

**NORTH CAROLINA COOPERATIVE
EXTENSION SERVICE**

**VISIONS
FOR THE
FUTURE**

PROGRAM SUCCESS STORIES

1995



**North Carolina
Cooperative Extension Service**

NORTH CAROLINA STATE UNIVERSITY
NORTH CAROLINA A&T STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

PROGRAM SUCCESS STORIES

1995

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NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

ANNUAL REPORT 1995

Program Overview

The North Carolina Cooperative Extension Service, with its strategic plan, "Our Commitment to Excellence", and its four-year plan of work, "Visions for the Future", provide educational programs to help North Carolinians improve the quality of their lives. North Carolina State University and North Carolina A & T State University deliver a coordinated Extension educational program available to all people in North Carolina.

This annual report represents the cumulative results of four years of Extension educational programs from 1992 to 1995. The accomplishments indicated in this report reflect the impacts that Extension programs are having on the people of North Carolina. These results are the end products of educational programs coordinated by the two cooperating land-grant universities in each of the state's 100 counties and the Cherokee Reservation. The programs are supported through the cooperation of county, state and Federal governments, and wide variety of organizations, groups, and individuals.

Extension's educational programs were planned in collaboration with over twenty thousand of the state's citizens. These programs were effectively implemented, reaching all areas of the state, and a vast number of the state's population. The programs were evaluated to assess the resulting contributions to a profitable and sustainable agriculture; a protected and enhanced environment; stable communities; responsible youth; and strengthened families. The cumulative information that is reflected in the reported accomplishments demonstrates the scope and quality of Extension's programs for the benefits of the state's citizens.

NC 01 - ALTERNATIVE INCOME OPPORTUNITIES

A. OBJECTIVES

1. 6,000 individuals will learn about income diversification, enterprises marketing strategies, and how to properly analyze, evaluate and integrate alternative income opportunities into their current farming operation or traditional livelihood.
2. 1,500 individuals will generate income from one or more alternative income enterprises.
3. 50 small, part-time and/or limited-resource farmers will participate in a comprehensive educational program, entitled "Ways To Grow", on alternative agricultural enterprises.

SUCCESS STORIES

- #1. The Cherokee Reservation Farmers Market was initiated and developed during FY '93 and reopened in June of 1994. 1993 was not a good year for home gardeners as the near drought conditions took its toll on reservation gardens. The market was successful in 1993 with eight families participating by bringing what little excess fruits and vegetables they produced to sell. Participants in the 1993 market averaged around \$50 per Saturday morning outing. Many other home gardeners expressed the desire to participate in the market in 1994 provided their gardens cooperated.

There were great expectations for the 1994 gardening season; however, once again mother nature was not very cooperative. The heavy and persistent rains in the early part of the growing season reeked havoc for home gardeners. Poor drainage and disease were evident among home gardens throughout the Cherokee Reservation. Fortunately, through all this the Cherokee Reservation Farmers Market did not lose its momentum, nine reservation families participated during 1994. Although produce quantities were low, fresh produce demand was very high and most participants were able to sell all the produce they could bring out. Earnings averaged between \$60 to \$80 per outing; however, earnings in excess of \$100 were not uncommon. Fortunately, late gardens performed much better than spring gardens and participation and produce quantities increased somewhat in the latter part of the 1994 season. The market closed in mid-October after frost took its share of what produce was left. Final figures indicate that participants earned an estimated total of \$4,500 through participation in the market. One faithful farmers market family increased their yearly family income by approximately \$1,600 by selling the excess produce from their 0.2 acre garden

plot. If the market were not available, this produce would have been given away or otherwise been wasted.

The Cherokee Reservation Farmer's Market was scheduled to reopen mid-July 1995.

- #2. In 1993, Jeff Hauser began to explore alternative farm enterprises. His farming experience was limited to flue cured tobacco, but he wanted to try something different. The North Carolina Cooperative Extension Service was among his first information sources for greenhouse tomato production know-how. Today, Jeff has two hydroponic tomato greenhouses producing year-round and is considered adding two new houses.

The Extension Service has and continues to assist Jeff with production and marketing information through a number of delivery methods. The NC Greenhouse Vegetable Growers Association sponsored by NCCES has introduced Jeff to new ideas and practices through lecturers at association meetings and contact with other growers. The local agent and Extension specialists with the aid of the Plant Disease and Insect Clinic have helped with numerous production problems.

Jeff is now trying beneficial insects to aid in the control of tomato insect pests and will want detailed information about the pests and I.P.M. greenhouse practices from the NC Cooperative Extension Service.

- #3. With the assistance of the "Ways to Grow" Program, a limited resource farmer was able to expand his trout operation and developed it into a sustainable business. He began with fifty feet of raceways and has increased it to over two hundred feet. A pond was built for a catch-your-own operation and a market for his product has been developed to include trout for stocking ponds, restaurants and catch-your-own.

NC 02 - THE ENVIRONMENT AND CONSERVATION OF NORTH CAROLINA'S NATURAL RESOURCES

A. OBJECTIVES

1. Government officials and other decision-makers will be more knowledgeable about natural resources and familiar with available resources and professionals knowledgeable in these areas.

2. Youth, volunteer leaders, teachers, and 4-H agents become more aware of the environment, environmental issues, impacts of production practices on natural resources, global climate change, atmospheric sciences and air pollution problems.
3. Landowners will increase their knowledge of stewardship of the land and enroll in the Forest Stewardship Program.
4. Natural resource consultants, managers, and related agency personnel will improve their abilities in developing multiple use management plans and be knowledgeable of how to implement the provisions of the 1990 Farm Bill.
5. Landowners will learn the compatibility of wildlife management, forestry, and agriculture, including the impacts of and alternatives to various production practices on wildlife populations and habitat will be increased.
6. Farmers will meet the conservation compliance provisions of the 1985 Farm Bill.
7. Landowners will become aware of and begin to comply with the provisions of legislation regulating wetland usage and management.
8. Wetland regulatory agency personnel will be able to utilize quantitative evaluation procedures to improve reliability of wetland determinations.
9. Citizens will be more aware of wetland types, values and functions.
10. County governments, businesses, and citizens will meet new air quality standards in counties where new clean air restrictions are imposed.

SUCCESS STORIES

The Beaver Management Assistance Pilot Program was begun in November 1992 after a group of concerned landowners and government officials were organized by the Cooperative Extension Service in Brunswick, Bladen, and Columbus Counties to seek assistance in the management of beavers.

The program currently helps property owners and the Department of Transportation in Bladen, Brunswick, Columbus, Pender, Robeson, and Sampson Counties address some of these problems. Property owners participating in the first year of the Program estimate that BMAPP activities have saved them upwards of \$1 million. The success of the program is indicated by recent state appropriations to expand it to over 20 counties in eastern North Carolina. BMAPP is cooperatively funded by the NC Wildlife Resources Commission and

USDA APHIS Animal Damage Control. Additional funding comes from the Department of Transportation, participating counties and landowners. The program is administered by ADC.

The forest products industry is the major employer in Franklin County and generates large volumes of wood waste. A wood waste composting project was initiated in 1992 to recycle wood waste by combining it with surplus animal manure. Waste plywood, structural lumber, particle board, and yard waste are being successfully composted into a high quality finished product. Compost is being applied to roadside rights-of-way, ornamental plants, and commercial horticultural crops. Demand has exceeded supply for the past 2 years of production. Land and water quality are being enhanced by diversion of waste into useful products.

In 1991 Gaston and Mecklenburg Counties were designated as non-attainment for ozone. Regulations for lowering the level of ozone in this region called for emission monitoring of automobiles and a 15% reduction in VOC's by November of 1996. Gaston County had the options of 1) letting the state continue to manage the program, 2) form a regional partnership with Mecklenburg, or 3) develop its own program. The QNRC Air Committee using NCSU specialists addressed this in a public policy development process and recommended that Gaston County develop its own program. However, before the recommendation was to be made to the QNRC, a major educational initiative was directed at business and industry representatives and elected officials regarding the implications of the program, and to receive input on how best to manage the problem at hand. Displays and brochures were developed and made available. As a result of regulations, the political environment and the educational programs, Mecklenburg and Gaston Counties have been reclassified as ozone attainment, so the county will not pursue its own program. However, the educational efforts that have been initiated will continue in efforts to improve the quality of natural resources in Gaston County.

Forestry Best Management Practices - - As a result of the change in the Sedimentation and Pollution Control Act, major emphasis was placed on the education of loggers in the provisions of the Act and Best Management Practices that would be in compliance of the Act. Over 3,000 forest industry professionals, landowners and loggers have attended over 50 meetings on sedimentation control in forestry. Over 20,000 copies of "Pocket Guide to Forest Practices Guidelines Related to Water Quality" were distributed. A Woodland Owner Note, videotapes and slidetapes were also distributed.

This program, conducted in cooperation with the North Carolina Division of Forest Resources, North Carolina Forestry Association, Natural Resources Conservation Service, and forest industry, has had a significant impact on the number of logging operations in compliance with the Act. Compliance rates have

improved from 83% in FY 1991-1992 to 95% in 1995.

NC03 -FAMILIES IN CRISIS

A. OBJECTIVES

In North Carolina all families are vulnerable to experiencing some type of crisis. The crisis may be in terms of one or more of the following: financial difficulties, family disruption, family dislocation, family violence and family care needs. Many times a family in crisis incurs economic, social and/or legal stresses. Specialists at N.C. State University and A & T State University in conjunction with twenty-nine county staffs focused their efforts on developing and implementing coping programs and strategies to help families who are experiencing one or more crises. Specific objectives to help families in crises were:

Families having financial difficulties will improve their financial positions by learning to manage and maintain their monetary and non-monetary resources, and if needed, to acquire appropriate job skills using available community resources.

Families who experience violence, disruption and dislocation will learn about community resources and become involved with support groups that provide emotional help in alleviating the traumas incurred by the specific crisis.

Families of diverse structures will gain knowledge, acquire skills and develop strategies to better use available economic and social support systems to enhance quality of life.

Care givers of children and/or adults who have special care needs will gain knowledge and acquire skills needed to provide appropriate physical and emotional care for the individual, to acquire coping skills to reduce the physical and mental stresses of care giving, and to access community resources.

Parents, expectant parents and Care givers will gain knowledge and acquire skills in parent education and the selection of quality child care.

Families of diverse structures will acquire information about their legal rights, responsibilities and obligations.

Limited resource single parents and child day care workers will increase their knowledge and skills in effective parenting, child growth and development, and self esteem.

Objectives for 1890 Staff were:

Limited resource single parent families will learn problem solving techniques needed to facilitate positive interpersonal and family relationships and to manage stress.

Limited resource single parents and child day care workers will increase their knowledge and skills in effective parenting, child growth and development, and self-esteem.

SUCCESS STORIES

In Ashe County, \$75,000 was acquired for a Family Resource Center Mobile Unit, to provide one-stop access to family services, such as Health Checks and other comprehensive health screenings, parenting education classes, and support groups.

In the Cherokee Reservation, many senior citizens have learned how to supplement their income by making Native American craft items through craft workshops.

In Cleveland County, 15 families participated in a series of life skills classes that targeted low literacy and limited resource adults. Participants learned about healthy eating, money management, and positive parenting practices. Participants estimated that their new skills could save at least \$180 per year (\$2,700 total).

In Craven County, 41 women have participated in the Womens Financial Information Program. Ten women were able to obtain credit on their own, one after a divorce damaged her credit rating. One participant obtained a job and she and her husband are buying a home. Twenty-eight participants made informed financial decisions such as choosing to move money into different forms of savings and investing for late life. Twelve participants made or updated their wills. Many participants stated that the course changed their lives.

In Durham County, 2,691 individuals were reached through Extension classes designed to educate Chapter 13 debtors about personal money management and the use of credit. The purpose of the classes is to teach the debtors decision making skills so they will be able to make decisions that will help them avoid debt problems after the completion of the program.

In Forsyth County, 20 handicapped adults received training in financial management as to how to budget income focusing on needs versus wants. Pre-test scores ranged from 5 points to 75 points. Post-test scores ranged from 70 points to 95 points, with the average score 80 points.

Also in Forsyth County, 12 persons who were to be evicted in a development were able to meet inspection as a result of improved housecleaning and maintenance skills learned in class.

Twenty women attended the first meeting of Franklin County's Business Women's Organization which was established this year as a result of the three-year Economic Development Project.

In Hoke County, one single Native American mother who had lost custody of her children was very vocal about not wanting to learn anything from a series of parenting classes she was taking. She repeatedly told the Agent that she did not need anyone to tell her how to raise her children. She came to class because she had to in order to get her children back from foster care. During the session, the Agent noticed a change in her attitude. Three months after graduating from the class, she told the agent that she realized she had to be more responsible for her children. She had gotten a job and her children had been placed back with her. She felt her life was getting back in order.

In Johnston County, 51 unemployed men and women clients of the local Employment Security Commission learned Basic Budgeting Skills, identified values and goals, improved shopping skills, and the availability of community resources.

Also in Johnston County, 196 teen mother clients and social workers with the JOBS Program build self-esteem, improved open communication in the family, developed parenting skills, learned the importance of nurturing children, child safety, and reduced spending in order to become self-sufficient.

In Lee County, thirty persons completed "A Home of Your Own," a step-by-step guide to home ownership. Four families purchased a home. Final survey of the participants found that 81% of them thought that the program would definitely help them in the home buying process, 76% thought the program met their needs, and 81% reported learning a great deal and that the information would be very useful to them.

In Nash County, Emma came to the Family Care giver training physically and emotionally exhausted. She was working 60 hours per week caring for her aged and ailing mother. Emma had been hospitalized several times for stress. She knew she needed help but did not know where to go. After going through the training sessions and completing the home study series, she phoned to say that she knew that she had to make some changes if she was to be able to continue to care for her mother. She reduced her work hours, went for counseling, secured help through a service agency, and is taking steps to plan for long term care. She said, "I was in desperate need of information and assistance that this program

provided. I now think I can survive, knowing that help is available. Thank you."

In Pamlico County, Jane attended a series of Extension workshops on self-esteem and good grooming. She was retired, with time on her hands, a weight challenge, and many other family problems. During the course of the program presentation and workshops, she found a business niche, a need to be filled. This "niche" would involve working with cancer patients. Through many consultations and business decisions, she decided to open her door to help those with many more challenges than she faced.

Through her talents of make-over, experiences with wig-fitting and prosthesis fitting, she created a market for her talents. She said, "If I had never realized this need and had the support, I would not have made it, but I will never be the same after this experience."

"Working with the terminally ill has changed my life forever. I have found that the sun is always shining, it's just temporarily covered with a cloud."

Thirty members of the Person County Needleworkers Association realized an income of over \$132,000 through a linkage between Cooperative Extension, the Council on Aging, and a local industry. Approximately one half of the participants taking advantage of this opportunity were members of limited resource families. All participants were senior adults. Two seniors were able to earn enough money to pay off the balance of their mortgage. Other participants were able to purchase needed big ticket items for their homes, such as refrigerators and home repairs. In addition to the economic benefit, all participants reported their pride in being able to earn some extra pin money and realized a better self esteem and confidence level.

Wayne County 4-H Youth Development program conducts an after-school program for students at Dillard School. The program is comprised of fifty-five students with an average daily attendance of forty-five. The program is conducted Monday through Thursday on school days. Snacks are provided for the youth at the beginning of the program and then students are divided into three groups. These groups rotate to three activities: Recreation, Homework, and a 4-H Project Activity. The activities are designed to meet the students physical, social, mental, and emotional needs. At the end of the program, the students are transported home by the school system on the school's buses. The student's teachers were asked to give their opinion on the impact of the program. The results are as follows: 55% of the students increased homework completion; 69% of the students increased quality of homework; 69% of the students increased school grades; and 63% of the students improved behavior.

NC04 - FOOD SAFETY AND QUALITY IN NORTH CAROLINA

A. OBJECTIVES

1. Targeted audiences will increase their adoption of recommended food handling practices.
2. Targeted audiences will improve practices and processes that promoted the production and protection of a food supply with minimal risk.
3. Targeted audiences will improve their understanding of risks and responsible practices in relation to food and health.

SUCCESS STORY

NC COOPERATIVE EXTENSION SERVICE QUICK TO RESPOND TO FOOD SAFETY CRISIS

Outbreaks of shigellosis in Child Care Centers in eastern NC prompted an extension agent in a non-outbreak county to organize and deliver a 25-hour course on Safe Food Handling and Sanitation Practices for Child Care Providers. Some Child Care Centers in outbreak counties were forced to close when high numbers of children in their care developed the dysentery associated with the disease. The disease is most often transmitted by a food handler with contaminated (unwashed) hands handling food that is then served without reheating. In this small county there are 15 registered Child Care Providers. Managers and food handlers from all Day Care Centers attended the Food Safety Course. A total of 25 child care workers received certification that they had successfully completed the course. Certificates are displayed at the centers. There were no outbreaks of Shigellosis in Child Care Centers in this county.

In an urban county consumers became concerned about the spread of Hepatitis A when it became known that a grocery store employee tested positive for the virus. Hepatitis A is most often transmitted by an infected food handler who does not properly wash hands after using the restroom. The extension agent offered a Safe Food Handling class for customers of the store so they became knowledgeable of how Hepatitis A is transmitted and steps they could take in food handling at home to reduce the risk of consuming contaminated foods. Seventy-three (73) attended the Safe Food Handling class.

The Cooperative Extension Service not only responds in food safety crises but

provides the major portion of food safety training foodservice employees receive as part of their on-the-job training.

For example, in one county the Cooperative Extension Service Family and Consumer Sciences agent and a representative from the Public Health Department offer a three-day Foodservice Food Safety Certification Course two to three times a year and have certified 261 foodservice managers and employees.

Attendees provided the following comments about the experience. "The only way I know that we may further prevent the outbreaks of foodborne illness is to educate more people. I learned a tremendous amount. I would like to send more of my employees to a course such as this." "This program has been very informative, and it has been an eye-opening experience. Needless to say, when I return to work this evening, there will be a lot of improvements on reheating, sanitation, etc. I feel that every food service manager should attend this class and will recommend that the rest of our managers in the company attend the next session."

NC06 - NORTH CAROLINA COMMUNITIES IN ECONOMIC TRANSITION

A. OBJECTIVES

1. Communities (counties) will analyze their economic base and implement strategic planning.
2. Rural citizens/leaders will increase leadership and problem solving skills, knowledge of public participatory processes and economic awareness.
3. Current and potential entrepreneurs will analyze their situation/prospects and make informed decisions about their current/potential operations.

SUCCESS STORIES

EFFECTIVE ENTREPRENEURIAL EDUCATION REQUIRES CONTINUED SUPPORT

Extension's entrepreneurial education is most successful when our personnel are available to new entrepreneurs over an extensive period of time. For example, extension personnel in Edgecombe county established a county entrepreneur organization to provide support to 40-50 limited resource entrepreneurs, many of whom were on the verge of closing shop. Through monthly meetings over the

past 4 years these entrepreneurs acquired the knowledge it takes to make a business run. They also learned if they expect the community to support them, they must invest in the community as well. They have established a capital building fund and made annual contributions to their community college foundation. In turn, the community has recognized these individual entrepreneurs as concerned citizens and extended support to the efforts of their organization and their individual businesses.

Source: Joe Dickens, Edgecombe County

ENTREPRENEURIAL ORGANIZATION PROVIDES EFFECTIVE SUPPORT

Extension's entrepreneurial educational programs and support for limited resource, small business persons in Edgecombe county is provided through a county Extension-sponsored entrepreneur organization. This 40-50 membership organization has been meeting over the past 4 years on a monthly basis to provide the education and support required for effective entrepreneurship. Typical benefactors of this educational effort are Linda Knight and Maude and William Cherry. They are owners of two new local child care centers. Ms Knight, an original member of the local entrepreneur organization, got into the child care business after being laid off from a knitting plant. She began by taking care of one child in her home. Within two years she was caring for 8 children and had a growing waiting list. In 1990 she invested in a child care center, in which she and her family provided the "sweat equity."

Today, five years later, she has two child care centers employing 13 staff members and serving more than 100 children.

The Cherry's started their Little Angels Child Care Center in 1990 with four children and one staff member in the home. Within 6 months their operation reached its licensed capacity of 24 children. Two years later a modular building was secured that served an additional 60 children. Presently, the center has grown into a 24 hour operation with 10 employees and 100 children. The owners also plan to open another 100 child facility in a neighboring community in the near future. Source: Joe Dickens, Edgecombe County

NCSU RURAL DEVELOPMENT COUNCIL PROVES TO BE VIABLE PARTNER TO RURAL HALIFAX COUNTY

The Rural Development Council, a group of NCSU faculty members interested in rural development, has proven that university faculty can be effective in aiding local development efforts. Over the past four years the group, under the leadership of Dr Jim Clark, has been working with Halifax County Extension to find ways it can affect local development efforts. " A bond has been formed and

the ripple effects of the educational programs conducted has been overwhelming," reports Wanda Sikes, County Extension Director. The impetus for many of the activities arose from the county's strategic plan, reports Sikes. The following are some of the results of this partnership. The School of Design conducted a semester long collaborative study of the Town of Halifax involving local citizens to identify visions of what the county seat might be. A revitalization group was then organized to implement the plan. Members from the School of Forestry, Tourism and Recreation Department conducted a tourism study for the entire county, which is presently being used to develop the long range tourism plan. As a result of these efforts the county funded a School of Design graduate to work under the direction of Extension with local developers, historians, the State Historic Site, the Conservation Fund and Rails on Trails to plan a number of Greenway projects.

In 1994 a charette was held in the county involving 70 School of Design students and 8 Professors from NCSU and A&T to further develop potential tourism and historical plans for the county. Recommendations from the charette were published and are presently being incorporated into local planning efforts. In addition, a School of Design student was engaged to develop a long-range plan for the 4-H and Youth Day Camp properties, now known as the 4-H Rural Life Center. The county commissioners were so impressed with the plans that a separate budget of 135,000 has been allocated for the development of the plan in the 1995-96 budget.

Other activities generated from these efforts include a newly established Agricultural Commission with the purpose of preserving the county's agricultural heritage in a museum on the 4-H properties, an annual Halifax Harvest Days celebration of the county's agricultural heritage which attracts more than 15,000 persons, and the establishment of Independence Station, a cooperative of 60 artisans who produce and sell their products to augment their family incomes. Presently, the county is revising its strategic plan with assistance from three interns from the Board of Science and Technology, Governor's Office, arranged through the Rural Development Council.

Source: Wanda Sikes, Halifax County

NC07 - SUSTAINABLE AGRICULTURE

A. OBJECTIVES

1. Extension improves the use of integrated, interdisciplinary systems approach to the development of sustainable agriculture programs by Extension staff members and its clientele.

2. Public and private research and Extension organizations cooperate and coordinate efforts to develop sustainable agriculture systems in the US.

Success Story

Turning Fish Wastes into Compost:

Coastal counties need innovative ideas to deal with Fish and seafood waste disposal as well as solid wastes. In most counties this is carried out by using county landfills as well as other (illegal) methods. In Pamlico county there was a need to reduce or eliminate solid waste volume (waste paper and yard waste) as well as find alternate method to dispose of seafood wastes. At the same time a group of organic growers needed a source of high quality compost as a soil building amendment. Meetings were held with NRCS, Extension Specialists, local business men and organic growers to discuss the possibility of composting the waste into marketable compost product. This group visited existing nearby composting operations in order to assess feasibility of the project. After visiting two composting sites the group applied for and received an grant of \$50,000 to purchase a waste paper shredder and two roll-off boxes for paper storage. Next the group secured yard waste from the landfill and fish waste from seafood houses. An on-farm-demonstration was conducted on land adjacent to the composting site in order to demonstrate to organic growers and other potential customers the value of the composted material. Since the demonstration site had not been farmed for several years, wood ash from the from a wood-burning power plant in a neighboring county was used as source of lime and potash. Information concerning the site was presented to organic growers and gardeners at 3 meetings and tour was conducted at the demonstration site. The compost is being marketed in 100 lb. bags (\$8.00) or as pick-up truck loads (\$25.00). Plans are underway for marketing several size bags and for assigning a brand name. It is estimated that 2,000 bags and 200 pick-up loads per year could return \$21,000 for handling and processing. The development of this project has resulted in a reduction of 35 tons of solid waste to the landfill site, an environmentally sound method of waste disposal/recycling for a \$2 million fish filleting industry, the creation of a new recycling enterprise and a valuable compost product for organic growers. (submitted by Fred May & Pamlico Co. staff)

NC08 - WATER QUALITY AND WASTE MANAGEMENT

A. OBJECTIVES

1. Develop an awareness program for farmers, homeowners and local officials for understanding the importance of water quality protection.
2. Help Government officials analyze policy options for protecting water resources.
3. Conduct educational programs for state basinwide or total watershed planning and management programs.
4. Work with other agricultural agencies (NRCS, ASCS, Soil and Water Conservation District, etc.) in educating farmers on proper tillage and cultivation techniques, agricultural chemical use and animal waste management to minimize surface and ground water degradation.
5. Conduct educational programs on water conservation.
6. Conduct ground water nitrate and lead screening tests for drinking water across the state.
7. Increase youth's knowledge, awareness, and appreciation for water quality waste management and other environmental concepts.
8. Increase adult's knowledge, awareness and appreciation for water quality, waste management and other environmental concepts.
9. Help livestock and poultry producers develop sound animal waste management plans based on routine soil/waste analysis and appropriate land application.
10. Have more growers recycle plastic containers and utilize pesticide management practices that will reduce the chance of ground water and/or surface water contamination.
11. Get more farmers to adopt an integrated crop management plan.
12. Have homeowners utilize yard waste debris through backyard composting.
13. Offer information and demonstrations on composting and other alternatives to handle yard wastes utilizing Master Gardener/Master Composter pilot programs.

14. Have forest landowners implement forestry BMPs.
15. Reduce residential waste through source reduction and recycling by family members.

SUCCESS STORIES

Woodash

A wood burning power plant located in one county produces two products, electricity and a waste byproduct known as woodash. The county agreed to provide for disposal of the woodash for a fee of \$6.00 per ton for a period of 20 years. The North Carolina Department of Solid Waste had classified the woodash as an industrial waste and said it must go to a certified landfill. The county owned such a landfill and at the time was not receiving any tipping fees for use of the facility.

In 1993, the Regional Solid Waste Authority built a new lined landfill and the county closed theirs. The tipping fee for the new landfill would start out at \$37.00 per ton. The county would have to start paying this amount if the woodash went to the new landfill. At 15,000 tons per year, this amounted to \$555,000 per year.

The objective of this project is to prove the value of woodash as an agricultural soil liming material to the North Carolina Department of Solid Waste (NCDSW), The North Carolina Department of Agriculture (NCDA), county government officials, and area farmers. Educational Activities include:

1. Onfarm research and demonstrations comparing woodash to agricultural lime.
2. Presentation of these and other research data to NCDSW, NCDA, county government officials, and farmers.
3. Development of BMP'S for use of woodash as an agricultural product.

Impacts are:

1. In the Fall of 1993, woodash was approved as a liming product for agricultural use.
2. No woodash has been put in the regional landfill since October of 1993, a reduction of 15,000 tons per year.
3. Net savings of approximately \$555,000 to the county government

- and/or the wood burning power plant per year.
4. Added net value to farmers of approximately \$30.00 per acre or a total increase of \$225,000 per year.

Aquatic Weed Control

Aquatic weeds present a major problem for municipalities, golf courses, farmers, and homeowners that have ponds on their property. Undesirable aquatic plant growth can severely limit the recreational use and aesthetic value of ponds and lakes as well as rendering them useless as an irrigation source. Most pond owners do not know how to control aquatic weeds, and many are not aware that the Cooperative Extension Service provides expertise in this area. Educational objectives are aimed at pond owners learning to: 1) correctly identify aquatic plants, 2) choose the appropriate control method, and 3) manage the pond and surrounding landscape in an environmentally friendly manner to avoid future problems. Three aquatic weed control demonstration sites were established to teach pond owners methods of aquatic weed control. Materials valued at \$600 were contributed for demonstration purposes. Two of the demonstrations were located on area golf courses and were viewed by an estimated 16000 individuals. Four aquatic weed management programs reached 123 individuals and provided pesticide recertification credits for pesticide license holders in the aquatic category. On-site visits provided knowledge to 55 individuals who requested assistance.

By locating demonstration sites in highly visible areas, more people are made aware of Extension's expertise in aquatic plant management. Controlling aquatic weeds increases the value of ponds and property by restoring aesthetic value and recreational uses. Golf courses and others who rely on ponds for irrigation save money by not using county utilities to supply water. Water quality is protected by utilizing BMP's to manage aquatic vegetation.

"Earth Angel"

Project "Earth Angel" is a multi-faceted environmental education program conducted over the last 3 years in one county to provide "user friendly" public education related to waste reduction and recycling/composting. Major funding for the project came from an EPA environmental education grant. Components of the project include point-of-purchase posters and shelf tags in supermarkets; recipe sheets for making non-hazardous household cleaning supplies; costumed characters who taught at fairs, after school sites and in conjunction with store displays; a puppet show; coloring/project books designed to help young children learn about recycling and waste reduction; and family environmental retreat and field days held at a 4-H Camp. Over 60 volunteers were involved with the

project, educating nearly 34,000 county residents with positive messages about waste reduction and recycling/composting.

"Clean Cat"

"Clean Cat", a youth component of a fivecounty recycling program designed by Extension Home Economists, was selected by a school's Kindergarten class.

"Clean Cat" made a personal visit with the Extension Home Economist assisting with the litter/recycling lesson. The 78 students were encouraged to complete their work books, with their teacher's direction, and learn the song and rap that accompanied the project. Their Kindergarten graduation focused on the environmental theme "It's Our World." The Extension Home Economist was invited to return to address the students' parents about local environmental issues and to encourage parents to actively support what their children had learned. Then the students performed the project's song and rap. "Clean Cat" also made another popular personal appearance at graduation. She made a big impression, so much so that one kindergarten student called the Extension Home Economist at the Extension Office after the close of school to see if "Clean Cat" could visit her home. When asked why, the student responded, "I want my little brother to meet 'Clean Cat'!!!" After much inquiry, the student reluctantly accepted the fact that "Clean Cat" would not be able to make personal home visits!

Poultry Manure Used For Cattle Feed

One county was contacted by the owner of a feed company in a far western county of Virginia about the availability of poultry manure which could be used for cattle feed. The idea of this individual was to back-haul manure in trucks which were delivering coal from that area of Virginia to the Coastal area of Carolina. Trucks were making the return trip to Virginia empty. County agents met with several custom applicators that work in the piedmont area and arranged for one of them to work with this individual. In the past year an average of at least 100 tons of poultry manure per week has been hauled to western Virginia. Storage facilities are currently under construction in Virginia that will allow the feed company to obtain manure when it is available and store the manure until they can utilize it. The feed company sees the demand for feed made from this source expanding. They estimate that their demand for poultry manure will increase by 100 tons per week each year for the next several years.

At a rate of 100 tons per week (over 5 thousand tons per year), the county is removing about 800 pounds of nitrogen and 400 pounds of phosphorous from this nitrogen/phosphorous surplus region. Educational efforts are being designed to change manure utilization from utilization as a "raw" form to utilization as a "value added" product. Because of the potential value of manure as a feed and

as a fertilizer, this can be seen as the beginning of a trend toward the marketing of manure for other uses than simply "spreading" on the land.

Livestock agents impacted over 700 county and area producers and land owners with accurate educational information with an estimated increase in their profit margin and expendable income by 20%.

These tasks were accomplished through the use of monthly educational meetings and conferences, improvements in marketing strategies, use of better waste management systems, tours, field days, teleconference sales, and improvements in water quality.

"Trash Safari"

The Extension solid waste educational efforts in a county have been enhanced by the networking activities with county government, business, industry, schools, and civic groups. The County Board of Commissioners formerly requested the Extension Service assume the responsibility of solid waste education within the county. County commissioners were among the groups that participated in a "Trash Safari", an educational tour of the county solid waste facilities, landfill and convenience site. Agents conducted a four hour formal training session for the counties' Convenience Site attendants and several sessions at the convenience sites. Extension educational efforts resulted in the county recognizing the need for a full time solid waste ordinance officer/recycling coordinator which was hired in 1993. Three Extension Solid Waste Task Force members served on the initial county Solid Waste Advisory Board which developed a solid waste ordinance which was adopted by county commissioners.

County Wide Solid Waste Plan

The North Carolina Office of Waste Reduction published a report in the early '90's of all the counties in the state showing the current status of waste collection, recycling, landfill operations and projected life expectancy. The county had a landfill that was expected to last 15 years, had 25 un-manned green box sites for collecting household waste, and had no recycling program.

On the basis of this report and a recommendation from the County's Advisory Leadership, an Extension Solid Waste Task Force was organized and immediately started exploring what could be done, what needed to be done, and the alternatives and consequences. This group and the extension staff consulted with many experts, Council of Government, Keep America Beautiful representatives, waste management professionals, county and city government officials and employees. The Task Force conducted a "educational needs" survey, conducted

two pilot recycling projects, and assisted with the development of the county's solid waste plan.

Cotton Cleaning Waste Utilization

A textile firm asked the county Extension Service if they could help develop an alternative use for the cotton cleaning waste they were disposing in the landfill. County Extension agents with assistance from NCSU specialists, developed a program whereby this waste, or by-product, could be utilized.

As a result of this program, for every ton of by-product produced at the end of 1994, 1,096 pounds were fed to livestock, 123 pounds were used in the production of potting soil, 679 pounds was being sold for processing into a lower grade yarn, and only 100 pounds were disposed of in the landfill allowing the company to save \$44,020 in landfill expenses and \$24,460 in expenses required to separate the by-product.

County Solid Waste Management Program

A county completed a new solid waste management program, constructing eight homeowner convenience waste sites, closing the county landfill, and contracting with a private company to remove all garbage and recyclable materials. The old landfill site will continue to be used to assemble materials, take construction and yard wastes. Extension played a major role in the entire program, providing all educational materials, brochures, handouts, and other support. Extension trained master waste managers and volunteers, and extension staff conducted an exhaustive telephone survey to support planning of the new system, one of the few volume/fee based programs in the country. The county is now approaching a 38% (of a required 40%) reduction in the amount of solid waste generated, with more than two years left to reach the goal. Extension, in cooperation with the county, received a \$2000 grant to support recycling of pesticide containers, further reducing the waste stream and increasing the total amount of materials recycled within the county.

Lead Screening

Lead screening is a powerful educational tool. Extension has conducted lead screening in 17 counties in 1995, reaching over 1100 participants, approximately half of whom are new to Extension. Procedures conducted onsite allow immediate feedback to participants on the status of lead contamination in their drinking water at the teachable moment. Participation in the lead screening program also provides the opportunity for more comprehensive information on different aspects of water quality protection. Extension agents continue to express

interest in bringing the program to their county and 15 future screening programs are scheduled at this time. Nitrate screening is now being included along with lead screening as part of all water screening days which builds on our earlier work of analyzing 9026 drinking water wells for nitrate, chloride, conductivity and pH in 29 counties.

Vermicomposting

As a result of grant monies, one county's Master Gardeners developed a Yard Waste Backyard Composting Demonstration Center. The mission of the center is to help residents gain knowledge on the composting process, how to make compost, uses and benefits of compost, and proper soil management using compost.

With nine composters and demonstration gardens the Master Gardeners have given over 1,000 hours to maintaining the center and teaching persons of all ages as well as developing the vermicomposting technique. The county contributed \$140 to help the Master Gardeners produce a brochure entitled, "Vermicomposting, Natures Recycling Machines."

This total educational effort has taken the Cooperative Extension Service to audiences who have participated in Extension programming. As a result, volunteers were realized in Master Gardener volunteer development, also.

Basinwide Education Programs

Extension provided leadership for conducting basinwide planning workshops in five North Carolina river basins. Workshops are being conducted in cooperation with the N. C. Division of Environmental Management (DEM), and the N. C. League of Municipalities in support of DEM's Basinwide Management Program. Under this program, DEM will develop a comprehensive fiveyear basinwide water quality management plan for each of the state's 17 river basins by 1998. Workshops will be conducted in the other 12 river basins over the next four years as the planning process proceeds.

Extension working cooperatively with the NCDEM and the N.C. League of Municipalities developed a 21 minute videotape, "Protecting Water Resources: A Basinwide Approach" that is used during basinwide workshops and other educational meetings across the state to provide an overview of current water quality issues and the state's Basinwide Management Program.

Coastal Sedimentation Education Programs

Extension has conducted coastal sedimentation education programs for local

officials, developers, landscape professionals and homeowners in coastal areas on sediment and pollution prevention. Major accomplishments are three workshops attended by more than 150 local officials, professionals and homeowners, agent in-service education to provide up-to-date information on water quality, erosion control, landscaping, plant selection, nutrient and pesticide management and demonstration projects for sediment and pollution prevention. Reference notebooks are being assembled consisting of 10 new fact sheets and supporting research materials to be distributed to coastal county extension education centers.

Farm*A*Syst

Extension is modifying the existing Farm*A*Syst and Home*A*Syst materials to reflect the agricultural, geologic, demographic and environmental conditions of North Carolina. Farm*A*Syst/Home*A*Syst will provide a new drinking water educational program for the over 2 million North Carolinians (32% of North Carolina's population) who rely onsite well water to meet their drinking water needs.

Storm Drain Stencilling

Storm drain stencilling kits were provided to 80 cities to protect receiving waters from illegal dumping or mismanagement of materials that will degrade surface water quality. Stencil kit carrying boxes, volunteer brochures and educational videotapes were produced to support the stencilling program. Based upon the initial success, the program will be expanded to three new river basins.

TarPamlico Nutrient Management Program

Extension is providing educational leadership for the TarPamlico Nitrogen Management Program which is a component of the overall river basin nutrient management program. These educational programs will be targeted to agricultural producers, supporting businesses and government officials. The primary focus will be reducing nitrogen releases to the environment while maintaining productive enterprises. The educational program includes the following components:

1. at least 26 agricultural extension agents will incorporate nitrogen management into their ongoing animal, crop and horticultural production education programs
2. Extension will conduct annual workshops on nitrogen management at three locations
3. Extension will support demonstration projects in two watersheds
4. Extension will support tracking of BMP implementation through voluntary producer accounting

NC09 -YOUTH AT RISK

A. OBJECTIVES

1. North Carolina Cooperative Extension Service (NCSU) and (N.C. A&T SU) will help communities in 75 North Carolina Counties establish school-age child care educational programs for ages 5-14 and encourage existing providers to adopt Extension curriculum through:
 - Training of school-age child care providers
 - Empowering individuals, families and communities to address family and youth issues through public policy education
 - Encouraging community resources to support school-age child care programs
 - Improving parenting and family support skills
 - Building networks, coalitions, and support groups to assist with school-age child care programs

2. The North Carolina Cooperative Extension Service (NCSU) and (N.C. A&T SU) will enhance the reading and science/technology literacy of youth through:
 - Improving basic science and literacy competencies
 - Communication and information skills

3. The North Carolina Cooperative Extension Service (NCSU) and (N.C. A&T SU) will obtain the commitment of other academic resources at the land-grant university and work with ten state-level agencies and their community counterparts to provide training and other educational components for the developmental needs of high-risk youth which will specifically address:
 - Career education
 - Parenting skills and family support
 - Peer education programs for high-risk youth
 - Physical and mental well-being of at-risk youth
 - Teen pregnancy
 - Referrals to appropriate community agencies
 - Develop support systems for at-risk youths

SUCCESS STORIES

Johnston County

In Johnston County during 1993 a \$12,000 block grant from North Carolina 4-H and Department of N.C. Human Resources was used to conduct the first needs assessment for after school child care for children in K-5th grades in Johnston County. The results indicated

1 in 4 children needed a place to stay after school. Parents also indicated they would be willing to pay \$2.25 an hour for service.

Two subsequent grants have provided start-up funds for three after school programs. Three summer programs have 55 students ages 5-10. Ten child care providers have been trained by a 4-H system manager in quality after school care. Two schools with 40 youth began in fall 1994 for the 94-95 school year. Twenty high school senior students have volunteered up to 15 hours of community service time supporting the teachers by helping with activities, playground supervision, reading, homework and free play.

Halifax County

Operation Restart, funded by Community-Based Alternative funds and the County of Halifax, is designed specifically for adjudicated youth. Operation Restart is a therapeutic program for youth. The major goal of the program is the reduction of repeat offenses and a reduction of court petitions of youth. The program focuses on improved academic achievement, increased self-awareness and self-esteem, increased family involvement and reduced involvement in the judicial system. The program is designed to serve 40 youth per semester, 80 total, and 20 in a special summer program. Weekly work sessions, camping experiences and community service activities are vital to the success of the program.

For the past four years, the CBA program has served 810 youths. Michael Pittman, the director, has become a featured speaker at nearly every school, every church, and every community in the county. He was invited to address the NC Legislative Assembly to share the successes of participating youths.

Repeat offenses have been drastically reduced as well as court petitions for program youths. Adjudicated youths have become honor roll students and are regularly attending school. Referrals are from Juvenile Services and the Juvenile Judge. Because of the increase in the number of referrals in 1994 CBA funded a female employee to work in the program to serve the female adjudicated population. A van has also been purchased to support the program.

Guilford County

During 1994-95, Extension Agents in Guilford County conducted a fourteen session group leadership development program entitled, "Community Voices" for the Smith Homes Public Housing Community in Guilford County in cooperation with the Greensboro Housing Authority. The program focused upon teaching group leadership techniques such as communicating effectively, gathering information through surveys and interviews, getting people to work together effectively, and systematically solving community problems. The Smith Homes Community is one of the first public housing communities in Guilford County to participate in a group leadership development program.

Eight individuals successfully completed the program. Since the training, one individual ran for and was elected to the office of Vice-President of her community's Resident Council. She stated that she had never realized the importance of being involved in the Resident Council until her participation in the "Community Voices" program. In addition, the eight graduates are now working with the Resident Council to solve the problems of drug infestation and lack of supervised activities for the children in their community. Participation in the "Community Voices" program also helped to instill a great deal of pride in the graduates. They now feel that they have something positive to offer to their community.

Greene County

The 4-H S.T.A.R. (Stop Think Act Responsibly) program in Greene County is a life-skills educational program designed to help youth and families identified by juvenile court learn and benefit from 4-H educational programming. Sixteen youth were referred to 4-H S.T.A.R. from the court system and schools. Youth received 4 hours of contact each week with 4-H educational materials. The program networked with the Greene County Sheriff's Department which provided a liaison officer who coordinated law enforcement resources such as jail tours, drug abuse curriculum and scared straight materials. Greene School System provided meeting facilities and transportation. Through utilization of 4-H CareerSmarts, 4-H SPACES, and 4-H Stepping Into Tomorrow, the 16 participants developed self-confidence, improved self-esteem and increased their academic abilities. Eight 4-H S.T.A.R. participants successfully graduated from the program at an awards banquet. They received their awards in front of parents, peers and local government officials.

Teachers of 4-H S.T.A.R. participants declared that students behavior, classroom conduct and academic skills have improved as a result of participation in the program activities.

As of June 30, 1995 : 93% of 4-H S.T.A.R. participants have no petitions filed in the juvenile court which is a savings of court cost and time.

93% of participants have displayed no violence at school.

Only two participants were suspended from school while enrolled in S.T.A.R. 45% of participants increased their academic achievement.

Davie County

Three years ago in Davie County, a school councilor nominated a by-racial child whose parents had limited income. The councilor believed that the family did not encourage "William" to participate in activities because of his racial situation, and as a result he often seemed lonely and withdrawn. William has attended 4-H Camp for the

past three years and his school councilor credits his camp experiences as being a large part in the turn-around in his personality by proving to both him and his family that he can be accepted for who he is.

Multi-County Success

More than 65 campers and 45 volunteers took part in the first ever CBA/4-H Youth Forum sponsored by the Cooperative Extension Service and the CBA Programs in Carteret, Craven, Onslow, Granville, Cherokee, Pamlico and Wake counties. This event was held at Mitchell 4-H Center in Swansboro, NC.

Students spent 4 days learning about personal grooming, manners, sexually transmitted diseases, AIDS, self-control, cooperation, etc. Recreational activities included basic snorkeling, sailing, canoeing, a field trip to Bear Island, etc.

All events and activities including campers fees were obtained through the grant writing team and were in excess of \$35,000.00. In addition to this activity, students were selected from a local high school and were trained and given the opportunity to oversee and supervise many of the activities. More than 15 students participated.

Cherokee Indian Reservation

Approximately 410 high risk youths have participated in Extension sponsored programs that at some point dealt with drug and alcohol prevention. Many youths have been utilized as teen leaders to teach younger youths the subject matter they received. Through these efforts, they have built stronger self-esteem and positive leadership qualities. Not only have these teens shown development, but they have

also become positive role models for the younger youths.

Harnett County

During the past three years, more than twenty public and private agencies and more than 1800 volunteer hours have contributed to the success of the After School Enrichment Program in Harnett County. There is one Before & After School program and three After School programs. Our newest site was opened in May, 1995 at the Washington Heights and Harnett Terrace Housing Developments, Dunn. Approximately 194 children were served through the After School Program.

In order to provide wrap-around care, the After School Programs operated during the full school year, teacher workdays and during Christmas and Easter break.

The After School Program not only enriches the lives of the youth enrolled in the program, but it also offers parents a safe alternative to child care. Some parents would not be able to work if it were not for the program. Parents can relax knowing that their child in

not "home alone". Homework tutoring offered through the program is not only helpful to the children but to the parents and teachers as well.

Nash County

A Nash County 4-H Fire Safety program has helped Nash County youths stay safe. Many youths are members of a two-parent working family and are left alone at home after school for three hours. In order to reduce some of the risk factors for 9-12 year olds at home, 4-H and the Nash County volunteer fire departments conducted Fire Safety and Control program. The program taught youth the "Nature of Fire", "Use of Fire Extinguishers", "Smoke Detectors and Fire Alarms", "Identifying Fire Hazards in the Home", "Developing a Home Fire Escape Plan", and "How to Call the Emergency System". A total of 681 youths completed the program. The impact of this program, according to the fire departments, was a reduction in fire calls in the community. It also reduced property damage and loss.

Allegheny County

Extension agents in Allegheny County coordinated the Twenty-Fourth Annual Special Opportunity Camp (SOC), a week-long residential camp for 28 economically or socially disadvantaged youth that is run by volunteers. These children learned the basic tools to fit in to society and develop into the leaders of tomorrow. Special Opportunity Camp was developed to meet the needs of the less fortunate in Allegheny County and help them to become useful members of,

and not a menace to society. Each camper learned about savings accounts and opened up a notebook account with money from NAE4-HA Youth-At-Risk grant.

Wake County

In Wake County, Che Bland, a rising eight grader, has benefited significantly from the SOS (Support Our Students) program. Che has been an SOS participant since the first day of the program at Daniels Middle School and is continuing his participation through the SOS Summer STARS program. Che has shown improvement in behavior, attitude and academics.

Through SOS, Che has received academic tutoring, conflict resolution training, career development counseling and leadership development training. Perhaps most important of all, Che has had a place to come after school where he receives structure, positive reinforcement, role modeling, discipline, and fun. His guardian commented, "SOS has been a lifesaver. I no longer have to worry about what Che is doing after school. I know he's safe".

Che was a student with a long history of in-school disciplinary problems. He created problems in the classroom and showed little respect for teachers. Since he joined the SOS program, his school

records reflect decreased discipline problems. By the end of the school year, his teachers reported that his attitude was more positive and that he was beginning to demonstrate academic improvement as evidenced by increased homework completion and higher test scores.

Che has an SOS tutor with whom he enjoys working. He speaks highly of his tutor and looks forward to his visits. Che attended summer school to improve his academic performance. He completed his homework and expresses his determination to get A's in summer school. Che used to have difficulty getting along with peers. He now develops positive relationships and is well liked and well respected among SOS participants and staff. He has also used his artistic talent in positive ways, including winning third place among seventh graders in a Sickle Cell Anemia poster contest.

Che Bland continues to show improvement daily, with few setbacks. He shows determination to get himself on the right track. With the help and guidance of SOS peers, staff and volunteers, he is now able to recognize his mistakes and learn from them. Continued assistance will enable him to lead a productive and successful life.

NC 10 - FARM BUSINESS MANAGEMENT

A. OBJECTIVES:

1. Farmers will improve their appreciation for and ability to develop and use farm management tools such as budgets, records, and computers in farm decisions regarding alternative enterprises, investments, farm program participation, expansion or contraction, and other aspects of the business.
2. Farmers and lenders will become more aware of the need to improve farm business record keeping skills and to improve the understanding of the benefits of more complete business records in the management of their businesses.
3. Farmers and lenders will increase their understanding of and ability to develop integrated financial statements and to use such to evaluate and analyze business performance and credit worthiness.
4. Participation in the Farm Business Management System (FBMS) program will increase, and an increased number of participants will annually have complete farm analyses.
5. Income tax practitioners and farmers will increase their understanding of the income and estate tax laws and the legal and economic consequences resulting from various management decisions.
6. Employers will increase their awareness and improve their understanding of state and federal rules and regulations governing the recruiting, hiring, housing, and health of agricultural laborers in North Carolina as well as improve personnel management skills.
7. Farmers, agribusinessmen, and agency personnel will improve their awareness and understanding of the provisions and consequences of domestic food and agricultural policies, international trade policies, and environmental policies.

Success Stories

While all of this appears very successful and very satisfying to the program planning team, recent informal surveys and feedback indicate that farm

management decisions and economic decisions in general are the ones that most producers feel the most inadequate to make.

Overall, farmers in North Carolina are much better able to meet the demands of farm management decisions as a result of the educational efforts outlined and addressed in this state major program. However, new areas of uncertainty, a more complex political and economic environment in which to work, and an increasing public concern about the potential negative effects of agricultural production on the environment and natural resources dictates that more farm management educational activities are needed.

1. In 1994 hog prices went from profitable levels to unprofitable in a relatively short time period. Hog producers (independently owned) found themselves with serious cash-flow problems. If sufficient cash reserves or borrowing capacity were not available to meet short-falls, business failure is imminent. One Farm Business Management System (comprehensive records) cooperater with a 1700-sow farrow-to-finish operation faced declining hog prices with no cash reserves and limited borrowing capacity. Past revenues and borrowings had already been used in business expansion. Very little could be done about hog prices; so, for the business to survive, the production and cost side had to be addressed. The records provided us with production and financial performance data upon which to base prudent business decisions. When prices began to decline, production levels, inventories, financial position, and cost of production were determined and measures taken to adjust cash-flow. Returns and costs per pound of pork produced provided a measure of anticipated short-falls. Measures implemented were to cut contract fees on approximately 30,000 top hogs by \$2.60 per hog, saving \$78,000 annually. Two grain buying sites that were inefficient were eliminated, saving \$20,000 in rental fees and \$18,000 in operational labor. Farmer instead started buying grain as needed directly from a supplier. Family living expenses were cut on an annual basis by over \$12,000. Hog inventory records identified inventory losses and, therefore, inventory control measures were implemented, saving an estimated 300 hogs valued at \$25,000. These measures were successful in maintaining sufficient cash-flow to keep creditors satisfied while providing jobs for seven employees and income for contract growers who suffered cuts, but still allowed reasonable returns on older facilities. Without the kind of data available from a system like FBMS, this situation would have been another business failure.

2. A series of four Estate Planning Seminars were conducted in October, 1994. MCNC interactive video/audio sites were used (UNC-Asheville and Appalachian State University) to conduct these sessions.

Eighty-two participants attended sessions on estate

planning ranging from wills to Social Security. Experts in the areas of estate planning were used to teach more complicated topics (wills). Over 80 percent of the participants said they were going to update their estate plans after these workshops. This program was selected the best financial management program in the nation by John Deere, with a report given at the National County Agents meeting in Minnesota.

3. Twenty-four dairy farms in a county went out of business during this four-year planning cycle. Many dispersed due to age. However, the vast majority went out due to financial difficulties. Sixteen of the 24 participated in a Dairy Farm Financial Analysis Program where Extension provided an analysis of their total program, using both production and financial records. It is just as important to help people go out of business correctly as it is to help them stay in. These discussions involved the farm family, lenders, accountants, and Extension. All but one family followed the recommendations based on the Dairy Farm Financial Analysis Program.
4. A dairy producer learned how to organize his financial records and prepare a loan application as a result of programs and assistance from Extension. The loan which had previously been rejected was subsequently approved. The dairyman has made great improvements in organizing and managing his financial records, attended the farmer's tax school program for the first time, is participating in the Farm Business Management System, and has made many whole-farm management improvements resulting in improved cash flow.
5. As a result of educational programs concerning futures marketing delivered via the "marketing club" approach, 18 cotton farmers have incorporated the futures market as a source of information as well as a marketing tool. These farmers have continued to actively follow the cotton markets and at each cotton scouting or educational meeting, they receive market updates. By following the futures markets and pricing their cotton ahead, these farmers

were able to get well above an extra 2 cents per pound for their cotton, resulting in an additional \$433,500 in profits.

6. In one county where over 500 farm employers hire workers who may be exposed to pesticides, two Worker Protection Standards (WPS) employer training classes and five recertification classes with WPS emphasis were conducted. A WPS office exhibit and a WPS videotape library were developed. The results were that 300 plus employers completed WPS training and 510 received WPS reference material along with viewing sample WPS exhibits. Surveys and requests indicate that 50 percent of employers are implementing some aspects of the WPS.
7. As a result of workshops on record keeping and analysis, Christmas tree growers were able to analyze previous years' accurate records, implement a scouting program, and determine pest and damage thresholds. They were then able to time pesticide applications, obtain better control, and reduce the amount of pesticides used, resulting in financial gain.

NC11 - LIVESTOCK PRODUCTION, PROCESSING AND MARKETING

A. OBJECTIVES

1. Producers will establish Integrated Resource Management projects.
2. Producers will adopt herd health programs.
3. Producers will use feed testing and recommended nutrient requirements.
4. Beef producers will utilize intensive grazing.
5. Beef producers will develop alternative marketing plans.
6. Farms will renovate cattle handling facilities.
7. Genetic evaluation programs will be utilized on beef, dairy, and swine farms.
8. Beef, dairy and swine producers will learn breeding management skills.
9. Producers will improve the environment in swine buildings.
10. Horse owners will improve their management skills.
11. Producers will use animal drugs wisely to enhance food safety.
12. Dairy cows will have a somatic cell score of less than 4.
13. Dairy calf losses and calving age will decrease.
14. Dairy farmers will improve labor training and management skills.
15. Livestock producers will prevent excessive losses of manure and waste water into surface and ground waters and onto land.

16. Swine producers will keep adequate finance and production records and be knowledgeable about alternative marketing methods.
17. Dairy farms will understand government policy, be capable of evaluating alternative farming practices and be able to seek alternative businesses.
18. Small farmers will become aware of the economic potential of livestock production and develop correct management procedures.
19. Producers will learn Integrated Pest Management practices.
20. New processing systems for red meat will be developed.
21. Informational programs for nutritional labeling of red meat products will be available.
22. Beekeepers will learn how to deal with mites and Africanized bee problems and more beekeepers will enroll in the N.C. Master Beekeepers Program.

SUCCESS STORY

Person County Success Story

The 4th Person County Area Hay Expo and Field Day was held on June 1 in Roxboro, North Carolina. The NCCES offered a variety of equipment demonstrations, a short educational lecture, and static displays that were pertinent to the production needs of livestock and hay producers of North Carolina and Virginia. Approximately 450 people from the western and eastern parts of North Carolina as well as farmers from as far a Newport News, Virginia participated in this event. Sales representatives from several states in the United States as well as representatives from Ireland demonstrated new technologies in hay harvesting equipment. This event is the only one offered to the public in the eastern part of the United States and it is growing in size and participants each time the educational event is offered. Just the farmers in Person County have spent over \$100,000.00 in updating and adopting new and more efficient hay harvesting equipment. This has resulted in several thousands of dollars in labor savings. The program has created a tremendous amount of awareness and adoption of improved hay quality. This event has created new hay marketing strategies which has generated \$50,000.00 plus in farm incomes. The program has generated over 75 telephone calls concerning hay production needs of Extension clientele and other citizens of North Carolina and Virginia. Several 100's of volunteer hours were spent over a 6-months period in the effective planning, designing, implementing, evaluating, and accounting for this particular Extension educational program.

McDowell County Success Story

One of the many programs presented by the Extension Service in the area of livestock production, was a 27 hour artificial insemination school which was attended by 10 McDowell County beef producers. These producers jointly own approximately 200 brood cows. Upon completion of this class, these producers now have the skills to successfully carry out an artificial insemination program on their own farms. With an average insemination cost of \$25.00 dollars per head and a rate of 1.3 inseminations per conception this represents an annual savings of \$6500.00 to these producers. With the best bulls in the country available for use, these calves are worth a minimum of 10% more than average natural conception calves. With a very conservative average value of \$500.00 per calf at weaning, these calves will be worth an additional \$50.00 each or \$10,000.00 to these producers.

Halifax County Success Story

According to National Statistics the number of Dairy Farmers in the United States will decrease by 40% in the next ten years due to retirement and some farmers refusing to change their management strategies.

I have helped a dairy producer in the Thelma area stay in business by helping him change to a forage based seasonal dairy operation.

By changing to a forage dairy he has been able to save \$2.00 to \$4.00 per day or \$144,000 per year in feed costs. Also, he has been able to save \$50,000/year in labor costs due to the fact that forage management is less labor intensive. By going to a seasonal calving, he will be able to save an additional \$50,000/year by not having to feed a lactation diet in December and January. We have figured that he will be able to pay his debt loan off in five years and stay in business over the next ten year.

Gaston County Success Story

10 dairymen improved heat detection and AI techniques as a result of 35 herd consultations and 2 newsletter articles, resulting in an estimated increase of \$38 gross margins/cow for an average of \$72,200/dairy. Total increased gross margins for these 10 farms was \$722,000.

75% of area dairymen balance rations. Herd averages for dairies feeding balanced rations are approximately 19000 lbs compared to an average of 14,649 lbs for other herds, yielding \$500/cow/year additional milk receipts. Total additional milk receipts per year for farms with balanced rations: \$291,065.

Production on 8 area dairies adopting BST increased 6% compared to the national production increase of 3.4%. Total increase in net farm income for the 8 farms was \$73,748 providing an estimated average of \$20,626 in additional milk receipts/farm/year. 15% of area dairies adopted BST; 4% above the national adoption rate. This was accomplished through a BST meeting attended by 33 producers, 16 consultations, and 3 newsletter articles.

Farmers reported improved Spanish speaking employee performance among employees attending a Spanish speaking milking school held at a Gaston County dairy. Employees learned improved milking procedures, milk quality protection, and employee safety in their own language.

A dairy suffering from the 1993 drought began using grazing rotation (a best management practice) for the dairy herd during the fall of 1993 on a rye field. The grazed rye yielded an additional 1 ton/acre compared to conventionally managed fields. The BMP resulted in more available high quality feed, and therefore the dairy needed to purchase less feed. The dairy has expanded their rotational grazing program and is trying other BMP's.

Edgecombe County Success Story

Progressive livestock production is the mode for Edgecombe County producers. Six hundred ninety-three volunteer days and over \$28,400 has been contributed by agribusinesses and producers toward Extension livestock programs. Both beef production and swine production is on the increase. Contract swine production is on the move with construction of a local feed mill and construction plans in place to take swine income from 10 million to over 40 million in the next two to three years. Beef production is steadily growing with greater emphasis placed on forage systems, genetics, and marketing. Six new producers attended artificial insemination school which helped breed over 620 head of brood cows to the top genetic bulls available in the industry. Edgecombe County cattle continue to bring premiums above the graded feeder calf sale average and the newly established pro-conditioned sale averages which have amounted to over \$58,800 in premiums returning to Edgecombe County pockets that was in addition to regular sale prices. Twenty-two beef producers have adopted some type of grazing management systems to increase efficiency of production. Livestock production will continue to grow in Edgecombe County and with this growth, greater management skills will be essential in the area of environment, genetics, marketing, and efficiency of production. Depressed market forecasts will narrow the margin of profit. The ability to provide and receive the latest technology from research based information sources will become more and more critical in the livestock industry.

Davie County Success Story

In 1994 four Davie/Yadkin livestock producers joined other Statesville area producers and started an area pre-conditioned feeder calf sale to market their calves. After all costs were computed, the producers netted \$2,700 over the weekly livestock auction sales. The producer were extremely pleased with the results and were glad to have another option to market their calves. All four said they would participate again next year.

Also in 1994, ten Davie/Yadkin producers marketed 154 feeder calves through the stare Graded Fedded Calf Sales. Much to their surprise, the producers experienced a \$6,000 advantage over the weekly livestock auction. The positive results were spread through the area and many more producers requested information on upcoming Graded Feeder Calf Sales.

Alleghany County Success Story

Alleghany County is one of the leading counties in North Carolina with programs on Mycotoxin Awareness. Mycotoxins has been a major area of emphasis in the past four years. Over 200 different feed stuffs has been analyzed for mycotoxins. Their effects on production and health are great.

A seminar for area Veterinarians and the Northwest North Carolina Mini Dairy Conference was conducted, concentrating on Mycotoxin Awareness with local producers, state specialists from both Virginia and North Carolina and myself (Bob Edwards) as presenters.

The benefits to herds who make certain changes if the problems exists are astronomical. One example: Cows increased 21 pounds of milk per cow per day as a result of adopting Extension's recommendations relating to mycotoxins. This equates to over \$5,000 more dollars per month.

Alamance and Guilford County Success Story

A random sample survey of 65 beef producers in Alamance and Guilford County was made to determine adoption levels of certain key livestock management practices. The return rate was excellent with 55% (36 of 65) of those surveyed returning the forms. The following were the results:

1. 53% of the producers purchase bulls with performance test records and EPD's.
2. 39% utilized artificial insemination.

3. 47% utilized summer grasses or legumes in their grazing program.
4. 83% utilized intensive or rotational grazing.
5. 62% had a planned marketing program of feeder calf sales, retained ownership, breed association sales, annual bull sales, and/or private treaty.
6. 78% vaccinated their brood cow herd against the prevalent diseases found in the area and North Carolina.
7. 89% vaccinated their calves against blackleg.
8. 31% vaccinated their calves against the common respiratory diseases found in the area.

The educational programs developed to encourage producers to purchase bulls with performance records, utilize intensive or rotational grazing, develop a planned marketing program, vaccinate their brood cows, and vaccinate their calves against blackleg have emphasis needs to be placed on encouraging producers to utilize artificial insemination, incorporate summer grasses or legumes in their grazing program, and to vaccinate their calves against the common respiratory diseases.

The Guilford County Horse Management Course continues to be a very effective method to teach hors management. 10 classes lasting for 2 1/2 hours for 10 consecutive weeks is the format for this educational program. 2,974 people have taken the course over the past 4 years. Course participants surveyed have indicated they would save an average of \$200/person as a result of the education they received. Total savings over a 4 year period amounted to \$594,800.

The Northern Piedmont North Carolina Hay Directory has been a very effective tool to help hay producers market their hay. Participants in this hay directory have not only been from North Carolina but from Virginia and Oklahoma as well. Hay has been shipped all over North Carolina as well as Virginia, Georgia, and South Carolina. Over the 4 year period, 487,500 square bales and 5,850 round bales of hay have been advertised for sale. Total hay sales from the directory for that period amounted to \$1,365,000.

NC13 - Aquaculture and Commercial Fisheries Production, Processing and Marketing

A. OBJECTIVES

Increase the knowledge level of Extension Agents, producers and potential producers in the appropriate aquaculture technology options for use in their region of NC. Expand the aquaculture industry in NC and increase its profitability. Reduce the real or perceived impact of commercial aquaculture activities on the environment in NC. Continue marketing and production economics workshops for aquaculture producers/potential producers, lenders and other interested individuals. Develop a Hazard Analysis Critical Control Point (HACCP) training program for the seafood processing industry, which can be used in North Carolina and nationally, to assist the industry in understanding HACCP. Assist State and regional fishery managers in rebuilding important commercial and recreational fish stocks by: improved valuation techniques applied to changes in commercial harvests, improved understanding of the economic effects of reallocating harvests from the commercial sector to the recreational sector (including improved understanding of size and timing of recreational benefits), and enhanced understanding of costs of water quality improvements from alternative techniques to reduce agricultural nutrient run-off.

Success Stories:

Trout Waste Composting

North Carolina trout processors were transporting processing waste (carcass and viscera) to a storage center with further transportation to a rendering plant. Costs were incurred for transportation, labor, and equipment. No economic gain was obtained for the trout processor in the process of disposal. Landfill disposal is no longer an option. We recently demonstrated that composting trout processing waste and trout farm mortality is a viable method to dispose of a by-product of trout production. In the Spring of 1993, Dick Jennings, a local trout processor, expressed a need to find an alternate, economical method to dispose of trout processing waste but was reluctant to pursue composting because of a perceived problem with the smell of the process. Working with colleagues from Soil Science, we examined trout processing waste as a compost ingredient. Three separate shipments of trout processing waste were transported by the Area to NCSU's Research and Extension Center at Fletcher for composting and evaluation. Three different composts were established with consideration of the availability of bulking agents to the processor. One compost used wood waste and had to be turned with a front-end loader. The other two used a forced-air system. We tested wood waste and sawdust as the bulking agents. When the

composts neared completion, Mr. Jennings was provided with a sample, which he insisted on opening outside, and was invited

to see the compost firsthand. The processor was extremely surprised with both the appearance of the compost and the lack of smell. He insisted on probing into the compost, looking for decayed trout carcasses and skeletons which had decayed very rapidly leaving no visible traces.

Funding was acquired from the Tennessee Valley Authority to help establish a demonstration project for trout waste management in cooperation with Mr. Jennings' processing facility. Meanwhile, several outlets were being explored to identify markets for the trout compost. Samples from the original compost were used to overcome the reluctance by potential distributors and as examples to evaluate potential application. One moderate-sized greenhouse producer eight miles from the proposed compost site maintained he could use all the trout compost produced and confessed the trout compost was a better product than he currently purchased. The trout compost could be purchased at a price which would be mutually beneficial to both parties.

Mr. Jennings is on the Trout Advisory Committee, where he helped develop the objectives for commercial trout farm waste management plan of work. Satellite trout farms associated with the Jennings' Trout Farm have begun to contribute mortalities from their farms to the compost project. There has been active competition among the employees at the processing plant to be awarded the "privilege" of adding the day's processing waste to the compost pile.

To date, 3 trout processors have now adopted composting as a waste management alternative. These processors currently process over 1.4 million pounds of trout, producing more than 500,000 pounds of processing waste. This represents about 30% of the trout produced in western North Carolina.

Trout Ranching, Biltmore Style

The Biltmore Estate is a working farm and vineyard, and has developed a considerable for its wines. Located in a reservoir surrounded by the vineyards is an NCCES demonstration project for a type of fish production new to North Carolina. A project to demonstrate the viability of production of rainbow trout in net pens has been successful enough that the estate has decided to expand the facility and begin full commercial-scale fish production in 1995. By corralling the trout in large cages called net pens, this farm can make more productive use of a 40 acre reservoir previously used primarily for frost protection for the grapes. Net pen trout production can be a relatively efficient means of generating additional income from suitable lakes without interfering with other uses.

Ways to Grow

With the assistance of NCCES and the "Ways to Grow" Program, a limited resource farmer in Allegheny County has been able to expand his trout operation and developed it into a sustainable business. He began with fifty feet of raceways and has increased it to over two hundred feet. A pond was built for a catch-your-own operation and a market for his product has been developed to include trout for stocking ponds, restaurants and catch-your-own. This program has provided invaluable assistance in enabling this grower to remain on the family farm through the supplemental income generated from the fish farm.

Piedmont Fish Farming

In the Piedmont region of North Carolina, flowing water resources are limited but farm ponds are numerous. Two farmers have started caged catfish production. One farmer had holes eaten in his cages and has abandoned them until next year. The other farmer has had better results and will have fish to sell later this year. This farmer is bound to a wheel chair and NCCES has helped him get into production with the thoughts of his constraints.

Trout Farm Waste = Resources for Hydroponics

To demonstrate the potential for recovering nutrients from the discharge water from trout farms, three small ponds (12'x36') were constructed below Holder's Trout Farm in Graham County. A portion of the wastewater from the farm was diverted through the ponds for the production of watercress. After the watercress was planted, it grew rapidly on the nutrient-rich trout farm effluent water. Tests were conducted on 85 gallons per minute flow rate of the effluent water taken above and below the watercressponds. The results indicated that 93% of the solids were removed, ammonia was reduced by 74%, phosphorus showed a decline of 50%, and the biological oxygen demand decreased by 58%.

In addition to providing cleaner effluent water to return to the mountain streams, watercress has a good market value. Weekly harvesting can be sustained for seven to eight months per year. One acre of watercress has the potential of producing at least \$100,000 worth of watercress per year. With additional demonstration and market channel development, watercress production may be able to add a substantial new source of income for the commercial trout industry in Western North Carolina. It may also assist the trout industry by allowing further expansion while reducing the risk of overloading our streams with nutrients.

NC14 - FIELD CROP PRODUCTION, PROCESSING AND MARKETING IN NORTH CAROLINA

A. OBJECTIVES

1. Producers adopt a comprehensive approach to nutrient management, integrating the use of soil, tissue and manure testing, utilization of both organic and inorganic nutrients and effective placement and timing of nutrients.
2. Producers adopt a comprehensive approach to soil management, including the use of best management practices and crop/site selection.
3. Producers adopt an integrated approach to pest management to minimize production costs and negative environmental impacts.
4. Producers take a more comprehensive approach to developing and implementing marketing plans and adopting economically sound production practices.
5. Growers will adopt practices to produce high quality produce and to safeguard quality during harvesting and post-harvest processing.

SUCCESS STORY

Soybeans are grown on from one to one and one-half million acres in North Carolina and typically are valued in excess of \$500 million dollars annually. Thus, soybean production has a major impact both on the State's agricultural economy and on its environment and natural resources.

Educational programs conducted by agents and specialists of the North Carolina Cooperative Extension Service focused on several objectives relative to soybean production: 1) reduced risk to water quality, 2) preservation of natural resources, and 3) economically sustainable soybean production. Teaching points directed to these objectives included, nutrient management practices such as use of soil testing to determine nutrient needs, soil management practices such as conservation tillage, IPM practices such as the use of scouting and alternative controls, and proper pesticide use and application.

Grower adoption of recommended practices increased over the period 1991-1994. (1994 is the last year for which most types of data are available.) During this

period, no-till production increased from 26.2% in 1991 to 38.1% in 1994. Similarly the use of cover crops and

other conservation methods increased. As a result, valuable topsoil was preserved on an additional 337,000 acres, with an estimated 1,925,000 fewer tons of soil lost from North Carolina's farm land in 1994. Adsorbed pesticides and nutrients were also less likely to move into surface waters. The State's waters are also better protected by an increase in the percentage of soybean producers who report considering water quality impacts when making nutrient and pesticide use decisions (from 40% in 1991 to 51% in 1994), the percentage of farmers always mixing and loading pesticides at least 100 ft. from any well (from 58% to 67%) and the percentage using thresholds for corn earworm control (from 50% to 56%).

North Carolina soybean producers are also doing a better job of maximizing profits. It is estimated that adoption of narrow row production has increased profits by over \$3 million annually; adoption of newer, higher yielding varieties has increased profits by over \$7 million; and use of certified seed has increased profits by over \$1 million. (These values are based on applied research to establish the value of the practices in North Carolina and on data on increased rates of use). Further, planned rotation has increased from 57% to 68% of soybean acreage. Acres treated using properly calibrated sprayers have increased from 60% to 67%. Disease mapping increased from 7.5% to 8.3%.

NC16 - URBAN HORTICULTURE, FORESTRY, AND PEST MANAGEMENT

A. OBJECTIVES

1. For home gardeners to become more knowledgeable about landscaping, insects, disease and weed management, gardening and turf related subjects.
2. For community associations, schools, state agencies and local beautification committees to become more knowledgeable concerning tree selection, care and management.
3. For homeowners and commercial pesticide applicators to improve the management of selected pests in urban and suburban environments while concomitantly reducing the use of pesticides.
4. For landscape contractors, designers and maintenance contractors to become more knowledgeable about horticulture and related subjects.

5. Master Gardener volunteers to become better disseminators of home horticulture information to the public.
6. Horticultural agents to improve the informational content of their training programs for Master Gardener volunteers.
7. Horticultural agents to increase their knowledge base skills for improved delivery of home horticulture information to the public.
8. For the general public and agents to become more knowledgeable about the red imported fire ant.
9. To improve the efficiency of pest control activities by county and municipal mosquito control workers.

Success Story

One of the biggest success stories has been the newsletters Garden Notes and GardenLife. Garden Notes is written by Tom Martin and Ted Caudle in Mecklenburg County. GardenLife is written by a team of eight agents and edited by Bill Skelton, area agent in Gaston and Mecklenburg Counties. Garden Notes has a current monthly distribution of about 3,900 copies distributed at 28 garden centers and hardware stores throughout Mecklenburg County. GardenLife has a distribution of about 4,000 copies across a multi-county area. Both newsletters are of high print quality. The real success is that approximately 79,000 copies are getting into the hands of homeowners at absolutely no cost to the North Carolina Cooperative Extension Service. Garden centers purchase the newsletters at cost and distribution is done directly with clientele.

NC17 - NORTH CAROLINA FOREST RESOURCES, WILDLIFE PRODUCTION, PROCESSING AND MARKETING

A. OBJECTIVES

1. To increase the timber income potential from private timberland while upgrading the state's forest resource base through improved reforestation, intermediate stand improvement and timber stand protection.
2. To improve compatible multiple use management of forest resources with continuing emphasis on income opportunities from wildlife, recreation, firewood, pine straw, mushrooms and timber.

3. To increase income to landowners through improved business management of timberland and marketing of forest products.
4. To increase the competitiveness and profitability of forest products manufacturers by facilitating adoption of improved utilization techniques, encouraging better management principles, increasing production efficiency and improving product quality.
5. To increase markets for North Carolina forest products by attracting new or expanding existing industries, improving marketing skills of managers and increasing exports.
6. To educate the consumer about new forest products entering the market place, their proper application and protection.
7. To improve the quality and reduce the time it takes to produce marketable Christmas trees by adopting cost effective technology in site preparation, nutrition, weed, insect and disease control, shaping and post-harvest handling.
8. To develop better Christmas tree merchandising methods to increase market share.
9. To increase the understanding of growers and the public on the environmental impact of pesticide use in Christmas tree production.
10. To increase landowner income by the use of wildlife through fee hunting and fishing.
11. To provide extension agents with annual training opportunities in wildlife damage control.
12. To obtain factual data on the distribution and severity of wildlife damage to address new problems and to gain support for necessary changes in public policy.

SUCCESS STORY

In May of 1992, the Appalachian Export Center for Hardwoods, the North Carolina Department of Agriculture and the North Carolina Cooperative Extension Service sponsored an export workshop entitled Hardwood Markets: The Export Alternative. One objective of this workshop was to help companies who

were new to the export business. Another was to help firms presently exporting find new and emerging markets. Product and market opportunities, fundamentals of exporting, and export assistance were the primary topics presented at the workshop.

To evaluate the effectiveness of this workshop an impact assessment was done in 1993. This assessment involved gathering evidence of change brought about by the workshop. The participants opinion of the usefulness of the workshop was also determined. Ninety-one percent of the participants (21 out of 23) were contacted with the following results documented:

END RESULTS

Ten percent of the participants began exporting for the first time. These first time exporters marketed approximately \$100,000 worth of forest products in their first year with plans to expand this portion of their business.

CHANGES IN KNOWLEDGE, ATTITUDE, SKILLS AND ASPIRATIONS

1. Ten percent decided that exporting did not fit into their business plan.
2. Ten percent planned to begin exporting for the first time once overseas markets improved.
3. Five percent planned to expand their exporting activities once overseas markets improved.
4. The information supplied at the workshop was used by a consultant in efforts to help clients develop overseas markets.
5. One firm considered the possibility of starting a forest products exporting brokerage business.
6. One freight forwarder used the information to better service his present forest products customers.
7. Fifteen percent of the firms developed market contacts as a result of the workshop.

NIC18 - NORTH CAROLINA COMMUNITY AND RURAL DEVELOPMENT

A. OBJECTIVES

1. Rural Communities and existing/emerging entrepreneurs will undertake recreational and tourism development.

2. Homeowners, lending institutions and realtors will understand and undertake, where appropriate, proper maintenance of on-site waste water treatment and disposal facilities.
3. Municipalities and counties will plan and develop a comprehensive, integrated solid waste management program that will address recycling efforts at both the private and public levels.
4. The general public, farmers and consumers in particular, will understand the implications of soil and water contamination, and take the necessary steps to protect these resources.

SUCCESS STORIES

REGIONAL AGRICULTURAL COMPLEX A REALITY

After many task force meetings, much work and a \$6.2 outside grant, Robeson County has a new agricultural complex designed to house animal events and an expanded farmers market. The market provide opportunities for 34 vegetable producers to expand their operations and 68 new vendors, many of whom are elderly, low-income individuals, to sell their products. The local market manager estimates the value of produce sold to be \$440,000 annually.

Source: Everette Davis, Robeson County

DISPOSAL OF MUNICIPAL AND INDUSTRIAL BIOSOLIDS

Efforts to find economical and environmentally sound methods for disposing of biosolids generated in Harnett County began in 1990. After some initial studies a committee of representatives from county, municipal, industrial waste water treatment plants concluded that land application was the most economical alternative. Working with this committee, extension representatives began educating and consulting with farmers and landowners about the land treatment of biosolids. As a result of these efforts 3200 acres have been located and permitted for land treatment of biosolids. However, only 2 of the 6 sludge generators have begun land application to date. Extension will continue to work with land owners and sludge generators to help develop successful biosolid disposal program. Source: Robert Clark, Harnett County

COMMUNITY DEVELOPMENT PROGRAM GEARED TOWARD PEOPLE

The community development program in Madison County has focused on helping people in communities ban together to reach objectives not attainable individually. These groups have been successful in creating awareness for the need to recycle,

reuse, and reduce garbage to conserve landfill space. Extension has fostered recycling by obtaining \$42,500 to start a pilot composting project at the Madison County Landfill. An \$1,500 grant was used to convey home composting information to over 500 people via self teaching demonstrations placed at strategic high locations in the county. Extension also assisted community development groups, civic clubs and non-profit agencies join forces to obtain a rural health outreach grant that provided basic education for community emergency first response groups and enhanced 911 services for the county. A volunteer option save the 011 project \$40,000 by using community volunteers to assist with the new mapping and addressing system that supports Enhanced 911.

Source: Maurice McAlister, Madison County

SOLID WASTE SITES VISUALLY ENHANCED

In rural North Carolina counties solid waste collection sites are the most cost effective means of recycling many waste products. These handling sites can also be very unsightly if not properly landscaped and maintained. The people of Madison County felt their solid waste convenience sites needed beautification. Through the aid of Extension's Master Gardeners, other Extension-sponsored volunteers and local ornamental horticulture association the county was able to beautify the five convenience sites with new landscaping materials at a very reasonable cost of \$1924. A grant to defray these costs was obtained, with Extension's help, by the county from the NC Division of Forest Resources. The projects succeed in making solid waste collection sites more acceptable in their respective communities and provided an opportunity to introduce "new" landscape plants to the area.

Source: Kevin Starr, Janice DeGregory, Lincoln County

NC19 -THE ENVIRONMENT AND CONSERVATION OF NORTH CAROLINA'S NATURAL RESOURCES - CORE PROGRAM

A. OBJECTIVES

1. Landowners with more than 10 acres of timberland will know about the Forest Stewardship Program.
2. Landowners with wetlands will learn about state and federal regulations regarding their conversion and environmental values of wetlands.
3. Landowners and sportsmen interested in wildlife will learn about appropriate forest and wildlife management practices to improve

habitat and populations of preferred species.

4. Landowners with endangered species will know the provisions of the Endangered Species Act and how to comply with the Act.
5. Youth and adults will become more aware of the importance of natural resources and appropriate management practices.
6. Elected and appointed officials in counties without land use plans will implement comprehensive land use planning policies and practices.
7. County governments, businesses and citizens will meet new air quality standards in counties where new clean air restrictions are imposed.

SUCCESS STORIES

The development and continued success of the Treasure Tree Program is a bright spot in this program area. Volunteer participation has been excellent, over 800 hours have been donated to the program over the last 4 years. The program, which has an environmental focus, has brought much attention by the citizens of Mecklenburg County to the value of our older trees and urban forest. Specifically it has resulted in the successful protection of many of these trees on construction sites. From the professionally developed brochure and slide set to programs newsletter and network of cooperators, it has been a good example of a successful environmental education program. The program now has over 108 trees, but its side effects in increasing public awareness to the value of our trees is hard to measure.

A committee was appointed by the Moore County Commissioners to address the issue of property owners securing information on endangered species. The Red-cockaded Woodpecker (RCW) Committee prepared a proposal to develop and implement an RCW Conservation Plan for Moore County. Although the original plan was not funded, subsequently the US Fish and Wildlife Service has established an office staffed with an individual to provide information and service regarding red-cockaded woodpeckers. This individual is charged with implementing the habitat conservation plan known as "Safe Harbor." The Environmental Defense Fund, Pine Needle Producers Association, US Fish and Wildlife Service and the Cooperative Extension Service have worked together to educate landowners in this multi-county program.

NC20 - Pesticide Applicator Training

A. OBJECTIVES

The objectives of this program are to train and re-train (certify and recertify) commercial and private applicators, dealers and consultants in the safe and proper use of pesticides.

Success Story (State Level)

Pesticide training sessions to help landscape professionals to prepare for the licensing examination for their North Carolina Pesticide License in Ornamentals and Turf were held at 60 (four years) locations throughout the state. Each three-hour session covered topics on ornamental and turf diseases, insect, weeds, environment concerns and calibration of equipment. This session was part of a two-day program that included topics on laws and regulations and applying pesticide safely. This training was a cooperative program between North Carolina State University, local county extension agents and the North Carolina Department of Agriculture. Mr. John Wilson in the Horticulture Science Department arranged the meetings as part of his Pesticide Education Program for North Carolina, county agents arranged the meeting sites and participated in the two day training sessions and the Department of Agriculture gave the examinations at the end of the program.

Over 1000 landscape professionals from private companies and government agencies attended these training sessions. The average percentage of the people taking the difficult test and passing it was about 80 percent. These educational sessions are the first contact many of the people have had with the Cooperative Extension Service and many indicated an interest in obtaining more information from the Extension Service in the future. The pesticide license recertification program in North Carolina requires 10 hours of credit over the next five years to renew their license. With about 4500 people currently having a license in Ornamentals and Turf, the Extension Service has the opportunity to offer 45,000 contact hours over the next five years to help these professionals meet these requirements. Recertification credits are offered at Landscape Maintenance Schools that are arranged by county agents, at annual landscape and turf conferences and field days and at other meetings that are approved by the N. C. Department of Agriculture. Many of the 2500 people at the Annual N. C. Turfgrass Conference and the 1200 at the Turf and Landscape Field Day indicate that obtaining recertification credits is one reason for attending these events.

This program is an example of a cooperative program between several

departments of the School of Agriculture and Life Sciences at N. C. State University, the 100 counties in North Carolina and the N. C. Department of Agriculture. Useful information for the rapidly growing landscape industry on the proper management of landscape plants and turf, the safe use of pesticides when needed and alternatives to pesticides are presented to the citizens of North Carolina through this very successful program.

Success Story (County Level)

Landscaping and lawn maintenance are big business in the county. The majority of the people doing this do some type of spraying, and need a pesticide license. After they receive a license, they must obtain recertification credits to keep their license valid. The amount of credits vary with the type of license. The applicators are able to receive this training through workshops that teach them proper identification of weeds, insects, and diseases, so they can make proper diagnosis, and pesticide selection if needed. A survey mailed to these users indicated that 89.1% identified the pest or pests before determining which pesticide to use. Only 4.4% used a product because it was readily available, and 6.5% said they used a product because they already had it. When surveyed about choosing a pesticide:

- 8.9% used as a criteria
- 41.7% chose it because of its effectiveness on target pest
- 26.6% looked at environmental impact
- 22.8% looked at applicator safety\
- 76% of the time they wore protective clothing while spraying

The results from surveys and the numbers attending training indicate the users of pesticides in landscaping and residential situations are taking the use of pesticides seriously, and are concerned about their safety, clients' safety, and environmental safety. Many lawn care companies voluntarily post lawns with signs indicating pesticide use, and when it would be safe to reenter. Pesticide training programs have been and continue to be very essential for the continued safe and proper use of pesticides.

Other Information

Private Applicators trained/certified	8,973
Private Applicators re-trained/re-certified	5,560
Commercial/Public Applicators/Dealers trained/licensed	5,890
Commercial/Public Applicators/Dealers re-trained/re-certified	10,266*
Other extension clientele obtaining pesticide education	20,200

*To re-certify these clients an average of four 2-3 hours classes had to be

conducted (on separate dates)

Compiled by John H. Wilson, Jr.

State Project Leader with help of Pesticide Coordinators in the 100 counties.

NC21 - INTEGRATED PEST MANAGEMENT FOR ROW CROPS, HORTICULTURAL CROPS AND LIVESTOCK IN NORTH CAROLINA

A. OBJECTIVES

1. Clientele will increase use of recommended integrated pest management practices which involve alternatives to chemical pest controls, including rotations, biological controls and reduced pesticide use as shown in Extension demonstrations.
2. Private crop consultants will gain knowledge of integrated pest management practices.

SUCCESS STORY

Fraser fir Christmas tree growers in North Carolina became concerned about a number of problems in the early 1980s:

1. Pest problems involving soil borne diseases and insects.
2. Loss of labeled pesticides for use with Fraser firs.
3. Chronic fertility problems with the crop
4. Reduction in tree quality with second and third rotations in older fields.

Citizens outside the agricultural community, noticed another set of problems:

1. Widespread use and misuse of pesticides and fertilizers.
2. Soil erosion in Christmas tree fields that had bare-ground weed control.
3. The impact of the Christmas tree industry on drinking water. The North Carolina State University Cooperative Extension Service initiated numerous on-farm demonstrations beginning in 1989. Initial efforts were directed toward evaluating current pest treatments and better defining the basic pest life cycles described in the literature. Also studies were started to determine scouting methods and economic treatment thresholds. It became apparent

that IPM could address the entire package of issues related to Fraser fir, including managing pests, fertility concerns, soil quality, and excessive inputs that had negative environmental consequences. Extension worked to provide growers with the education and tools they needed to improve their tree production while minimizing the impact to the environment.

Eight counties representing over 80% of the NC tree production have implemented a county wide IPM demonstrations to support education IPM programs for Fraser fir. Cooperating growers sign up two to five acres, provided site history records, and paid a user fee.

The IPM programs's original goals were to test current pest-monitoring techniques and treatment thresholds and to develop growers' confidence in catching pests before they caused damage. Scouts checked fields at short intervals with high intensity; each field is visited nine to 11 times the first season. This intensity was necessary to monitor spruce spider mites (SSM) populations, which had the potential to expand rapidly and cause severe damage.

Fields are also monitored for other insects, weeds, diseases, and weather patterns. Growers are provided with mid-season and year-end scouting reports.

By 1992, scouting efforts became more flexible, while technique became more precise. The scouting demonstration emphasis shifted from developing practical techniques to training cooperating growers. Growers started meeting with scouts on every field visit, and participating in field scouting, soil and tissue sampling, and record keeping. Training was concentrated on sites with more active pest problems to develop growers' scouting skills.

Growers have been provided with pest-alert and monitoring information through news articles, newsletters, and educational meetings. Growers and others have learned useful IPM concepts that affect Fraser firs through a variety of meetings, clubs, and environmental-awareness programs. This IPM program has been a primary emphasis in agent-training events. Over 500 Fraser Fir IPM Guides have been distributed to growers to support grower education efforts.

In the largest Fraser fir producing county, more than half of the cooperators have reduced their fertilizer use by a third, which equates to an individual savings of more than \$1,000 per year per grower. Pesticide reductions averaged 35% and 77% of the producers had adopted the ground cover suppression method of weed control. Almost 90% of cooperating farmers have shifted their use of pesticides to more environmentally compatible materials than used before. In another county, after the first year of an IPM program, a before and after grower survey indicated that grower's knowledge of pest management increased 3 fold. Other

counties have reported that in the first year of operation the IPM program reduced pesticide use by 5% and increased tree quality. Pesticide reductions equates to substantial savings for producers. For example, if by scouting, a grower can catch a balsam woolly adelgid problem at a two-tree, as opposed to a 20-tree, level, the per-acre savings would be about \$360. On a county level, this could represent a savings of more than \$500,000 worth of trees annually.

IPM has the advantage over many programs in that it reduces growers' inputs in exchange for more knowledgeable management while resulting in an increase in quality of the Fraser fir Christmas tree.

NC22 - PESTICIDE IMPACT ASSESSMENT IN NORTH CAROLINA

A. OBJECTIVES

1. To provide the USDA's National Agricultural Pesticide Impact Assessment Program (NAPIAP) with accurate and timely data on the uses and benefits of pesticides in North Carolina.
2. For extension personnel in the state to be informed of regulatory actions affecting pesticide use in order to assist clientele with necessary changes in pest management.

Success Story

The pesticide use database maintained by the North Carolina Pesticide Impact Assessment Program was recognized as a source of accurate pesticide use data by a subcommittee of the North Carolina Pesticide Board's Pesticide Advisory Committee. The North Carolina Pesticide Board is considering a recommendation by the North Carolina Center for Public Policy that the North Carolina Department of Agriculture compile accurate data on the amounts of pesticides used in the state. Also, the database will provide baseline data on the use of pesticides and non-chemical pest management practices for two federally-funded projects at North Carolina State University which will evaluate the success of IPM implementation by North Carolina apple and peanut growers.

NC24 - SMALL AND LIMITED RESOURCE FARMERS

A. OBJECTIVES

- a. Twelve hundred small farmers will become familiar with the services provided by major USDA agencies.
- b. Six hundred small farmers will improve their managerial skills by developing and adopting a farm record keeping system.
- c. Fifteen hundred small farmers will become familiar with at least one alternative enterprise that could generate additional income.
- d. Five hundred small farmers will develop and adopt a marketing plan for their agricultural enterprises.
- e. Five hundred small farmers will identify and adopt Extension proven agricultural practices.
- f. Two hundred fifty small farmers will diversify their farming operation.
- g. Two hundred minority farmers will become familiar with ways of retaining their farm land.
- h. Ten specialists, fifty extension agents and twelve extension technicians will be trained to better identify, evaluate and work with small, limited resource farmers. They will also receive training on production of alternative commodities that may improve profitability of small farms.

Success Stories

Burnice Blanks (Robeson County)

Burnice Blanks lives and farms in the Mt. Airy Community of Robeson County. He recently retired from Burlington Menswear and now devotes full time to his small vegetable farm.

Burnice's farming operation includes; cabbage, sweet corn, English peas, squash, turnips, mustard, watermelon, okra, cantaloupe, carrots, cucumbers, peanuts, and beans. In total, 23 varieties of vegetables are produced.

Burnice's operation uses three marketing strategies; pick-your-own, farmers market and marketing out of his home produce stand. Improvements were made in the operation with a small grant obtained through the "Ways to Grow" program and his farm is used extensively as a local demonstration site.

Burnice has learned many of his skills through interaction with the Farm Opportunities Program, which he has been enrolled in for the last three years. Currently, Burnice has a keen interest in extending his harvest season using variety selection and early planting. Interaction with the small farms program has increased farm income by \$15,000/year.

James Dunn (Wake County)

Mr. James Dunn is a small part-time farmer located in northeastern Wake County. Mr. Dunn has purchased part of his family farm, and has developed a unique integrated farming system. The base operation is vegetable crops such as corn, tomatoes, sweet peppers, cabbage, collards and broccoli. Through working with the small farm program, James has developed farm management skills that have enabled him to make decisions about fixed and variable costs, taxes, land use, and risk management. These skills have helped him determine production and marketing strategies.

In order to diversify his farm, James recently renovated an old barn into a stable for boarding riding horses, and renovated pasture land. Currently, 14 horses are boarded, and there are apparently great opportunities to further expand this enterprise. Through interacting with the small farms program, James has added value and stability to his small family farm.

Susan Sears, Vance County

Mrs. Susan Sears has been a Farm Opportunities Program cooperator for two years. During this time Susan along with her husband Joe, have increased the production of alternative vegetables on their small farm. Susan currently grows 10 varieties of chilli peppers, watermelons, cantaloupes, pumpkins, and sweet corn. She is a graduate of the first Master Gardener's class in Vance County, and has increased her annual income by \$5,000 since she started working with the small farms program. She is a dedicated extension volunteer, whether as a master gardener, a member of the small farms committee, or as a member of the Extension advisory council. She is constantly striving to increase her knowledge of agriculture and is an active steward of the land and the environment.

Minority Task Force (Montgomery County)

In 1992, a Minority Task Force was formed in Montgomery County to plan educational programs for small minority farmers. Four seminars were held on marketing, record keeping and enterprise selection. Basic information was

delivered on several viable alternative enterprises including livestock production, greenhouse management, catfish farming and vegetable production. Two on-farm demonstrations were put in on meat goat production and greenhouse production with minority farmers. During the four seminars and additional demonstration site visits, over 90 small minority farmers were reached with this innovative program.

NC25 - NORTH CAROLINA RENEWABLE RESOURCE EXTENSION ACT

A. OBJECTIVES

1. Renewable resource producing enterprises will enhance their economic viability.
2. Renewable resource products will be more efficiently utilized.
3. Landowners/decision makers will be better able to act to protect and improve the environment on renewable resource lands through better information about the consequences of their actions.
4. Extension will provide continuing education to renewable resource professionals.
5. Public (including youth) will improve their understanding of renewable resource issues.

SUCCESS STORY

FORESTRY BEST MANAGEMENT PRACTICES (BMP'S)

The State of North Carolina amended The Guidelines to the Sedimentation Pollution Control Act in January 1990. These guidelines set nine performance standards for all forestry activities in North Carolina. These amendments maintained the forestry exemption, but only on the condition that forest site disturbing activities were done in accordance with the forest practices guidelines related to water quality. The North Carolina Cooperative Extension Service had the primary responsibility to educate the public on these guidelines. However, this educational program was a cooperative effort between the North Carolina Forestry Association (NCFA), the North Carolina Division of Forest Resources and North Carolina's forest industry.

Extension received a \$29,000 grant from the Sedimentation Pollution Control Commission to support extension educational programs relative to sedimentation

control on forestry operations. The extension educational program consisted of the production of five videotapes, one slidetape, publications and educational workshops and evening meetings.

Approximately 3,000 forest industry professionals, landowners and loggers having a yearly impact on five million acres of timberland attended over 50 meetings on sedimentation control in forestry. Over 20,000 copies of "Pocket Guide to the Forest Practices Guidelines Related to Water Quality" were distributed. Numerous copies of a Woodland Owner Note (Maintaining Your Exemption Under The Sedimentation Pollution Control Act), videotapes and slidetapes were also distributed.

The Division of Forest Resources provided technical assistance, responded to initial complaints and monitored compliance to the performance standards. If the activities were judged to be out of compliance and no progress was made to correct the situation, the operator was turned over to the State's Land Quality Division or other departments for enforcement. Enforcement not only included fines and court action, but might also require filing Sedimentation Control Plans.

The North Carolina Division of Forest Resources FY 1994-95 third quarter compliance report on forest practice guidelines for water quality and best management practices showed a 95 percent compliance rate. The Division had conducted 2,866 inspections and issued 132 notes of non-compliance. Of these, only six have been referred to other agencies for enforcement actions. Compliance rates have improved from 83 percent in FY 1991-92, to 91 percent in FY 1992-93, and 95 percent in FY 1993-94. Extension educational impact has and will continue to be critical to the continued success of the BMP's program. A representative from the NCFA summed it up by stating, "This shows that a reasonable regulatory program developed by knowledgeable people and supported by education, training and technical assistance can yield very positive results."

To build on this success, Extension received a USDA-Extension Service grant (three in the nation) for conducting silvicultural educational programs for loggers and the forest industry. This was a cooperative effort between the North Carolina Division of Forest Resources, the North Carolina Forestry Association, the Natural Resources Conservation Service and North Carolina's forest industry. This program involved the development of educational materials and conducting workshops and on-the-job training in an effort to expand logging contractors' understanding of the background in developing the forestry BMP's and the impact of harvesting activities on forest growth, soils and water quality.

Approximately, 1,000 individuals have already attended workshops and field days to understand the ecological and silvicultural basis of BMP's and how they contribute to good stewardship of our land, timber and water. In addition,

Prologger continuing education programs are being conducted for three months at nine different community colleges throughout North Carolina. Participants must complete 24 credit hours of training. Primary study areas include safety, environmental concerns and business management. The program concludes with an outdoor session that incorporates most of the elements the loggers learn in class including: planning before the job begins; best management practices; site productivity impacts from equipment; what the public sees and understands; elements of a crew safety meeting; and safety considerations including hazards, unsafe acts and conditions. Upon completing the program, participants receive Professional Logger designation and a certificate. Approximately 375 loggers have already graduated from this program. Graduates of this program are projected to be at the 1,500 level by the end of 1997.

NC27 - 4-H LEADERSHIP AND VOLUNTEER DEVELOPMENT

A. OBJECTIVES

1. For 600 master volunteers representing 50 new counties to develop specialized expertise and teaching skills.
2. For 80% of master volunteers to utilize their teambuilding expertise to satisfactorily involve 4-H Agents in planning and implementing contracts.
3. For 50 new counties to experience positive results involving teens in peer helping and teen volunteer roles.
4. For 35 new counties to organize county volunteer leader associations with help of the state association network.
5. For agents and master volunteers to develop skills needed to help leaders fulfill expectations of various job descriptions.
6. To develop a management system to respond to agency and institutional networking opportunities; ie. the National Community Service Act and Community Voices, NC A&T

SUCCESS STORIES

One county reported the average years of volunteer experience for community 4-H club volunteers to be 8.5 years based on her survey. The survey found that 67% of the continuing volunteers remained involved partially due to the

out-of-county leader training opportunities that the county 4-H program provides through paid scholarships. For every \$1 spent on youth programs, the Alexander County budget spends \$2 on adult volunteer training opportunities. Harnett County, one of the early participants in TAXI training, had eight manager volunteers trained at Master Volunteer Conference. One of the resounding successes of this effort has been the increase in 4-H camp participation. The Camp Volunteer Coordinator increased camp participation in one year from 30 to over 250. There were camping opportunities for every age group of 4-H'ers. Two 4-H camps have been filled by Harnett County each of the past two years. Many youth also attended specialty camps. The volunteer coordinator developed incentive plans, involved local businesses in providing scholarships and planned a full blown marketing campaign.

NC 28 - KNOWLEDGE (SCIENTIFIC LITERACY) NEEDS OF YOUTH

A. OBJECTIVES

1. For 140,000 youth to increase their knowledge of biological, physical, and social sciences, as well as language arts skills through integrated, age appropriate curriculum.
2. For 96,000 youth to increase their understanding of economic, agricultural, environmental, career, nutritional, and cultural issues through hands-on learning.
3. For 18,000 youth to understand science related issues and develop effective decision-making skills.
4. For 15,000 teacher/leaders to learn techniques for teaching and otherwise supporting experiential science related curricula.

SUCCESS STORIES

Fifty-four percent of the teachers in Alexander County felt that both their confidence and competence was increased by teacher training in Embryology. In addition, 475 youth enrolled in Embryology showed an increase in post test scores when compared to pretest scores.

In Burke County, 40 youth involved with S.E.R.I.E.S. TRY teams taught more than 2,000 youth. They indicated that they had developed teaching skills and more thoroughly understood the scientific process.

In Wayne County, science clubs are making a difference. Youth are completing their school work so that parents will allow them to participate. Teachers are finding that youth who had not shown a great interest in science were beginning to shine. One teacher reported having a learning disability child, who through a science club learned to operate a triple beam balance and then demonstrated to the class how to operate the balance.

Sixty-six Gaston County high school students in special education classes were identified by the rehabilitator as being at risk in the job market because of personal appearance, behavior, and attitude. Participants were given intensive training and counselors reported increased self awareness and less self absorption among the students.

In McDowell County, many of the current county leaders were members of the Livestock club within the past 14 years. Positions of leadership include Cattle Association and Agriculture Center Inc. President and Vice President, Youth Foundation President.

Eighty-two percent of the 591 youth participating in the River's Edge and Blue Sky Below My Feet curricula exhibited increase scores on end of year tests. The average increase was four percent.

In Anson County, the three day environmental field day which started in 1992 with two second grade classes has expanded to include a track for both second and third graders and involves nearly 300 youth yearly with 10 collaborating agencies participating.

A Forsyth County teacher found that the Embryology program was responsible for a disruptive child becoming a model student. The teacher gave the child responsibility for adding water and recording temperature. The child became so interested that he researched additional information and shared it with his classmates.

The Embryology program in Gaston County showed an increase in school attendance of 26%, an increase in class participation of 60%, a 15% increase in students completing their homework and a 18% increase in the quality of homework completion. In addition 40% of the youth showed an increase in science grades and a 33% increase in positive behavior.

Halifax County held a Chemistry Camp for 24 youth. The camp consisted of chemistry experiments and writing about persons involved in science. Youth found that scientists had normal lives and were not weird as depicted in the movies

Lincoln County used a vermiculture curriculum to capture interest of middle school students. They learned how worms make compost, reproduce, and react to various stimuli.

In Mitchell County 7 science clubs and 2 geography clubs have been formed in the middle schools. In addition greenhouses have been built utilizing grant funds at each of the four middle schools.

In Person County 100% of the 8 classrooms reported that science grades increased by at least one letter grade during the quarter in which embryology was taught.

Over the past four years, 80% of the Randolph County youth involved in school enrichment curricula followed through on their assignments and were able to retain knowledge specific to 3rd - 5th grade school enrichment through the 7th grade.

NC29 - HUMAN DEVELOPMENT NEEDS OF YOUTH

A. OBJECTIVES

With the challenges facing North Carolina's young people today, the Cooperative Extension Service at both NCSU and NCA&T State University will work closely to provide for human development training to accomplish the following:

1. 10,000 adult volunteers will demonstrate a knowledge of the developmental stages of 6-19 year olds and will organize and operate units and learning experiences based upon age- and stage appropriateness.
2. 20,000 youth who participate in 4-H clubs, special interest groups and camps will develop competency skills through use of existing 4-H programs (When I'm in Charge, I've gotta Be Me, Family Strengths, Babysitting and Talking with TJ) that support human development needs.
3. 5,000 youth will develop coping and contributory skills through a pilot human development curricula.
4. 7,320 youth and their families will improve their self-image by participating in I've Gotta be Me, Discovery, When I'm in Charge, and other appropriate self-confidence activities.
5. 3,265 youth and volunteers will gain knowledge of government after participating in local, state, and national citizenship activities and for 15% of those participating to become active in local governmental issues.

6. 1,575 youth who participate in child development and parenting education programs will demonstrate the principles of child development, child care, mother-father roles, and relationships, and problems associated with parenting.
7. 12,220 youth who complete human development program will demonstrate increased social skills, communications skills, financial management, decision management, and/or goal setting abilities.
8. 500 master or certified volunteers will train 5,000 other volunteers to utilize the specific record-keeping, presentation, career, citizenship, parenting, money manager, and other human development curricula.
9. 2,500 4-H volunteers will demonstrate a knowledge of how to utilize Extension sponsored issue-oriented programs such as alcohol, drugs, teen parenting and sexuality.
10. 6,745 youth will demonstrate improved group communications and public speaking skills through participation in presentations, through special interest workshops, the Performing Arts Troupe, peer friends, and peer performers programs.
11. 6,615 youth will adopt increased job preparation skills after participating in Career Development Programs.
12. 20,000 youth will improve 4-H record keeping skills by completing 4-H projects and cumulative records.

SUCCESS STORIES

Both child care/babysitting workshops for teenagers and the Red Cross Child Development course continue to impact upon families. Four counties reported that parents were requesting that their babysitter participate in 4-H Super Sitter programs. In Lincoln County, a Day Care remained open because the agents were able to offer special training to new day care workers in a timely manner. This allowed the center to meet State Day Care Regulations and remain open when it would otherwise have closed. An emphasis across all 4-H curricula on the improvement of self-esteem skills led to a successful program on the Cherokee Indian Reservation. Parents of participants reported that their young people were more self-confident, self-reliant, and willing to participate in events outside the Reservation. The first youth participated in presentation programs and NC 4-H Congress during this four year period. 4,645 persons have increased their knowledge and gained an understanding of the importance and value of cultural awareness and understanding in Halifax County, where citizens have hosted or visited persons from six countries. In the last four years, three groups of 4-H teachers (96 total) have visited to learn about Extension's role and educational programs.

A. OBJECTIVES

1. 40,000 youth will develop positive health habits through an issued-based health project designed around age appropriateness, positive life-long practices and positive self-esteem.
2. 200 youth and 50 supporting adults will participate in the Chaps training and become active advocates in their communities.
3. 30,00 4-H'ers, volunteers, and youth will improve their safety practices that promote accident prevention.
4. 500 youth and volunteers will develop skills and demonstrate the success of delivering substance abuse curriculum.

Success Stories

A. Peers Empowering Peers

"Peers Empowering Peers", is a program designed to provide educators with the resources to establish and manage peer based, prevention programs which are productive, renewing, and collaborative. It was created and continues to be funded through a series of one original and three continuation grants from the United States Department of Education to the Alcohol and Drug Defense Section of the Division of Student Services of the North Carolina Department of Public Instruction. The grants have been contracted to the 4-H Youth Development Department for program design and implementation.

The program originated in 1991 and targeted school/community teams of two or more educators to establish and manage programs in a school, community or school/community collaboration. Fifty-five teams involving one hundred seventy-eight educators representing thirty-three counties received the ten hour core training. Given average productivity between four and five hundred middle school peer mediators have been trained each mediating three conflicts a week, therefore, a conservative estimate of twelve hundred conflicts have been resolved.

In 1994, PATH (Peer Athlete Team Helper) program was packaged in collaboration with the North Carolina High School Athletic Association and made available to interested counties in Fall of 1994. This program targets steroid/drug risk reduction by establishing a "mentor" relationship between junior or senior athletes and ninth or tenth grade "rookies". Focus is on academic and athletic performance. The program was piloted

in six schools in New Hanover County. Twenty-four educator/ coaches were involved with one hundred and twelve mentors and rookies. The refined curriculum was then tested in Cumberland County in their Student Athlete Summer Institute and sixteen high schools. This test involved thirty-seven educator/ coaches and approximately four hundred and twenty mentors and rookies.

Summer of 1994 produced the first state level conference for peer helpers in the state. Celebrating Peer Helping Excellence, was funded and conducted by a collaboration between PEP, the North Carolina Peer Helper Association, 4-H, and the Governors Office for School Violence. Forty-three educators and one hundred thirty-six high school peer educators participated in the three day conference. A second conference was held in 1995.

Peer advocates are growing in time as the benefits for both partners gain recognition. A small rural community in the mountains has developed the foundation to begin a new program using eighth graders as mentors to first and second graders. Study habits, grades, personal hygiene and social skills will be the program's focus. Though a small program, implications of positive growth and success of the young people will prove enormous.

B. Pregnant Teens

EFNEP received a federal grant from WIC (Women, Infants, Children) and ERS (Extension Research Service) to develop and pilot a hands-on experiential curriculum for pregnant teens. Two counties were targeted and program assistants trained to deliver and evaluate the curriculum and methodology. One hundred and seven teens were recruited with eighty-two enrolling of whom sixty were pregnant. The ages of the teens ranged from twelve to nineteen with the majority ages sixteen and seventeen. Focusing on prenatal diet, dietary intake, food selection, purchasing and preparation, and other prenatal practices the curriculum was delivered in the schools and home bound situations. Cooperation with schools, agencies, and private organizations has impacted positively the pilot and provided volunteer support.

A pre/post curriculum survey indicated an increase in knowledge gained, skills developed and practices adopted. The average birth weight was 7lbs with only five births below low-birth weight of 5 1/2 pounds. Three of those five were within 2 ounces of the minimum. The curriculum has been edited and all EFNEP program assistants in the state will be trained to successfully implement the curriculum. Additional training is being provided to program assistants funded by the Governor's "Smart Start" program.

C. Smart Starts

In 1993 The North Carolina State Legislature funded "Smart Starts". Designed to provide a healthier start for all youth, counties were given the opportunity to apply for

grants. Ashe County, a rural, mountain county in the state, decided not to apply. However, since the first call for proposals hundreds of volunteers and citizens have banded together and developed a comprehensive strategic plan and "roadmap" to work toward helping solve many of the problems that face families in the county today. Their \$875,000 funded grant is a direct result of the hours and dedication of the Ashe County Partnership for Children volunteers. The opportunity to "touch every child's life" is reality.

D. Self-Esteem

Developing high self-esteem and good health is a by-product of the 4-H program according to Beaufort County 4-H Agent. During the last 4 years, 65 adult volunteers have received training on stress, self-esteem boosters for youth and ways to promote healthy living. These volunteers have spent over 195 days reaching over 1,200 youth with information and support as health advocates.

E. Physical Fitness

Physical exercise was addressed through a special program offered by the United States Tennis Association (USTA). The southern region office of the association using 2 clinicians trained seven volunteers on the Cherokee Reservation. These volunteers who fulfilled a two year contract taught 653 young people how to play tennis. However, they also trained additional volunteers maintaining a pool of volunteers to work with the young people. As an incentive for the project, the USTA provided youth with tennis rackets on a check-out basis, thus making the opportunity accessible for all those who were interested.

F. Public Awareness

Exhibits and fairs were used in many counties to reach both extension and non-extension audiences. They usually are excellent means to share information and reach large numbers of people. Lenoir county reached over 8,000 people through ten such events. Personal safety, home safety and farm safety were the targets of the exhibits. Identification methods for young children, how to be safe at home alone dealing with fire in the home, burglar deterrents, safe operation of farming equipment and how to deal with electricity are few of the topics that exhibits addressed. Some of the exhibits were interactive in that 4-H'ers and volunteers were present to talk and share with the viewers.

G. Fire Safety

Lenoir county also has a strong tradition of fire safety education. Delivered by volunteer fire departments in rural and city firemen in the city, all 5th graders are targeted. The culminating activity is a countywide 4-H Fire Quiz Bowl. Competition and recognition stimulated the young people to take notice and learn how to be safe around potential fire

situations and how to respond should they be faced with a hazard.

H. Child Nutrition

Mitchell County gives leadership to a Kindergarten Nutrition Program. Consisting of eight hands-on learning stations, participants experience nutrition in "action". Fun activities of making milk shakes, peanut butter or high energy grain necklaces, involve the youth in the learning. Follow-up programs in the first grade have shown a remarkable amount of recall about the Food Guide Pyramid.

For three years, a food and fitness Day Camp has been held in a high-risk neighborhood for youth ages 7-13 in Randolph County. Focus has been on increasing their knowledge of and skills in developing a personal wellness plan. Volunteers and professionals have worked with the sixty-four youth delivering segments on Food Guide Pyramid, personal appearance, dental hygiene, relationships, cooperation, decision-making, and self-confidence. Incentives are provided by local businesses and Community Based Alternative funds. Planned by a collaboration of agencies, 90% of the youth have reported new skills have been learned and their self-confidence has improved.

NC31 - DEVELOPMENTALLY APPROPRIATE CARE AND EDUCATION OF SCHOOL AGE CHILDREN

A. OBJECTIVES

1. 5,000 children will gain knowledge in age appropriate subject matter
2. 1,500 youth will participate in developmentally appropriate programs offered through 4-H day camps and after school programs.
3. 500 child care directors, providers and leaders will provide developmentally appropriate care and education for children.
4. 20 agents and staff will demonstrate resource development skills, marketing strategies, curriculum design skills and other management skills necessary to provide developmentally appropriate care and education in day camps and before/after school 4-H programs.
5. Establish 30 new 4-H after school units in participating counties.

SUCCESS STORIES (Ashe County)

Three full time after school programs for 7th and 8th grades have been established and the 4-H Summer Day Camp has expanded to provide wraparound services to the entire county. AMERICORP funding was secured to support the 7th and 8th grade programs and provide greater support in the area of literacy and curriculum development. A curriculum library has been established with 25 volumes for teacher/counselor/leader checkout and eight curriculum kits have been constructed. One hundred after school youth participated in the Achievement Night program.

After school efforts for school age children have developed dramatically in the last four years; all elementary schools host "AA" licensed centers, more than 1,400 children (cumulatively) have been served, availability has increased 75% since 1991, 115 families (cumulative) have been identified as being in need of subsidized child care. Four-H Summer Parks was licensed as the first 4-H Day Camp licensed Day Center for school ages in the state, after school for 7th and 8th grades was established in all high schools (3), AMERICORP was awarded to the county (8,768.00 a year for 3 years) focusing on literacy and curriculum delivery, a day care association has been established, Summer Parks was extended in order to provide wraparound services and full day and before school is now provided in two locations.

"In August, 1994, my daughter, Lillian, began to participate in the Third Base Program at Beaver Creek High School. Last year, when Lillian was in the sixth grade, she rode the bus home from school and was home alone until I returned from work. This was not a particularly good situation for several reasons, but the most prominent was that Lillian was frightened even though we had several safe guards to protect her. The only thing worse than being home alone was going to a sitter. When the 94-95 school year started, we were blessed to have a safe alternative that was acceptable to all of us.

Needless to say the Third Base Program has met that basic requirement but it has also been much more. The most remarkable change has been in Lillian's grades. She has always been a good student but we knew that she could do much better. Because of some unique things about Lillian, we have particularly encouraged her independent spirit and because of this spirit, she has had a very difficult time accepting guidance with her school work. Because of her age, she did not have the discipline to spend the time on it that was needed. We have taken her to tutoring which was helpful but expensive in time and money since we drove to Wilkes County to a private school. The first grading period at Beaver Creek. Lillian has A's except for two B's. The next grading period she had all A's and she had all A's for the half year. Mid-term grades for the next semester have been distributed and she continued to have all A's. We are not a family dedicated to a perfect report card, but we do like for our children to have school work that reflects their abilities. Third Base has helped Lillian achieve that family goal.

Kristy Aldridge, the Third Base teacher, has been very helpful in all aspects of the program. I have been pleased to have Lillian spend time with someone of her caliber. I feel that she is responsible for providing the guidance and assistance that has helped Lillian have the best year in school that she has ever had. She is kind, positive and knowledgeable among many other things.

There are many social problems which concern us as parents of an adolescent: personal safety, relationship problems and adequate preparation for the future. Third Base is a tool to help our family deal with issues in all these areas. We are thankful for the cooperation between Ashe County 4-H, the Ashe County Board of Education and Beaver Creek School for providing this program for our young people."

There is a critical need for quality daycare in Brunswick County. The 97 registered daycare facilities (homes/centers) need human development and health and safety training to encourage appropriate learning experiences in the child-care setting. Day care providers are requesting more training to become certified/licensed to meet North Carolina "Child Care Regulations" to keep children. The Human Development and Health/Safety Programs offered to daycare providers provided learning experiences, specific strategies and hand-on skills to demonstrate developmentally appropriate practices to match toys, games, equipment, and teaching strategies with children's different ages/stages. Three hundred fifty-two day care providers have been certified from 1991-95.

(Buncombe County)

After school site numbers have varied over the 4-year period, but basically there have been 9 urban sites and 22 county sites, serving about 600 and 2400 youth, respectively. We have worked with all 9 of the urban sites and 16 of the county sites involving about 2,000 youth.

(Burke County)

The Cooperative Extension Service 4-H program has been committed to organizing and running an after-school enrichment program for middle school age youth. Three years ago the Burke County School system made a decision to move to a middle school concept. Sixth graders who had been cared for at elementary after-school sites no longer had care. With the help of a block grant, middle school parents were surveyed as to their needs and desires for before, after and summer care. The survey was completed by 1656 families with a return rate of 60%. Parents indicated a need for an after-school program.

In the Summer of 1993, a pilot summer program was held and was successful. In the Fall of 1993, a coalition of churches, 4-H and other local agencies joined

together to develop a comprehensive middle school enrichment program. A grant was written and obtained for over 21,000 to start up the program.

In June of 1994, the 4-H Middle School Enrichment program opened its doors and operates daily year round. The after-school program began in August of 1994 with 9 youth and grew to include 29. United Way awarded a Venture Grant of \$3,900 to provide 10 partial scholarships for youth.

The 1995 Summer Program is full with 40 and a waiting list. The 1995-96 after-school program has 30 enrolled as of July 15, 1995.

During the past 2 years, Extension has established a cooperative working relationship with Community Schools, the primary agency providing school-age child care in the county. With funding from this agency and a grant, a Systems Manager was hired. We have adjusted our after-school programming so that Extension is now placing more emphasis on training the child care providers, providing 4-H curriculum, and supporting the child care providers in their role as 4-H volunteers. Regular training workshops are planned and an after-school 4-H newsletter is distributed. In the last year, there was a significant increase in participation from after-school youth in county wide traditional 4-H activities. The 4-H after school program has been well received by most and Community Schools has committed to continue their portion of the funding for the System Manager position.

(Forsyth County)

During the last four years, Forsyth County 4-H has improved the quality of school age child care by providing 4-H programs in most of the after school programs in Forsyth County. The work began in 1992 with a 4-H program assistant providing leadership to this major program. What began as monthly programs conducted by the program assistant at 12 after school sites involving 700, has grown in four years to weekly programs at 24 sites for 1,500 members who are providing hands-on learning and enhancement programs.

Yearly training for school age care providers have been conducted collaboratively with the YMCA in the areas of Quality school-age care, developmental needs of school age children, creative discipline and curriculum training.

(Gaston County)

The 4-H S.T.A.R. (Support, Training, and Resources for School Age Child Care Providers) program was established in 1994 due to the county's need for this targeted training. There are over 70 sites that offer child care for school age children in our county. A survey of training needs was mailed to each of these

centers: one to the director, two to the teacher, and five for the first five parents who picked up their child that day. From this survey, training topics were determined. Topics included: ages and stages, self-esteem, communication, discipline, nutrition, safety, room set-up, and scheduling.

The training began in May of 1994. During the time of May 1994 - May 1995 the training sessions had participation of 569 providers.

Two hundred thirty-seven of these individuals (unduplicated) participated in at least one two hour seminar while 18% attended four or more two hour sessions and 50% coming to at least two classes. These providers affect over 2500 children in Gaston County. 4-H S.T.A.R. reached 82% of the 70 child care sites through the training.

In the workshops ADD/ADHD, guest speaker Dan Seufert presented information on this condition and class room management techniques for use with ADD/ADHD children. A month later, provider Lisa Ellis of the Gaston Afterschool Club House reported, "It really has helped in dealing with the ADD/ADHD kids at our center." Tina L. Brooks, Bethesda Day Care, says "I took a good look at my children and noticed their behavior and found other ways re redirection." Dawn Swanson reports that she is better able to plan activities after hearing the discussion on ADD/ADHD.

After An Ounce of Prevention, Ginger Bennett of Aunt Rosie's Play and Learn shares that she will be better aware of "children's surroundings, and things I may not have noticed." Nancy McDaniel, Mini Academy, suggested to her director that the daycare get first aid kits for each teacher to keep with them, or wear on their person. Karen Hammill, Play and Learn, used check list to determine if playground and classroom equipment is safe. Donna Barnett, Gaston County YMCA, stated that medical forms will be at each site, and policy will be put in place for emergency transportation. Barbara Ptaszek, York County YMCA, will go over field trip safety rules with children as well as staff. Several YMCA personnel relayed that they will post emergency telephone numbers at the telephone.

(Moore County)

The school age child care initiative was begun through state funded efforts. One part-time program assistant was hired as a system manger for school age programming. Throughout the past four years this program has progressed into a far reaching program becoming most of the time the only resource for school age providers and program coordinators. The position is now funded through the local United Way.

Approximately 170 providers benefit from training workshops, one-on-one consultation and a quarterly newsletter packed full of timely and effective programming strategies.

A county wide survey was done to find out what type programs were needed as well as what were the benefits of this program. Impacts reported from the providers have been that they feel better equipped to provide quality educational programming for the school-age. It has also been reported that the children learned new ideas and felt good about the activities and their success with them. Parents also reported that they liked the programs and activities that 4-H offered through the after-school programs.

The school-age program component through 4-H has helped increased the quality of care for the children of Moore County and will continue to provide.

(Onslow County)

Several elements were proposed during the 92-95 plan of work in the effort to successfully achieve quality after school care in Onslow County. These elements included establishing after school care sites in public schools, encouraging private for profit and church based programs to establish or improve existing school age care (SAC) programs, provide support and training for the care providers associated with SAC programs, and introduce 4-H to children affiliated with SAC programs.

The basic principle in attaining these goals was in education. Sharing appropriate information about quality school age care with those persons involved with school age children provided the catalyst needed to elevate the program to its present level.

Training workshops became vital in helping implement the goal of quality school age child care. These learning experiences provided increased knowledge, updated skills, changed behaviors, and developed a sense of purpose for the school age care provider. SAC providers are always eager to participate in training offered so that they can continue to be prepared to meet the needs of the school age child in an ever changing society.

Through the training offered by Extension, SAC providers were able to reach more than 2000 children in Onslow County with 4-H opportunities. This has helped build an awareness in Onslow County about 4-H and help to market the Cooperative Extension Service overall.

Over the course of the four years, verbal and written feedback came from after school provider who utilized provider training and 4-H curriculum for the

children An example of this feedback follows:

"I find myself wondering how we ever got along without 4-H. It is wonderful to have an effective support system like 4-H. I would and do recommend 4-H to all school age child care programs."

Looking to the future, 4-H can continue to contribute much to our children with exposure to 4-H opportunities through the school age care programs. Continuing to offer established standard basics and extending training for providers to cover new topics relative to school age care, can only serve to promote the goals we have set for ourselves in providing developmentally appropriate quality care for our school age children.

Education Activities and Impact

In the fall of 1995, the director of a 4-H sponsored after school program detected extremely disruptive behavior in a 3rd grade child. The child repeatedly refused to follow directions or participate in group activities. Following the designated discipline hierarchy, the director attempted to talk with the child about the situation. During this conversation the director found out that the child wanted to be kicked out of school and the after school program. After speaking with the parent, a single mother, the director learned that the parent was experiencing the same behavior challenges at home and gained some insight as to why the child was possibly exhibiting such behavior.

Several attempts to encourage self-disciplined behavior were made by the director and included time-outs, having the child keep a behavior journal, student conferences, and parent conferences. The Education Activities/Impact child's behavior continued to deteriorate as physical outbursts of anger manifested themselves i.e., slinging chairs across the room, pushing over tables, locking self in bathroom.

The director took the option of suspending the child from the program for three days in partnership with the parent and an agreed upon discipline course in the home environment for that time. Upon the child's return to the program a slow but steady improvement in behavior was noticed. By the end of the school year, the child desired to participate fully in the after school program and was distressed on days when he could not attend. The child had found the adult guidance and support needed to begin development of self-discipline through the provider-parent partnership of the after school program.

Training was provided to 34 After School Care providers in "Talking with TJ." This curriculum helped 473 youth to increase their pro-social skills. These same providers coordinated and developed 8 different program kits in various 4-H

curriculum to be rotated among the program sites. Over 200 youth benefitted from these teacher-led and self-directed center activities.

Twenty camps were conducted with over 200 youth in attendance.

The staff was assisted by over 20 teens who utilized age-appropriate child care management techniques.

NC32 - SPECIAL NEEDS POPULATION FOUR H PROGRAMMING

A. OBJECTIVES:

1. For 12,274 youth from special need populations to increase their self-esteem, family communication skills, parenting skills, nutrition skills, decision-making skills, and other life skills through involvement in educational experiential activities and support groups.
2. Fifteen coalitions (15) will be established with organizations, agencies, and groups to increase the opportunities of 4-H for special needs population.
3. For 12,274 special needs youth to participate in innovative programs as a result of funds obtained through special grants to enhance their leadership and life skills.
4. For 192 current 4-H units to increase their awareness, understanding, and knowledge of youth with special needs through increased involvement in 4-H experiential activities.

SUCCESS STORIES

The 4-H PEACE TEAM is a very successful peer education program that was originally targeted for one Public Housing Community then expanded to four additional communities. Through networking with the Housing Authority and other agencies, programs and activities have been instrumental in the development of teen leadership. Teens were involved in programs such as decision making, enhancing self-esteem, African Heritage, teen sexuality, conflict mediation, environmental concerns, and community service. Enrollment increased from 10 teens to over 40 teens who became community leaders, and positive community role models as a direct result of their participation in the peer education program.

The 4-H Wilderness Program, an ACA accredited therapeutic camping program, is in its 16th year of operation. In the last four years, it has changed to a "Guided Growth" program in which youth spend more time developing their self-confidence and self-esteem through outdoor adventure and community service projects. In western North

Carolina, more than 120 adjudicated youth have been referred and served by the program and a waiting list of youth who are at risk of becoming adjudicated exists. Boys and girls in the 4-H Wilderness Experience are referred by the courts, sheriff's department, schools and Department of Social Services. They are considered greatly at risk or have been adjudicated. Referral agents provide evaluation feed back as to the change in behavior that has occurred as a result of the child's involvement in the 4-H Wilderness Experiences program. Two examples include the following comments about James and Jeremy:

"James' attendance, grades, behavior, and attitude have all improved. He is making A's and B's !!"

"Jeremy's self-esteem has greatly improved. This has helped his grades, behavior towards others, friendship development and over all attitude about school. Jeremy is now looking into other positive programs--The Wilderness Experience has "turned him on to new worlds" and enormous successes."

A limited resource family that has participated in 4-H for nearly 10 years stated that "their Extension involvement and exposure has developed in them a desire to strive to set goals and achieve them." The family (mother and 2 children) has moved out of public housing and is buying a low interest rate home through Farmers Home Administration due to the guidance they received over their years of involvement with Cooperative Extension. The oldest child is a first generation college student in her family majoring in early childhood education. She stated that " my 4-H child care projects and internships obtained from my work experiences and my 4-H agent kept me motivated to continue my education beyond high school."

NC33 -ENVIRONMENTAL STEWARDSHIP

A. OBJECTIVES

1. 440 agents and volunteer leaders will acquire the information necessary to train other teachers and volunteers in the delivery of environmental curriculums.
2. 150 teachers will demonstrate the skill to design environmental curriculum for integration with their existing academic program.
3. 25,000 youth will increase their awareness and understanding of environmental issues through participation in the school enrichment environmental education programs at Penn, Sertoma and Millstone.
4. Provide support to subject matter specialists and agency personnel in providing and evaluating relevant learning experiences.
5. 100 teachers and agents will learn how to design and support after school environmental science clubs.
6. 13,500 youth will exhibit increased understanding of environmental concepts through participation in environmental and electric education classes at summer

- camp.
7. Develop networks for collaborative programming between private and public agencies, environmentally concerned businesses and industries and local and state 4-H programming efforts.

SUCCESS STORIES

- In Haywood County, Seven hundred and fifty (750) adults, teen leaders and other youth have gained knowledge about environmental stewardship through program participation. Six hundred (600) youth were exposed to energy conservation programs and demonstrated learned activities and practices in this program area. Due to Environmental Stewardship program efforts in Haywood County, youth and adults in Haywood County have committed time, money and materials to the 4-H program. Four-H leaders have become more active and 4-H Members have become more aware of the problems in the community and have taken action to remedy the problems. These proactive actions have demonstrated an increase in Haywood county Youth Environmental Program participant s self-esteem and confidence. The environmental stewardship program has been and will continue to be a valuable program area for Haywood County 4-H. Programs have been utilized to meet needs of youth, junior leaders and adults. Haywood County 4-H has made environmental programs a major focus for learning activities. Many youth of the county enjoy working in the environmental stewardship program area and this project fits in well with the program efforts of Haywood County 4-H. Programming efforts included marketing the environmental program to increase awareness of 4-H and secure additional resources for the 4-H program. Environmental programming and school enrichment curriculum have enabled Haywood County 4-H to increase participation, network with others, and train Junior Leaders in valuable life skills including communications, self esteem and personal interaction.
- The main goal of the educational program in Jackson County was to educate young people about the importance and value of our natural resources, especially forest resources. Youth need factual information concerning natural resources and forestry. Through this program youth will be able to make informed decisions in the area of forest resources. The educational efforts in this program will help provide a sound scientific basis for young people to build on as they grow. This leads to more educated adults. This educational program may also lead to more young people seeking a career in the natural resource field.
- The success of the various energy related programs in the Western counties can be measured in part by the willingness of teachers to have these programs presented in their classrooms. After a classroom is visited, other teachers in the same school will make requests for additional visits. The resources provided for

these programs are not readily available to the classroom teachers. In the majority of the programs, the teacher is also seeing the material for the first time. It is important that our youth become educated about and responsible for the use of our natural resources. Through this educational process, they will be assured a better quality of life as adults. Our young people are a very enthusiastic audience and are open to energy programs. They have demonstrated a desire to learn what can be done to conserve energy for our future. By reaching them at early ages, evidence indicates their habits can be changed and they will carry this information home to educate other family members.

- Community clean-up and landscaping projects on the Cherokee Reservation have improved the aesthetic appearance of local sites in the community. During the 2nd Annual Reservation Extension Agents Conference held in Cherokee last fall, several of the attendees commented on the cleanliness of the reservation. Many stated the Cherokee Reservation was the cleanest they had ever visited.
- Extension in Rutherford County was successful in having a 4-H youth and other youth representatives added to the county's Solid Waste Environment and Energy Panel (SWEEP) committee. The 4-H member helped to plan the county's solid waste program.
- 100% of (406) youth attending Beaufort County 4-H Day Camp, Camp Wannagoma have had hands-on experiences with habitats, wetlands, wildlife, seining, Project Wild, Aquatic Wild, Carolina Anglers Teach Children How (CATCH), canoeing, nature hikes, touring and playing recycling game. 100% of 15 youth attending Beaufort County Advanced Camp Wannagoma experienced water testing, chemistry lab experiments at a major University, touring of division of marine fisheries, Carrot Island and U.S. Fish Hatchery.

NC34 - FAMILY DEVELOPMENT

A. OBJECTIVES

The problems facing families in North Carolina are interconnected and complex, and require innovative, multi-disciplinary solutions. The staffs at North Carolina State University and N.C. A&T State University focused their efforts on providing information to help families develop their capacity to enhance the growth and development of children and to strengthen families. Target programming includes child care, parent education, family strengths, aging, and family legal issues. The objectives to reach these goals were:

- * Volunteers, paraprofessionals and professionals will be trained to deliver programs in family development (e.g., Master Parents, Volunteer Information

Provider).

- * Participants will gain knowledge and skills related to the well-being of children inclusive of personal safety, self-care and survival skills, self confidence, personal growth and development, and the prevention of child and substance abuse.
- * Parents and youth will acquire the knowledge and skills associated with effective parenting.
- * Parents and youth will understand and use effective family coping skills.
- * Parents, youth and child care staff will gain knowledge and skills in child growth and development, age-appropriate activities, family-community-school relations, parenting and the selection of quality care.
- * Child care workers will adopt recommended practices for class-room management, scheduling, and curriculum development in order to increase their overall professional competency.
- * Family members will increase their knowledge and adopt recommended practices to improve stress management, conflict management, interpersonal relationships, self-esteem, decision making, communication and supportive skills.
- * Adults and youth will increase knowledge and skills in marriage preparation and enrichment.
- * Family members will gain information on the process of aging and skills needed to deal with the changes and problems associated with dependency, elder care and multi-generational households.
- * Parents and adults will acquire information about their legal responsibilities to and for their children, spouses and other family members.

Objectives for 1890 staff were:

- * Limited resource parents will increase their knowledge and skills in effective parenting, child growth and development and building family strengths.
- * Limited resource senior citizens will gain knowledge needed to strengthen their independence and share that knowledge through volunteer activities.

SUCCESS STORIES

* The Cooperative Extension service networked with the Department of Social Services to sponsor a court ordered Parenting Class. The program targeted social services participants for a mandatory 4 hours. The classes were conducted for 1 hour each Tuesday from 6:30-7:30 p.m., June 28, 1994 through July 19, 1994. The 14 participants were required to participate in order to get their children returned to their custody. (4 participants were husband and wife). The evaluation showed the following impacts: skills developed in the balanced parenting style, self esteem practices, child safety principles, balanced meal planning and the new food label.

* Grant funding in the amount of \$6,780.00 was received by the Extension Service for a comprehensive needs assessment. A consultant was used to survey families, agency personnel, and the private sector on the needs of families and existing services available to families. This information is being used by the county, as well as various agencies in meeting the needs of families. One example is the new Migrant Head Start Center. They are using the survey information to justify adding a wraparound day care program for county families on a year round basis.

* The Extension Service has offered monthly training for four years to help daycare professionals maintain and meet certification requirements. One thousand-five hundred-twenty-six persons have been trained. Extension has become known as the "source" for quality, practical and economical training for day care providers.

* A participant in the first training Family Caregivers Seminar is still one of the most active members of the Family Caregivers Support Group that began in June, 1992, as a result of the training. Her husband has been in and out of the hospital but is now a patient in the nursing unit at the VA Hospital. She comes to most all monthly meetings and is an inspiration to others, as she always has an encouraging word. She has said several times, "I don't know how I could deal with my situation if it were not for the training and the support from others in the group".

* My favorite success story is about a young couple recommended to the Extension Parent education program by Social Services. Many of the families recommended by other agencies are families in crisis. This young family was no different. The couple had lost custody of their two young children, ages 6 and 8. They had not been together as a family for three years. This couple had a very strong desire to bring their family back together. They had been to counseling at Mental Health as well. They attended a series of classes that I taught for 9 sessions. Upon completing the sessions they asked to receive the Parents Page newsletter as well. The mother called me about two weeks ago to tell me that they had regained custody of their youngest child and now had unsupervised visitation rights to the older child. They are scheduled for a court date to review custody of the older child in November. They stated their family relations were greatly improved and thanked me for providing them the means to solve their problems.

* One participant of the Building Self-Esteem home study course reported that she suffered from low self-esteem before the course. After participating in the course, she stated she realized she is a loving, sincere person who has learned to appreciate life's blessings more. She also stated she is now doing things differently that she considers to be an improvement by trying to look forward and accepting things that cannot be changed. Also, she stated her son, who is six years old, benefitted tremendously from this family activity.

* In looking at any program one can rate its success by the many people it has helped. The B.A.M. (Becoming A Mother) support group, a program designed to make better teen mothers, has done just that. Betty Harris finished high school, and after a brief period in the Army, became pregnant. She then moved in with her parents, got pregnant with her second child, and gave up all hopes and dreams of becoming a nurse. Struggling to make ends meet, she moved into Womack Apartments where she attended her first B.A.M. meeting. It was there that she found out about educational opportunities available to her at Rockingham Community College and about grants and scholarships that she didn't even know existed. Through encouragement from the members of B.A.M., she made it through college, combating hardships of lack of transportation and having to depend on taxis and friends. She survived and is now off welfare. She works as a nurse in Greensboro. She will never forget the day she went to her first B.A.M. meeting.

NC35 - FAMILY ECONOMICS

Core Program Final Report for 1991-95

A. OBJECTIVES

Individuals of all ages and families of all types will improve their understanding of personal finance, including money management, credit control and financial planning practices, to improve their financial situation throughout the life cycle.

Parents and youth will set and achieve financial goals.

Individuals and families will gain knowledge for making informed decisions about options for producing and extending income.

Individuals of all ages and families of all types will gain knowledge necessary to become effective decision makers and resource managers, and will adopt practices which extend purchasing power and increase consumer satisfaction (with special emphasis on health care/insurance, transportation, the environment, and consumer fraud.)

Elderly, limited-resource and young families will gain knowledge of housing options,

alternatives and lending programs for affordable housing.

Individuals and families will adopt practices to improve housing by repairing, remodeling, or upgrading to meet the family's needs throughout the life cycle.

Interagency network members will cooperate with CES in program planning and delivery to help older adults and families.

Individuals and families will gain awareness of and begin planning for the probability of becoming family caregivers and the possibility of personal dependency.

Family caregivers will improve their use of community resources and other measures to reduce stress.

Individuals and families will acquire information about legal, financial and other considerations for their current and prospective personal and business situations, including the importance of selecting and using appropriate professional services and other resources.

SUCCESS STORIES

(submitted by agents)

1. FACILITATION OF COMMUNITY RESOURCE DEVELOPMENT - Joyce Spear

A major accomplishment in this area was the establishment of a three-day satellite office of Consumer Credit Counseling Service in Rockingham County. Extension became involved in the Consumer Credit Counseling Service effort as a direct result of the networking, publicity and preparation for area Extension Homemaker meetings on financial management. This office currently is within the Extension office complex and was opened in August of 1994 after three years of effort. It was established through the collaboration of Cooperative Extension and a major financial institution in the county working together with a committee representing United Way, Chamber of commerce, Salvation Army, Mental Health, Help, Inc., Ecumenical Family Life Council, other financial institutions, and other county agencies and businesses. An Extension staff member currently serves on the advisory board of the area Consumer Credit Counseling Service. Since August of 1994, the Consumer Credit Counseling Service counselor has conducted 240 interviews, with 160 of these being financial counseling only. There are 80 enrollees in the debt-management program, with a total of \$90,000 paid to creditors. CCCS has also conducted ten educational presentations.

2. BASIC MONEY MANAGEMENT - Lucille Carter

A single mother in a Head Start parent meeting attended a session on "Budgeting: Managing for a Better You." At the close of the session, mothers could sign up if they wanted individual help, and this mother did. She attended many educational meetings offered, and began to volunteer to help with the Head Start activities. An opportunity for part-time employment was offered to her and she accepted. Seeing that this mom wanted to help herself and her children, I invited her to participate in a multi-county Economic Development for Women project, "Investing in Yourself." At first she was very hesitant about leaving home, leaving her children and all the other unknowns for an overnight out-of-town trip. After much persuasion she did go and it was extremely helpful for her and her family. She came back, changed the way she dressed, prepared more nutritious meals for her family, learned to set goals for herself and her family. She said the seminar really made a difference in her life. She said, "I now think more positively about myself....I try to teach my children good values." It must have had effects that others could see because she is now a full-time employee with Head Start, has taken two Child Care Credential classes from the local community college and has gotten married. She said, "I want to set a good example for my children and make them proud of me!"

3. OVERALL FINANCIAL MANAGEMENT - Bess Dawson and Donna Pointer

Twenty-five women from Person and Caswell Counties completed a 7-week Women's Financial Information Course. 80% of those graduates returned for a WFIP reunion and reported that they had implemented many of the practices discussed during the course. One woman reported that following the death of her husband, the Assistant Clerk of Court noted that she had taken care of most of the estate finalization details prior to her husband's death and wanted to know how she had been able to plan so well. Of course, the woman let the clerk know that her pre-planning was the result of programming offered by the local Extension Service. Two Caswell County participants reported that they have now had credit card annual fees waived and one has had misinformation removed from her credit report. Four Person County graduates of WFIP enrolled in SHIP training as a direct result of increased satisfaction with their financial management practices following the WFIP program. Also as a result of the program, 70% of the women reported the implementation of some estate planning practices such as having a will prepared and creating an important papers file which includes will, life insurance policies, living wills and health care power of attorney documents, etc.

4. ELDER CARE - Joyce Counihan

A resource directory of all services and agencies dealing with aging was developed and compiled by the Family Caregiver Training Committee [created by Extension]. The Senior Center houses the directory on computer. It is updated quarterly, so all entries

remain current. This directory became the primary document for the newly formed Resources and References n aging located in the Department of Social Services.

During the 1991-95 planning period, 59 family caregivers have participated in the Family Caregiver program, including a support group and continued contact. All participants reported being able to put new knowledge into practice, whether it be using the Resource Directory or stress management principles.

[Separate special reports have been prepared by specialists on the significant impact of two major programs: 1) NCCES/SHIIP cooperation on health insurance programs for seniors and 2) Housing/FRM/network cooperation in Affordable Housing programs.]

NC37 - Nutrition, Food Safety and Health Core Program for North Carolinians

A. OBJECTIVES

General Diet, Nutrition and Health

1. Adults participating in nutrition, diet and health programs will improve their knowledge, skills, attitudes, and behavior for nutritionally sound diets and healthy lifestyles.
2. Adults participating in diet and weight control programs will improve their knowledge, skills, attitudes and behavior for safely managing their weight.
3. Participants in maternal and child health programs will improve their knowledge, skills, attitudes, and behavior for proper nutrition and health for children and women of childbearing age.

SUCCESS STORIES

A Lunch n' Learn series is offered on a monthly basis. The series contains hands-on activities, demonstrations, and tips for healthier meal selection and preparation for the 270 participants. 90% of those polled at least 1 month following programs stated they have made positive changes in diet/lifestyle and food preparation to lower fat content of diet.

An agent in a urban setting is sought by local media to provide food and nutrition information. She is the nutritionist on a TV's Health Team. She has written and participated in 62 taped/live nutrition reports. She did a special 12 live spots on TV focusing on low- to moderate-fat foods that appeal to kids. In addition she has a weekly column, The Recipe Doctor, where she comments on the remaking of a recipe toward

a more healthy product. Her coverage is about 5 x 5 inches of newspaper space weekly. As part of the 'Nutrition In The Nineties' radio program she has written and recorded 145 different weekly nutrition messages that air 5-7 times weekly.

Agents work with the medical community in an urban county has gained her recognition as a nutritionist to include in community education programs. At a Diabetic Seminar the 400 attenders listened to a panel of ten physicians and the Extension home economist nutritionist. As a result a Diabetic Support Group was formed with a physician, home health agency and extension home economist as the leaders.

Agent took the lead in establishing a County Nutrition Council in an urban county. Included as members are other health professionals, physicians, and school personnel. An event was organized for all fourth graders in the school system. "Awesome Food" was presented to 725 students with focuses on eating the Food Guide Pyramid way, healthy snacks, dental care and exercise.

After being in and out of the hospital several times because of high blood pressure and gestational diabetes a pregnant teen was referred to the Cooperative Extension Food and Nutrition Program for pregnant teens. She was four months pregnant and had lost 7 pounds. The program provided nutrition information to improve health and birth outcomes. As needed during the regular program her special needs as a diabetic with hypertension were addressed. She altered her diet. Her pregnancy resulted in the birth of a full-term 8 pound, 6 ounce healthy boy. She credits the extension service for helping her control the diabetes and hypertension. An Extension Home Economics agent took the lead in establishing a local chapter of the Diabetes Association.

In an effort to reach minority males, a hard-to-reach audience, an agent in a small rural county organized Community Health Seminars for 'men only'. They were conducted at churches. Topics covered included hypertension, prostate cancer and AIDS. What would have been \$4,000.00 in office visits was donated by local professional to the 24 participants.

The Extension Service in one county organized a County Coalition for Immunizations. 25 different groups and organizations are members of the Coalition. During two special month long immunization promotions 300 children were immunized which is three times the normal monthly rate. Special funds acquired by the Coalition have provided for free or reduced fee shots, provide for auto-dialer computer programs to automatically call parents and remind them that shots are due for their children, and fund an immunization educator. The number of physicians participating in the free or reduced cost vaccine program has increased to 18 from the program beginning of 5.

"Enhancing Liquid Nutrition for the Elderly" was a program attended by 31 caregivers for the elderly. The program included a demonstration and comparison of techniques to enhance liquid nutrition in order to encourage nutrient intakes. 100% of the caregivers

gained knowledge in techniques for enhancing liquid nutrition. 63% found techniques they will use.

A workshop for people with diabetes was offered in 1993 resulting in repeat in the spring and fall of each year since then. Cooking The Diabetic WAY is four weekly sessions of three hours each. Four sessions have reached 64 participants. Quotes from program participants:

- "I think doctors should get their patients to come to this workshop."
- "This is my second workshop. I liked the first one so much...I came back."
- "Cooking the Diabetic Way" was one of the most interesting classes I have ever taken, because it pertains to my health and the new lifestyle that I must live. It is essential for me so that I will not be dependent upon others to cook for me and prepare my food properly. I can do it myself!"
- "This class has a wealth of information. It helps you understand scientific and practical aspects of managing diet and diabetes."
- "I have been a diabetic since 1984. I have never had a real lesson in meal planning. This class has been my salvation since I am trying to get off insulin this month when I go back to the doctor."

During a six week period 91 HomePlate kits were requested in a rural county. The program targets working parents with 5-8 year old children. 50% of the requests were from families who had not previously been an extension audience. In another county word-of-mouth publicity resulted in 50 requests for kits in a two month period. Discussion with parents indicated they appreciated the interaction encouraged between parents and children and the upbeat message contained in the video.

An agent working with the county school system provided 64 nutrition programs for kindergarten to fifth grade reaching 1,356 children in seven schools. The Superintendent of Schools wrote to say, "Your willingness to share your resources and expertise has enriched the learning experiences of the elementary students you taught."

The Cooperative Extension Service in one county administers the Commodity Foods Program. This administrative link resulted in the mutual partnership of Extension nutrition Education and commodity foods distribution. The distribution pattern allows clients to attend a nutrition demonstration while waiting for record processing. The monthly care load of eligible adults is 1,445 adults over 60 years and 267 women,

infants, and children. Although participation in the classes is voluntary, 5,105 people chose to attend in 1995.

A grant from the Smart Start Program allowed one county to start an EFNEP program with three Program Assistants and one part-time clerical worker. The program emphasis is on breast feeding education, education to children 2-5 years old, and community education at family resource programs and enrichment sites. The program is having significant contact with Hispanic and Hmong populations. The program received increased funding for its second year.

A Cooperative Extension Service county office was contacted to teach a foods and nutrition course to individuals in a substance abuse program. A 4-week program of 2-hour sessions was developed. 25 individuals signed up for the course including several staff members from the Mental Health group. By pre- and post-test evaluations the group improved weight, changed eating behaviors, and improved shopping skills. This resulted in scheduling another class for 20 females with alcohol dependency.

The extension agent and health department educators networked to conduct "Eating for Healthy Tomorrows" targeted for African Americans. A leader in each of 42 identified black churches was contacted to identify leaders in their church who would like to be trained in the program and conduct programs for their church members. Members from 32 churches came to two separate training sessions.

NC38 - VOLUNTEER DEVELOPMENT AND MANAGEMENT

A. OBJECTIVES

Two thousand (2,000) volunteers will be certified as graduates of Master Volunteer Programs (Master Food Preserver, Master Parenting, Master Money Manager, Master Yarn Skills, Master Recycler).

Five thousand (5,000) volunteers will demonstrate support of home economics programs through resource development valued at one and one-half million dollars (\$1,500,000).

Two thousand (2,000) persons will join a Family Community Leadership Association to foster and promote public policy education in North Carolina.

Nineteen thousand (19,000) North Carolina Extension Homemakers will change basic philosophy of programs of work traditional areas to areas that are issue oriented.

Home Economics volunteers in each of the one hundred counties (100) will implement partnerships, networks and/or alliances with a minimum of 10 other agencies, groups,

organizations, associations, etc.

SUCCESS STORIES

Resource Development

On-going training, support and encouragement has been provided to enable agents and volunteers to continue marketing Extension through external funding. Over \$1,163,000 resource development funds have been reported. Twenty-five thousand volunteers have demonstrated ownership of programs by participating in resource development activities. Educational sponsorships and other program endorsements have brought in more than \$100,000 a year.

Leadership Development

Agents and volunteers have participated in national Extension programs, North Carolina Extension programs and University programs. North Carolina Extension Homemakers have become active at all levels in the volunteer organization. Four North Carolinians have served at the national level on the Board and one volunteer has chaired the National Foundation Board of Trustees.

At the university level, volunteer leaders serve on the Dean of College of Agriculture and Life Sciences Advisory Board while one serves on the North Carolina State University Board of Trustees.

North Carolina Family Literacy Program

North Carolina Extension Homemakers Association Literacy Task Force to address literacy problems in North Carolina conducted a special conference to review educational programs for improving literacy in the state. Attendees at the conference included 500 representatives from North Carolina Department of Community Colleges, Labor, Public Instruction, Social Services, Parks and Recreations; North Carolina Literacy Councils; North Carolina Parent Teacher Association; Care-Line; Girl Scouts; United Way; Encore; Parent/Home School Programs; state and local libraries; day care centers; banks and lending institutions; university teaching faculty and graduate students; county government officials; the Kenan Foundation; and Extension Faculty and Extension Homemakers.

Literacy programs have been conducted in all 100 counties in North Carolina. Extension Homemakers' volunteer hours in local, state and global awareness and literacy have totaled over 2 million hours. Examples of individual accomplishments include a retired teacher teaching long-distance truck drive to reach, while other volunteers tutored students in an NAACP-funded after-school tutorial program, and in correctional centers and in Head Start programs.

As a result of efforts of the Task Force, House DRH4156-LF366 was passed by the North Carolina General Assembly earmarking \$100,000 to be used for volunteer programs in literacy in North Carolina.

The North Carolina Family Literacy Program was recognized by the National Association for Family and Community Education as the best literacy program in the nation.

Family Community Leadership

The North Carolina Family Community Leadership Program strongly emphasizes leadership development and challenges communities to effectively participate in resolving public issues. The program focuses on public policy education and targets women and families. All 100 counties have conducted an FCL training session with more than 7,480 persons graduating. Eighty-four donors have contributed more than \$186,365 to the North Carolina Family Community Leadership Programs. In addition, a North Carolina Family Community Leadership Network has been created to address issues and programs of the North Carolina Cooperative Extension Service, College of Agriculture and Life Sciences and North Carolina State University.

The North Carolina Family Community Leadership Scholars Graduate Program was initiated to prepare participants to function successfully in an elected or appointed "power brokers" position within 5 to 10 years. The participants have demonstrated progress toward achieving these goals. One participant was elected to the North Carolina House of Representatives, two are school board members, one is a mayor and others are members of local, county and state boards.

NC40 - EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM

A. OBJECTIVES

Three thousand seven hundred and fifty (3,750) EFNEP families will acquire the knowledge, skills, attitudes and changed behavior for nutritionally sound diets and to contribute to their personal development.

Ten thousand (10,000) 4-H EFNEP youth will acquire the knowledge, skills, attitudes and changed behavior necessary for nutritionally sound diets and to contribute to their personal development.

The EFNEP state program will increase interagency cooperation.

Pregnant and parenting teenagers will increase knowledge of maternal/infant nutrition, resulting in improved maternal and infant health.

To increase numbers of WIC mothers establishing lactation (beyond two weeks post-partum: baseline-75%) and duration of breast-feeding past two months post-partum: (baseline-17%).

SUCCESS STORIES

Youth Volunteer Training

Harnett County put into place before the present Plan of Work a volunteer training program that is still preparing adults to work with 4-H EFNEP groups. During the current Plan of Work the county has involved 2,175 youth and graduated them from 167 clubs. Led by 335 volunteers who contributed over 10,903 hours, the youth groups have experienced a standardized core curriculum and the support of belonging to a club.

Youth Summer Day Camps

Northampton County received EFNEP innovative funds to conduct three-week summer day camp experiences at four locations. One of the economic depressed areas of the state, the county offers few opportunities to its youth. However, the School Food Service provided breakfast and lunch daily through the schools. The project became a collaboration between School Food Service, Public Schools, County Recreation Director and EFNEP. Site selection was based on community family clusters who were in walking distance of the school. The curriculum included nutrition, gardening, fitness, self-esteem, agricultural production and processing enterprises and arts. Trained staff managed the programs but were supported by volunteer teachers. The project resulted in a collaboration that has continued to work together providing positive experiences for the young people.

Program for Obese Youth

Orange County received 15 referrals from their Health Dept., Schools, hospital dietician doctors and other agencies to work with overweight youth. These high risk youth had medical problems, borderline diabetes, asthma, which became exacerbated by the excess weight. In addition, there were family histories of heart disease, asthma and diabetes. Initially, the EFNEP program assistants worked with a few of these youth individually and in groups, but did not feel the special needs of the youth nor their families were met. There was very little parent involvement. EFNEP initiated a 10-week, once a week program for parents and youth as partners focusing on changing eating habits. The Health Department Nutritionist was an integral part of the team so proper attention could be given to the medical problems.

Some lessons were presented to parents and youth in joint sessions. Others were taught separately to allow tailoring to different needs of the youth and parents. Other agencies were involved in teaching the fringe content such as self-esteem,

body image, limit setting, and the family tree.

Perhaps one major factor in the success of the program, beyond knowledge gain concerning good nutrition and health, was the development of the support group. The program also addressed the needs of the whole family not just the teen.

The relationships that developed served as motivators for real behavior change reported by the participants:

- 1) Reading labels with focus on fat, calories, and sugar.
- 2) Practicing portion control and selection of nutrient dense foods.
- 3) Parents and youth exercising more.
- 4) Parents and youth working together to make wise food choices.
- 5) Preparation of meals and snacks as a family.
- 6) Improved self-esteem.
- 7) Participants consuming more fruits and carbohydrate foods.
- 8) Less consumption of fast foods, more preparation of meals at home.

Clearly, involvement of the total family proved important in educational programs designed to bring about behavioral change of obese youth.

Adult EFNEP

A young homemaker in a rural mountain county who lived in a very remote area was so inspired after graduating from EFNEP that she began baking many new recipes. During the summer of 1993, she opened her own business, a bakery, in the county seat. Her husband constructed her work tables and display case. They have three small children and need to help support parents who live nearby. The bakery is still in operation going into its third year.

With an award of \$3,000 from the Tennessee Valley Authority, 126 families in a seven-county unit developed family gardens. Each family received \$40 in garden supplies, which produced an average of \$250 in fresh produce per family (total benefit: \$31,500, from an investment of \$3,000). Several youth groups learned how to preserve their produce and exhibited in the county fair.

NC42 - CONSERVATION AND FORESTRY TITLES OF THE 1990 FARM BILL

A. OBJECTIVES

Landowners and managers will understand the Conservation Titles of the 1985 and 1990 Farm Bills.

Farm owners/operators will successfully implement conservation plans and practices.

Landowners and managers will understand the Forestry Title of the 1990 Farm Bill.

Landowners/managers will successfully implement forestry practices.

SUCCESS STORIES

Forest Stewardship - This program has been successful on several fronts. There are over 705 landowners actively managing their property as forest stewards. Numerous others have been reached and acquainted with the principles of the program, and have either chosen not to participate or have not decided. However, those not participating are encouraged to use the appropriate management practices on their lands. From Extension's perspective we have accomplished many things - 1) it has created a working relationship among agencies in some counties where it had not existed before, 2) it has provided an opportunity to work with professional resource managers in training situations, 3) it has provided the means to develop and disseminate much needed information on forestry, wildlife, and land aesthetics management. Over 25 publications have resulted from this effort and are being requested throughout the U.S. and from other countries. The information is currently available hardcopy or on the World Wide Web.

The North Carolina Wildlife Resources Commission funded "Economics of Filter Strip and Ditch Bank Management for Quail." This resulted in a report that will help private landowners evaluate investing in wildlife habitat and water quality conservation practices. Investments in these practices are likely to increase the attractiveness of large parcels of private lands for recreationists, thus generating income for the landowners.

NC43 - PARENTING AND FAMILY YOUTH PROGRAMS

A. OBJECTIVES

Strengthening the role of parents is necessary in order to combat family problems in order to North Carolina. Many families are having difficulties in their parenting role. Adults and youth lack a clear understanding of what it means to be a mother or father. In addition, schools and day care centers are assuming parenting responsibilities once reserved for families and churches.

Increasing numbers of dysfunctional families are seen in the increase in substance abuse, child abuse and neglect, family violence, childhood and adolescent

depression, runaways, early teen sexual acting out, and civil disobedience. Homeless families and abandoned children are increasing. Drug addicted babies and HIV positive affected babies are becoming the fastest growing segment of border babies in the state.

Working parents often have difficulty finding quality, affordable and accessible child care.

In 1990 one in five North Carolinians lived in poverty. Besides the plight of children and the elderly, North Carolina is experiencing a feminization of poverty with 58 percent of poor households headed by women. A disturbing trend in NC is the growth in the number of people who work full-time and still live in poverty, some 200,000. The disparity between the rich and poor populations in NC is the greatest since 1950. There is also a widening economic gap between urban and rural counties with rural counties having a greater percentage of their citizens in poverty.

The problems facing families in North Carolina are complex and interrelated. Extension is focusing its resources on assisting families to develop their capacity to enhance the growth and development of children and to strengthen families. Target programs include parent education, family strengths and support, financial management and parent-youth relations.

Specific objectives designed to address these issues are:

1. Parents and youth will acquire and use the knowledge and skills associated with effective parenting.
2. Parents and youth will improve parent-youth relations.
3. Parents and youth will understand and use effective family coping strategies.
4. Parents and youth will set and achieve financial goals.

SUCCESS STORIES

The North Carolina Cooperative Extension Service, Caswell County, was selected as the lead agency in developing plans for Smart Start and Family Resource Center funding for Caswell County. We were able to pull together governmental agencies, day care center personnel and families to work together to assess the needs of families of preschool children and develop plans to meet the needs. As a result, a Strategic Plan for Families was developed and adopted by the county. Caswell County has not yet been chosen as a Smart Start county. However, the

committee continues to work toward improving the lives of families. Grant funding in the amount of \$6,780.00 was received by the Extension Service for a comprehensive needs assessment. A consultant was used to survey families, agency personnel, and the private sector on the needs. The information is being used by the county, as well as various agencies in meeting the needs of families. One example is the new Migrant Head Start Center. They are using the survey information to justify adding a wraparound day care program for county families on a year round basis.

The Mothers' Morning Out Extension Homemakers Club targets mothers with pre-school age children. Monthly programs are focused towards parenting and providing support. Parents from the county have improved parenting skills through the WINGS pre-school education program. One county per congressional district was selected to participate. Thirty volunteers were matched with 30 families with pre-school children. The volunteers worked with the child and the parent present, playing developmentally appropriate games. The parents would then take the games home and play it with their child during the week. The goal was to help the children learn to think so they will be more successful in school. Parents learned what to do and how to play with their children. The children showed progress from the pre-test to the post-test. WINGS fits in well with our efforts to secure Smart Start and a Family Resource Center funding.

The Area IV Child Care Task Force is providing training and certification for childcare workers and parents through seminars, meetings, newsletters and workshops. Parents in Extension Homemaker Clubs, 4-H groups, Headstart, Health Department and other community groups such as Hospice have participated in educational programs and utilized publications. Provided parenting and nutrition lessons for young parents at Head Start and limited resource mothers on pre-natal care. Another rewarding experience for me is serving on Habitat for Humanity Family Selection Committee and Family Nurturing Yancey County. The group has completed several renovations, built a home in Yancey County and 1 in Mitchell County. Extension Homemakers have donated about \$300.00 and many volunteer hours.

Shortly after the birth of a child in Yadkin County, the mother is given a packet of literature. Included in this packet are Extension brochures and an introduction to the Baby Talk newsletter. This is the first time that Extension has contacted every new mother in the county within weeks of the baby's birth. As a result several have contacted the Extension Center for additional information or to be placed on the Baby Talk or other newsletters.

"The Creative Caregiver"

After working with day care providers on trainings in creative arts and healthy snacks, a great need was expressed for creative ideas and information for day

care providers. To help meet this need a new newsletter was designed to help day care providers with practical, creative ideas for programming and working with children. The newsletter, entitled "The Creative Caregiver", is sent bi-monthly to all the child day care homes and centers in the county. Feedback has been very positive and is helping in building stronger relationships between the providers and the Extension Service.

NC45 - VOLUNTEER DEVELOPMENT AND MANAGEMENT

A. OBJECTIVES

1. **Volunteerism**
Volunteers, resource persons, officers and chairpersons of Extension-related programs and organizations gain skill for performing middle management functions in the Extension organization or program they serve.
2. **Leadership**
Volunteers, resource persons, officers and chairpersons of Extension-related programs and organizations gain specific leadership competencies.

SUCCESS STORY

The North Carolina Family Community Leadership Program strongly emphasizes leadership development and challenges communities to effectively participate in resolving public issues. The program focuses on public policy education and targets women and families. All 100 counties have conducted an FCL training session with more than 7,480 persons graduating. Eighty-four donors have contributed more than \$186,365 to the North Carolina Family Community Leadership Programs. In addition, a North Carolina Family Community Leadership Network has been created to address issues and programs of the North Carolina Cooperative Extension Service, College of Agriculture and Life Sciences and North Carolina State University.

The North Carolina Family Community Leadership Scholars Graduate Program was initiated to prepare participants to function successfully in an elected or appointed "power brokers" position within 5 to 10 years. The participants have demonstrated progress toward achieving these goals. One participant was elected to the North Carolina House of Representatives, two are school board members, one is a mayor and others are members of local, county and state boards.

NC47 - PLIGHT OF YOUNG CHILDREN

A. OBJECTIVES

Extension, limited resource families, agencies (public and private) child care providers, local organizations, and volunteers will collaborate to:

- identify gaps in programs and services for limited resource families with young children
- design and implement collaborative solutions
- assess their impact upon limited resource families and the community at large

SUCCESS STORY

Twenty-five different groups and organizations have been working together as part of the coalition to improve the immunization rate in a rural NC county. During the month of April in 1994 and 1995, over 300 youth were immunized. This is three times the number immunized during an average month. Coalition members set up clinics, including evening hours and Saturday's, and distributed over 10,000 fliers each time special clinics were held. Three or four promotions were held during each year. Magnets with the immunization schedule were printed and distributed. Grants were written, and Smart Start money was received for the work of the Coalition. Two grants totaling \$22,779 were received. Money was used to purchase an auto dialer computer program for two health service agencies to call and remind parents when their child was due for a vaccine. The coalition has also promoted more networking among agencies and groups, clinics to offer free vaccines at all location. Money from the grant was used to subsidize the cost of vaccine to physicians. There were five physicians on the program when the coalition first organized. Eighteen physicians now participate in the free state vaccine, this translated into a reduced cost to families.

A grant for 1995-1996 has been awarded to the Extension Service in the amount of \$17,800. A part-time person will be hired to work on immunization education and awareness.

Civil Rights Report - Summary for 1992-95 Plan of Work

CR01 - Civil Rights Training

A. Objectives

Overall:

All employees of the North Carolina Cooperative Extension Service are expected to be aware of and comply with Civil Rights legislation.

All employees of the North Carolina Cooperative Extension Service are to understand the human aspects of Civil Rights.

Specific:

1. All employees are expected to be knowledgeable of the principles and laws of our nation regarding Civil Rights.
2. All employees are expected to be knowledgeable of Civil Rights policies and sensitive to equity issues.
3. All employees are expected to assess the quantity and quality of educational programs delivered to minority individuals by comparing benefits delivered to non-minority individuals.

B. Indicators of Success and Accomplishments

The period of 1992 through 1995 was extremely busy in the area of Civil Rights training. Most of 1992 was spent planning for an in-depth Civil Rights training that was launched at the November 1992 State-wide conference. A comprehensive Affirmative Action plan was written as a key resource to this training. In 1992 all county staff received a full day of Civil Rights training. This training included a broader view of diversity in addition to the standard Affirmative Action principles. In 1993 one day of in-depth diversity training for all faculty was provided at the annual state-wide conference. The training on diversity has been expanded and now includes sensitivity to the disabled as well as an extensive list of other aspects of diversity (education, culture, religion, etc.).

The approach since the comprehensive training has been to keep the topics refreshed. New faculty attend orientation training in which Civil Rights and related Affirmative Action issues are introduced and explained. Monthly administrative video briefings have been used to remind all employees. Because of related travel expenses, video will most likely be used more frequently in the next Plan of Work.

C. Implications

The training opportunities provided critical knowledge and skills to facilitate the continuing commitment to Civil Rights. The training was well received and the overwhelming realization by the state teams was that the county faculty truly wanted to do what was right as opposed to simply meeting minimum legal expectations.

The summary data reflect an overall progress in minority representation. As a result, the training efforts are considered to have been successful.

Civil Rights Report - Summary for 1992-95 Plan of Work

CR02 - Public Notification

A. Objectives

Overall:

That all people who can benefit from Extension educational programs be aware of their availability.

Specific:

1. Every county be accountable for a public notification plan.
2. Make organizations which request Extension assistance aware of Extension position on non-discrimination.
3. Adopt and utilize on all printed material a common non-discrimination statement.

B. Indicators of Success and Accomplishments

This four year period has been very successful in the area of public notification. Every county is made accountable through annual reporting; there is a specific form to report public notification efforts. All printed material now has a prominently displayed non-discrimination statement. All counties were provided the "And Justice For All" posters for display.

For the first couple of years into the plan, each effort was tallied (i.e. how many counties used newspapers). In every category we found that more than a third of the 100 counties focused public notification efforts beyond minimum requirements. County reports indicate the frequent use of mass media, personal contacts with minority leaders, posters placed at grocery stores and other high volume businesses, announcements on school intercom systems, networking with other agencies to market our programs, and providing information to migrant workers' crew leaders for dissemination.

The organization began a 1-800 phone line that individuals can call anonymously with any complaint. There have been no civil rights related complaints on this line.

C. Implications

This was the first plan of work cycle following the now famous, 19 year old Bazemore case; this case dealt with charges of salary inequities of employees. The organization has shown great effort in ensuring that public notification standards are not only met but surpassed.

Civil Rights Report - Summary for 1992-1995 Plan of Work

CR03-On-Site Civil Rights Compliance Review

A. Objectives

Overall:

Achieve parity of participation for all clientele served by County Extension offices.

Specific:

1. All counties to determine their present level of participation of various groups and set numerical goals for reaching underserved/underrepresented groups.
2. All counties not in compliance to show progress toward compliance within the 4-year period.

B. Indicators of Success and Accomplishments

North Carolina has 100 counties and 1 Cherokee Nation Reservation. Comprehensive Program Reviews/Reports are scheduled on a biennial cycle so that 50 are done each year. During the Plan of Work, several strategies were enacted to accomplish the stated goals. A "check-off" form was designed for the review team to utilize in examining Civil Rights data in the county. The performance appraisal process and related documentation was revised to include an assessment of Civil Rights programming efforts. This actually is a component of on-site review and is done with every employee annually by the District Director/County Director team. The annual reports from all counties include data on public notification, program delivery, all reasonable efforts; and club membership summaries. These are forwarded to the District Directors and Personnel Director (Affirmative Action Officer) who in turn can review and provide individual feedback and strategies on a regular basis. The purpose here was intended for Civil Rights strategies to be recognized as a daily part of one's responsibilities as opposed to an annual event.

C. Implications

The Civil Rights/Affirmative Action Officer retired last year. The Federal Early-Out Retirement options also allowed three of the seven district directors to retire during the past four year cycle. The overall responsibilities of Civil Rights/Affirmative Action were reassigned to the Personnel Director. The new District Directors and the Personnel Director have been working to ensure that the necessary attention continues to be devoted to these efforts. The bottom line result is a good basis on which to build the next plan of work.

Civil Rights Report - Summary for 1992-1995 Plan of Work

CR04 - Equal Employment Opportunity

A. Objectives

1. Increase the number of minorities and females in agriculture and administrative positions.
2. Continue to ensure salaries are unaffected by race/sex.
3. Increase the cultural diversity of employees.

B. Indicators of Success and Accomplishments

Specific tasks associated with the objectives and related activity during the past year are as follows:

1. Enlist the help of all current employees to locate and recruit minorities.

This four year period was very busy in terms of recruiting. Video briefings were used to encourage current faculty to assist in recruiting minorities. A new recruiting brochure was developed to enhance the image of the organization as a career choice. Agents were given the opportunity to accompany recruiters as their schedule permitted.

2. Continue intern programs which are aimed at creating an interest in employment with Extension.

The intern program generally had three minority students each summer who were studying agriculturally related disciplines. The internship served to make the graduates more marketable and all interns were able to find better paying jobs elsewhere. As a result of funding concerns, it is unclear whether this program will receive funding in the future.

3. Aggressively recruit at traditionally black and female institutions in the southern region.

Our goal is to ensure that at least 1/3 of all recruiting efforts are done at colleges traditionally focused towards females and minorities. This goal has been met annually. We focus on traveling to institutions either within North Carolina or mostly within a contiguous state. (Institutions include: NC Central, Virginia State, Meredith College, Tennessee State, NC A&T, Fort Valley College, Tuskegee, and Pembroke State University.) Position vacancy announcements are sent to all 1890

Institutions. We also revised and reprinted placement notebooks and distributed to college placement offices.

4. Train within for progression to leadership positions.

The organization has done well in promoting minorities and females to the position of County and District Director. Currently, 19 (20%) of the 93 county directors are female, 11 (12%) are black and 2 are American Indian. The seven member district team has three white females and two black males.

5. Monitor employment procedures to ensure that qualified minorities are given equal opportunity to available positions throughout the organization.

Standardized University employment procedures remain in place; no changes.

C. Implications

The table below outlines faculty and staff population for county operations. Overall there was little statistical change during the four year period in race. We began the period with 21% black employment in EPA (faculty) positions; we ended the period with 20% representation. The general state-wide black population is 22% so we are very proud of our continuing balance in representation.

EPA EMPLOYEES
RACE BY GENDER

	Sept. 30, 1991			Sept. 30, 1995			Change		
	M	F	Total	M	F	Total	M	F	Total
Black	30	104	134	27	104	131	-3	0	-3
White	260	249	509	241	271	512	-19	+22	+3
Other	1	8	9	0	12	12	-1	+4	+3

Gender Only

Males	291			268					-23
Females		361			387				+26

SPA EMPLOYEES
RACE BY GENDER

	Sept. 30, 1991			Sept. 30, 1995			Change		
	M	F	Total	M	F	Total	M	F	Total
Black	0	39	39	0	33	33	0	-6	-6
White	0	186	186	0	196	196	0	+10	+10
Other	0	0	0	0	2	2	0	+2	+2

Gender Only

Males	0			0					0
Females		225			231				+6

Civil Rights Report - Summary for 1992-95 Plan of Work

CR05 - Program Delivery

A. Objectives

1. Provide the same level of educational service to all people of the state without regard to race, sex, age, disability, color, national origin, or religion.
2. Advisory system members reflect all groups in the state with regard to race, age, sex, disability, color, national origin, or religion.

B. Indicators of Success and Accomplishments

As part of the Plan of Work, all counties developed a program delivery plan. Progress was projected in minority representation on the county Advisory Leadership System and Extension group participation. Counties completed community mapping data for reporting and comparison of group enrollments. Focused efforts included parallel examples of Public Notification such as personal contacts in addition to program delivery efforts such as relocating program offering locations and times, recruiting club leaders from minority communities, and specialized efforts on topics such as composting and pesticide education.

The large majority of counties reached parity of representation on their Advisory Leadership Councils during this four years.

C. Implications

After the completion of the mapping, agents could see the impact of some of their program delivery efforts in the past. There was an overall heightened sensitivity to program delivery efforts.