowledge is expressed daily and I hear great feedback about our wonderful group of 24 volunteers for 2004. These volunteers have worked diligently on the Master Gardener Hot line, at educational displays, and out in the field on projects to provide over 1126 volunteer hours. These hours are at a value to the Henderson County Extension Center and to Henderson County at \$16,890. These volunteer hours are also valued highly by each agent due to the fact that we are able to assist other clients while the Hot line is being taken care of as well.

Impact Bullets:

- 379 new volunteers were recruited
- 127 volunteer management systems developed 543 Master Gardeners trained.
- 543 Master Gardeners were trained.

Report prepared by NCCE Program Personnel

OBJECTIVE C-5 - Accomplishment Report

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.

Measures of Progress With Statewide Totals:

Number of people adopting practices around well to minimize chance of contamination
No chemicals (pesticides, fertilizers, paint, motor oil, etc.) are stored in well house

Number: 13 Non-Limited Resource

No animals are housed in well house

Number: 38 Non-Limited Resource

Agricultural chemicals are mixed and loaded a safe distance from well

Number: 38 Non-Limited Resource

Mixing tanks are rinsed a safe distance from well

Number: 38 Non-Limited Resource

Well is separated by at least 100 ft from septic or animal manure systems

Number: 38 Non-Limited Resource

Number of people having water tested and/ or treated appropriately

Water is tested by health dept. or state certified private laboratory

Number: 93 Non-Limited Resource

Number: 3 Limited Resource

Well is shock-chlorinated to kill bacteria

Number: 20 Non-Limited Resource

Treatment systems, if necessary, are chosen based on results of certified water test

Number: 2 Non-Limited Resource

147 people reported benefits from adoption of best management practices which protect/improve water quality.

\$51,000 in water system replacement costs avoided through implementation of well constructions and/ or protection practices.

Volunteers Involved and Value:

5 volunteers contributed 77 hours at a value of \$1,323 and reached 106 clients

Success Stories:

Chatham

Impaired drinking water quality can adversely affect human health and rapid communication may be essential. When county employees were advised of local "water sampling indicating the presence of E. coli/fecal coliform bacteria in the town's water supply," Cooperative Extension's email contacts had the same warning available within minutes. While county employees were making door-to-door contacts, one email client noted, "Your email was forwarded on to 100 residents 2 seconds after I read it. Your message got the word out 12 hours before WRAL! Now that's fast!" The use of available technology combined with a trusting client base was able to

speed the delivery of information regarding a potential health hazard helping citizens to make informed decisions and avoid potentially critical health issues.

Buncombe

Buncombe County experiences a growing population in homeownership of individuals from outside of our area. Many of these new homeowners have never had a private well prior to moving to our area. As a result, they need to be educated in the proper care and maintenance to protect their potable water. Buncombe County Extension developed and collaborated with Buncombe County Environmental Health to provide a workshop on private wells to twenty-two homeowners. At the workshop the participants became knowledgeable on the best strategies to protect and improve their drinking water quality. By properly maintaining their wells the twenty-two participants should each save the estimated \$3000 replacement cost of a new well resulting in an overall savings of \$66,000 for the workshop participants.

Impact Bullets:

- 147 people reported benefits from adoption of best management practices which protect/improve water quality.
- \$51,000 in water system replacement costs avoided through implementation of well constructions and/ or protection practices.

Report prepared by NCCE Program Personnel

OBJECTIVE C-6 - Accomplishment Report

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.

Measures of Progress With Statewide Totals:

Number of people who adopted best wastewater management practices

NUMBER ADOPTING

Limit disposal to sewage (no trash, grease, or hazardous chemicals)

Number: 130 Non-Limited Resource

Conserve water use

Number: 130 Non-Limited Resource

Protect the system from physical damage

Number: 130 Non-Limited Resource

Gray water disposed in regular home wastewater system

Number: 130 Non-Limited Resource

Landscaping to promote surface drainage

Number: 130 Non-Limited Resource

No commercial additives applied to septic system

Number: 130 Non-Limited Resource

NUMBER of people who keep periodic checks on septic system operation and/or have had septic tank pumped by licensed professional

Number: 183 Non-Limited Resource

Impact Indicators:

Costs avoided in replacement of failed septic systems through adoption of best management practices [Number of clients who had septic tank pumped X Average cost of replacement (\$5,000) = \$ cost saved]

DOLLAR COSTS AVOIDED

Dollars: 280,000 Non-Limited Resource

Volunteers Involved and Value:

none

Success Stories:

Caldwell

From a meeting with Caldwell County's Manager and Planner, it was determined that the need existed to educate and up-take the County's officers along with the 7 local municipalities government officials about the Phase 2 Stormwater Regulations and how they will be affecting Caldwell County. A workshop was held with Dr Bill Hunt, Stormwater Specialist NCCE and Jim Reed NCDENR, helping with the meeting. Participants learned the current status of Phase 2, the steps necessary to meet EPA's requirements and what resources to do so are available both from NCCE and Caldwell County. Those present (31) all expressed appreciation for the workshop and agree to cooperate in working toward meeting the EPA's requirements.

Craven

An environmental task force in Craven County has determined that septic system maintenance is one of the most pressing environmental issues the county faces. To address this issue, the Craven County Cooperative Extension Service has developed a Septic System Program that educates program participants on: the significance of septic systems as an environmental issue, components of systems, various system types, system design and maintenance techniques and issues. Over the past year, 130 people have been educated at 6 septic system workshops and over 90% of participants indicated they were more likely to maintain their septic system as a result of the attending the workshop and understanding the issues.

Buncombe

Buncombe County experiences a growing population in homeownership of individuals from

outside of our area. Many of these new homeowners have never had a septic system prior to moving to our area. As a result, they need to be educated in the proper care and maintenance to protect their system from damage. Buncombe County Extension developed and collaborated with Buncombe County Environmental Health to provide a workshop on septic systems to twenty-two homeowners. At the workshop the participants became knowledgeable on the best wastewater management practices. By properly maintaining their septic systems the twenty-two participants should each save the estimated \$5000 replacement cost of a new system resulting in a total savings of \$110,000 for all the workshop participants.

Chatham

With changing regulations, the increasing number of new septic systems and the need for septic systems to be properly managed and maintained, the Chatham County Environmental Health Division asked Cooperative Extension to help conduct a training workshop for septic system contractors. Sixty-six contractors and their employees participated in the workshop. 62% of the participants gained much or very much knowledge about installing septic systems. 100% indicated the knowledge gained would be useful to them. 98% learned new ideas that they will be able to use when installing septic systems. These contractors installed over 1,000 systems in Chatham County in 2003. This workshop reached a new group of people. 48% of the participants had never attended a Cooperative Extension educational program. 98% of the participants rated the workshop as good or outstanding. 100% said the workshop met their expectations.

Chatham

Most homeowners do not maintain their septic system. Many homeowners know little about the operation and maintenance of the septic system. As long as the waste does not rise to the ground surface, it is thought that the system is functioning properly. Fifty-six homeowners participated in a homeowner septic system maintenance workshop. 76% gained much or very much knowledge about septic system maintenance. 100% indicated the knowledge gained would be useful to them. 32% said it had been four or more years since their septic tank had been pumped out. 54% stated they do not have their septic tank pumped out as recommended. 96% said they would now have their septic tank pumped out. This workshop reached a new group of people. 76% of the participants had never attended a Cooperative Extension educational program. The workshop was a joint effort between Cooperative Extension Service and the County Environmental Health Division.

Impact Bullets:

- By properly maintaining their septic systems twenty-two participants in Buncombe County should each save the estimated \$5000 replacement cost of a new system resulting in a total savings of \$110,000 for all the workshop participants.
- 183 program participants keep periodic checks on septic system operation and/or have had septic tank pumped by licensed professional, and estimate that \$280,000 in costs were avoided.

Report prepared by NCCE Program Personnel

OBJECTIVE C-7 - Accomplishment Report

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 2004 included over 10,770 citizens adopting waste reduction strategies that included reuse and recycling. Over 4.9 million 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, 885 diverted their solid waste products by adopting backyard composting programs.

Measures of Progress With Statewide Totals:

Residents adopting waste reduction strategies

NUMBER ADOPTING

Source Reduction (eliminate or reduce waste, reduce toxicity)

Number: 8570 Non-Limited Resource

Number: 2000 Limited Resource

Reuse

Number: 8520 Non-Limited Resource

Number: 2000 Limited Resource

Recycling

Number: 8770 Non-Limited Resource

Number: 2000 Limited Resource

Composting

Number: 865 Non-Limited Resource

Number: 20 Limited Resource

(Composting) Vermicomposting

Number: 10 Non-Limited Resource

(Composting) Backyard composting

Number: 450 Non-Limited Resource

Number: 18 Limited Resource

Number of businesses, industries, institutions, and local government offices adopting waste reduction strategies

NUMBER ADOPTING

Source Reduction

Number: 20 Non-Limited Resource

Reuse

Number: 20 Non-Limited Resource

Recycling

Number: 389 Non-Limited Resource

Composting

Number: 370 Non-Limited Resource

(Composting) Vermicomposting

Number: 2 Non-Limited Resource

Impact Indicators:

Quantity of waste diverted from disposal through waste reduction strategies

white goods (pounds)

Number: 1928 Non-Limited Resource

household batteries (pounds)

Number: 10 Non-Limited Resource

home use pesticides (pounds)

Number: 10 Non-Limited Resource

other (pounds)

Number: 4,961,760 Non-Limited Resource

Volunteers Involved and Value:

25 volunteers contributed 360 hours at a value of \$6,188 and reached 958 clients

Success Stories:

Catawba

Litter Task Force was established February 2004 under the leadership of Cooperative Extension. The Task Forces early efforts greatly increased participation in the annual Litter Sweeps. In another effort, approximately 100 after-school children took part in this activity by picking up trash from their school grounds and adjoining areas. Then using their creativity and imaginations students created "Litter Bugs" from what was collected. Extension obtained first place in NC Litter Prevention Competition (government category) and \$1000 award from NC Soft Drink Association for ongoing efforts in the county to fight litter. The "Don't Be a Tosser" display at the fair was also a blue ribbon winner award winner. The task force continues to grow, plan and "fight the war on litter one battle at a time", our task force motto.

Cherokee

To keep unwanted and out dated pesticides out of the landfill and the environment, the Cherokee County Cooperative Extension and the NC Department Agriculture held a pesticide pick-up at a local agriculture supply store. Twenty-seven containers, 914 pounds of unneeded and some highly toxic pesticides were collected and properly disposed of.

Caldwell

Solid Waste management and recycling have been identified by Caldwell County officials as a major concern for the County. The Caldwell Extension Center, because of its expertise and passed record in dealing with a variety of waste management problems was asked by County Manager to address this area. The Center continued to lead the county's recycling program. Educational programs/activities included: newsletter articles, newspaper articles (9), radio programs (10), TV programs (4), composting classes (4), and promotion of Project Hero. Results in reducing solid waste stream by the following amounts: (1) Mixed paper...305 tons, (2) Card Board...1152 tons (3) Aluminum cans....18 tons (4) Glass....76.66 tons (5) Mixed Plastics....34.22 tons, Lead Batteries...3412 units and White Goods...1200 tons. Project Hero resulted in 18648 gallons of used motor oil being recycled.

Henderson

Trash and junk along roadsides is an eyesore in parts of Henderson County. Cooperative Extension works closely with the Henderson County Community Development Council to

provide educational programs. One of the service projects identified by the Council is litter reduction. In the spring of 2004, eight community development clubs participated in litter reduction and picked up 312 bags and 4 truckloads. 57 individuals gave 451 hours to litter reduction efforts. In addition to improved appearance of roadsides, there is an increased awareness for concern for our environment generated by these volunteer efforts. At the current US Labor Department standard volunteer hourly valuation, their efforts in time and effort alone is valued at \$7,753.

Impact Bullets:

- Over 4.96 million pounds of household hazardous or special waste materials were diverted from going into the waste stream.
- Project Hero resulted in 18,648 gallons of used motor oil being recycled in Caldwell County alone.
- 914 pounds of unneeded and some highly toxic pesticides were collected and properly disposed of in Cherokee County.

Report prepared by NCCE Program Personnel

OBJECTIVE C-8 - Accomplishment Report

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. For example, NC Cooperative Extension-Buncombe County Center teamed with FEMA and State Emergency Management persons to provide needed information to county residents affected by flood waters created by Hurricanes Francis and Ivan. Extension in several mountain counties assisted disaster victims in on-going educational programs addressing stream restoration issues, reclamation of flooded fields, correcting soil fertility problems and dealing with crop disease issues. Further, Extension in Beaufort County produced brochures in Spanish that were distributed to 500 Hispanic families, to help them to be prepared for future natural disasters.

Measures of Progress With Statewide Totals:

Individuals, businesses and communities gaining knowledge of preparations and responsiveness strategies to disasters and emergencies

NUMBER GAINING KNOWLEDGE

Number: 1675 Non-Limited Resource

Number: 1541 Limited Resource

Impact Indicators:

Individuals, businesses and communities establishing disaster plans

NUMBER PLANS ESTABLISHED

Number: 3 Non-Limited Resource

Number: 1000 Limited Resource

Producers, businesses and communities implementing disaster prevention or preparedness practices

NUMBER IMPLEMENTING

Number: 244 Non-Limited Resource

Number: 31 Limited Resource

Producers and businesses implementing biosecurity strategies

NUMBER IMPLEMENTING

Animal system biosecurity strategies

Number: 31 Non-Limited Resource

Number: 6 Limited Resource

Volunteers Involved and Value:

297 volunteers contributed 164 hours at a value of \$2,819 and reached 186 clients.

Success Stories:

Johnston

Johnston County ranked second in the state in the number of highway crashes involving farm equipment. This information came from the UNC Highway Safety Research Center who conducted a study from 1995 through 1999 of farm-related highway crashes in North Carolina. The Johnston County Center of Cooperative Extension in cooperation with six other county centers, the Tobacco Trust Fund Commission and the North Carolina Highway Patrol sponsored events which highlighted road safety and education on ways to increase visibility for farm equipment. Over 153 Johnston County farmers and farm workers participated in these educational meetings. As a result of attending the meetings, participants showed a 76% increase in knowledge of highway safety. In addition, 122 safety equipment kits were distributed to county farmers with a value of \$30,080. Three months after the meeting 44 participants believed they had avoided a crash as a result of attending the training.

Pasquotank

The regional beekeepers meet monthly in our office to discuss production, marketing, and providing pollination services. IN 2004, members of the Beekeepers of Albemarle (BOA) responded to emergency calls placed into the county cooperative extension center, collecting swarming bee colonies in the spring without any tragic incidents due to contact between citizens and honeybees.

Beaufort

Due to the frequency and severity of recent Hurricanes and the increasing Hispanic population in Beaufort County, Cooperative Extension partnered with the Beaufort County Management Department to provide educational information on disaster preparedness for Hispanic audiences. Eight Cooperative Extension brochures in Spanish were reproduced by a grant obtained by Emergency management and were distributed to 500 Hispanic families, thus giving them important information to help them be prepared for future disasters.

Lenoir

All over the country, animals are often forgotten about when it comes to responding to emergencies and natural disasters. The Lenoir County Animal Response Team is led by an Extension Agent to develop safe methods of handling animals during these situations. Three new volunteers were trained to open and operate a co-located animal shelter. Over 60% of the Lenoir County citizens have pets that they can now safely bring with them to the shelter during an emergency. This saves responders from the familiar task of convincing animals and their owners to leave their homes to escape rising floodwaters and pounding winds.

Buncombe

In the aftermath of Hurricanes Francis and Ivan, county residents were desperately searching for information on dealing with losses from these storms. The NC Cooperative Extension-Buncombe County Center teamed with FEMA and State Emergency Management persons to provide needed information to county residents affected by flood waters created by the hurricanes. Extension personnel utilized the Disaster Response and Recovery information and helped staff the Disaster Recovery Center immediately following the hurricanes. On-going educational programs are addressing stream restoration issues, reclamation of flooded fields, correcting soil fertility problems and dealing with crop disease issues. Residents have expressed appreciation for these efforts.

Graham

Graham County Cooperative Extension created a newsletter on disaster preparedness in the event of a terrorist attack. The newsletter provided basic information about keeping safe in the event of a biological, chemical, nuclear, or explosive attack. The feedback from clients was very positive. As a result, several clients reported that they would be compiling disaster preparedness kits for their home and automobile.

Impact Bullets:

- 275 agricultural producers, businesses and communities implementing disaster prevention or preparedness practices
- 3,216 individuals, businesses and communities gained knowledge of preparations and responsiveness strategies to disasters and emergencies.

Report prepared by NCEE Program Personnel

F - STRENGTHENING AND SUSTAINING FAMILIES

OBJECTIVE F-1 – Accomplishment Report

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:

Poor food selection and eating habits and lack of physical activity are contributing factors to diet related disease, overweight and obesity and poor physical condition. Programming focused on reducing the risk of diet-related morbidity and mortality from heart disease, cancer, stroke, and diabetes. Other significant diet-related concerns addressed were overweight and obesity, osteoporosis, food insecurity, and food borne illness. Consumers often are confused about how to make proper dietary choices. Additionally consumer research shows that many consumers do not know proper safe handling practices or they simply do not apply them. Thus, consumer education focused on the basic principles of good nutrition and safe food handling.

Programs are delivered to the general youth and adult populations and to specific audiences such as food service workers, childcare providers, high school youth, limited resource children and adults, diabetics, the elderly and persons with diet-related chronic diseases. Dietary Guidelines for Americans and The Food Guide Pyramid were used to help individuals evaluate their diets and lifestyles. Enhancing food security is a focus of the Expanded Food and Nutrition Program, Partners in Wellness (food stamp funded) and Out for Lunch (food stamp funded). Other programs address health related risk factors such as Give Your Heart a Healthy Beat (cardiovascular disease risk reduction), Black Churches United for Better Health (cancer risk reduction), Dining with Diabetes (diabetes risk reduction), Moving Toward a Healthier You (weight management), Women Living Healthy—Women Living Well, SyberShop, Color Me Healthy and Workable Wellness. Multiple delivery strategies are used: series of hands-on classes, distance education, compute-assisted learning, demonstrations, and one-on-one interactions. State specialists and Family and Consumer Science County Agents collaborated with other agencies to address the food and nutrition education needs of North Carolinians. Eighty-nine (89) of the 101 county units chose Building Healthy Families as a clientele need. New teaching and educational materials were available for programming such as a website of food and nutrition questions and answers for agent and consumer use (under FAQ at www.foodsafety.gov), computer assisted learning for making smart food choices (SyberShop and Women Living Healthy, Women Living Well), and power point presentations (Give Your Heart a Healthy Beat).

Measures of Progress With Statewide Totals:

Over 3,800 childcare providers received training in Color Me Healthy, a food and physical activity program for preschoolers. These providers were responsible for almost 50,000 preschoolers. This program is now in use in over 30 other states. This program and other food and nutrition programs provided continuing education certification hours for 7364 non-limited resource and 12,214 limited-resource childcare providers. A specialist was a member of the state-level task force and writing team to developed Recommended Standards for All Foods Available in School. Over 9,000 limited resource preschoolers participated in the Read Me a Story food and nutrition education program with ten new story books added this year.

Give Your Heart a Healthy Beat! was revised and power point presentations were added to this cardiovascular risk reduction program. Several programs specifically targeted Food Stamp Program participants. The Out for Lunch food stamp clientele program reached 4382 adults with it intensive and hands-on 16 hours of workshops. Partners in Wellness, for risk reduction of older adults was delivered to 2,315 limited-resource adults at 81 congregate nutrition sites in 43 counties. Four of the 14 available modules were delivered in 2004: Variety Matters, It Could be

Salt's Fault, Where's the Fat, and Liquids for Living. Other focused on Heart Disease, Diabetes and Osteoporosis.

Impact Indicators:

A sample of 4382 adults completed the post evaluation conducted for the Out for Lunch program. The test assessed 11 behaviors. Ninety percent (90%) or more adopted the following behaviors: used practices to budget food resources and food stamps to last all month, used store promotions for best buys, used unit pricing comparison skills, limited purchases in convenience/high-cost food stores, washed hands more often during food preparation, thawed food under refrigeration, washed fruits and vegetables for eating raw, washed and sanitized food preparation surfaces and utensils throughout food preparation time, and learned to make meals from foods they had on hand as opposed to resorting to fast foods or additional shopping. Eighty-nine percent (89%) indicated they planned meals before shopping. 741 volunteers contributed 6325 hours of service.

In 2005, over 4,800 children who were exposed to the Smart Kids curriculum increased their knowledge about safe food handling. Eighty-eight percent (88%) indicated they would adopt at least one safe food handling practice.

Of the participants in the Give Your Heart a Healthy Beat! Program, 753 changed at least one habit to decrease fat intake, 442 increased fruit and vegetable intake, 492 decreased their elevated blood pressure by at least 10 points, and 431 decreased weight.

Volunteers Involved and Value:

2702 volunteers contributed 34,160 hours making at least 19,233 client contacts. At \$17.19 per hour this represents a dollar value of \$587,210.

Success Stories:

Randolph County Cooperative Extension provided a 13-week lunch and learn program, Give Your Heart a Healthy Beat!, aimed at lowering cholesterol. Ten of twelve participants completed at least ten sessions. Final evaluations indicated that 85% of those completing the sessions almost always limited foods high in fat and sodium and 95% almost always read nutrition labels and looked for ways to reduce fat in recipes. Weight loss was reported by six individuals; four participants collectively reduced total cholesterol by 80 points and two were placed on medications when it was determined that diet and exercise were not enough.

Moving Toward a Healthier You, Extension's weight management program, impacts more than just weight reduction. Participants report: "I have enjoyed the classes. They gave me the tools for setting realistic goals and a schedule for making small lifestyle changes for a more healthy life. I lost 29 pounds and lowered my blood pressure by 12 points and cholesterol by 50." My first enlightenment from Moving Toward a Healthier You was that my portion sizes were about twice what they were supposed to be. My husband lost 27 pounds. I lost 16 and my cholesterol dropped 53 points." Another participant lost 32 pounds, improved her BMI from obese to overweight, and was able to stop taking blood pressure medication.

The delivery of SyberShop to the 8th grade Life Skills was very successful. The CD-ROM was a highly effective tool in motivating students to think about nutrient composition of foods they commonly eat and impacts these have on their health status. Because the CD was "cool", we had

many comments that the students were excited to go home to show it to other people. It was also an effective tool for increasing knowledge of physical activity options. Some student evaluation comments included "It's helpful and a creative way to present information;" "It gives me a chance to see what I eat and if it's healthy;" "I think it's cool and something lots of people should learn.

Impact Bullets:

- Ninety percent (90%) of a sample of 4382 adult participant in the Out for Lunch program reported making positive behavior changes for 24 of 25 food purchasing, budgeting, food safety behaviors.
- Eighty-eight percent (88%) of a sample of 4854 youth participating in Smart Kids, Fight BAC! Programs indicated they would adopt at least one safe food handling practice.
- Over sixty-two percent (62%) of the 19,578 hours of continuing education certification credits awarded to childcare providers after completing food and nutrition workshops conducted by Family and Consumer Science Extension Agents were received by limited resource participants.
- Over 9000 preschoolers were introduced to new foods; a variety of fruits, vegetables and dairy products; how food is grown and proper hand washing for food safety in Read Me a Story program where learning activities enhance the food and nutrition messages of 18 children's books with food themes.
- 753 participants of the Give Your Heart a Healthy Beat! Program changed at least one habit to decrease fat consumption, 442 increased fruit or vegetable consumption, 492 decreased their elevated blood pressure by at least 10 points and 431 decreased weight.
- 28% of those completing at least 3 out of 4 sessions of Dining with Diabetes decreased their elevated blood glucose level by at least 10 points.
- Over 3500 childcare providers have been trained to use the Color Me Healthy curriculum, and these providers serve over 50,000 4 and 5 year old children
- Over 2,000 women using the Women Living Healthy, Women Living Well interactive CD indicated that they positively changed one or more physical activity or eating patterns.

Person(s) Preparing Report:

Carolyn J. Lackey, PhD, RD, LDN, Food and Nutrition Specialist

OBJECTIVE F-2 – Accomplishment Report

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 68 county partners working on one or more components of the Building Strong Families objective during 2004. Educational efforts focused on parent education, limited resource families, childcare, 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 2004 are quite impressive. Of the over 5,000 persons attending parenting education programs, a cumulative average of 59% of participants adopted practices in effective parenting, and in motivating, guiding and nurturing children. Over 6,000 childcare 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 1,180 individuals adopted one or more specific strategies in managing personal or family stress, and 1,001 of these indicated an enhanced quality of life because of reduced stress levels. Another 1,564 learners reported adopting practices in strengthening family relationships.

Twelve counties implemented the *Parenting Matters* curriculum this year. By attending at least seven of the eight sessions, one hundred twenty-eight (128) court-mandated or referred parents were recognized as having completed the training. This program has provided an estimated \$13,062,912 in potential savings or costs avoided (256 children not placed in foster care @69.90 per day for an average of 730 days or two years).

Measures of Progress With Statewide Totals:

3,225 Non-Limited Resource and 1,519 Limited Resource participants attended educational programs focused on positive aging. 184 Non-Limited Resource and 267 Limited Resource participants attended programs on Language of Aging

Parent training and education programs:

NUMBER of parents attending -- 1,055 Non-Limited Resource and 4,209 Limited Resource

NUMBER of court-mandated or DSS-referred parents attending -- 46 Non-Limited Resource and 453 Limited Resource

NUMBER of children of parents reached -- 933 Non-Limited Resource and 5,007 Limited Resource

NUMBER of parents who adopted effective parenting practices -- 638 Non-Limited Resource and 2,551 Limited Resource

NUMBER of parents adopting practices in motivating and guiding children -- 681 Non-Limited Resource and 2,480 Limited Resource

NUMBER of parents adopting practices in nurturing children -- 697 Non-Limited Resource and 2,240 Limited Resource

NUMBER of court-mandated or DSS-referred parents adopting practices in nurturing children -- 42 Non-Limited Resource and 408 Limited Resource

Impact Indicators:

NUMBER of individuals adopting 1 or more specific practices in managing personal and family stress -- 570 Non-Limited Resource and 610 Limited Resource

NUMBER of individuals reporting an increased quality of life as the result of practicing one or more of these specific principles of stress management -- 466 Non-Limited Resource and 535 Limited Resource

NUMBER of people reporting more positive attitude toward aging -- 1,509 Non-Limited Resource and 967 Limited Resource

NUMBER of people who took action to prevent or delay problems associated with aging -- 645 Non-Limited Resource and 571 Limited Resource

NUMBER of people reporting a change in their use of negative language about aging -- 217 Non-Limited Resource and 217 Limited Resource

NUMBER of parents reporting increased time with their children -- 628 Non-Limited Resource and 1,870 Limited Resource

NUMBER of parents reporting increased time parents involved in child's education or community functions -- 561 Non-Limited Resource and 1,172 Limited Resource

NUMBER of fathers (specifically aimed at fatherhood issues) reporting increased time with their children -- 62 Non-Limited Resource and 120 Limited Resource

NUMBER of fathers (specifically aimed at fatherhood issues) reporting increased time involved in child's education or community functions -- 26 Non-Limited Resource and 93 Limited Resource

NUMBER of limited resource parents improving interactions with their children -- 356 Non-Limited Resource and 1,657 Limited Resource

NUMBER of court-mandated or DSS-referred parents improving interactions with their children -- 24 Non-Limited Resource and 248 Limited Resource

Volunteers Involved and Value:

1,016 volunteers donated 6,140 hours assisting in program implementation @\$17.19/hour = \$105,546.

Success Stories:

Ramsburg D., & Montanelli D., in CHILD CARE QUALITY AND CHILDREN'S document that children in high quality preschool programs are more likely to complete high school, own their own homes, obtain paid work to contribute to the tax base, less likely to be arrested and are twice as committed to their marriages. Based on their research: for every \$1.00 spent on providing high quality child care, communities save \$7.00 over the long-term because of reduced school dropout rates, less provision of welfare benefits, and fewer arrests for criminal activity or juvenile delinquency. Through collaboration efforts of Wilson County Extension, Childcare Council and CCR&R, 169 child care workers have participated in 20 hours of training reaching 1,653 children. Calculated as 1,653 children x \$7.00 saved results in a direct savings of \$11,571.00 - \$712.50 program cost results in a total savings of \$10,858.50 for Wilson County. In 2003 there were 29 Daycare Centers in Wilson County with a 4/5 Star Rating vs. in 2001 there were 13 Daycare Centers with a 4/5 star rating.

The *Parenting Matters* curriculum was used with a group of 15 working fathers who were all court mandated to participate. The parent educator reported that the design of the class materials contributed to the success of this unique all male group. Many of the barriers to active participation were removed. The experiential learning activities provided opportunities for active involvement by participants, which resulted in many "light bulb moments." Eleven (11) of the 15 fathers participated in at least 7 of the 8 sessions. Twelve (12) of the fathers reported that they increased their understanding of child development. Nine (9) fathers reported using appropriate

discipline techniques, while 10 fathers indicated that they improved their parent-child interactions. A change in attitude by participants was reported by most of the referring agencies. The participants expressed an understanding of the importance of nurturing and reported that they gained better communication skills. (Columbus County)

Avery County had no Parenting Classes for Court Referred parents. This prevented Social Services from mandating the classes. Extension set up a Parenting class. Upon completion one parent reported to her caseworker that she had greatly reduced her yelling. Another family shared that the skill of 'encouraging' had reduce their child's negative acting out. Two of the families were allowed to maintain custody of their children; preventing the County from having to take custody. Saving the county the expense of placing 6 children into foster care. The classes allowed the other 3 families to move closer to regaining custody of their children.

Childcare providers in centers and homes in North Carolina are required to earn non-credit clock hours (CHC - continuing hours of credit) annually. Cooperative Extension, Randolph Community College, and Randolph County Partnership for Children partner to provide a wide selection of non-duplicated quality training opportunities. Each center is required to have at least two staff personnel trained in playground safety, a training only Cooperative Extension provides. Two trainings in "Sensible Safe Play" were offered, each four hours in length with a total of sixty-one participants. A playground audit was conducted and participants allowed to critique it based on information learned during the training. Providers identified hazards and solutions to correct them. Evaluations indicated that 90 percent learned new skills and information that could be applicable to their own work place. As a result, providers saved \$4,270 by attending this Cooperative Extension training.

Impact Bullets:

- 5,264 parents attended parenting education classes, including 4,209 limited-resource persons, and 499 court-mandated or DSS-referred parents. As a result of these classes, 3,189 reported adopting effective parenting practices, 3,161 adopting practices in motivating and guiding children, and 2,937 parents said they adopted practices in nurturing their children.
- 1,504 persons attended classes or workshops on stress management. 1,047 of these individuals reported an increase in knowledge and skills of stress management principles, while 980 said they adopted one or more specific practices in managing personal and family stress as a result of the classes. And 535 individuals reported an increased quality of life as the result of practicing one or more of these specific principles of stress management
- 2,013 participated in educational sessions on strengthening family relationships or family resiliency. 1,564 adopted practices in strengthening family relationships; and more specifically, 1,473 individuals reported setting aside specific times for family interaction, while 1,403 reported improved family relationships resulting from practicing principles learned.
- 614 individuals attended programs on family caregiving for older adults. 365 said they learned new strategies for self-care while caring for others, and 439 gained new strategies for communicating with health providers. 548 caregivers reported greater confidence as caregivers than before taking the class. 356 caregivers adopted self-care practices learned in classes, and 427 family caregivers adopted new practices for communicating with health care providers.
- 4,744 persons attended educational programs focused on positive aging. After attending the programs 2,476 reported a more positive attitude toward aging, 1,216 persons took action to

prevent or delay problems associated with aging, and 434 reported a change in their use of negative language about aging.

Person(s) Preparing Report:

Wayne Matthews, Tri-chair
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OBJECTIVE F-3 – Accomplishment Report

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

Program Description:

In 2004, many North Carolina families faced economic hardships as they struggled to maintain financial stability during job layoffs and plant closings. 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. 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 51 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.

Measures of Progress With Statewide Totals:

- NUMBER increasing knowledge and skills in goal setting, budgeting, and record keeping (basic money management): 3523 Non-Limited Resource and 4105 Limited Resource
- NUMBER of money management plans developed: 179 Non-Limited Resource and 2480 Limited Resource
- NUMBER developing and implementing savings plan:
94 Non-Limited Resource and 851-Limited Resource
- NUMBER increasing awareness and knowledge about best management practices related to residential energy management: 1342 Non-Limited Resource and 171- Limited Resource
- NUMBER avoiding costs through routine maintenance and repair:
528 Non-Limited Resource and 430-Limited Resource

Impacts Indicators:

- NUMBER of reporting ongoing use of budgeting, record keeping (basic money management skills): 569 Non-Limited Resource and 1413 Limited Resource
- NUMBER reducing debt: 144 Non-Limited Resource and 650 Limited Resource
- Estimate reported of debt reduced: \$421 Non-Limited Resource and \$102135 Limited Resource
- Estimated saved: \$918 Non-Limited Resource and \$223859 Limited Resource
- Families developed personal saving plans resulting in saving \$22,385
- Non-limited estimated costs avoided through home maintenance and care \$168,484 and
- Limited resource estimated costs avoided through home maintenance and care practices \$12,413
- NUMBER of people who report developing an estate plan or executing estate planning documents: 244 Non-Limited Resource and 60 Limited Resource

Volunteers Involved and Value:

458 contributed 3163 Hours, made 2809 teaching contacts. Total volunteer value was \$54,371.

Success Stories:

Finally Homeownership! After four (4) years of saving homeownership becomes a reality for a single mother in Sampson County. Slow steps were taken to prepare for a financially secure homeownership process. "We started with evaluating the use of income, goal setting and looked at how credit was being used. Then, we moved to developing a budget and established a record keeping system." After what seemed like an eternity the dream of a home became a reality. A final step of success for this single parent was establishing an emergency fund of 5 months take home pay. (Sampson County)

Only thirteen percent of teenagers have ever made a written plan for their money. Given the tremendous spending power available to them, it is important that today's teens learn, as early as possible, sound fiscal habits. Cooperative Extension in Stanly County worked with Stanly County's Work Prep group using the High School Financial Planning Program to teach basic money management. In May and June, a series of ten classes were offered to 38 teens that

taught: the time value of money; the importance of saving money; how to protect their assets; how to establish and prioritize financial goals; the cost of using credit; and how to develop a budget. At the conclusion of the series, all 38 participants had written smart goals and 26 of them had started using a spending plan.

Many families struggle with managing financial debt. Durham Extension helps citizens develop plans and strategies for decreasing debt, and maintaining better debt control through financial education classes/workshops offered routinely to families. A valuable tool Family and Consumer Science educators use is the computer program, Power Pay, which processes individual family financial information, and displays options for paying accrued debt. This helpful and educational program improves the quality of households seeking to acquire greater cash flow. Even though this program is confidential, one citizen reported that Power Pay analysis showed him how to save \$250.00 in interest payments, while adding \$2400.00 to his cash flow through shortening the original payment schedules by six months. He also stated that the knowledge he gained helped him to see how he could manage his resources himself, without having to pay for the services of a credit counselor who would have charged him another \$150.00.

Young adults (38) in the Leland community in Brunswick County saw the need to develop and enhance their skills in money management, budgeting food dollars, managing debt, and goal setting. Participants using the financial management skills learned how to establish a list of things to bring organization to the household. These adults developed written budgets to keep a handle on all disposable income. A survey of the group revealed participants have started budgeting, shopping wisely and preparing nutritious meals. Strategies established by the group included: stop eating lots of fast foods, shop only when necessary and take lunch instead of buying.

Most homeowners lack knowledge to complete their own basic home repairs. Resulting in repairs often left undone until they have escalated in both size and cost. Buncombe County Extension provides a five session basic home maintenance course to educate homeowners in the various areas of home repair. Six months after attending one of the Basic Home Maintenance courses participants are sent an evaluation to determine if the course was helpful. Returned evaluations show estimated savings between \$50 to \$1000 in repair costs since taking the course because of completing their own repairs. Sixty-Seven individuals have attended one of the three courses offered in 2004. If taking the average saved of \$500, it would be a savings for the 67 participants of \$33,500. This is for the first six month period, while as time and abilities increase the projected savings to the homeowner would rise.

Impact Bullets:

- 958 program participants reported \$180,890 estimated costs avoided through routine home maintenance and care
- 1648 program participants reported \$86,179 costs avoided through appropriate selection and care of consumer goods
- 1982 reported ongoing use of budgeting, record keeping (basic money management skills)
- 794 program participants reported reducing debts of \$102,556
- \$224,777 was reported saved by consumers as a result of debt reduction.

Person(s) Preparing Report:

Dr. Celvia Stovall, Dr. Claudette Smith, Dr. Sarah Kirby, Ms. Anna Peele

OBJECTIVE F-4 - Accomplishment Report

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:

Developing Leadership and Community Capacity captures and guides NCCE's efforts to recruit, mobilize, train and assist citizen in making positive impacts in their communities. Areas of impact are: Recruitment and training of Volunteers; Community Capacity Building; Policy Development and Community Assessment. Research indicates that all Community and Leadership building falls into one of these four areas with Cooperative Extension providing leadership and opportunities in each.

Communities are stronger when citizens are involved and informed and when there are community groups that are working to address real problems and issues. Cooperative Extension provided training and leadership for citizen volunteers to develop essential skills and knowledge. This includes 2356 volunteers gaining knowledge of diversity and multiculturalism; a key need in communities as the diversity of the state increases. Additionally, Extension programs lead 2007 citizens to gain knowledge of how policy and procedure decisions are made and how to participate in political processes. NC Extension and Community Association groups support 393 communities and the families who live in them.

Public discussion and deliberation contribute to positive citizen involvement and more grassroots support for community change. NC Cooperative Extension led 21 public discussions and 265 citizens reported increased knowledge of working with stakeholders. Additionally, 354 citizens reported increased knowledge in Group Facilitation and 56 in conflict management. Over 460 citizens were involved in new community leadership roles.

Measures of Progress With Statewide Totals:

Volunteers successfully recruited and trained - 3,600

Volunteers (citizens) reporting knowledge gained in policy and procedure and decision-making - 2,981

Number of volunteers seeking trainings or knowledge in diversity/multiculturalism - 2356

Citizens working together to form new community groups - 473

Number of volunteers participating in organization policy development process - 2272

Number of persons reached through ECA programming - 32,666

Impact Indicators:

NUMBER of participants reporting or demonstrating increased knowledge and skill in the policy development process - 447

Number of Coalitions that achieved established goals - 62

Communities with organized Extension and Community Association groups - 393

2824 program participants provided input at public meetings or hearings

Volunteers Involved and Value:

6,588 volunteers contributed 212,516 hours, with a value of \$3,653,150, and made 38,608 client contacts.

Success Stories:

Ashe

The American Cancer Society estimates that 4,120 new cases of colorectal cancer will be diagnosed this year in North Carolina and 15 percent of those people will die from this second leading cause of cancer related death. Previous studies have shown that men and women living in rural areas are less likely than those living in urban areas to undergo routine cancer screening, which reduces mortality from colorectal cancer. The Blue Ridge Cancer Coalition, a regional cancer control network of five counties' community based coalition developed and presented "Colorectal Cancer: Getting the Facts." Twenty-one volunteers gained knowledge about colorectal cancer and skills on presenting colorectal information to groups. Evaluations reflected that all participants planned to practice recommendations for early detection and planned to share knowledge gained with community groups.

Wilson

One of the Family Issues Project's for 2004 in Wilson County's ECA is to promote the Ident-A-Kid project. They met with the State Coordinator and the local Sheriff's Department for training about child abductions and prevention. Six of the ECA volunteers then attended four of the local kindergarten school's registration days and fingerprinted the registering children. They also gave parents instructions for keeping their children safe from possible kidnapers. They then went to a local daycare to fingerprint more children. They have fingerprinted a total of 130 children and met with their parent/parents about the importance of keeping identification information up-to-date and accurate. Each time they fingerprint children they are advertising Extension and ECA!

Tyrrell

With the initiation of the new Medicare Drug Discount Cards and the NC Senior Care Cards, seniors have had the opportunity to save financially in drug costs over 2 years, but have been very confused as to how to go about doing it. The Tyrrell Family and Consumer Sciences Agent, along with trained Senior Health Insurance Information Program volunteers have sought out appropriate teaching opportunities, such as through club presentations, news articles and personal visits. Because of these efforts, approximately 16 people have been worked with directly, and will save \$2,400 in drug costs through 2005, a total medical savings for Tyrrell citizens of \$36,000.

Montgomery

With limited opportunities for leadership development, Leadership Montgomery is the main organized leadership training opportunity for the citizens of Montgomery County. Cooperative Extension participates in this program as a member of the advisory committee in collaboration with the Chamber of Commerce, Montgomery Community College, County Government, and others. Extension also provides instruction for the opening workshop using the Myers Briggs Personality Indicator. This workshop is also offered to other groups interested in increasing the communication skills within their groups by increasing self knowledge and knowledge of others. In 2004, 98 adults and 31 youth increased their knowledge and skills in six different workshops that included the local Community College Board, local businesses, and the Youth and Adult

Leadership Montgomery classes. Following these classes, many of the participants become more involved in their communities in various capacities, including holding office.

Randolph

A declining economy has greatly impacted the affordability of housing in Randolph County, especially for limited resource families. Extension and Community Association members collaborated with the local Habitat for Humanity to plan, organize, and implement the project, "Soup's on for Habitat" to raise money for the purchase of needed building supplies. More than fifty ECA volunteers contributed over 500 hours of service valued at (\$15/hour) \$7,500 and successfully raised \$6,000. This brings Randolph County ECA's total financial contributions from this project over three years to \$16,000.

Impact Bullets:

- Pasquotank County ECA members have contributed over 7,400 volunteer to community projects with a value of \$127,206.
- Carteret County ECA distributed over 1000 Vials for Life, which contains critical medical information to Emergency Management, which increases medical care and efficiency.
- Volunteers in Harnett County have raised over \$7,000 to support the local Teens as Parents Program, which is a secondary pregnancy prevention program.
- Davidson County ECA has donated over \$2,500 in materials including the following; school supplies, baby items to "Newborns in Need", and yarn for incarcerated women's projects.
- Wake County ECA provided out-of-school educational activity for over 1200 WCPSS students valued at \$4,800.
- Wake County ECA provided cultural diversity activity for over 7000 citizens.

Report prepared by Robin Roper and other NCCE Program Personnel

OBJECTIVE F-5 – Accomplishment Report

OBJECTIVE F-5: 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 can play a critical role in the health of individuals because they knowingly or unknowingly are exposed to chemical, biological, and physical hazards that can harm them. The exposure to hazards can be further increased due to the occurrence of natural and man-made disasters. Extension professionals at both the state and local levels develop and/or deliver educational interventions that address four key areas that promote safe and health environments – environmental health, disaster preparation and response, safe and accessible housing, and food safety in foodservice.

Environmental Health

North Carolina Cooperative Extension (NCCE) specialists and field faculty work diligently to promote and expand the Children's Environmental Health Initiative by targeting audiences across North Carolina. Extension programs specifically focus on the prevention or abatement of seven environmental health issues -- asthma, mercury, mold/moisture, outdoor air, pesticides,

and secondhand smoke. The incidence of these health issues can be effectively reduced through appropriate educational interventions that promote behavior change.

Safe and Accessible Housing

The majority of older adults age in place. Older adults may face age-related changes that affect their mobility, reach, strength, stamina, vision, hearing, sense of smell, tactile, and thermal touch. These changes can affect their ability to care for themselves independent of help. The ability to function independently is an important determinant in an individual's ability to remain at home. Extension home modification programs help to identify those areas in the home that are unsafe and hazardous. These programs identify home modifications that can compensate for those physical changes that occur as a part of the aging process. In addition, these programs provide practical solutions for the older person so that accidents and injuries can be avoided.

Disaster Preparation and Response

North Carolina is one of four states most susceptible to natural disasters. In 2004, North Carolina felt the effects of a combined total of six hurricanes/tropical storms. The western part of the state was particularly hard hit. In addition, North Carolina experienced several major winter storms. While the knowledge level of citizens is increasing, many citizens do not prepare for a disaster until it is too late; then they suddenly realize how unprepared they are for the enormous changes it makes in their lives. In many disasters, local services and officials become overwhelmed and it takes time for emergency response personnel to reach everyone who needs help. The purpose of NCCCE's Disaster Readiness, Response and Recovery Program is to help families prepare for and respond to natural and man-made disasters. Families that prepare for disasters ahead of time can reduce the fear, confusion, and loss that often come with disaster.

Food Safety in Retail Foodservice Establishment

The restaurant industry employs an estimated 11.6 million people making it the largest employer outside of government in the U.S. In North Carolina, there are nearly 27,000 foodservice establishments employing nearly a quarter million people. The challenges faced by this industry include high rates of turnover and language and literacy barriers. As a result many foodservice operators, do not have the resources to provide in-depth training in the area of food safety. Without proper training, foodservice workers could commit errors that could result in foodborne illness. The most recent summary of foodborne illnesses in the U.S. shows that nearly 50% of all reported illnesses are due to improper handling in the foodservice environment. Foodborne illness is nearly 100% preventable if the food handler knows and applies safe food handling practices. Education is a cost-effective option for prevention of foodborne illness. Many areas of the U.S. rely solely on a regulatory approach for the prevention of foodborne illness in the foodservice environment. As a result, foodborne illnesses might not be prevented from occurring. Educating workers is essential. Chain operations have the advantage of access to corporate staff that can provide training free-of-charge. Small independent restaurants and some institutional operations have fewer resources available to them for training. County Extension Centers have been meeting the needs of both small and large operations since 1996 by providing low cost, high quality training that is accessible and that can be tailored to meet their specific needs.

Measures of Progress With Statewide Totals:

Environmental Health Issues

10,462 (4,965 limited resource) increased their knowledge about asthma reduction and prevention methods

167 (233 limited resource) increased their knowledge about lead hazards, poisoning, and lead abatement
10,384 (4,068 limited resource) increased their knowledge about mold and moisture control strategies
1643 (112 limited resource) increased their knowledge about pesticide hazards, handling, and exposure
1616 (1,117 limited resource) increased their knowledge about the danger of and prevention of exposure to second-hand smoke

Safe and Accessible Housing

1,250 participants increased their knowledge about accessible housing
2,670 participants increased their knowledge about healthy home practices

Disaster Preparation and Response

2,824 participants in 16 counties increased their knowledge about disaster preparation.

Food Safety Training in Retail Food Establishments

1,535 foodservice managers representing 998 foodservice establishments attended food safety certification training.

919 foodservice workers attended food safety training

734 workers representing 215 congregate nutrition sites, which is nearly 2/3 of all congregate nutrition sites in North Carolina, attended food safety training.

Impact Indicators:

Environmental Health Issues

Number of schools and daycare centers participating in workshops and discussion groups on asthma: 51 centers with total of 637 limited resource participants.

Number of schools and day care centers participating in workshops and discussion groups about lead hazards, poisoning and lead abatement: 24 centers with total of 44 limited resource participants.

Number of schools and day care centers participating in workshops and discussion groups about preventing mercury poisoning: 13 centers with total of 13 limited resource participants.

Number of schools and day care centers participating in workshops and discussion groups about mold and moisture control strategies: 149 centers with total of 605 limited resource participants.

Number of schools and day care centers participating in workshops and discussion groups about pesticide hazards, handling and exposure: 15 centers with total of 71 limited resource participants.

Number of schools and day care centers participating in workshops and discussion groups about the danger of and prevention of exposure to second-hand smoke: 62 with a total of 331 limited resource participants.

Safe and Accessible Housing

188 participants have identified and corrected potential problems in their home prior to a disaster
494 participants have made modifications to their homes for safety and accessibility – including installing lighting, grab bars, ramps, accessible door, hardware or safe flooring; removing hazardous features; or making other modifications

Disaster Preparation and Response

891 participants identified a personal evacuation plan

963 participants assembled a personal and/or family disaster kit

Food Safety Training in Retail Food Establishments

1,535 foodservice managers representing 998 foodservice establishments attended food safety certification training. Eighty-nine percent (89%) passed the nationally recognized certification examination.

919 foodservice workers attended food safety training and 78% scored 75% or higher on a knowledge test.

Volunteers Involved and Value:

Volunteers Involved:

Number: 614 Hours: 5255 Client contacts: 1338 Dollar Value @ \$17.19/ hour: \$90,333

Program Cost/Benefit Analysis:

\$ Value to Target Audience: \$105,836,477

\$ Value to Society: \$126,596,248

\$ Estimated Program Cost: \$238,638

Success Stories:

Environmental Health

FCS agent continued housekeeping/asthma classes for Housing Authority residents July-Nov reaching 148 limited resource consumers. Of these, 74 increased knowledge and 25 used information in their homes to reduce asthma triggers. A home safety session was presented to 10 consumers at 1 local church with 6 participants increasing knowledge. Thirty-nine (39) childcare facilities were trained in techniques for teaching fire safety to preschoolers. Agent developed and EFNEP Program Assistant delivered program on dangers of smoking to 193 EFNEP participants. 42 of these requested information on quitting smoking. Follow up survey with these indicated 13 tried but did not succeed; 12 reduced the frequency that they smoked; and 17 quit smoking.

Programming in this area includes housecleaning/asthma prevention class for residents of low income housing complex; participating in pesticide re-certification classes to present info on laundering pesticide soiled clothing; and staff Progressive Farmer Safety Day. As a result, 108 residents have received information to improve/protect their personal safety. With housekeeping/asthma class, of 49 residents receiving info, 25 (51percent) indicated they would use 1 or more asthma prevention methods in their apartments.

Safe and Accessible Housing

Betty asked the Family & Consumer Sciences Extension Agent for information to adapt her under-construction condo for Alzheimer's disease. Her husband had been diagnosed. She wanted to make the condo user friendly since she planned to keep Frank at home. The agent provided Betty with three publications on Universal Design principles. Using information in the publications, Betty adapted the condo with a shower almost level with the bathroom floor so a wheel chair can be rolled in. The entire home is wheel chair accessible. Levers are used in place of doorknobs. The senior community is gated. On a recent visit by the Extension Agent, it appeared every possible modification had been made during construction so Frank can live in the condo as long as possible. Betty states, "I'll enjoy the features in the condo as I age in place", after Frank moves to a care facility.

Disaster Preparation and Response

After the severe rain and flooding that occurred in Buncombe County, many homes were inundated with mold issues. An example is of a home where a tree fell on the roof leaving the dining room exposed to the elements. The homeowner was out of town for ten days resulting in the carpet remaining wet and mold permitted to grow. Since the homeowner suffers from respiratory problems this was an acute situation. She was told by the insurance adjuster to do what was necessary to make the house livable since it would be a minimum of three weeks before he could inspect the damage. The Buncombe County Extension guided her through the proper disaster recovery process to prevent additional damage, remove the flooded carpet, clean and disinfect the sub floor all while safely reducing or preventing her exposure to the mold that was present.

Food Safety in Foodservice

Americans have a 1 in 4 chance of contracting a foodborne illness this year. Considering Pitt Co. has grown 20% over the past 10 years; numerous food service operations have opened. Americans spend half of their food dollars eating out. Because nearly 50% of all reported illnesses are due to improper handling in the foodservice environment, education concerning food safety practices helps environmental health ensure public safety of food. CES teamed with environmental health to offer 2 ServSafe classes to 49 restaurant managers. These classes administered 3 Hispanic exams, 3 Chinese exams and 43 English exams. Forty-five participants became ServSafe certified and a 22% and a 30% increase in knowledge was attained.

Impact Bullets:

Environmental Health Issues

- 12 participants reduced the frequency of their smoking and 17 participants quit smoking.
- 70 participants increased knowledge and developed skills in maintaining a healthy living environment inside and outside.
- Following housekeeping/asthma classes for Housing Authority residents, 74 increased knowledge and 25 used information in their homes to reduce asthma triggers.
- 372 limited resource individuals improved their home management skills in order to reduce risks to children's health.
- 17 childcare providers increased knowledge and received credit hours on asthma information for children in child care situations.
- 28 providers of childcare increased their awareness of harmful chemicals, pesticides, lead, gases, and other hazards potentially in their environment.
- 51 percent of program participants indicated they would use one or more asthma prevention methods in their homes.

- 42 EFNEP participants requested information on quitting smoking in order to promote a healthier home for their families.

Disaster Preparation and Response

- 891 participants identified a personal evacuation plan
- 963 participants assembled a personal and/or family disaster kit
- 494 participants have made modifications to their homes for safety and accessibility

Food Safety in Retail Foodservice Establishments

- 1,535 foodservice managers representing 998 foodservice establishments attended food safety certification training. Eighty-nine percent (89%) passed the certification examination.
- 919 foodservice workers attended food safety training and 78% scored 75% or higher on a knowledge test.

Person(s) Preparing Report:

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Y - DEVELOPING RESPONSIBLE YOUTH

OBJECTIVE Y-1 - Accomplishment Report

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

Program Description:

Youth of this country have more opportunities for educational experiences in their daily lives 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 modes of learning. 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 2004, 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 2004, a total of 35,452 young people between the ages of 5 to 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: 33,126 youth have increased their decision making skills; 28,175 increased their communication and interpersonal skills; 19,471 increased their

knowledge of community service opportunities; 32,970 increased self-confidence; and 17,717 increased their competency in managing relationships.

Measures of Progress With Statewide Totals:

Increased communication skills	21,391
Number of you competing in Public Speaking programs	2,264
Increased leadership skills	13,131
Increased awareness of community service	32,970
Increased decision making skills	33,126
Number of new families involved in club programs	2,646
Number of families sustaining active club programs	9,942

Agents also reported that over 12,588 families had been actively involved in 4-H club programs in 2004 and that 568 new 4-H clubs had been formed for youth ages 5 to 18.

Impact Indicators:

\$315,401 saved by communities from 4-H community service projects

\$172,723 scholarships received by 4-H'ers

\$579,155 earned as a result of their project work

\$381,668 saved by 4-H'ers as a result of their project work

Volunteers Involved and Value:

8,772 volunteers worked with young people in 4-H clubs during 2004. Their combined efforts total 87,001 hours for a value of \$1,495,547. On average, volunteers committed 10 hours to their local 4-H club program.

Success Stories:

Does 4-H make a difference? According to one Randolph family it does. Her children have been involved with 4-H for 14 years. Her three children have participated in dairy events, teen retreats, presentations, cooking contests, county, state and national events, camping programs, etc. Because of their 4-H involvement, her son received an all-expenses paid trip to 4-H camp, a dream he wouldn't have been able to fulfill otherwise! Also, the daughter attends college and receives two scholarships from 4-H. In the mother's words, "my kids have gained so much from their 4-H involvement! When the college bills started adding up, we didn't know what to do, but the 4-H scholarships offset the expenses. My daughter smiled and said 4-H comes through again!

4-H is the only youth development organization reaching out to at-risk youth in Bladen County. Out of the 5,800 total eligible youth in the county, 4-H reached 1,927 through various programming efforts in 2004. This represents 33% of the total population and is a 368% increase from the total number of youth reached in 2003. 4-H participants have gained valuable life skills, reduced court involvement, and learned to be a positive impact in our communities. Through new and continued efforts, Bladen County 4-H is striving "To Make the Best Better" by reaching more youth in 2005.

It is often hard for parents who have children with disabilities to find programs that can fit the needs of their child. Often when the programs are available many parents are scared to let their child try because they might fail or get frustrated setting them back emotionally. This summer an autistic child joined 4-H and worked on a rabbit project. His parents had all the usual fears but he not only raised the rabbit he completed a curriculum book and learned more about rabbits than anyone ever imagined. This month this young man, after encouragement from the 4-H staff, and his parents, submitted a project record book on his rabbit project. The book shows how much he has progressed from August to January in his communication skills, and thought processes. His parents are thrilled with his progress and say it is thanks to his involvement in 4-H.

Impact Bullets:

- Increased communication skills 21,391
- Increased leadership skills 13,131
- Increased awareness of community service 32,970
- Increased decision making skills 33,126
- Saved their communities \$315,401 through community service projects/volunteerism
- Earned \$579,155 as a result of their 4-H project work
- 8,772 volunteers worked with young people in 4-H clubs during 2004. Their combined efforts total 87,001 hours for a value of \$1,495,547. On average, volunteers committed 10 hours to their local 4-H club program.

Person(s) Preparing Report:

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OBJECTIVE Y-2 - Accomplishment Report

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.

Seventeen (17) counties reported 13,815 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, 1,168 youth participated in hands-on conflict resolution programs. Thirteen (13) 4-H clubs for youth ages 5-8 were organized to support life skill development in limited resource communities.

Measures of Progress With Statewide Totals:

- Thirteen (13) 4-H Clubs formed for youth ages 5-8
- 5,001 acquired decision making skills
- 1,349 increased skills in saying no to peer pressure
- 1,103 increased skills in defining aspirations
- 1,168 increased skills in conflict resolution
- 1,479 participated in community service projects
- 13,815 limited resources youth participated in 4-H programs in public housing and targeted limited recourse communities

Impact Indicators:

- \$45,400 was saved as a result of community service
- 1,662 youth demonstrated resistance to peer pressure
- 998 youth demonstrated defined aspirations
- 718 youth (5-8) participated in NCA&T State University curriculum based projects

Volunteers Involved and Value:

Nine hundred and twenty (920) volunteers donated 13,067 hours of time valued at \$ 224,621 for public housing and targeted limited resource communities.

Success Stories:

Geographic location and inadequate roads have severely limited the economic and industrial growth of the small rural county of Yancey, NC. Problems youth face there are poverty, substance abuse, illiteracy, child abuse and poor parenting skills. NC A&T University helped Yancey County 4-H sponsor their first 4-H Mini-Society Program. The twenty-seven participants age 8-12, fourteen leaders age 13-15, three 4-H Volunteers and four staff members reported in evaluations that the program was a big success. Youth gained skills to help them in the "Real World", by learning about government, ethics and economics. As the youth excitedly created businesses, wrote a newspaper and held civil servant jobs their "Land of Pride" became a reality. They even hired security guards to protect their newly developed monetary system. They learned about concepts such as scarcity and supply/demand. These Yancey County youth can't wait to participate in this uniquely beneficial entrepreneurial activity again.

Families who are in the process of acquiring their first home through Habitat for Humanity (HFH) must complete Sweat Equity. Cooperative Extensions' Family and Consumer Science, Agricultural, and 4-H Agents partnered with HFH to provided Sweat Equity hours through home buying, maintenance, and budgeting classes. Recognizing the children also have a need for life skills, the 4-H Habitat Club was formed. Targeted skills included planning and organizing, critical thinking, recognizing difference, personal safety, expressing feelings, and understanding self. Two volunteers lead meetings serving six youth. In addition, the youth prepared forty treat bags to be donated to the local nursing home. The hands on experience enabled them to realize that they are valuable members of their society and families. A post evaluation of the youth ranging from grades K-3 demonstrated the development of skills necessary to make informed decisions about life.

Impact Bullets:

- 13,815 limited resources youth participated in 4-H programs in public housing and targeted limited recourse communities
- 1,662 youth demonstrated resistance to peer pressure
- 718 youth (5-8) participated in NCA&T State University curriculum based projects

Person(s) Preparing Report:

Mitzi Stumpf-Downing

OBJECTIVE Y-3 – Accomplishment Report

OBJECTIVE Y-3: Youth involved in special interest educational programs will show increased life skill knowledge and subject matter skill

Program Description:

Special Interest involves out of school programming lasting at least 6 hours with youth who are taught by 4-H volunteers.

Measures of Progress With Statewide Totals:

58% of the 5,503 workshops were free to participants

All subject matter areas were covered

Citizenship – 729 workshops

Communication & Expressive Arts – 1,780 workshops

Consumerism – 2,097 workshops

Environment – 4,672 workshops

Healthy Lifestyles – 6,192 workshops

Personal Development & Leadership – 2,088 workshops

Plants & Animals – 4,176 workshops

Science & Technology – 2,713 workshops

Impact Indicators:

18,102 youth demonstrated a positive knowledge/attitude change as observed by parents or leaders

17,726 youth demonstrated a positive life skill change as observed by parents and leaders

3,119 adults used experiential learning techniques in their program delivery

Volunteers Involved and Value:

81 counties reported reaching 40,608 youth through 3,785 volunteers (value \$365,000) in 2004. The value of the programming to the targeted audience was about 2.4 million and value to society was rated at 1.8 million.

Success Stories:

The Hispanic population is rapidly increasing in Richmond County. With limited understanding of the English language and financial restraints, Hispanic children lack educational opportunities outside the classroom to learn life skills. NC Cooperative and 4-H partnered with Richmond County schools to offer 6 hours of educational information at the ESL Summer Enrichment Program. The program themes were Safety, Nutrition and Animals reaching 20 Hispanic youth. As a result of the 4-H learning experiences, 18 Hispanic youth learned to identify and select foods in the food guide pyramid for a balanced diet, 12 Hispanic youth learned their emergency contact addresses, 17 Hispanic youth learned first aid techniques, 19 Hispanic youth increased their knowledge in agriculture and 17 Hispanic youth learned what to do in case of a home fire. Keeping children engaged during out of school time is not only a challenge for parents but also a marketing opportunity. Burke County Cooperative Extension Service in cooperation with local sponsors and adult volunteers met this challenge with the 2004 Summer Fun Program. This year 260 youth participated in 26 separate learning activities with the help of 89 adult volunteers. Once Summer Fun ended, parents started coming forward to enroll these youth in 4-H resulting in the creation of 5 new 4-H clubs in Burke County. These accomplishments were completed without any financial support from our local government.

One of Wake Co. 4-H's newest initiatives is the SuperSeed Prevention Program. This initiative seeks to build resilience among youth, families and communities through substance abuse prevention and early intervention initiatives. SuperSeed had a wonderful first year with 12 programs at 9 different sites with a total of 104 youth completing. Evaluation results were positive in all areas, with increased skills and healthy attitudes reported. The largest gains were noted in refusal skills with a 34% increase that indicated they would definitely say no when friends ask them to do something negative. 33% of youth reported an increased commitment not to physically hurt someone, and 22% of youth indicated a stronger commitment not to drink alcohol. With this strong foundation established, SuperSeed currently has a waiting list to serve other school, faith and community sites.

Impact Bullets:

- 4,108 youth increased their decision-making skills
- 3,975 youth increased their problem solving skills
- 5,992 youth increased skills associated with making healthy lifestyle choices
- 2,488 youth increased their communication skills

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Deleon Wilks (Sampson)
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Melissa Staebner (Yadkin)
Mary Bowles (Richmond)
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OBJECTIVE Y-5 – Accomplishment Report

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 increasing pace of life, economic instability, and social isolation from family and friendship networks challenges North Carolina youth, families, and communities. Limited resources and risky behaviors increase challenges. Programs targeted to building assets and preventing risk behavior foster positive developmental outcomes for youth.

Communities across the state increasingly engage 4-H programs to help youth at risk to learn health and life skills, science and technology, entrepreneurship and career skills, and academic skills. Mentoring and community restitution programs connect youth to positive role models and relationships. 4-H county programs are innovators in involving youth with limited resources or behavior problems in positive, transformative programs.

Measures of Progress With Statewide Totals:

4-H programs effectively increase internal assets (stress management, problem-solving, character and communication skills) (2485 youth reporting) and external assets (caring adults, positive community norms) (3219 youth reporting), and positive alternatives to risk behavior (refusal skills, academic skills, extracurricular involvement) (3104 youth reporting) that provide a foundation for positive choices in teen years into adulthood.

Impact Indicators:

Youth involved in after school enrichment, mentoring, restitution, teen court, and camping programs consistently report increased life skills (2930 youth), academic performance (1982 youth) and reduced risk behavior (2078 youth) and judicial involvement (1900 youth). Community service (2018 youth) engages youth contributions and strengthens connections to positive role models, neighbors, and continued involvement in 4-H.

Volunteers Involved and Value:

Youth-at-risk programs involved 806 volunteers in 16,839 service hours, with 794 contacts. The dollar value of volunteer time (est. at \$ 17.19 per hour) is \$289,462.

Success Stories:

Sixty-four (64) middle school youth, identified as at-risk, met weekly for 12 2-hour After Hours workshops at local middle schools. Forty-one youth participated in 60 or more sessions. Youth learned the dangers of substance use while developing life skills shown to prevent substance use. Teen mentors and teachers provide homework assistance and positive role models. Standardized post evaluations a parent/teacher surveys showed that 62 of participants increased knowledge of the effects of substance use and 85 improved drug refusal skills. Ninety-two (92) showed increased assertiveness skills and 62 showed increased self-control. After-Hours is a collaborative program of Cooperative Extension and Catawba County Schools, funded by the Governor's Crime Commission.

Perquimans 4-H Friends of Youth, a Governor's One On One Program, matches youth with screened and trained adult volunteers. Youth enjoy weekly mentoring, 4-H camps, and other 4-H workshops and events. Youth are also encouraged through awards to graduates, alumni, and volunteers given at a banquet. One On One is designed to serve as a deterrent to Youth Development Academy (Training School), which costs \$29,200 (Perquimans Windfall Detention Center) to \$65,000 (state Youth Development Center) per youth per year. From 1994-2003, Perquimans Governor's One On One Volunteer Program has served 247 youth, with only one subsequent placement in a youth development facility. Of the 40 youth served in 2004, none were referred.

Impact Bullets:

- Teen Court and Restitution programs benefit youth and communities. During 2004, Juvenile Crime Prevention Council (JCPC) funded Sampson, Camden and Greene County's serve 104 delinquent youth and used 158 youth and adult volunteers. Over \$10,300 in restitution was paid to victims. More than 1,631 hours of community service and only one participant had a later citation.
- *Gates County LifeSmart*, serving 128 Sixth-to-Twelfth graders, increased employability skills, financial resource management, goal setting, teamwork, career management strategies and everyday life skills.
- After school Support Our Students (SOS) programs depend on 4-H. Alexander County 4-H trained SOS staff in Career Smarts, Mini Society, and other life skills, resulting in 56 youth increasing life skills, 87 youth increased academic performance, and 23 engaging in community service.
- Robeson County 4-H YO! (Youth Opportunity) targeted five economic development zones, starting five clubs offering diversity training, public speaking, presentations, and fashion revue and five teen parent clubs focus on self esteem, stress management, and decision making skills. Members improved grades, decision-making skills, and community service.
- Migrant Education helps Hispanic youth find a place in new communities. Ashe County 4-H sponsored 4-H AIM clubs that introduced 4-H projects and increased life skills to middle and high school students. The state Department of Public Instruction evaluator rated the program as "extraordinary," exceeding grant requirements.

- Ashe County 4-H Blue Ridge Conservation Corps (BRCC) provided workforce preparedness for high school youth at risk for school dropout or Juvenile Court involvement. Conservation and construction projects taught job skills, financial management, and work ethics and increased school grades.

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OBJECTIVE Y-6 – Accomplishment Report

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

Program Description:

The increasing pace of life, economic instability, and social isolation from family and friendship networks challenges North Carolina youth, families, and communities. Limited resources and risky behaviors increase challenges. Programs targeted to building family resiliency and preventing risk behavior foster positive developmental outcomes for youth. Although only a few counties engage in family resiliency work, such programs are critical. From a practical point-of-view, families spend more time and have more direct influence, even on teenagers, than any source except peers. Families provide an important buffer against stressors and monitor behavior standards and social support of young people. Many youth-at-risk programs require parent participation, recognizing that strengthening the child’s home base increases his or her chances for risk avoidance and asset building.

Measures of Progress With Statewide Totals:

Sixty-nine families participated in self-help programs statewide; with 37 increasing their practice of effective communication skills and 38 reported increased use of family coping and nurturing practices.

Impact Indicators:

Family resiliency programs reduced conflicts through improved communication skills for 36 families. Thirty-six families adopted more effective coping and nurturing practices and 64 sustained family involvement with youth.

Volunteers Involved and Value:

Thirty volunteers were involved in programs for families-at-risk, contributing 40 hours of effort, making contact with 10 families. Volunteer time valued at \$ 17.19 per hour was \$688. The estimated program cost for three programs reported was \$1,500, while the value to society was estimated at \$ 50,000.

Success Stories:

Robeson County 4-H through the YO! (Youth Opportunity) Program, has set up 5 teen parent clubs. The clubs are designed to give teen parents (both mothers and fathers) a safe place to go to discuss concerns and issues related to their unique situation and also give them a support system to help them discover why they made the decisions they made to get them to where they are and arm them with the tools to turn their lives around. Thanks to these teen parent clubs, many of these parents have been able to go back to school, break violent patterns in relationships, and even change their behavior patterns so they do not become pregnant again. Some of these parents are also becoming involved in 4-H learning the life skills they need as well as the programming that will be available for their children in the near future.

The Wake County Partnership for Educational Success (PES) is a partnership between the Wake County Public School System and Wake County Human Services that seeks to promote partnerships among families, systems, and communities. New and innovative approaches include family centered services for children (0-5) and for students in participating schools. Administrators from both systems work to identify and eliminate system barriers to family and community involvement needs. In FY03, there were 23 participating schools in the Southern Region and 2 schools in the East Wake Region. The Director of WC4-HYD serves as a Project Leader and Site Buddy. In addition, 4-H staffs are serving as Lead Facilitators, Task Force Committee members, and PES Training Team Members. During FY03, six staff served as family advocates on school-based teams. That number has risen to 11 staff serving in each of the middle schools and two high schools where PES is being implemented during FY04.

Impact Bullets:

- After school programs provide critical family support. Positive youth development activities in after school hours provide a safe, low-risk environment that can also provide support and educationally challenging activities. Thus programs cited under Resilient Youth, Families, and Communities, Objective 5, help lower stress for working parents and provide all families with learning resources.

- Migrant education programs engage family members as a critical component of supporting youth. Programs cited in Objective 5 serve youth directly and through strengthening families.
- Teen Court programs also require parent involvement as a way to increase support to and accountability of parents and strengthen parents' support and monitoring of youth behavior. Teen Court programs cited in Objective 5 can also be viewed as important family resiliency efforts, consistent with the 4-H philosophy of engaging families to support and share with youth members.

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OBJECTIVE Y-7 – Accomplishment Report

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 increasing pace of life, economic instability, and social isolation from family and friendship networks challenges North Carolina youth, families, and communities. Limited resources and risky behaviors increase challenges. Programs targeted to youth assets and family resiliency must be grounded on citizen commitment to building positive neighborhoods, schools, work and play spaces, social services as well as volunteer commitments. Thus building community awareness, partnerships, and cooperative solutions for youth and families is critical to positive youth development. Although only a few counties engage in community resiliency work, such efforts illustrate that there is more to youth programming than offering youth activities. From a practical point-of-view, the physical, moral, social, intellectual, and economic climates in which youth and families spend time powerfully influence their well-being and future prospects. Community

development requires tireless long-term efforts but provides the best foundation for sustained youth and family resiliency.

Measures of Progress With Statewide Totals:

The number of persons reporting or demonstrating increased knowledge in the policy development process statewide was 130. The number demonstrating increased knowledge of issues related to economically challenged youth was 112. Four key decision makers increased knowledge of issues pertaining to migrant or non-English speaking populations in targeted communities while 34 key decision makers increased knowledge of issues related to economically challenged youth. Two new collaborations were established and 12 collaborations maintained in communities at risk.

Impact Indicators:

Estimated dollars saved, contributed or invested by collaborating partners through collaborative and networking was \$15,000. The number of programs sustained for 6 months past funding was 1; for 2 years or more past funding was 1.

Volunteers Involved and Value:

Volunteer involvement in community at-risk programs was 100. Total volunteer hours contributed to communities at risk was 1000, with a dollar value at \$ 17.19 per hour of \$17,190.

Success Stories:

Wake County 4-H Project ASSIST (The Americans Stop Smoking Intervention Study) is a partnership between the Centers for Disease Control and Prevention, Wake County Human Services, Wake County NC Cooperative Extension/4-H Youth Development and members from 37 community and faith based organizations, such as the American Cancer Society, the American Heart Association, Department of Public Instruction, Healthy Mothers Healthy Babies Coalition, Building Together Ministries, and Wake Teen. Project ASSIST partners work together to develop and implement countywide strategies for preventing initiation and promoting quitting among youth and adults, eliminating exposure to environmental tobacco smoke, and eliminating disparities by improving the health related norms of populations more adversely affected by tobacco use.

Impact Bullets:

- Wake County 4-H Youth Development has collaborated with Wake Forest/Rolesville High School (1800 students enrolled) to provide the Athletes TRY program with funding from the Wake County ABC Board. Science based curricula and peer-teaching projects are used to help athletes develop life and healthy decision making skills.
- 4-H Youth Development is participating in a multidisciplinary team with members from Parks, Recreation and Open Space, General Services, the Wake County Soil & Water Conservation District, and North Carolina State University to design a Youth Conservation Corp (YCC). This group is uniquely designed to align, address, and achieve desired environmental and youth development outcomes through this highly integrated program.
- Juvenile Crime Prevention Councils, which fund many of the programs reported under Objective 5, are among the most important collaborative in each county. A majority of 4-H

county staff participates as members or chairs of these boards, providing a positive youth development focus to community risk prevention and asset building.

- Migrant Education programs, reported under Objective 5, emphasize engagement of new youth and families into the fabric of their communities. Community awareness, shared service and cultural activities, and volunteer activities all help to integrate migrant youth and families, strengthening resiliency at all levels.
- Mentoring programs such as Governor's One on One, reported under Objective 5, require extensive volunteer bases, thus involve ongoing public education, recruitment, and support by collaborating community organizations. Successful programs are often the product of years of coalition building, planning, and program refinement.

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Jazmin Dozier (Gates)
Myrna Duncan (Gates)
Linda Gore (Moore)
Louise Hinsley (Beaufort)
Julie Jones (Davidson)
Michael Kelleher (Ashe)

Peggy Kernodle (Durham)
Bridget Kirk (Duplin)
Walker Massey (Ashe)
Donna Mull (Catawba)
Edward Murphy (Gates)
Angela Reninger (Bladen)
Brian Riddick (Gates)
Shevon Riddick (Gates)
Suzanne Rinehart (Alexander)
Natalie Rountree (Hertford)
George Santucci (Ashe)
Jeanette Schuzler (Caldwell)
Fran Senters (Lincoln)
Crystal Smith (Franklin)
Deborah Smith (Ashe)
Joyce Watts (Yancey)
DeLeon Wilks (Sampson)
Katherine Williams (Wake)

OBJECTIVE Y-8 – Accomplishment Report

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:

Available and quality after school programs provide safe, supportive, and stimulating environments for youth and help working parents balance work and family. North Carolina 4-H continues to be a leader in after school training and programming at the community, state, and national level. NC 4-H staff served as leaders and facilitators in the first NC Center for After school Programs conference in Greensboro. NC 4-H was among the leading states in disseminating the 4-H After school Model and was selected as training leader for the Model to states in the Southern Region. Basic School-age Care, developed by 4-H to orient providers, continues to be the most widely utilized training in the state. 4-H curricula are among the most popular enrichment resources for after school sites.

Demand for after school training and program leadership continues to grow. Federal grants for 21st Century Community Learning Centers represent the largest and most rigorous funding source for after school, and several county 4-H programs are primary partners with local schools on proposals funded in 2004. The Department of 4-H Youth Development marked a decade of training and technical assistance to Support Our Students (SOS), the state's largest after school network, serving over 20,000 youth. 4-H-led SOS community programs continue to be among the leaders in quality environments and student academic and behavioral outcomes.

Measures of Progress With Statewide Totals:

County 4-H staff trained 1300 after school providers, assisting 381 sites with state licensure, starting 66 new 4-H clubs and sustained 91 existing clubs. Programs supported by Extension served 12,616 youth, and generated \$311,518 while sustaining \$27,805 in funding. After school programs involved 12,616 Youth and 1,075 Adults.

Impact Indicators:

4-H professionals increased involvement of parents (879), business leaders (159), and volunteers (226).

Over 500 providers trained by 4-H reported increased knowledge and skills in each of the six elements of after school quality: Administration (491), Human Relations (658), Indoor Environment (675), Outdoor Environment (668), Activities (688), and Health, Safety, Nutrition (621). In sites that were evaluated, over 5000 youth demonstrated greater self-confidence (5750), interpersonal skills (6250), community service (5293), homework completion (5111), and academic performance (3384).

Volunteers Involved and Value:

After school quality programs engaged 1114 volunteers who contributed 13,757 hours of service and had 1991 client contacts, with a dollar value of (at \$ 17.19 per hour) of \$243,667.

Success Stories:

21st Century Community Learning Center (21st CCLC) grants represent the "gold standard" for after school funding and evaluation. Local schools seek reliable, innovative, expert partners to craft competitive proposals and implement effective programs. In 2004, 4-H served as a primary partner in six funded proposals. Ashe County expanded its already extensive after school programming to students in grades K-12 through a 4-year, \$1.5M grant. Robeson County 4-H partnered with the school district to obtain a three-year \$1,000,000 grant for 3 after school programs serving limited resource youth and families. Teachers trained in 4-H curriculum and experiential learning began to see improvements in student grades, behavior, and social skills from the program's first week. Gaston County 4-H partnered with local schools offer 4-H enrichment projects to complement mathematics and reading enhancement to 50 students at Southwest and York Chester Middle schools. Wayne County is managing partner for a \$1.3 million 4 year project in which students at Dillard, Goldsboro, and Brogden Middle schools will gain mentoring, life skills, tutoring assistance, and share in Saturday Academy Summer Institute special interest programs. Wake County provided innovative leadership to a coalition of school, faith-based, and community groups that received a 21st Century grant. Greene County 4-H is a primary partner on a \$1.2 million 3-year extension of SOS programs at Snow Hill Primary, West

Greene Elementary, and Greene County Middle schools. Youth gain skills in nutrition, 4-H projects and presentations, and participate in mentoring, community service, and summer camps.

Iredell County Prime Time and the SHAKE program after school care sites, as well as private after school care sites have increased knowledge and skills through 4-H programs in such areas as nutrition, food safety, science, citizenship, and conflict resolution. As a result of these programs, 941 youth have received increased quality in their after school care experience. Site directors include 4-H programming to achieve and increase their star ratings for licensure, thus helping to provide safe, nurturing, and appropriate environments for their children.

Impact Bullets:

- Basic School Age Care, developed by NC 4-H to introduce after school providers to quality standards for administration, human relations, indoor and outdoor environments, activities, and safety/health/nutrition. Mecklenburg County reached 60 providers, Montgomery and Stanly counties reached 31 providers, Wayne County served 42 providers, Alexander County reached 26 after school staff, Davidson County trained 15, and Graham County helped 6 and Transylvania County trained 16 Summer program staff.
- The 4-H After school Model, previewing 4-H curricula, child guidance, and ways to form 4-H clubs in after school settings was taught to 650 providers by county 4-H staff and to another 1,800 by state School-age Care program staff. Sixty-five new clubs were begun in after school settings. Over 90% of participants rated the training as good or excellent and identified increases in knowledge on quality programming
- Specialized 4-H project clubs are gaining popularity in after school settings. Ashe County youth requested and lead clubs for Cooking, Auto, Detectives and Investigators. Surry and Franklin counties sponsor forestry-related clubs, teaching everything from scientific observation to recognizing wood-based products. Catawba County features gardening and foods and nutrition clubs, and Rowan after school youth are building a nature trail. Engaging youth at their focus of interest heightens participation and leadership. Youth in specialized clubs consistently report increases in self-confidence and interpersonal skills.
- 4-H managed Support Our Students programs produce exemplary programming and performance evaluations for academic and life skills. Mitchell County's 3 sites involve 156 students in homework help as well as enrichment activities such as business management, Native American heritage, health and physical activity, and a musical drama presented at the annual 4-H Fashion and Talent Show. Wayne County 4-H SOS serves 167 middle school youth with life skills and academic assistance. Last year 39% of students increased math grades by half a grade or more and 26% increased English grades by half a grade or more over the previous year.
- Extension managed programs to help meet a year-round need by sponsoring centers for youth. Ashe County offers quality programming through SOS, Migrant Education, Blue Ridge Conservation Corps, and two school-based programs. Wilkes County consistently shows growth in academic and life skills in 8 programs it operates. Gates County operates three elementary school-based sites engaging 75 children in 4-H projects, health and nutrition, and academic support.
- Extension-supported providers manage programs but receive training and curriculum resources from 4-H. After school staff express strong demand for and demonstrate high satisfaction with 4-H training, especially with 4-H staff willingness to adapt topics to their needs. Not surprisingly, over 75% of participants increase knowledge during training. Counties practicing the support model include Catawba (75 providers), Randolph (63 providers), Franklin (35 providers), Northampton (18 providers) Hoke (5 providers). In

In addition, several counties also offer programs directly to youth, including nutrition, handling peer pressure, personal and leadership development (Duplin, 731 youth), character education (Northampton, 450 youth), embryology (Orange). Youth in these programs consistently report increased confidence, interpersonal skills, health and safety.

- Extension outreach to family childcare providers is especially critical in rural areas. Nash County assisted three homes to increase capacity by 8 children, then provided six staff with 30 hours of training on age-appropriate curriculum and teaching techniques.

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OBJECTIVE Y-9 – Accomplishment Report

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:

Available and quality after school programs provide safe, supportive, and stimulating environments for youth and help working parents balance work and family. North Carolina 4-H state and county staff provide leadership to state and national organizations promoting affordable, quality after school care. State and county 4-H programs contributed to a dramatic increase in after school capacity in the past decade. However, increasing demands by all families and declining subsidies for limited resource families mean that quality after school care is unavailable to many North Carolina youth. This fact was dramatically illustrated when the state Division of Child Development identified unmet needs for summer care for some 75,000 youth. Through a grant from the Division, NC 4-H School-age Care program staff at NCSU funded 9 programs in 8 counties to provide 433 youth with quality youth development experiences while their limited resource parents were at work.

NC 4-H state and county staff continue to work with schools, churches, community-based organizations, parent groups and business groups to meet school-age care needs in ways that foster positive youth development. Declining resources and increasing demands for performance

outcomes increased the difficulty of this task. Nevertheless, 4-H staffs have been equal to the task, and funding for Extension-managed as well as Extension-supported programs continues to increase. This trend is due, in large part, to the skills of 4-H state and county staff in building collaborations, then writing high-quality grant proposals, then providing training, and learning resources to implement programs once they are funded.

Measures of Progress With Statewide Totals:

4-H county programs reported \$377,880 in new funding and \$354,655 in sustained funding for after school programs. Forty new collaborative projects and 54 school-age care centers were established in 2004.

Impact Indicators:

NC 4-H implemented 30 new programs in 2004, representing 1060 additional after school spaces. Ninety-five new collaborations serving children and families were formed while 207 existing collaborations were sustained.

Volunteers Involved and Value:

School-age care availability efforts engaged 729 volunteers, who contributed 4,194 hours, made 614 contacts with interested partners. Volunteer contributions at the rate of \$17.19 per hour represent a resource of \$72,470 in value to communities across North Carolina.

Success Stories:

Because of the continued pressure on school age youth to perform at a level that is required by standardized state test in order to succeed in school and because of the growing number of parents who are unable to provide homework and or tutoring assistance to help their children build the skills and increase their capacity to succeed, more intense and targeted work is needed in after school hours with these children. As a result of this expressed needs by parents and the schools, a grant was written targeting children who were at academic risk of failure. As a result of the collaborative process and need, a grant in the amount of \$42,200 was awarded to the Ashe Center's 4-H After School Program to design and implement an after school TRAC for low performing students in the Ashe School System.

The 4-H school-age care program continues to be an enhancement to the total middle school and elementary school districts, with a 4-H presence in every school site. Multiple subject matter enrichment kits are provided to after-school, and in-home daycares as well as the offering of the embryology program in addition to our continued weekly direct and indirect 4-H curriculum use in the program sites. The summer sizzle middle school day camp is a collaborative, self-sustaining successful effort between the two school districts and 4-H, with 4-H taking the lead in planning and implementation.

Impact Bullets:

- Ashe County built upon a strong collaborative including local schools, Partnership for Children, Child Care Resource and Referral, Department of Social Services, Ashe County Parks and Recreation, GEAR UP from Appalachian State University to gain funding for a

21st Century Community Learning Center project that will open new opportunities to work with schools and the Arts Council.

- Ashe County school-age programs engaged Wilkes Community College and Appalachian State University to provide mentors for 5th Dimension; A Safe Home For Everyone (ASHE) organization, presented “Hands Are Not For Hitting”, and SERVE Educational Lab provided new materials on quality after school programs. 4-H Summer Parks was able to expand numbers with a \$45,000 grant. The Ashe County 4-H SAC program’s 19 years of service and success would not be possible without the continuing support of partners and collaborators.
- Collaboration with schools presents expanding opportunities as many districts increase after school programming to increase academic performance. Six 4-H programs are major partners on new 21st Century Community Learning Centers grants. Wake County refreshed a nine-year collaborative relationship with public schools supporting the Support Our Students program with a new agreement that sustains support for school use and expands support for increasing transportation costs.
- Nash County 4-H collaboration Resource and Referral funded four training workshops for 65 after school providers. Networking during these workshops expanded 4-H collaboration with 13 new programs.
- Collaboration with after school providers is building availability since quality programs are more likely to be sustained. Gates, Onslow, and Bladen counties training and technical assistance with the star licensing process are helping agencies and private centers build ongoing, high-quality programs.
- Collaboration with parents is the beginning and end of sustaining quality programs. Wayne County 4-H implemented eight after school programs for 215 youth in kindergarten through fifth grade, providing quality, accessible programming where youth are safe and well supervised by trained, qualified staff. Programs consist of a nutritious snack, recreation, study time to have assistance in homework, and a 4-H activity. Parent surveys show that over 90 percent of the parents are pleased with the 4-H program and that 100 percent feel their child is safe during their after school time.

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OBJECTIVE Y-10 – Accomplishment Report

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

Program Description:

School based curriculum delivery focuses on the training of teachers who then serve as volunteers in the delivery of the curricula to the students. In order to be an acceptable school-

based program there must be 6 hours of subject matter delivered by a teacher during school hours. Through school enrichment, a delivery mode used in the 4-H Youth Development Program, 78,411 youth received a minimum of 6 hours of instruction. 4-H agents trained 2,747 teachers in experiential learning processes. Each of the subject matter curricula that are used in this effort is correlated with the Standard Course of Study adopted by the Department of Public Instruction.

Measures of Progress With Statewide Totals:

Number of teachers trained in subject matter – 1,392

Number trained in experiential learning – 986

Number demonstrating an increase in positive knowledge of subject matter – 29,216

Impact Indicators:

10,898 students, 13.9% of those participating, demonstrating an increase in academic performance (grades)

9,339 students, 11.9% of those participating, demonstrating increased homework completion

10,806 students, 13.8% of those participating, demonstrating increased amounts of quality classroom work

14,225 students, 18.1% of those participating, demonstrating increased quality interaction in class

2,440 teachers, 88.8% of those participating, used the Experiential Model to deliver school enrichment programming

Volunteers Involved and Value:

1,749 volunteers contributed 26,067 hours valued at \$17.19/hr or a total of \$448,091. This represents a \$10 contribution of labor for every dollar spent on the program.

Success Stories:

LifeSkills, a nationally recognized and tested substance abuse program is being taught in 5th/6th grade classes in cooperation with Catawba County schools. Students participate in 45-minute weekly lessons for 9 weeks. Youth learn about the dangers of tobacco, marijuana, and alcohol and develop skills to help youth resist substance use. Student evaluations indicated 86% of the students reported that they learned a lot or some new information as a result of the program. 65% of the students indicated that they would definitely use or have used information learned as a result of the program and 21% said they would probably use information they learned. Cooperative Extension receives funding totaling \$13,000 from Catawba County schools to support program implementation. This is the third school year the program has been taught in school classes.

726 youth participated in the chick embryology program from January - June 2004. 31 Teachers were trained in embryology and experiential learning. Following the course, 67 percent returned evaluations with the following student results: 21 percent increased the quality of classroom work, 13 percent improved their quality interaction in class and 32 percent demonstrated an

increase in positive knowledge of subject matter. According to one teacher," this is an excellent program to promote responsibility, leadership and ownership. My students were very engaged in the whole project." Other comments reported on the evaluations included: "awesome project", "it was a wonderful experience for my 4th grade students! They learned so much", "wonderful"

With limited emphasis on science in the school system, Richmond County fifth graders need opportunities for hands-on learning experiences to enhance and support the science curriculum. North Carolina Cooperative Extension and Richmond County 4-H collaborated with Richmond County schools to provide the 4-H Science Adventures school enrichment program for 699 students at Millstone 4-H Camp on September 29, 30 and November 2. Twenty resource teachers were recruited to teach a rotation of 6 educational classes for 3 days. The teachers responding to a survey reported the following impacts after the 4-H Science Adventures program: 99 improved interest in class work, 127 improved completion of homework, 130 improved interaction during class, 108 improved science knowledge and 77 improved their science grade. Life skills learned included: wise use of resources, problem solving, personal safety, healthy lifestyle choices, self-discipline, self-responsibility and responsible citizenship.

Impact Bullets:

- In Cumberland County 92% of those participating increased their academic performance
- 65% of the students participating in Catawba county indicated that they would definitely use or have used information learned as a result of the Life skills program
- Eighty-two of 126 teachers in Alexander County responded that they used the experiential model in their delivery of the 4-H curriculum.
- Teacher evaluations showed that 85 of 115 students improved science grades by one letter grade in Hertford County

Person(s) Preparing Report:

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Lesla Walton, Edgecombe
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OBJECTIVE Y-11 – Accomplishment Report

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:

Objective Y11 encourages youth in North Carolina to take advantage of a week, or more, at one of five residential 4-H Camps operated by the Department of 4-H Youth Development at NC State University. Field Faculty (4-H Agents and Program Assistants) are encouraged to recognize the value of the camping experience as a "best practice" and incorporate camp as one

of their delivery modes. The objective encourages 4-H professionals to utilize their volunteer leaders, parents of 4-H'ers and 4-H clubs as the core of their recruiting efforts. Y11 also encourages the participation in the variety of "specialty camps" offered by the 4-H Centers as well as traditional, county-led camping groups.

Measures of Progress With Statewide Totals:

4-H camper numbers increased by 513 including 242 from limited resource families.

Non-4-H camper numbers increased by 604 including 201 from limited resource families.

1,220 youth increased their knowledge of the value of camping including 390 from limited resource families.

922 parents increased their knowledge of the value of camping including 238 from limited resource families.

82 volunteers increased their knowledge of the value of camping including 14 from limited resource families.

202 youth sustained their experience by attending a 4-H specialty camp of which 40 were from limited resource families.

146 youth attended a 4-H specialty camp for the first time including 48 from limited resource families.

Impact Indicators:

2,196 camping participants demonstrated improved self-confidence including 346 from limited resource families.

1,045 camping participants demonstrated improved overall behavior including 381 from limited resource families.

982 camping participants demonstrated improved social skills including 328 from limited resource families.

676 camping participants demonstrated improved lifetime sports skills including 218 from limited resource families.

1,064 camping participants demonstrated improved knowledge of a healthy, safe and sustainable natural environment including 288 from limited resource families.

Volunteers Involved and Value:

123 youth and adult volunteers have contributed 2,367 volunteer hours worth an estimated \$ 40,688 towards enriching the lives of youth thorough 4-H camping experiences.

The value of these camping experiences has an estimated value of \$108,712 to the target audience and \$205,008 to society. Estimated program costs were \$66,141.

Success Stories:

The average family income in Robeson County is just over \$26,000, making it difficult for parents to afford quality summer care for their children. In March I set a booth up at the local mall for 4 hours. In that time I marketed all the Robeson County 4-H summer programs as well

as our year round opportunities. Of the more than 200 people who came by my booth 20% signed up to receive more information on our programs. 50% of those people wanted more information specifically on our week long residential camping opportunity at Betsy Jeff Penn. Thanks to United Way funds the camping experience will only cost \$250 per youth. An opportunity that these parents feel is worth saving pennies so that their child can have an incredible learning experience.

Secretary of State Colin Powell took time from his busy schedule to meet with Forsyth County 4-Hers and members of the Boys & Girls Club who attended 4-H Camp Challenge at Sertoma 4-H Center. Camp Challenge offers financial literacy lessons and camp activities to high academic achievers from low-income households. Colin Powell shared how hard work and a good education is important for youth to succeed. His words were well received by the 4-Hers. "It goes to show that hard work is something that you've got to be willing to do your whole life", Devonte stated. "I especially like the part when he said to never believe people who put you down for making good grades. They say getting good grades is showing off, but getting those good grades gave me an opportunity to go to camp and do a lot of fun things I might not have other wise."

In an effort to work and collaborate with other county agents, a week-end camping trip was planned with Robeson, Scotland, Hoke, and Moore Counties. Sixty-Eight campers, four 4-H Agents, 8 volunteers, and 1 specialist attended a two-day camp at Millstone 4-H Camp June 18-19. Youth were involved in canoeing, swimming, land sports, crafts, and electric projects, campfires and storytelling. This was a great camp experience for first time campers that introduced them to the 4-H camping program and.

Impact Bullets:

- 1,220 youth increased their knowledge of the value of camping including 390 from limited resource families.
- 922 parents increased their knowledge of the value of camping including 238 from limited resource families.
- 2,196 camping participants demonstrated improved self-confidence including 346 from limited resource families.
- 1,045 camping participants demonstrated improved overall behavior including 381 from limited resource families.
- 982 camping participants demonstrated improved social skills including 328 from limited resource families.

Person(s) Preparing Report:

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OBJECTIVE Y-12 – Accomplishment Report

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 emphasis volunteers, school enrichment volunteers, day and resident camp volunteers, after school volunteers, master volunteers, and advisory leaders. A target focus is for teen 4-H members to volunteer as teachers of younger youth, while coached by adult volunteers, in the new NC 4-H Teens Reaching Youth through Innovative Teams (TRY-IT) program. The objective builds upon volunteerism research and best practices that contribute to meaningful and safe educational experiences for youth, volunteers, and paid staff.

Measures of Progress With Statewide Totals:

3,143 current 4-H youth volunteers (including 905 from limited resource backgrounds) indicated new knowledge gained regarding volunteerism

4,762 current 4-H adult volunteers (including 895 from limited resource backgrounds) indicated new knowledge gained regarding volunteerism

1,797 current 4-H youth volunteers (including 495 from limited resource backgrounds) indicated positive attitude changes regarding volunteerism

3,978 current 4-H adult volunteers (including 895 from limited resource backgrounds) indicated positive attitude changes regarding volunteerism

865 new 4-H youth volunteers (including 337 from limited resource backgrounds) indicated new knowledge gained regarding volunteerism

1,560 new 4-H adult volunteers (including 454 from limited resource backgrounds) indicated new knowledge gained regarding volunteerism

882 new 4-H youth volunteers (including 328 from limited resource backgrounds) indicated positive attitude changes regarding volunteerism

1,671 new 4-H adult volunteers (including 519 from limited resource backgrounds) indicated positive attitude changes regarding volunteerism

Impact Indicators:

534 4-H youth volunteers (including 105 from limited resource backgrounds) served in expanded and/or additional volunteer roles in 4-H

679 4-H adult volunteers (including 97 from limited resource backgrounds) served in expanded and/or additional volunteer roles

867 4-H youth volunteers (including 224 from limited resource backgrounds) served in expanded and/or additional volunteer roles in their communities

645 adult volunteers (including 204 from limited resource backgrounds) served in expanded and/or additional volunteer roles in their communities

Volunteers Involved and Value:

5,716 youth and adult volunteers contributed 63,618 hours working with 10,840 Extension clients, with their time valued at more than \$1,093,593

Success Stories:

Identifying opportunities to conduct community service projects can be difficult for teens, so Wayne County 4-H works to provide these experiences and to help teens have the training and support to conduct the projects. Youth trained in 4-H curriculum present workshops and seminars at summer day camps, 4-H project days and in after school programs. They are also involved in 4-H community service activities like community clean ups, volunteering in nursing and retirement homes, and helping at the local soup kitchen. Throughout the year, Wayne County 4-H'ers contributed 12,349 hours of service through 4-H.

4-H volunteers are often left out of the decision making process when the 4-H staff plans large events. In an effort to empower volunteers and teen youth in the decision making process, a committee was appointed and given the task of planning the Currituck County 4-H Achievement Awards program. Committees were formed and the task began to plan the entire event. Their job responsibilities included everything from sending out the invitations, to planning the meal, choosing entertainment, and conducting the program. As a result, the Achievement Awards program far exceeded expectations. This committee displayed leadership among the youth and the adult volunteers. Attendance almost doubled with more than 250 people celebrating the successes of 4-H youth. Evaluations proved that this was one of the county's most successful recognition events, with participants indicating that they hoped the new format would continue in future years.

Impact Bullets:

- 81 teen 4-H TRY-IT team members from 19 counties taught 4-H curricula to more than 1,689 younger youth statewide, contributing more than 900 hours valued at \$15,471
- 534 4-H youth volunteers (including 105 from limited resource backgrounds) served in expanded and/or additional volunteer roles in 4-H
- 679 4-H adult volunteers (including 97 from limited resource backgrounds) served in expanded and/or additional volunteer roles
- 867 4-H youth volunteers (including 224 from limited resource backgrounds) served in expanded and/or additional volunteer roles in their communities
- 645 adult volunteers (including 204 from limited resource backgrounds) served in expanded and/or additional volunteer roles in their communities

Person(s) Preparing Report:

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OBJECTIVE Y-13 – Accomplishment Report

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.

Measures of Progress With Statewide Totals:

2,274 current 4-H youth (including 307 from limited resource backgrounds) and 1,453 adults (including 152 from limited resource backgrounds) indicated new knowledge gained regarding leadership

1,641 current 4-H youth (including 312 from limited resource backgrounds) and 1,156 adults (including 117 from limited resource backgrounds) indicated new knowledge gained regarding effective teen/adult partnerships

1,797 current 4-H youth (including 234 from limited resource backgrounds) and 977 adults (including 99 from limited resource backgrounds) indicated positive attitude change regarding leadership

1,275 current 4-H youth (including 181 from limited resource backgrounds) and 700 adults (including 81 from limited resource backgrounds) indicated positive attitude change regarding effective teen/adult partnerships

Impact Indicators:

639 4-H youth (including 94 from limited resource backgrounds) served in expanded and/or additional leadership roles in 4-H

658 adults (including 65 from limited resource backgrounds) served in expanded and/or additional leadership roles in 4-H

658 4-H youth (including 134 from limited resource backgrounds) served in expanded and/or additional leadership roles in their communities

525 adults (including 67 from limited resource backgrounds) served in expanded and/or additional leadership roles in their communities

490 4-H youth (including 92 from limited resource backgrounds) served in expanded and/or additional teen/adult partnerships

513 adults (including 47 from limited resource backgrounds) served in expanded and/or additional teen/adult partnerships

Volunteers Involved and Value:

1,933 youth and adult 4-H leaders contributed 48,953 hours working with 14,310 Extension clients, with their time valued at more than \$ 841,502

Success Stories:

Many young people do not believe that they can make a difference in their communities, but the Montgomery County Teens Against Tobacco Use Group is learning how to advocate for youth

issues. This group, sponsored by 4-H and FirstHealth, met with the Montgomery County School Board in January and requested permission to survey the schools to assess interest in creating 100% tobacco free schools. The survey was conducted in the spring of 2004 with administration, other staff, students, teachers, parents and middle and high school students, with more than 2,910 participating in the survey. Of all the respondents, 61% indicated they were interested in the schools creating a policy to become a 100% tobacco free campus. As a result, the School Board voted in December 2004 to implement a 100% Tobacco Free Schools policy beginning in January 2006. These young people are making a very real difference in their county.

Buncombe County has a newly trained TRY-IT team made up of four teens and two adult volunteers involved in piloting new online training modules to develop leadership and teaching skills for working experientially with younger youth. They plan to use 4-H curriculum to teach science principles throughout the coming year. The TRY-IT team has already made presentations for county council and club meetings and team members are enthusiastically planning for additional opportunities to share their new 4-H skills, hoping to recruit new 4-H'ers into the program as well.

In recent years, Scotland County 4-H members and volunteers have had limited leadership involvement beyond the county level. Several 4-H members and volunteers have been encouraged to develop their leadership skills by participating in district and state events. During 2004, two Scotland County 4-H'ers were elected as President and Vice President of the South Central 4-H District Council. In addition, two Scotland County volunteers were elected as President Elect and Reporter for the South Central District 4-H Volunteer Leaders Association. Through district and state level trainings these Scotland County 4-H members and volunteers have improved their leadership and communication skills. These officers are encouraging other 4-H'ers and volunteers to participate in district and state leadership opportunities.

Impact Bullets:

- 64 adult volunteers served in formal leadership positions within the NC 4-H Leaders' Association, contributing more than 1,280 hours valued at \$ 22,003
- 639 4-H youth (including 94 from limited resource backgrounds) served in expanded and/or additional leadership roles in 4-H
- 658 adults (including 65 from limited resource backgrounds) served in expanded and/or additional leadership roles in 4-H
- 658 4-H youth (including 134 from limited resource backgrounds) served in expanded and/or additional leadership roles in their communities
- 525 adults (including 67 from limited resource backgrounds) served in expanded and/or additional leadership roles in their communities
- 490 4-H youth (including 92 from limited resource backgrounds) served in expanded and/or additional teen/adult partnerships
- 513 adults (including 47 from limited resource backgrounds) served in expanded and/or additional teen/adult partnerships

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