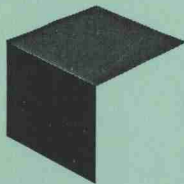


Foundations



for the

Future

North Carolina
Cooperative Extension Service

**1996 PROGRAM
ACCOMPLISHMENT
REPORT**

North Carolina Cooperative Extension Service

North Carolina State University

North Carolina A&T State University

NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

PROGRAM ACCOMPLISHMENT REPORT 1996

Program Overview

The North Carolina Cooperative Extension Service provides 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.

At the beginning of 1996, the North Carolina Cooperative Extension Service embarked on its new four year plan, *Foundations For The Future*. This report represents the results of Extension educational programs during the calendar year of 1996. The accomplishments indicated in this report reflect the vast array of 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 a wide variety of organizations, groups, and individuals.

Extension's educational programs were planned and implemented in collaboration with thousands of the state's citizens. These programs reach all areas of the state, and a vast proportion 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 a part of the scope and quality of Extension's programs for the benefits of the state's citizens.

The *Foundations For the Future* long range plan consists of twenty State Major Programs, and within the construct of Extension's mission, these programs address priority needs of the state's citizens. Program accomplishments that have accrued during the calendar year, 1996 from implementation of these State Major Plans are included in this report.

Agricultural, Natural Resources, and Community and Rural Development Extension Programs

There are nine State Major Programs that represent the educational program efforts in Agriculture, Natural Resources, and Community and Rural Development. These programs have produced significant accomplishments during the first year of the *Foundations For The Future* program plan. Brief reviews of the many accomplishments in the respective SMP programs are provided in the overviews that follow.

SMP 02 Agriculture and Natural Resource Policy

This program focuses on improving the efficiency and effectiveness of agriculture and natural resources policy through informed stakeholders, decision-makers, and the general public. Sixteen counties reported program activities and accomplishments. Program delivery methods include seminars; conferences; facilitated, collaborative problem-solving exercises; and educational materials. Models such as citizen associations and advisory boards, training in collaborative community problem-solving, consensus-building and advisory boards have been employed as means of helping communities deal effectively with issues that often leave groups of citizens at odds with one another. The program has heightened the awareness of over 6,500 people to the need for active involvement in agriculture and natural resource policy issues. The primary benefits are realized when informed citizens participate in the policy process. Over 550 people increased their participation in policy making after having been involved in this program. In addition, 539 people participated in collaborative problem-solving processes to resolve community or public issues, and three specific community or public issues were resolved through collaborative problem-solving methods. The methods taught in this program have been used effectively to help local governments and citizens deal with local environmental regulations, with water quality and pollution issues, with development and impacts of a causeway over a coastal river, and with land use planning discussions.

SMP03 Agriculture and the Environment

The Agriculture and the Environment program is focused on improving customer understanding of the complex relationships between agriculture and the environment and to equip them with the knowledge and skills to maintain economically viable and environmentally sound animal, field crop, horticultural crop, turf, and agribusiness operations. At least 71 counties reported against one or more of the objectives. Over 2,600 volunteers contributed more than 20,000 hours to supporting the program with a value in excess of \$200,000. Impacts: Over 600,000 tons of soil loss through erosion was prevented by implementation of soil management BMP s on crop, pasture and livestock feedlots or lounging areas. Over 18,500 operators were trained and certified in land application of animal wastes, as registered landscape contractors, certified plant professionals, certified landscape technicians, and pesticide applicators. Best

management practices to protect or enhance soil and water resources were implemented on an estimated two million-plus acres of crop, pasture and other lands. Integrated pest management strategies, scouting, and biological control methods were applied on 474,772, 594,699, and 112341 acres, respectively. Through these and other approaches, pesticide use was decreased by over 130,000 pounds. Over 2,500 livestock and poultry growers managed waste nutrients under the guidelines of their approved waste management plans. Numerous additional livestock, row crop and horticultural crop growers used practices such as soil testing, waste analyses, plant tissue analyses, and alternative fertilization strategies or schedules to make more efficient use of added nutrients. Almost 9,000 acres were involved in establishment of wildlife habitat.

SMP04 Animal Production and Marketing Systems

This program focuses on two primary objectives: 1) producers of livestock, poultry and aquatic species will select and implement practices or enterprises that will help them achieve individual and family goals of profitability and quality of life; and 2) citizens will address issues of mutual concern related to animal agriculture, including human nutrition, nuisance management, food quality assurance, quality of life, economic impacts and appropriate treatment of farm animals. This program reaches most counties in the state through a variety of delivery methods. Major management impact categories include nutrition management, breeding and selection, marketing strategies and safe and functional facilities. Estimated financial impacts of programs in these categories are listed below for each producer type:

Economic impact from management improvements,

| | |
|---------------------------------|---------------|
| Dairy producers | \$4.6 million |
| Beef producers | 2.8 million |
| Hog producers | 1.8 million |
| Sheep and goat producers | .1 million |
| Poultry growers | 2.3 million |
| Aquatic species producers | .4 million |
| Limited resource animal farmers | .2 million |

These financial impacts are associated with the following and additional management and production changes implemented by growers. Average sale weights of state graded feeder cattle have continued increasing; weights were eight pounds heavier in 1996 than in 1995. Applied to all cattle in the state, this figure mean that cattle producers realized an additional \$1.73 million by implementing practices emphasized in Extension programs. In addition, calf quality increased and was worth about \$1 million. An Extension lead effort helped organize Eastern Foods, Inc., a network of hog 51 producers who benefit from collective input purchasing and marketing strategies. 70% of the state s dairy farms formulate rations based on feed analyses, resulting in an estimated \$3.2 million in additional profits. Over 110 producers have participated in DairyWise, a program aimed at improving the management skills and competitiveness of dairy operations. Adult horse owner shortcourses provide management training techniques. In 1996, follow up surveys of participants indicated a 61% average adoption level for 20 feeding management

practices. Rapid shell-egg cooling technology, when implemented in the industry will save producers \$200,000 annually and enhance marketability. In addition, feeding probiotics to quail chicks to reduce mortality results in a savings of \$300,000 annually to 200 growers. Farm-gate value of aquaculture products is about \$15.25 million. The growth and technology of this industry is a major emphasis of the aquaculture program. About 30,000 animal farmers, non-farm citizens and others increased their understanding of animal agriculture, food supply facts, food quality standards and related issues through educational programs.

SMP06 Community Economic Development

The Community Economic Development program has four objectives: 1) to integrate special audiences into community development processes(19 counties); 2) to teach economic development concepts to local leaders(10 counties); 3) to inform local leaders and citizens about economic trends and their impacts in the community (13 counties); and 4) to facilitate business development by bringing together local expertise and local needs (16 counties). Delivery methods included leadership development workshops, community workshops, various printed materials and video and TV programs. Teaching models used included parks, agriculture and tourism to demonstrate consensus-building among citizens with diverse views on economic development. Two thousand one hundred eighty volunteers contributed over 22,000 hours to the program valued at \$222,530. The program has involved a significant number of community leaders and citizens in educational and training meetings and workshops to enhance their awareness of the community development process, development concepts, and economic trends and their impacts in the community. As a result of this program, 18 new community organizations were formed, and 41 new community development projects were initiated. Through training provided to 37 participants in the Community Voices Program, 10 people became facilitators and conducted several leadership sessions.

SMP07 Crop Production and Marketing Systems

The goal of this program is to provide unbiased, research-based information on production practices, marketing options, new technologies, environmental concerns and government regulations to farmers, agribusinesses and non-farm citizens. Seventy-three counties reported programs and accomplishments under one or more of the objectives.

An estimated 3,200 tobacco and peanut farmers adopted alternative practices (greenhouse production of transplants; fertility management; diversification; no-till systems; Integrated Pest management (IPM) methods; marketing strategies) on over 124,500 acres, increase in profits by \$7.1 million. In addition, 375 farmers employed alternative marketing strategies to increase income by over one-half million dollars.

Special emphasis is given to enhancing the sustainability of part-time and limited resource farms. Through these efforts in 30 counties, 200 farmers added new crops to their farming systems, representing 3,830 acres and increasing profits by almost \$1 million. Furthermore, 200 growers increased income by modifying marketing strategies.

Best management practices often help increase profits and at the same time, may reduce agrichemical use, improve the efficiency of labor use, and enhance management skills. It is estimated that crop producers saved over \$7 million through enhanced pest management strategies alone. Furthermore, through application of IPM practices on other crops on 665,000 acres, over 3,000 growers reduced pesticide applications by over 717,000 pounds, and \$11.7 million were saved in the nursery industry through the use of best management practices for production, fertility and crop protection. Over 20,000 non-farm citizens became aware of the technology involved in efficient production systems.

Genetically engineered crops were produced on about 39,000 acres, increasing profits by an estimated \$1.7 million and reducing pesticide use by over \$400,000.

Implementation of new or different marketing strategies by almost 900 growers was associated with an increase in returns of \$5.1 million to their operations.

SMP10 Food and Forest Products Manufacturing

Educational programs for the food and forest products manufacturing industries are served primarily by the Departments of Food Science and Wood and Paper Science. This program is focused on three major areas of opportunity: enhancing food safety and quality; assisting small businesses, including food product entrepreneurs; and increasing the competitiveness and profitability of the forest products industry. Training and certification programs, in-plant problem-solving, and assisting new economic development through food and wood products manufacturing are strategies involved in this program. The impacts of this program area are realized when customers of the program have the knowledge and skills to apply processes that enhance food safety, increase the efficiency of manufacturing processes and enhance economic output to the firm, the community and the state.

To that end, 1,850 people were trained in techniques of quality assurance to ensure regulatory compliance and at the same time maintain output and profitability, particularly in the area of Hazard Analysis Critical Control Point (HACCP) techniques. One hundred twenty firms adopted new manufacturing techniques, and 15 consumers adopted new practices related to selection, use and maintenance of wood products. In addition, 97 small businesses and entrepreneurs received assistance with their businesses. Through the direct and indirect efforts of the program, manufacturers saved over \$2.25 million by improving utilization of raw materials or through increased productivity. In addition, 42 new small businesses were established. A new program, ProLogger, focused on loggers, is designed to improve logger safety, environmental concern and business management. The 24 credit hour program results in participants receiving a Professional Logger designation and a diploma. Fifty logging firms participated in 1996.

SMP14 Marketing and Production of Alternative Income Opportunities

The goal of this program is to assist commercial and small, part-time and limited-resource

farmers in selecting and implementing alternative opportunities to increase their income. Twenty-three counties are actively participating the program. Four hundred eighty three farmers have gained sufficient information from the program to enable them to initiate alternative enterprises, methods and practices. New investment is critical to initiating additional enterprises or methods, and over \$640,000 has been invested by growers in these efforts. These new investments have been associated with an increase in gross returns of \$1,85 million from the production and marketing on new enterprises. Almost 1,600 growers have participated in programs and have gained enhanced knowledge about alternative production and marketing strategies.

SMP15 Natural Resources Conservation and Management

Educational programs dedicated to increasing value to society and private landowners from natural resources produced an estimated \$18,753,970 value by increasing environmental awareness among youth, increasing the involvement and quality of decision-making by all citizens, increasing the market value of timber and recreational leases on private lands, and increasing fisheries and wildlife value accruing to landowners and lease holders. Volunteers are important to the success and impacts of this program; 915 volunteers joined with Extension agents and specialists to deliver targeted educational programs to 20,354 citizens. A total of 102,098 acres of forested and wild lands and waters were managed through implementation of improved management practices in the Forest Stewardship Program and through fisheries and wildlife management programs.

SMP17 Residential and Community Horticulture, Turf, Forestry and Pest Management

This state major program is focused on educating and assisting Extensions audiences in adopting best management practices for residential and public facility pests and in the proper selection and management of plants for residential landscapes, including turf, edible plants, and ornamental plants and trees. The program is a part of the total Extension program in 66 counties; 57 counties reported under one or more of the objectives. Much of the program efforts have been devoted to enhancing the public s awareness of issues and appropriate decision-making regarding practices for managing pests in residential and public facilities, adoption of tree, shrub, turn and ornamental selection and management practices, and the adoption of practices for managing residential and community edible landscapes. To these ends, over 32,000 people demonstrated adoption of Integrated Pest Management (IPM) practices in pest control methods; almost 135,000 people demonstrated enhanced capabilities in proper selection of landscape plants and their care and protection from pests. Almost 146,000 citizens indicated increased satisfaction with the aesthetic appearance and ecological protection associated with residential and community landscapes. Finally, over 20,478 gardeners adopted BMP s to minimize water pollution and maximize water conservation. The following financial gains, environmental benefits, and quality of life benefits were reported: \$1.3 million saved through reduced pesticide use 16,243 fewer pesticide

exposures through reduced or targeted insecticide use \$3.75 million increase in property value from enhanced landscapes 46,153 people implemented practices to protect the environment and ecosystems through plant care and IPM methods Over 82,000 citizens were satisfied with the improved aesthetic appearance of landscapes Using BMP s in managing edible landscapes saved \$460,000 Almost 5 million square feet of garden space is maintained by participants Water management BMP s helped reduce water use by 9.5 million gallons.

FAMILY AND CONSUMER SCIENCES

Each day, the North Carolina Cooperative Extension Service helps to strengthen our North Carolina Families and communities. Our mission and our work are dedicated to improving the quality of people's lives. We rely on research-based information to develop educational programs based on issues and the needs of our communities and citizens.

The following overview highlights programs during 1996.

SMP-01 AGING WITH GUSTO!

The aging process is a continuum, beginning at birth and ending with death. It is a relative process, different for each person. Extension aging programs are designed to help people age with gusto by teaching them how to achieve optimum financial, physical and mental well-being in their later years. Older adults learn how to prepare for and cope with problems related to finances, legal issues, health, caregiving, housing, and self-care.

A sample of statewide program impacts include:

Improving their financial status through adoption of consumer and financial management practices has been accomplished by 3,498 people in 31 counties. People reported that they increased their savings and/or retirement contributions for future financial stability by \$459,590. Estate plans were developed by 562 individuals. In 17 counties 3,100 people increased their knowledge of healthy "behaviors" such as lowering fat or increasing fiber in their diets. In 7 counties 929 people increased knowledge of housing options, financial options, accessibility options that lead to affordable or accessible housing. New collaborations were established with housing related agencies to foster affordable and accessible housing. Over 3,251 people increased their knowledge of health for limited resource families practices in order to use medicines more appropriately. 399 people increased utilization of community resources by participants caring for older adults. 44 counties had 921 volunteers donate 5,594 hours of their time, valued at \$55,886 for program initiative in the Aging with Gusto State Major program.

SMP05 CHILD CARE STATE MAJOR PROGRAM

The Child Care State Major Program focuses on opportunities to impact the quality, accessibility, and availability of child care. Extension improves the quality of child care through training and technical assistance for child care providers, by providing volunteers to work in centers and by supporting child care credentialing efforts. The need for more available and accessible child care is addressed by working with existing organizations to educate the public, by providing grant support to agents working to expand centers and create new centers, and by providing a variety of other child care resources to their communities.

A sample of statewide program impacts include:

In 48 counties 10,625 child care providers were trained with 6,405 individuals improving and adapting new skills. Child care centers were able to be licensed or registered in 270 locations. Over 1,770 volunteers donated 19,700 hours to working in child care centers. This contribution of time is valued at \$197,300.

Seventeen counties reported that almost 2,500 new child care slots were established, and 103 new centers were opened with the assistance of extension's educational programming and grant funding. The volunteers have established or expanded over 178 program collaborations. Playground safety training which was a requirement of the Department of Human Resources in order to implement the state rules was provided with Extension being the critical link to implement it. Many agents have been instrumental in facilitating the "Smart Start" program. By offering their expertise to this program they are bringing needed resources to their counties.

And now more child care is offered for all ages in early childhood, full summer programs, after school programs, intersession and for all ages in locations of the state formerly underserved. Families who were not being served are finding resources through Cooperative Extension. Enhancement (including training) programs for child care professionals are becoming far more available in rural areas.

SMP 08 FAMILY AND CONSUMER ECONOMICS

The Family and Consumer Economics State Major Program promotes informed personal finance and other consumer decision making by individuals and families. Serious financial problems affecting families at all income levels can in many cases be prevented, and this program emphasizes education for prevention.

A sample of statewide program impacts include:

Over 7,000 limited-resource individuals achieved such financial goals as purchasing their first home, saving money by learning to do their own taxes, avoiding being drawn into fraudulent consumer transactions, and reducing the level of debt. In 29 counties 65,613 people increased knowledge of financial resources with over 3300 people demonstrating goal setting, making financial plans and record keeping skills. Housing financial decisions in 20 counties were adopted by 1200 people who were able to improve their housing choice.

Other programs involved 11,377 individuals in 33 counties who increased consumer decision making skills in such areas as financial services, insurance, transportation, health care, and elder care. Over 3,000 volunteers contributed 15,573 hours of time which is valued at \$755,700 towards helping Extension address the goals in this state major program. Seventeen counties conducted educational programming for 346,700 individuals and families to extend income and/or increase income.

SMP 09 FAMILY AND PARENT EDUCATION

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

A sample of statewide program impacts include:

Over 1,693 limited-resources parents in 14 counties demonstrated proper application of techniques learned to resolve financial conflicts. In 16 counties 6,657 people increased awareness and knowledge of skills in critical thinking, leadership, managing finances and managing stress. As a result of Extension programs 11,445 parents in 52 counties reported improved responsibility toward their children. Another 10,063 persons said they improved the quality of their family life through the adoption of techniques such as proper discipline strategies, stress reduction, and improved communication. The estimated net cost benefits for participants in Extension parenting programs was \$204,201. In 14 counties 837 people said they improved their quality of family life through utilization of community services. 2,122 volunteers played a major role in parenting programs donating 14,416 hours of time valued at \$144,160 to Family and Parent Educational programming.

SMP 11 FOOD SAFETY & QUALITY

Safety of the food supply is a shared responsibility. Food producers, processors, preparers and consumers must all follow appropriate food safety procedures so food safely enters and leaves their portion of the food supply chain for human consumption. Consumers not only deserve a safe food supply but one delivered in such a manner that they can determine it meets their nutritional quality needs.

A sample of statewide program impact include:

Consumers in 29 counties increased their knowledge about safe food handling and 49,711 adopted safe food handling practices. 881 food service personnel increased their knowledge in order to prepare food safely in restaurants, day care centers, congregate nutrition sites, hospitals and schools.

SMP 12 HEALTH AND HUMAN SAFETY

Health and human safety are pressing public concerns at the individual, family and community levels. The Extension Service has developed community-based programs to enable individuals and communities to address health and safety needs including, healthy lifestyles, home safety and crime prevention, agricultural health and safety, and community capacity building.

A sample of statewide program impacts include:

Over 17,106 youth and adults adopted healthier lifestyles by reducing high-risk behaviors and taking responsibility for their health related decisions. Through reduced high risk behavior \$858,500 in costs were avoided. 8,391 individuals and families adopted one or more home safety practices for a healthier living environment. In an era of increasing awareness of farm health and safety issues, farmers, farm workers, wives, youth and medical personnel increased awareness of personal protective, safety and other equipment, and agricultural related illness and injuries. Twenty-one strategic partnerships and coalitions were formed for improving health status. Program participants avoided \$62,710 in medical costs. In the 37 counties reporting, it is estimated that 1,478 volunteers contributed 21,800 hours to local programs impacting positively on health and human safety. The dollar value of their contributions is estimated at \$218,000.

SMP 16 NUTRITION AND WELLNESS

The Nutrition and Wellness program promotes optimum nutrition and healthy lifestyles management for positive outcomes throughout the life on continuum. Nutrition needs change throughout life and have a direct impact upon health, quality of life and the ability to achieve physical and mental potential. Diet related risks involved in chronic diseases can be lowered

through improved (healthier) behaviors and positive pregnancy outcomes can result from better prenatal nutrition.

A sample of statewide program impacts include:

Nutrition programs focus on diets and healthy lifestyles with 25,438 participants adopting diets consistent with dietary guidelines for good health. In 49 counties 8,538 participants decreased high blood cholesterol and 2,208 decreased high blood pressure. Parents in 23 counties and 4,940 children adopted food behaviors consistent with the Dietary Guidelines and Food Guide Pyramid. In the Expanded Food and Nutrition Education Program 3,216 graduated limited resource homemakers learned to save at least \$10 per month (\$386,000/yr) through improved skills in shopping for groceries. Of 1,384 WIC mothers, in the EFNEP In-Home Breastfeeding support program, 64% were still breastfeeding at six weeks postpartum which is about 10% higher than the general WIC population. Over 5,458 volunteers contributed 45,655 hours of time which is valued at \$456,550 toward helping extension address the goals in this major program. In fifty churches in ten counties, 1,129 individuals increased their fruit and vegetable consumption by a half a serving while 1,159 participants in the control group did not significantly change theirs.

SMP 18 RESIDENTIAL AND COMMUNITY WATER AND WASTE MANAGEMENT

Residential and Community Water and Waste Management has environmental and economic impact on both the private and public sectors in North Carolina. Proper management of solid waste, wastewater and watersheds ultimately effect water quality.

A sample of statewide program impacts include:

In 18 counties 8,606 people increased their knowledge and/or adopted of best management water quality practices to prevent contamination of water. 19,977 people in 26 counties increased their knowledge and awareness of waste management principles. 75,871 gallons of used oil were recycled by farmers and do-it-yourselfers. \$1,151,930 was saved through reduced waste in landfills. 3,706 persons were reached with educational programming in watershed education, including environmental field days, groundwater models, water quality protection methods and best management practices.

CELEBRATING 4-H IN NORTH CAROLINA

The 1996 Executive Overview

Celebrating Our Mission

The mission of the 4-H youth development program in North Carolina is to create helping relationships to enable youths to become responsible, productive citizens. Those helping relationships are created through 4-H and in the related missions of 4-H, the North Carolina Cooperative Extension Service, the College of Agriculture and Life Science, and North Carolina State University. Celebrating 4-H in North Carolina is a celebration of the youth, families, and communities of our state.

The treasure that is 4-H actively involves youth, adult volunteers, and donor/sponsors in the creation, implementation, and maintenance of educational program designs which celebrate both tradition and innovation. We strive continuously to "Make the Best Better."

Celebrating Tradition and Innovation

4-H programs in 1996 were productive and efficient through both traditional and innovative educational program designs. Each program strives to help young people:

- learn to live
- learn to make a living
- learn to make our communities better
- become lifelong learners

Basic programs respond to innovations found in four related and collaborative Extension State Major Programs:

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

Participation Demographics

In 1996 a total of 190,160 youth participated in one or more of 4-H's basic programs. Of these 29,854 were active in 1,472 4-H clubs, 92,727 were active in the 3,214 short term or special interest programs. 94,417 youth participated in the 3,160 K- 12, school enrichment programs offered statewide. Another 25,557 young people were involved in 418 after school child care designs managed by 4-H.

11,142 kindergarten age youth were active. Every grade is involved including high points

at 31,984 third graders and 29,342 fourth graders. 269 post-high school youth were involved. 4-Hers continue to come from Farm: 12,751; Small Towns: 106,915; Big Towns: 43,076; Suburbs: 5,836; Cities: 21,583; to total: 190,160.

Adult volunteers continue to be the heart and legs of 4-H. It would be difficult to estimate the value of the 21,533 adult volunteers involved in 1996. 14,231 of these were direct youth contact volunteers. 448 were master volunteers in support of volunteer skill development. A total of 13,071 adult and youth volunteers completed structured training to invest in their friendship groups, families, and communities, of these 3,972 were youth volunteers.

4-H Camping: A Legacy of Excellence

North Carolina youth and families continue to "Discover the World Through 4-H Camps." Camps and educational center operations continue to grow in celebration of being exemplary units in the certification system managed by the American Camping Association.

Over 4,000 youth "discovered the world" during twenty unit weeks of junior camping and 14 weeks of speciality camps including: Marine Science and Sailing, Cloverbud Camping (ages 6-8), Fur, Fish, and Game Camp, Horsemanship, Shooting Sports, Mountain Biking, Science and Technology, Adventure Camp, and Teen Leadership Opportunity camps.

Our American Camping Association pledge, to provide a safe place for youth, was successfully challenged by hurricanes Bertha and Fran, two tornadoes, two lightning strikes, and a fire, without a single injury.

State Major Program Impacts

Child Care (SMP 05)

The Child Care State Major Program focuses on opportunities which Cooperative Extension has to impact the quality, accessibility, and availability of child care and has two objectives.

Forty eight counties targeted the first objective: improving the quality of child care. 10,625 child care providers were trained. Of these, 214 were credentialed, and 270 different sites were licensed. The list of collaborators is long and varied. It includes, Community Colleges, the Department of Human Resources, Head Start, the Red Cross, the North Carolina School-Age Care Coalition, the North Carolina Day Care Association, the Corporation for National Service, the public schools, and the Partnership for Children.

More and more agents report that their work is augmented by grant funds. Typical funders include the Appalachian Regional Commission, Child Care and Development Block Grants, CDA funds, Smart Start and AmeriCorps.

The second objective is to increase the accessibility and availability of child care. \$1,408,173 worth of new resources were involved at 103 new centers to expand the number of available child care slots by 2492. There were 178 collaborations increasing awareness by 1666 people.

Working to increase availability, Cooperative Extension agents have used a variety of means to achieve their goals. They have used needs assessments to determine the exact locations where child care is most lacking. They have secured funding to address the need, often serving on Smart Start boards but also helping to write proposals for S.O.S. (Support Our Students) middle school and after school initiatives.

Key elements of this goal include:

1. more child care is now offered (early childhood, full summer programs, after school, intercession and in sections of the state formerly underserved),
2. families who were not being served are finding resources through Cooperative Extension,
3. enhancement (including training) programs for child care professionals are becoming far more available in rural areas.

SMP 13 Leadership and Volunteer Development

Thirty five counties work to accomplish two objectives. Objective one is the development of leadership skills targeting limited resource and other non-traditional audiences. The skills learned help individuals and groups of community leaders work to identify important issues and solve problems related to those issues in their community and county.

4,203 limited resource and non-traditional individuals increased their capacity to provide valuable service to the community (assume some leadership roles in church, school, community, etc., volunteer). \$360,360 dollars were saved by increased involvement in addressing community concerns by limited resource and non-traditional leaders. \$719,547 dollars of economic value was invested in community/county for community projects/solving community problems. 142 community organizations were developed to continue resolving community problems.

Objective 2 is designed to empower volunteers, paid staff and other professionals to act on a shared vision by empowering individuals in manager roles to accomplish more by sharing leadership. 1,252 volunteer systems were empowered with: an economic value of \$1,684,424, and with value of volunteer hours of \$1,325,030 for \$132,503 hours worked by 9,047 volunteers at \$10.00 per hour.

Many counties are embracing the master volunteer concept to partner with paid staff in teaching other volunteers or helping with various training programs. They are also serving as mentors to new leaders in their program area such as

4-H club leaders.

Many counties are reporting new organizations emerging from their leadership and volunteer development programs. One county cited a renewed 4-H program committee with three focus areas of involvement of the 26 members.

Another area of progress is involvement of volunteer managers who are responsible for programs. Nash County has an exemplary program to involve senior citizens with day care centers and other youth programs.

SMP 19 Resilient Youth, Families and Communities

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

Objective one states: youth in high risk environments will participate in community based programs resulting in youth acquiring coping skills, making informed decisions and developing a sense of purpose and future.

Thirty eight counties report 25,874 youth with: increased communicating, decision making, working in groups, understanding self, and relating to significant adult life skills; 6,232 with increased literacy; 6,656 with increased community involvement; and 16,899 with increased knowledge and awareness of alternatives to drugs and alcohol use.

16,231 demonstrated increased life skills: 3,932 improved academic performance; 2,845 reduced use of drugs and alcohol; 644 reduced judicial involvement; 633 reduced incidence of violence.

Objective 3 states: community groups will take action to strengthen communities by creating environments which reduce youth and family risks through collaborative intervention and prevention programs in high risk communities.

Twenty one counties reported: 209 collaborations established; 117 prevention programs developed; 114 reductions in criminal activity in targeted communities; 73 economic and community development programs established; 118 support programs established for families (i.e. child care; counseling, etc.); 1,974 increasing knowledge and skills among participants about community collaboration and prevention programs.

SMP 20 Youth Development

North Carolina 4-H focuses on life skills taught through a broad spectrum of subject matters. Life skills are defined as abilities, knowledge, attitudes and behavior that must be learned for success and happiness. Life skills enable people to adapt to and manage their life situations. They give individuals a frame of reference for perceiving and responding to life situations and enabling them to achieve an inner satisfaction and happiness (National 4-H Curriculum Manual for Youth K-3, 1994).

Objective one states: long term support systems will develop competent youth in the following life skill areas: 1.) managing relationships; 2.) decision making; 3.) communications; 4.) serving the community.

Impacts are measured in dollars to benefit youth. Eighty six counties reported: \$576,035 dollars saved by the community from 4-H Community Service Projects; \$345,365 scholarship dollars received by 4-H'ers; \$588,022 dollars earned by 4-H'ers as a result of their 4-H project work; \$731,727 dollars saved by 4-H'ers as a result of their project work.

Life skills provide a measure of increased competency in youth as illustrated by the following areas: 24,381 managing relationships; 54,916 communication skills; 30,571 making decisions; and 31,380 self-confidence.

Objective 2 states youth involved in targeted knowledge transfer development activities will demonstrate improved academic performance. Fifty eight counties reported the following impacts as reported by their teachers using 4-H school enrichment materials:

75% of the 30,927 students demonstrated some or great change in their class attendance. 81% of the 24,587 students reported some or great change in homework completed. 77% of the 24,782 students demonstrated some or great change in the quality of their homework. 84% of the 28,562 students demonstrated some or great change in their science grades.

Additionally, 4-H school enrichment teachers estimated a savings of \$168,718 to school systems. And 2888 volunteers worked 41,682 hours which could be valued at \$416,820.

Objective 4 states limited income youth residing in Diverse/Public Housing will increase life skills development which will ultimately result in making informed decisions about life choices to manage life situations and transitions. (Saying "no" to peer pressure without guilt, defining and establishing aspirations, communicating feelings, pregnancy prevention, agricultural health and safety, conflict resolution, and understanding consequences of one's actions are some of the life skills that will be addressed.)

Twenty seven counties reported: 1,115 youths improving their resistance to peer pressure; 568 youths defining aspirations; and 1,649 youths (5-8) increasing competency

within the environment as related to play, clothing, the outdoors, bug out, community, safety, grooming and the other relevant topics.

\$24,234 was saved as a result of community service. 556 volunteers donated 10,183 hours valued at \$101,830.

Youth at Risk

The Youth-At-Risk Initiative was designed to develop support systems for youths who live in environments which may hinder or prevent them from becoming competent, coping, and contributing members of society.

The North Carolina Cooperative Extension Service through 4-H has provided leadership in building coalitions and designing educational programs for youths in high risk environments. During the past five years, more than 500 coalitions worked to address youth-at-risk issues. Approximately 291 long-term coalitions worked to accomplish the long-range goals. More than 16,660 volunteers donated over 44,000 days to the Youth-At-Risk Initiative. Over \$2,191,700 of federal, \$3,069,900 of state, \$182,900 of local government, and \$368,200 of private dollars were used to support youth-at-risk.

Over 2,540 adjudicated youths have reduced their involvement in the judicial system. Nearly 37,600 youths improved their academic performance as a result of Extension programs. Nearly 7,800 youths decreased their alcohol and other drug usage after participating in Extension programs. Career training and preparation have been provided to over 33,550 youths. Over 1,790 science and technology programs have been conducted. Nearly 3,430 youths improved their literacy skills as a result of Cooperative Extension programs.

Summary

The North Carolina 4-H Program created helping relationships to enable youths to become responsible, productive citizens during the 1996 programming year. The youth, families, and communities of North Carolina were well served by the mission accomplishment of 4-H through the related missions of the North Carolina Cooperative Extension Service, the College of Agricultural and Life Sciences, and the North Carolina State University.

1996 proved to be a great year of productive traditional and innovative programs focusing on four Extension State Major Programs: Child Care; Leadership and Volunteer Development; Resilient Youth, Families and Communities; and Youth Development. A total of 190,160 youth and 21,533 adult volunteers worked to involve 29,854 youth in 1,472 4-H Clubs; 92,727 youth in 3,214 special interest programs; 94,417 youth in 3,160 K-12, school enrichment designs; and 25,557 young people in 418 after school, child care settings. Over 4,000 youth "discovered the world" during twenty unit weeks of junior camping and 14 weeks of 4-H specialty camps.

Forty eight counties targeted child care to train 10,625 child care providers and license

270 different sites. \$1,408,173 in new resources was invested at 103 new centers to expand available child care slots by 2492.

Thirty-five counties worked to expand Leadership and Volunteer Development by involving 4,203 limited resource participants toward more valuable services for their community with a value of \$1,684,424.

Thirty eight counties focused on Youth at Risk and Resilient Youth, Families and communities. In Youth at Risk efforts over 2,540 adjudicated youth reduced their involvement with the judicial system while 37,600 youths improved academic performance. More than 16,660 volunteers worked over 44,000 days during the past four years.

Resilience programs report 25,874 youth with increased life skills; 3,932 improved academic performance, 2,845 reduced drug and alcohol use, 644 reduced judicial involvement, and 633 reduced violence. 209 collaborations were established; and 117 prevention programs were developed.

Eighty six counties targeted youth development and increased life skills in 141,248 youth while investing \$2,241,149 in community savings, youth scholarships, project work earnings, and project work savings. Studies of representative 4-H school enrichment programs indicated that 75% of the 30,927 students improved attendance; 81% of 24,587 students improved completing homework; 77% of 24,782 students submitted better quality homework; and 84% of 28,502 students received better science grades. Teachers reported these results plus savings of \$168,718 to school systems, and 41,682 volunteer hours from 2,888 volunteers valued at \$416,820.

North Carolina's 4-H program is a treasure shared by our state's youth, families and communities. It demonstrates the value of collaborating effort and fiscal efficiency in the spirit of locally based, educational design. Youths, parents, educators, community, and regional and state leaders work to create the treasure that is 4-H. In 1996, that treasure blazed brightly across the state of North Carolina.

VOLUNTEER INVOLVEMENT 1996 NCCES STATE MAJOR PROGRAMS

Number/Hours/Dollar Value

smp 1-1 443/2577/25770
 smp 1-2 158/977/9770
 smp 1-3 150/1006/10060
 smp 1-4 21/62/620
 smp 1-5 142/972/9720

914/5,594/55,940

smp 2-1 576/875/8750
 smp 2-2 39/166/1660
 smp 2-3 39/396/3960

654/1,437/14,370

smp 3-1 299/1849/18490
 smp 3-2 345/2596/25960
 smp 3-3 105/1089/10890
 smp 3-4 323/1784/17840
 smp 3-5 548/4152/41520
 smp 3-6 658/3924/39240
 smp 3-7 344/4783/47830

2,622/20,177/201,770

smp 4-1 1480/15065/150650
 smp 4-2 610/3670/36700

2,090/33,800/338,000

smp 5-1 1773/19730/197300
 smp 5-2 1439/6037/60370

3,212/25,767/257,670

smp 6-1 1368/11894/118940
 smp 6-2 114/3165/31650
 smp 6-3 624/4097/40970
 smp 6-4 74/3097/30970

2,180/22,253/222,530

smp 7-1 240/3133/31330
 smp 7-2 136/763/7630
 smp 7-3 638/5765/57650
 smp 7-4 642/2909/29090
 smp 7-5 360/1624/16240
 smp 7-6 96/516/5160

2,409/17,271/172,710

smp 7-7 297/2561/25610

smp 8-1 381/1507/15070

smp 8-2 470/1952/19520

smp 8-3 181/1453/14530

smp 8-4 1375/7444/74440

smp 8-5 615/3217/32170

3,022/15,573/155,730

smp 9-1 1252/9356/93560

smp 9-2 115/302/3020

smp 9-3 448/1450/14500

smp 9-4 307/3308/33080

2,122/14,416/144,160

smp 10-1

smp 10-2 10/200/2000

smp 10-3

10/200/2000

smp 11-1 458/1800/18000

smp 11-2 1/10/100

459/1810/18,100

smp 12-1 750/8634/86340

smp 12-2 345/4290/42900

smp 12-3 86/531/5310

smp 12-4 297/8345/83450

1,478/21,800/218,000

smp 13-1 6056/49898/498980

smp 13-2 9226/138803/1388030

smp 13-3 5966/57274/572740

21,248/245,975/2,459,750

smp 14-1 81/515/5150

smp 14-2 219/1217/12170

300/1,732/17,320

smp 15-1 483/2340/23400

smp 15-2 297/649/6490

smp 15-3 110/703/7030

smp 15-4 120/112/1120

smp 15-5 25/485/4850

1,035/4,289/42,890

smp 16-1 2333/19398/193980

smp 16-2 646/11027/110270

| | |
|-------------------------------|------------------------------|
| smp 16-3 733/2485/24850 | 5,458/45,655/456,550 |
| smp 16-4 1746/12745/127450 | |
| smp 17-1 670/6311/63110 | |
| smp 17-2 1749/35513/355130 | 3,200/51,579/515,790 |
| smp 17-3 781/9755/97550 | |
| smp 18-1 386/3129/31290 | |
| smp 18-2 37/958/9580 | 1,148/17,313/173,130 |
| smp 18-3 99/594/5940 | |
| smp 18-4 626/12632/126320 | |
| smp 19-1 2021/35736/357360 | |
| smp 19-2 645/5189/51890 | 3,051/63,311/633,110 |
| smp 19-3 1285/22386/223860 | |
| smp 20-1 10125/166152/1661520 | |
| smp 20-2 2888/41682/416820 | 13,569 / 218,017 / 2,180,170 |
| smp 20-3 (inactive objective) | |
| smp 20-4 556/10183/101830 | |

1996

GRAND TOTALS

70,171 VOLUNTEERS

827,769 HOURS

\$8,277,690 VALUE

FOUNDATIONS FOR THE FUTURE STATE MAJOR PLAN ACCOMPLISHMENT REPORTS 1996

AGING WITH GUSTO! SMP-01

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

Objective 1. Participants in aging issues programs will increase awareness, gain knowledge, change attitudes, develop skills, and adopt practices and behaviors to help make their later years more financially secure.

Objective 2. Participants in aging issues programs will increase awareness, gain knowledge, change attitudes, develop skills, and adopt practices and behaviors to help them improve their health status.

Objective 3. Caregivers will increase awareness, gain knowledge, change attitudes, develop skills, and adopt practices and behaviors to help them provide better caregiving.

Objective 4. Participants in aging issues programs will increase awareness, gain knowledge, change attitudes, develop skills, and adopt practices and behaviors to help promote affordable and accessible housing for older adults.

Objective 5. Older adults on fixed incomes will increase awareness, gain knowledge, change attitudes, develop skills, and adopt practices and behaviors to help them improve the quality of their physical health and enhance their self-care.

Units Reporting Accomplishments. *Objective 1:* Beaufort, Bertie, Brunswick, Cleveland, Currituck, Dare, Davie, Forsyth, Gaston, Graham, Granville, Hyde, Iredell, Lincoln, Madison, Mecklenberg, Mitchell, Orange, Pamlico, Perquimans, Person, Pitt, Polk,

Rockingham, Rowan, Tyrrell, Washington, Wayne, Wilkes, Yadkin, Yancey.

Objective 2: Bertie, Buncombe, Burke, Caswell, Chowan, Cleveland, Dare, Davie, Graham, Halifax, Lincoln, Madison, Pitt, Polk, Tyrrell, Washington, Wilkes.

Objective 3: Alleghany, Burke, Davie, Gates, Graham, Granville, Harnett, Hertford, Iredell, Mecklenberg, Mitchell, Nash, Perquimans.

Objective 4: Graham, Harnett, Mecklenberg, Pitt, Rowan, Tyrrell, Washington.

Objective 5: Beaufort, Brunswick, Cleveland, Graham, Halifax, Jackson, Lincoln, Pitt, Polk, Tyrrell, Yancey.

Statewide Measures of Progress Totals.

Objective 1: 6527 people increased awareness and knowledge of financial management techniques and consumer issues. 3047 people adopted financial management and consumer practices. 2287 people increased awareness and knowledge of estate planning. 975 people adopted estate planning practices. 1485 people increased awareness and knowledge of retirement planning and savings. 869 people adopted retirement and savings practices.

Objective 2: 1824 people adopted practices such as decreased fat intake, decreased sodium intake, or increased fruit and vegetable intake. 3100 people increased awareness and knowledge of healthy "behaviors" such as lowering the fat or increasing the fiber in their diets. 1491 people adopted behaviors to meet the Food Guide Pyramid guidelines. 845 people adopted practices which lead to healthy physiological changes, such as decreases in blood cholesterol, blood pressure, blood sugar, and/or excess weight.

Objective 3: 538 people adopted stress management and other self-care practices, including use of formal and respite services. 952 people increased awareness and knowledge of community resources. 587 people increased awareness and knowledge of caregiving skills. 164 people adopted caregiving practices that improve the care of the impaired elder or other care receiver. 467 people increased awareness and knowledge about the need for coordinating legal, financial, and health care decision making.

Objective 4: 929 people increased awareness and knowledge of housing options, financial options, and accessibility options that lead to affordable or accessible housing. 227 people adopted housing technologies that make housing accessible, such as design features, furnishings, and products. 234 collaborations and linkages with housing related agencies and individuals that foster affordable and accessible housing.

Objective 5: 3251 people increased awareness and knowledge of practices that promote health such as use of medicines. 2926 people adopted practices that lead to improved health status. 600 people increased awareness and knowledge of practices that promote food safety. 278 people adopted practices that promote proper food storage and safety.

Statewide Impact Totals.

Objective 1: 3498 people improved their financial status through adoption of consumer and financial management practices. People reported that they increased their savings

and/or retirement contributions for future financial stability by \$459,590. 562 People developed and implemented an estate plan. 629 people developed and implemented a plan for possible future incompetency and dependency.

Objective 2: People reported avoiding \$38,240 of costs through reduced risk of chronic disease. People reported avoiding \$38,240 of costs through improved health status via fewer visits to physicians. 1127 people improved their health status through adoption of health practices.

Objective 3: 153 caregivers reported improved quality of life and decreased stress. 247 people reported improved care for impaired elders and other care receivers. 399 people increased utilization of community resources by participants caring for older adults. 121 instances of improved interagency cooperation on aging and health promotion issues.

Objective 4: 90 more people live in affordable housing. 98 people improved or increased their accessibility to housing.

Objective 5: People reported avoiding \$3,175 of costs through adoption of practices that lead to safe use of medicines. People reported avoiding \$4,500 of costs through adoption of practices that lead to proper food storage and safety.

Narrative.

Objective 1: Counties reported offering educational programs and information on estate planning, retirement planning, health insurance, savings and investment, community resources, financial management, Medicare, supplemental insurance, self protection, stress management, self-esteem, managed care options, pre-funeral arrangements, advance medical directives, tax information, Social Security, planning for long-term care, managing on a fixed income, use of ATM cards, consumer fraud, telemarketing fraud, universal housing, improving wardrobe, air quality in the home, using computers, and use of credit cards.

Random surveys of audience participants in selected counties showed:

Estate planning: *Currituck County:* 100 percent of those surveyed reviewed their estate plan with family members and developed or updated their will; 100 percent reported learning something new from the session; and 100 percent reported utilizing at least one new estate planning practice. *Graham and Clay Counties:* Persons surveyed believed that they would have paid an average of \$100 for the information they received at the program, and one family, after reworking their estate plan, claimed to have saved over \$20,000. *Person County:* 75 percent of persons requesting information on advance medical directives have executed a living will.

Financial Management: *Currituck County:* 100 percent of those surveyed 2-4 months after the program maintained use of their financial plan; 100 percent had already reached at least one of their short term goals. *Person County:* participants in investment programs have reported documented savings resulting in approximately \$6,200 in retirement accumulations.

Stress Management: *Currituck County:* 97 percent of those surveyed reported that they

had learned at least one technique to help eliminate stress in their life.

Aging with Gusto!: *Perquimans County*: Aging with Gusto programs have saved area health facilities an estimated \$11,130 in training costs. *Tyrrell County*: 160 participants reported an average 2.5 increase in knowledge about positive aging (on a scale of 1 to 10); \$143 was the average that participants thought professional service providers would have charged them for the same information, 90 percent were proud to tell others their age, and 73 percent were more confident about growing older as a result of attending the program.

Consumer Issues: *Rockingham County*: 80 percent of participants in the program "Consumer Telephone Fraud" reported an increased awareness and knowledge of consumer issues. 77 percent stated that the program motivated them to change some of their consumer practices, such as: not giving their credit card or banking information over the phone to an unsolicited caller; checking on offers that are "too good to be true;" and only donating to known charities and organizations.

Counties reported that 443 volunteers donated 2,577 hours of their time, valued at \$25,770.

Objective 2: Counties reported offering educational programs and information on the need for reductions in fat and sodium, and an increase in fruits and vegetables; Healthy Eating for Life Program (HELP), the food pyramid; nutrition and food safety; Nutrition for the Elderly; improving your health status; community resources; Stay Young at Heart Program; cholesterol and heart disease; heart healthy cooking with fiber and carbohydrates; Heart Healthy recipes; health and wellness for senior adults; Cookin' with Pizazz!"; 5-A-Day Is For Better Health; lowering risk of cancer; controlling weight; vitamins; proper storage and cooking procedures; Dietary Guidelines for Americans; low fat recipes; Healthy Lifestyles; how to use substitutions to reduce fat and calories in recipes; Active for Life Program, and Noonlighting Program.

Random surveys of audience participants in selected counties showed:

Health and Wellness: *Caswell County*: 52 percent of older adults who attended a health and wellness program report making a change in dietary habits. *Chowan County*: Of 75 people who attended a Cookin' with Pizazz program, 93 percent stated they would eat more fruits and vegetables, 81 percent stated they would make choices that will improve their health, and 53 percent requested more nutrition information; and participants thought they saved \$153 on the average by attending the program. *Tyrrell County*: In a program focusing on nutritional needs of the elderly, 78 percent of participants recognized and gained a better understanding of the Food Guide Pyramid; 52 percent indicated they would increase their daily intake of fruits and vegetables, and 47 percent said they would make the lower fat/calorie recipes at home.

Counties reported that 158 volunteers donated 977 hours of their time, valued at \$9,770.

Objective 3: Counties reported offering educational programs or information on the N.C. ABILITY Program; assisted living device equipment; Community Alternatives Program; guidelines to achieve and maintain physical and mental health during times of stress and

change; community resources (with a number of counties developing Resource Directories of community services); caregiving; stress management; financial management; house modifications; healthy foods; independent living; healthy home environments for older adults; training for in-home aides; physiological aging process; retrieval and identification of client medications; care, use of, and disposal of potentially hazardous household products; identification of unsafe household practices; identification of signs of elder abuse/neglect; coping with illness and diseases of the elderly; family dynamics strategies; health and well-being of family caregivers; managing health, stress, and building skills for older adults and caregivers; volunteer sitters for caregivers; positive attitudes about aging; retirement centers; nursing homes; The Burdens and Blessings of Caregiving program; coping techniques for dealing with stress of caregiving; legal, financial, and health care decision making.

Random surveys of audience participants in selected counties showed:

Training for In-Home Aides: Granville County: As a result of the trainings provided to in-home aides by the Cooperative Extension Service in conjunction with other agencies, one elder reports saving \$1,180 per month and \$14,160 per year.

Counties reported that 150 volunteers donated 1006 hours of their time, valued at \$10,006.

Objective 4: Counties reported offering educational programs and information on how to improve housing conditions; how to make housing more accessible to older adults; affordable housing; modifications to existing structures; housing options; furniture placement; cabinet and shelving accessibility, bathing and commode accessibility, doorways, steps, hallways, and staircases;

Counties reported that 21 volunteers donated 62 hours of their time, valued at \$620.

Objective 5: Counties reported offering educational programs and information on promoting health living to reduce costs related to medical care and treatment; Positive Aging for Late Adulthood program; medicine; nutrition; exercise; lifestyle; discipline and hard work; freedom and independence; balanced diet; positive family relationships and support groups; overview of physical changes that occur in late adulthood; slowing down the aging process; how to decrease health problems in people age 65 and older; Cookin' with Pizazz!; Estate Planning; Retirement planning; The Healthy House; Healthy Living Seminar; using prescription and over-the-counter medicines; food preparation and safety, nutrition and diet; immunizations against flu and pneumonia; "Know Your Vitamins, Minerals and Drugs;" "Take Your Pills Wisely;" Food Guide Pyramid and Preparation Techniques for Healthy Living; Cut the Fat and Fat Budgeting; food storage, temperatures, cross-contamination, holding times and handling techniques; Active for Life Program.

Counties reported that 149 volunteers donated 972 hours of their time, valued at \$9,720.

Success Stories.

Tyrrell County: By the end of this decade one in every six people in North Carolina will

be age 65 or older. To address the need for younger adults to learn how to build a strong foundation or their later years and for older adults to learn how to fully utilize their resources today, the Aging with Gusto Extravaganza was born. Under the leadership of nine county Family and Consumer Education Agents, approximately 30 vendors and guest speakers shared practical advice in their areas of expertise regarding aging issues to 160 participants. As a result of the Extravaganza, participants indicated via survey: there was a 2.5 point increase in knowledge about positive aging (on a scale of 1 to 10), \$143 was the average participants thought professional service providers would have charged to give the same information covered in the Extravaganza; 90 percent were proud to tell others their age; and 73 percent were more confident about growing older.

Tyrrell County: To maintain optimal health, it is vital for senior adults to have healthy diets. To address this need, the Family and Consumer Education Agent developed educational programs focusing on the nutritional needs of the elderly which were given to 100 county citizens. Participants learned about the Food Guide Pyramid, Eating Five (Fruits and Vegetables) A Day for Better Health, and how to use substitutions to reduce fat and calories in recipes. As a result, 78 recognize and have a basic understanding of the Food Guide Pyramid, 52 participants indicated they would increase their daily intake of fruits and vegetables, and 47 sampled and enjoyed lower fat/calorie recipes and said they would make them at home.

Mecklenburg County: Accessible Housing is an issue of concern to older adults. An article on "Life Cycle Housing" addressing accessible modifications was printed in the Charlotte Observer - Retirement Living supplement. Additional articles were printed on three other issues for older adults in the same supplement (accidents, home buying, travel safety). The article generated 48 specific requests for additional information packets. Two families came to the Extension Center to view accessible housing plans. Both plan to incorporate many of our recommendations. In addition, another family was given advice in remodeling an affordable, accessible house financed by the County. Modifications were made to the interior and exterior to accommodate a family member's disabilities. The house was open for a tour reaching 75 additional families and neighbors, as well as representatives from other government agencies.

Clay and Graham Counties. An estate planning seminar held in both Clay and Graham Counties reached 125 persons. In a random telephone survey of participants, 50 percent have already taken some action in relation to their estate plans. Twelve percent have established trusts. Forty-eight percent have already seen an attorney to rewrite their estate plans.

Perquimans County: Perquimans County clientele participated in a series of Aging with Gusto Workshops that highlighted such topics as Aging Sensitivity, Building Self-Esteem, Alzheimer's Awareness, and Consumer Fraud Telemarketing. Audiences that participated included 329 individuals from the high school, the health department, health care/nursing facility staff, Extension Homemakers, and the American Association of Retired Persons -- Perquimans County Chapter. As a result, 13 individuals organized the first Perquimans County Alzheimer's Support Group and hold educational programs once a month at the

local health care center. Based on personal surveys, the social and educational interaction stimulated in the support group meetings has created a decrease in the amount of stress for the individuals involved and a greater appreciation for the sponsoring agency -- North Carolina Cooperative Extension Service, Perquimans County Center.

Rockingham County: The elderly are often the targets of consumer scams. This has become so much of a concern that the State Attorney General's Office has developed and distributed a video, "Telephone Fraud." Working with the County Council on Aging, municipal senior centers, Extension Homemakers, and church groups, the program, "Consumer Fraud" was presented at the monthly training session for the leaders/site managers. They discussed the topic with their seniors. The program was then presented at each of these locations, 39 times, reaching 785 seniors. After attending the program, seniors reported that they would not be more cautious about telephone and mail solicitations. At the time of these programs, there was a telephone fund raising campaign being conducted which keeps an unusually high percentage for administrative costs. After attending this program, many seniors stated that they had donated to this organization in the past but would not now.

Aging with Gusto! Team Members.

- Carol Schwab, Co-Chair
- Pearl Stanley, Co-Chair
- Jean Baldwin
- Jackie McClelland
- Chuck Moore
- Joyce Counihan
- Denise Baker
- Luci Bearon
- Sarah Kirby
- Angela Fraser

UNITS REPORTING ACCOMPLISHMENTS

| | |
|----------|-------------|
| Madison | Waters |
| Hartford | Linton |
| Gaston | Shelby |
| Durham | Santa Cruz |
| Crowder | Richmond |
| Chatham | Franklin |
| Carteret | New Hanover |
| Ashe | Madison |

Measures of Program and Impact do not include those from SMI's other than SMI 2.

| | |
|--------|---|
| SMI 13 | Leadership and Volunteer Development (objective 2) |
| SMI 12 | Health and Human Safety Initiative (objective 3) |
| SMI 7 | Crop Production and Marketing Systems (objective 2.4.2.5) |
| SMI 4 | Animal Production and Marketing Systems (objective 2) |
| SMI 3 | Agriculture and the Environment (objective 1.3.4.2) |

SMP 02

Agricultural and Natural Resource Policy

PROGRAM DESCRIPTION:

Public policy issues recognize the need for both policy and technical dimensions in educational programs. SMP #2 focuses on improving the efficiency and effectiveness of agriculture and natural resources policy through better informed stakeholders, decision-makers, and the general public. Specific audiences include farmers, rural landowners, government officials, land developers, and environmental groups. These informed individuals and groups increase their involvement in the policy-making process. They gain greater knowledge and awareness of agriculture and natural resource issues and develop problem solving and consensus building skills to deal with them.

Controversial issues addressed through public issues education principles and concepts under SMP #2 include: water quality, water use, animal waste management, intensive livestock operations, watershed use, nutrient management, economic development, agricultural rules and regulations, land use, zoning, and solid waste.

UNITS REPORTING ACCOMPLISHMENTS:

| | |
|----------|-------------|
| Anson | Martin |
| Carteret | New Hanover |
| Chatham | Pasquotank |
| Chowan | Richmond |
| Durham | Sampson |
| Gaston | Stanly |
| Hertford | Union |
| Madison | Wayne |

Because public issues education cuts across a number of program areas, several SMPs contain projects having policy accomplishments, even though they are reported formally against these other SMPs. A review of all the SMPs found the following to have policy objectives and reports of accomplishment that also could have been reported under SMP 2 (Participant numbers under Measures of Progress and Impacts do not include those from SMPs other than SMP 2).

| | |
|--------|--|
| SMP 3 | Agriculture and the Environment (objectives 1,3,4,6,7) |
| SMP 4 | Animal Production and Marketing Systems (objective 2) |
| SMP 7 | Crop Production and Marketing Systems (objectives 2,4,5,6) |
| SMP 12 | Health and Human Safety Initiative (objective 3) |
| SMP 13 | Leadership and Volunteer Development (objective 3) |

- SMP 15 Natural Resource Conservation and Management (objectives 1,2,3)
 SMP 17 Residential and Community Horticulture, Turf, Forestry and Pest Management (objectives 1,2,3)
 SMP 18 Residential and Community Water and Waste Management (objectives 1,2,3,4)

STATEWIDE MEASURES OF PROGRESS AND IMPACTS:

OBJECTIVE 1. Participants will improve their understanding of existing and evolving domestic/international agriculture and natural resource issues, legislative and regulatory options, and their impacts.

Progress: Participants in educational programs focusing on environmental and natural resource issues 4873

Impact: Increased knowledge and awareness of environmental and natural resource issues and policies 1162

Increased knowledge and awareness of environmental legislation and regulations affecting agriculture 6407

OBJECTIVE 2. Participants will increase their understanding of, and involvement in, the process by which US, NC and local agriculture and natural resources legislation, rules and regulations are developed.

Progress: Participants in educational programs that focus on the process by which agricultural and natural resources legislation, rules and regulations are developed 1110

Impact: Participants with increased knowledge of the policy making process 875
 Increased public participation in policy making 558

OBJECTIVE 3. Participants will understand and use the public issues education process including the principles of conflict resolution and facilitation in conducting educational programs and in helping to resolve local issues.

Progress: Participants in educational programs dealing with public issues education and conflict resolution 599

Impact: Participants adopt public issues education, conflict resolution, and facilitation principles and techniques 31

People participating in a collaborative problem solving process to resolve a community/public issue 539

Community/public issues resolved through collaborative problem solving 3

NARRATIVE ACCOMPLISHMENTS:

For the democratic process to work, citizens must be informed about the issues that affect them and the characteristics and impacts of policy options that are under consideration. Progress is being made in Extension programming toward meeting this objective. Local programs, such as seminars and conferences, have been held for county officials and the public to present discussions of current local regulations. Field faculty are serving on local policy committees and, in cases where controversy is great, Extension has suggested, located and brought in trained facilitators to assist in the consensus

building process.

But it is not sufficient that the public simply be informed. They also must understand and participate in the policymaking process to ensure their views are heard. Extension is educating clients about the importance of being involved and representing their interests in public policy issues. Clients are being informed about the status of local regulations as they are being developed, and, upon obtaining a complete description of the rules, they have become concerned and involved. Citizen associations have been formed and agreements have been reached with Health Boards to make modifications in proposed regulations based upon their concerns. Because of the increased involvement in policy making, attendance has increased at elected and appointed officials meetings. In other areas of the state, networking has been fostered among stakeholders on environmental issues involving, for example, the NC Division of Water Quality, NRCS, Forest Service, local, City, and state municipalities, waste water treatment operators, citizens, agricultural producers and members of industry. Water quality initiatives and policies to ensure future water quality have been initiated. There is a new awareness of the large scope of the issue of water quality and how serious the problems are in watersheds. Many citizens have become enlightened about the problems, pollution sources and the role they can play in bringing about change. As a result of such meetings, numerous requests for information and additional educational programs have been made.

Lastly, there is increased recognition that controversial issues can be resolved more effectively if attention is given to the process by which these problems are attacked. Following up on statewide training for field faculty on collaborative community problem solving and facilitation, Extension is helping communities resolve controversial issues. Advisory Boards are being established to address issues and identify policy options. Meeting intensively, often two times per month, local extension agents are working with NCSU leaders to assist local board and task force members work through the consensus building process. In one issue, widening of a causeway over a coastal river, a consensus has been reached and plans are going forward to present recommendations to County Commissioners in a joint meeting of the three counties that comprise the watershed for the river. This is likely the first time ever that they will have met to try and develop joint policies to protect the river. Officials recognize the need for a fair and manageable process for land use decisions. County Commissioners endorse Extension's public policy education process because it is an effective way to get public input and lessen their exposure to this controversial issue. Because of the time it takes to work through complex issues and policy options, the Extension team must hold numerous meetings with facilitated discussion to achieve success on these controversial issues. But the payoff comes when consensus is reached among parties that often are at odds with one another.

SELECTED SUCCESS STORIES:

Local System: richmond
Person Reporting: Bert Coffey

Through our efforts to keep the producers in the county informed of pending local livestock rules, local producers have taken an increased interest in local policy. Initial efforts to get producer involvement met with limited success. Following a mailing to all producers that specifically outlined the details of the proposed regulation, interest and participation increased. A producer association was

formed and officers elected. Producers then began attending commissioner and health board meetings to voice their concerns. Producers were effective in getting the regulations temporarily suspended, while a new committee including producers revisited the regs and made modifications. Producers have become aware of the need to have their voice heard and have taken an active role in communicating with county officials.

Local System: jackson
Person Reporting: Harvey Fouts

Over 75 Jackson County Citizens interested in siting a construction and demolition landfill felt they contributed to the site selection criteria and process when they participated in a focus group designed and conducted by Extension agents in May 1996. The group used CQI techniques to develop their recommendations after learning about C & D landfills. County officials were pleased with the participation, awareness generated and the site selection criteria developed by the citizens. The solid waste task force participated as a sponsoring group and also benefits from Extension resources throughout the year.

Local System: edgcomb
Person Reporting: Joe W. Dickens Jr.

When one of our communities received word that the local community water association that served 132 families was broke and foreclosure was being threatened by the Farmers Home Administration, the members of the community organization gave leadership in re-organizing the association and assumed leadership roles on the association's board. The water rates were increased and today the water system bills are current and they have made the annual payment to the Farmers Home Administration and have funds in the bank to help take care of emergencies.

Local System: gaston
Person Reporting: Martha Burris

Elected Officials participated in four Elected Officials Seminars focusing on economic development. The seminars covered an overview of economic development issues, water-sewer, transportation, and education. The elected officials on the steering committee determined topics, recruited presenters and presided at the programs. Over 50 percent of elected officials attended the programs. Cities and county are working on transportation and water-sewer extension. The elected officials used the information as background to begin addressing these issues.

Local System: gaston
Person Reporting: Stephen Greer

Professional relationships grow with the Cooperative Extension Service. In a recent zoning battle a developer, an adjacent development and the city planner contacted Cooperative Extension to assist in resolving their differences. The developer completely cleared a 12 acre tract of land. The adjacent neighborhood homeowners (13 total homes) were upset and were prepared to stop this development and they had the support of the city council. The developer cleared the property during the early morning hours when the adjacent homeowners were not aware of the clearing in progress. This

ballooned into an emotional issue. The city contacted Cooperative Extension for their expertise. All parties were open to a compromise. The original proposal to the developer from the homeowners was to install a landscape planting valued at \$52,500, this total was not acceptable. This is where extension came in to help all parties to an acceptable compromise. The decision was to compensate.

TEAM MEMBERS:

- Leon Danielson, Co-chair
- Marjorie Rayburn, Co-chair
- Rick Hamilton
- Steve Hodges
- Greg Jennings
- Lanny Hass
- James Parsons

SMP-03 AGRICULTURE AND THE ENVIRONMENT

Agriculture and the Environment State Major Program mission is to develop and implement educational programs to improve the clientele understanding of the complex relationships between agriculture and the environment. Programs were targeted to seven clientele groups:

- Livestock, poultry and fish producers;
- Field crops producers;
- Nursery, greenhouse, turf and landscape professionals;
- Agribusiness professionals;
- Agricultural service agencies;
- Special interest groups; and
- Pesticide certification and training.

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

Counties Reporting Accomplishments: 51

Program Accomplishments:

1. 4084 land application operators were trained and certified.
2. Best management practices adopted were adopted on over 400,000 acres including: soil test analysis (233957); waste analysis for land application (81917); plant tissue analysis (18233); and conservation practices implemented (100156). In addition, 314072 tons of feed were analyzed; 21645 tons of waste were composted and 8378 waste applicator equipment units were calibrated.

Impacts: 57,134 tons of soil erosion (loss) was reduced on pastures, feedlots, lounging areas and land application fields as a result of adoption of conservation practices. Approximately 100,000,000 pounds of plant available nitrogen derived from livestock and other organic by-products were utilized at an estimated commercial fertilizer nutrient value to producers of \$28,990,000. 2,528 of 6,247 total livestock and poultry producers utilized approved waste utilization plans. Over 1,500 farms adopted best management practices such as walking trails (76); stream crossings (117); managed streambank vegetation (528) and mortality composting (855). Only 105 permit and/or water quality violations or odor complaints were cited against livestock producers.

299 Volunteers contributed 1849 hours values at \$18,490. Several county units developed cost-benefit measures. The estimated value of the animal agricultural environmental programs in those counties making the estimates were:

Value to Targeted Audience: \$ 2,329,940
Value to Society: \$ 4,480,984
Estimated Program Cost: \$ 69,180

Objective 2: Field crop producers will adopt and promote economically and environmentally sound practices to manage water, soil, nutrients and pesticides for the purpose of improving water quality protection.

Counties Reporting Accomplishments: 44

Program Accomplishments:

1. Over 1.6 million acres of cropland were treated with BMPs including: conservation tillage (433,610); no till (409,773); residue management (487,103); nutrient management plan (236,129); and controlled drainage (87,850).
2. 162 Miles of vegetative buffer or forested riparian areas were restored along intermittent and perennial streams.
3. Approximately 1.2 million acres were treated by use of biotechnologies including: 474,772 IPM, 594,699 acres utilizing a scouting program, and 112,341 acres implementing some type of biological control.
4. 1,390 farms established field borders, filter strips and permanent wildlife cover on approximately 243,087 acres.

Impact: Pesticide usage statewide was reduced by 34,611 pounds compared to traditional/conventional practices used in prior years. Compared to previous rates, commercial fertilizer usage was reduced by 110,328 pounds N and 79,796 pounds P₂O₅. Soil erosion losses on cropland were reduced by 546,774 tons.

Approximately 8,898 acres of wildlife habitat were established to increase wildlife in farmed areas.

345 volunteers contributed 2,596 hours valued at \$25,960. Several county units developed cost-benefit measures. The estimated value of the field crop environmental education programs in those counties making the estimates were:

Value to Targeted Audience: \$ 8,252,224
Value to Society: \$ 16,033,980
Estimated Program Cost: \$ 203,903

OBJECTIVE 3. Nursery and greenhouse growers, turf and landscape professionals will adopt and promote economically and environmentally sound practices to manage water, soil, nutrients and pesticides for the purpose of improving water quality protection.

Counties Reporting Accomplishments: 31

Program Accomplishments:

1. Over 3,500 individuals (Nurserymen, Greenhouse Growers, and/or Landscape and Turf Professional) adopted BMPs. cycled irrigation (121); water reuse (100); split application and/or controlled release fertilizers (943); foliar/soil test analyses to determine fertilization rates and timing (955); conservation practices (362); and integrated pest management (1100).
2. Twenty five hundred professionals obtained certification including: registered landscape contractors (271); certified plant professionals (68); certified landscape technicians (19); licensed pesticide and applicators for ornamental and turf (2180).
3. 3,276 individuals participated recertification training programs.

IMPACTS: Ornamental Horticulture Workshops attracted large numbers of landscape, greenhouse and nursery professionals - 3276 participants statewide. Statewide workshop training included instruction on soil analysis, sampling procedures, calibration calculations, new products, pesticide regulations, proper disposal practices for pesticide containers, sample collection and use of the plant insect and disease clinic, cost accounting, best management practices for environmental protection, professional training for plant I.D., new plants for production and landscaping, results of bedding plant evaluations, nursery fertilizer and substrate trials and training in certified landscape technician practices. Nursery, greenhouse and landscape educational programs lead to the adoption of erosion control practices on 1183 acres. Over 9,296 tons of waste products were used or recycled and water management was practiced on 7791 acres. More than 1,680 producers utilized environmentally friendly pest management practices.

105 Volunteers contributed 1089 hours valued at \$10,890. Several county units developed cost-benefit measures. The estimated value of the nursery, greenhouse, and landscape environmental education programs in those counties making the estimates were:

| | |
|-----------------------------|--------------|
| Value to Targeted Audience: | \$ 1,061,398 |
| Value to Society: | \$ 2,268,500 |
| Estimated Program Cost: | \$ 26,194 |

Objective 4: Agribusiness professionals will adopt and promote economically and environmentally sound practices to manage water, soil, waste materials, nutrients, pesticides, and petroleum products for the purpose of improving air and water

quality protection.

Counties Reporting Accomplishments: 17

Program Accomplishments: environmental educational programs sponsored by agribusiness environmental educational programs sponsored by agribusiness Extension faculty conducted 133 industry meetings and trade shows promoting environmentally sound agriculture, with 4257 agribusiness professionals participating. In addition, there were 106 environmental educational programs sponsored by agribusiness. During the year, 149 companies produced literature promoting the use of BMPs and environmentally sound production. In addition, 354 environmental products and equipment were marketed for use in agricultural pollution control. To support the education program, 323 volunteers committed 1784 hours for a estimated value of \$17,840 of volunteer labor. Several county units developed cost-benefit measures. The estimated value of these environmental educational programs in those counties making the estimates were: \$2,329,300. The estimated program cost was \$25,635.

Objective 5: Extension will network with agricultural service agencies including NRCS, ASCS and NCDA to promote economically and environmentally sound practices to manage waste materials, nutrients, pesticides, and reduce nonpoint source pollution for the purpose of improving air and water quality protection.

Counties Reporting Accomplishments: 43

Program Accomplishments:

Two hundred forty two (242) educational programs were delivered by multiagency groups resulting in 1,908 interactions, reports and publications being developed. One hundred twenty two (122) interagency coalitions were established and implemented 225 collaborative projects.

548 Volunteers contributed 4151 hours valued at \$41,520. Several county units developed cost-benefit measures. The estimated value of the interagency environmental educational program in those counties making the estimates were:

| | |
|-----------------------------|---------------|
| Value to Targeted Audience: | \$ 2,752,500 |
| Value to Society: | \$ 11,426,529 |
| Estimated Program Cost: | \$ 675,888 |

Objective 6: Special interest groups (including public officials, environmental activists, the media and consumers) will increase their understanding of and appreciation for the complex relationships between agriculture and the environment.

Counties Reporting Accomplishments: 27

Program Accomplishments:

Cooperative Extension coordinated 764 community and special interest environmental educational programs. Sixty one programs were conducted to promote greater use of best management practices. Twenty six local policies were adopted that reflected both the agricultural community's and the special interest groups' needs. Public awareness and knowledge of the link between agriculture and the environment was increased by participation of 102,444 citizens in educational programs. Enhanced attitude toward agriculture was reflected by 435 media stories promoting a positive image of agriculture.

658 Volunteers contributed 3,924 hours valued at \$ 39,240. Several county units developed cost-benefit measures. The estimated value of the community and special interest environmental educational programs in those counties making the estimates were:

| | |
|-----------------------------|---------------|
| Value to Targeted Audience: | \$ 48,750 |
| Value to Society: | \$ 10,526,749 |
| Estimated Program Cost: | \$ 53,830 |

Objective 7: Pesticide Certification and Licensing Program

Counties Reporting Accomplishments: 71

Program Accomplishments:

The Pesticide Certification and Licensing Program has been one of the most successful for CES in terms of direct service to the citizens of North Carolina. Over 12,000 pesticide applicators received training in this program last year, with two-thirds of them adopting one or more Best Management Practices (BMPs) on 602,000 acres. The program impacts include an estimated reduction of 130,570 pounds of pesticides used and savings of 2.8 million dollars. The efforts of county staff to obtain funding from NCDAs for pesticide container recycling resulted in a number of new programs and 186,157 containers recycled and \$52,495 saved from landfill costs.

344 Volunteers contributed 4783 hours valued at \$ 47,830. Several county units developed cost-benefit measures. The estimated value of the Pesticide Certification and Licensing Program was in those counties making the estimates were:

| | |
|-----------------------------|---------------|
| Value to Targeted Audience: | \$ 4,861,025 |
| Value to society: | \$ 15,935,240 |
| Estimated Program costs: | \$ 266,709 |

EXAMPLE SUCCESS STORIES (Highlighted By Objective):

OBJECTIVE 1:

Local System: person

Person Reporting: Joey Knight, III

Swine producers in Person and surrounding counties had to be certified by January 1, 1997 in order to stay in business. Person County Extension Service offered a training and certification program to swine producers with over 250 animals. After the completion of the training program, swine producers increased their waste handling and management skills; made them aware of nutrient values and cut their commercial fertilizer cost by 25 percent; and, maximized the use of these wastes to prevent contamination of surface waters and groundwaters (savings at least \$10,000.00/producer). 100 percent of the producers passed the test given by the Division of Water Quality.

Local System: greene

Person Reporting: Mike Regans

Mike Regans, Area Specialized Agent - Environmental Education, developed a swine waste application record book for the pork producers of Greene County. The record book enables producers to provide evidence that waste is applied properly and to satisfy farm inspection procedures of the Division of Water Quality. The record book contains an emergency action plan and forms for waste Application, lagoon level, rainfall, and animal population records. The Swine Waste Application Record Book has already been distributed to more than half of the 125 pork producers in Greene County. Costs of the record book materials were paid by the Greene County Livestock Association and the record book is available at no cost to Greene County producers. The Swine Waste Application Record Book will be used in Record Keeping Workshops to be held in Greene, Wayne, Pitt, and Lenoir County.

OBJECTIVE 2:

Local System: beaufort

Person Reporting: Gaylon Ambrose

The Cooperative Extension Service in Beaufort County through the 1993 purchase of a no-till planter has demonstrated to corn growers the added value of no-till corn planting. In the past three years, no-till corn planting has increased from 800 acres to over 22,500 acres in 1996. Research of the county's on-farm-test shows a 3.3 bushel increase in yield and a \$14.00 reduction in tillage cost. In 1996, this net increase returned to corn farmers \$25.55 per acre over conventional planted corn. This increased the county's net corn income by \$562,100. The water quality benefit from this practice has saved over 38,000 tons of soil erosion into our water ways since 1993.

Local System: Vance

Person Reporting: Wayne Rowland

During the 1996 growing season, 5 limited resource field crop producers reduced their nitrogen and phosphorus usage by developing a fertilization plan. By following soil sample recommendations, these farmers saved \$5000 in fertilization costs. Before becoming involved in the Farm Opportunity Program, they stated they had never taken a soil sample. Each of these producers stated they believe in soil sampling.

OBJECTIVE 3:

Local System: Ashe

Person Reporting: Jim Carey

Plastic Pesticide Containers: Estimates indicate that farms, homes, and gardens generate over 10,000 plastic pesticide containers per year in Ashe County. There are approximately 560 farmers who are certified to purchase and use restricted use pesticides. Educational programs were conducted and pesticide users learned to handle and dispose of pesticide containers in a manner that will be safe to them and the environment. A proposal submitted by the Ashe Extension Center resulted in the acquisition of a \$7,262.00 grant to recycle plastic pesticide containers. As a result the county was able to purchase 2 metal receptacles for collecting containers and provide 50 farmers with pressure rinse nozzles for cleaning pesticide containers.

OBJECTIVE 4

Local System: Greene

Person Reporting: Stan Dixon

The Greene County Livestock Association with technical assistance from cooperative extension agents has operated a mortality ramp for farm animal carcasses. In 1996, over 2.5 million lbs. of carcasses has been recycled through rendering. The ramp provides the 125 swine producers an environmentally sound method to dispose of dead animals. The funds from the project have been used to fund lagoon gauges, waste analysis samples, hay tester kit, lagoon pH kit, a lagoon aerator and record keeping notebooks.

OBJECTIVE 5

Local System: Johnston

Person Reporting: Eric Spaulding

Excellent interagency cooperation exists in Johnston County. Extension and an NCDA pesticide inspector evaluated 29 dealer pesticide storage areas and provide proper pesticide storage signs for each. This effort saved \$21,500 in fines by avoiding regulatory enforcement visits. Extension cooperated with the Johnston County Fire & Safety

Inspections Department to evaluate 6 farm Pesticide and Fuels Storage Areas at no charge. This project saved \$10,000 in fines and a \$500,000 total loss of a farm in buildings, equipment, and machinery if a fire were to reach a fuel and fertilizer storage area. As a result, costs of the inspections were reduced to encourage more farmers to have inspections. These inspections allow farmers to voluntarily meet county, state, and federal fire and safety regulations.

Objective 6

Local System: lincoln

Person Reporting: Matt Taylor

State Major Program 3, Agriculture and the Environment, permits Extension to create and educate special interest groups regarding Agriculture and its relationship to a healthy environment. In Lincoln County, we have chosen to create a special interest group of environmentally conscious youth. LEAP, Local Environmental Awareness Program, is the tool we have chosen to achieve youth education regarding Agriculture and the Environment. This program is being piloted in one of our county middle schools. It will be offered countywide in 1997 as a result of its acceptance level and requests from other county schools. In addition to monthly meetings with 50 participants per month, science teachers are provided lesson plans to supplement their curriculum, impacting 600 student per lesson provided. As a result of the LEAP program students are reseeding school property to reduce erosion.

Local System: forsyth

Person Reporting: Roger Galloway

The Forsyth Center of the North Carolina Cooperative Extension Service networked with the Forsyth County Sanitation Department and the City of Winston-Salem to promote and conduct the 1996 Enviro Fair. Television station channel 13 taped a spot with N.C. Cooperative Extension Agent Mark Tucker and a county sanitation worker publicizing the Enviro Fair. This segment informed citizens about the types of materials that could be collected and how these materials should be contained and transported to the Enviro Fair. Over four thousand persons disposed of potential environmental damaging materials. The pesticide collection was staffed by Agent Mark Tucker and 15 Master Gardener Volunteers. A total of 789 pounds of pesticides were collected at the 6 hour Saturday event.

OBJECTIVE 7:

Local System: Henderson

Person Reporting: Danny Peek

The Henderson County Center recertified 112 private applicators. This was over 97 percent of the total that was required to be recertified in 1996. This recertification included training in the areas of pesticide safety, understanding labels, pesticide

toxicology, pesticide handling and storage, record keeping, and sprayer calibration. In addition, Henderson County networked with Buncombe and other neighboring counties to provide commercial applicators recertification opportunities. For example, three hours of credit were offered with training in pesticide toxicology, herbicide mode of action, insect control, Integrated Pest management, and plant biological processes. Another two hour class was held pertaining to weed identification and control.

Local System: Edgecombe

Person Reporting: Arthur Bradley, Jr.

The pesticide container recycling program in Edgecombe County continues to grow and evolve from its beginning in 1993. The county received a grant of \$7,500 in 1995 to expand and improve the program. During 1996, seven collection sites were added at the local county convenience centers to accept containers for recycling. That significantly improved the collection of containers by providing access in remote areas of the county. In 1996, 9,200 pesticide containers were collected, which is an increase over the 1995 level of 51 percent. This program creates an awareness of the importance of proper container rinsing and disposal.

SMP-03 TEAM MEMBERS

| | | |
|-------------------------|------------------------|----------------|
| John Anderson | Dan Bailey | Ted Bilderback |
| Allen Calwell (Cochair) | Daniel Campeau | Tom Carter |
| David Crouse | Robert Evans (Cochair) | Ted Feitshan |
| Tom Hoban | Frank Humenik | Greg Jennings |
| Rich McLaughlin | Matt Poore | Kim Powell |
| Stephen Toth | Kelly Zerling | Karl Shaffer |
| Ron Sheffield | | |

SMP 04 - ANIMAL PRODUCTION AND MARKETING SYSTEMS

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

Program Accomplishments: Measure of Progress

1.*Increased awareness and knowledge of best management production practices

NUMBER OF DAIRY PRODUCERS INCREASING KNOWLEDGE: 499

NUMBER OF BEEF CATTLE PRODUCERS INCREASING KNOWLEDGE: 8392

NUMBER OF HOG PRODUCERS INCREASING KNOWLEDGE: 2207

NUMBER OF HORSE PRODUCERS INCREASING KNOWLEDGE: 3346

NUMBER OF SHEEP OR GOAT PRODUCERS INCREASING KNOWLEDGE: 1055

NUMBER OF POULTRY PRODUCERS INCREASING KNOWLEDGE: 2234

NUMBER OF PRODUCERS OF AQUATIC SPECIES INCREASING KNOWLEDGE: 464

NUMBER OF LIMITED RESOURCE PRODUCERS INCREASING KNOWLEDGE: 644

2.*adoption of best management practices that optimize income

NUMBER OF DAIRY PRODUCERS ADOPTING: 360

NUMBER OF BEEF CATTLE PRODUCERS ADOPTING: 2948

NUMBER OF HOG PRODUCERS ADOPTING: 740

NUMBER OF HORSE PRODUCERS ADOPTING: 950

NUMBER OF SHEEP OR GOAT PRODUCERS ADOPTING: 440

NUMBER OF POULTRY PRODUCERS ADOPTING: 791

NUMBER OF PRODUCERS OF AQUATIC SPECIES ADOPTING: 124

NUMBER OF LIMITED RESOURCE PRODUCERS ADOPTING: 364

3.*application of improved farm financial planning practices and procedures

NUMBER OF DAIRY PRODUCERS APPLYING: 232

NUMBER OF BEEF CATTLE PRODUCERS APPLYING: 603

NUMBER OF HOG PRODUCERS APPLYING: 211

NUMBER OF HORSE PRODUCERS APPLYING: 257

NUMBER OF SHEEP OR GOAT PRODUCERS APPLYING: 127

NUMBER OF POULTRY PRODUCERS APPLYING: 142

NUMBER OF PRODUCERS OF AQUATIC SPECIES APPLYING: 47

NUMBER OF LIMITED RESOURCE PRODUCERS APPLYING: 349

Program Accomplishments: Impacts - Income Optimization

| | | | | | |
|--|-----------|---------|---------|-----------|------------------|
| DAIRYPRODUCERS, DOLLARS GAIN: | 2,481,086 | 381,100 | 604,100 | 1,149,321 | 4,615,607 |
| BEEF CATTLE PRODUCERS, DOLLARS GAIN: | 1,073,854 | 584,690 | 875,719 | 253,732 | 2,787,995 |
| HOG PRODUCERS, DOLLARS GAIN: | 923,876 | 281,655 | 176,610 | 383,427 | 1,765,568 |
| HORSE PRODUCERS, DOLLARS GAIN: | 134,150 | 54,434 | 66,455 | 66,670 | 321,709 |
| SHEEP OR GOAT PRODUCERS, DOLLARS GAIN: | 29,553 | 32,410 | 27,270 | 16,925 | 106,158 |
| POULTRY PRODUCERS, DOLLARS GAIN: | 263,303 | 6,000 | 934,500 | 1,055,003 | 2,258,806 |
| PRODUCERS OF AQUATIC SPECIES, DOLLARS GAIN: | 146,201 | 72,500 | 52,500 | 87,800 | 359,001 |
| LIMITED RESOURCE FARMERS, DOLLARS GAIN: | 132,201 | 20,900 | 43,550 | 31,800 | 228,451 |

Volunteers Involved To Date Number: 1,480
Hours: 15,065

Scope of Program Accomplishments of SMP 04

The following narratives describe some of the many accomplishments achieved through the educational programs focused on animal production and management. This program encompasses a large array of animal and aquatic species. With such broad sweeping Extension education programs focused on the animal industry in North Carolina, only some of the many program accomplishments are described in this report.

Beef Cattle Extension Program Accomplishments:

Requests for information and educational programs on increasing productivity and efficiency of beef herds accelerated in 1996 in the face of severely depressed cattle prices. Producers also took advantage of other extension sponsored programs to help increase their income. Most notably, the number of calves sold through State Graded Feeder Calf Sales, a marketing education program provided through the joint efforts of the North Carolina Cooperative Extension Service, the North Carolina Department of Agriculture, and the North Carolina Cattlemen's Association, jumped 49% over 1995. Average sale weights of steer calves increased 8 pounds per head to 580 lbs, 1.4% above 1995, continuing a trend toward improved weights. Since 1990, average weights have increased 50 lbs per head, for an annual improvement of 1.4%. Assuming the same rate of improvement for all herds as that seen in this sample, the improved weight gains alone that resulted from adoption of extension promoted management practices increased beef income in the state by \$1.73 million, even with the historical low prices paid in 1996.

Our educational programs also focus on improving quality of the product. Improved quality is reflected by the proportion of calves graded as S1, the lowest quality grade for calves that have No. 1 muscling. In 1996, 8.0% of the calves graded S1 continuing the decline in proportion of lower quality calves from a level of 23.4% in 1984. The improvement in 1996 for grade compared to 1995, returned beef producers in the state an additional \$1.0 million dollars in income.

The other major thrust of our extension programs in 1996, focused on reducing feed costs through the use of by-products. These products include whole cottonseed, cotton processing waste, wheat midds, soybean hulls, poultry litter, and sweet potato processing waste. Use of these by-products combined with the use of growth efficiency enhancers, such as growth promoting implants and feed additives improved net return to producers who adopted these practices by over \$400,000.

Swine Extension Program Accomplishments

Swine production continues to be one of the leading growth areas in North Carolina agriculture. Total income in 1996 from the sale of hogs was \$1.7 billion, and an 11 percent

increase in production is projected for 1997. This growth has been supported by aggressive Extension programs delivered by University field faculty and specialists in critical support areas. Eastern Foods, Inc., organized with extensive Extension input as a network of independent producers, now includes 51 members. This network has significantly improved the competitive position of each of the members. The number of animals tested on the On-farm Performance Testing Program increased by 18 percent, which includes over a four-fold increase in the number evaluated by Real-time Ultrasound. This genetic evaluation of potential breeding stock lays the foundation for increasing production efficiency and consumer acceptance of pork products. Intensive educational programs in herd health have targeted specific problem areas in maintaining herd productivity. Information delivery in all areas of swine production has been accelerated by the Extension Swine World Wide Website, which contains over 100 Extension publications and logged over 120,000 hits in the last 12 months.

Dairy Extension Program Accomplishments

Dairy Extension has emphasized an educational program entitled "DairyWise" to teach management techniques to dairy producers. Over 110 dairy producers from 75 farms participated in these workshops and ranked their educational effectiveness as very good to outstanding. These concepts should improve NC producers' management skills and competitiveness.

Over 70% of dairymen formulate rations based on feed analysis. Extension works with NCDA and DHIA to provide and utilize these services. About \$3.2 million dollars of improved annual profit can be attributed to this management practice. Use of by-product feeds can help reduce the cost of producing milk. Feed costs were unusually high in 1996. Extension demonstrated how dairymen can reduce feed cost through the use of cottonseed meal to replace soybean meal. As an example, if adopted by half of NC's dairymen, profit could be increased by \$3.7 million annually. Broiler litter was demonstrated to effectively replace soybean meal in heifer diets. If adopted by half of dairy producers, this practice could reduce feed costs \$370,000 annually.

Aflatoxin is a carcinogenic mycotoxin which can be excreted in milk if cows consume contaminated feed. Such milk must be discarded. Extension has shown dairymen how to reduce aflatoxin contamination and has assisted dairymen. With mycotoxin problems that affect the cow's production and health. The economic benefit is estimated at \$0.5 million annually.

Training sessions on topics concerning "the production of high quality milk" for people who milk cows or manage employees who perform that task have helped those individuals improve their knowledge and performance levels. By producing high quality milk that meets the standards set by processors, producers can receive a premium bonus, which for the average dairy producer in the state could amount to over \$3,800 more net income per year. Currently only about 20% of the producers received a premium. If all producers received a premium for producing high quality milk, over \$1.5 million additional annual income would be realized by the state's dairy producers.

Equine Extension Program Accomplishments

The use of interactive two-way television to deliver 12, two-hour conferences to 2,420 horse owners educated more clientele, conserved travel funds and specialist time from 1994-1996. Participants evaluated the acceptability of distance learning technology as a means of delivering training. Forty-three percent of the participants estimated an average savings of \$402 resulting from the television series. A follow-up survey was conducted in 1996 to quantify the seminar impact of the information on the actual management and profitability of horse farms. Response to a second mail out questionnaire (16% return rate) indicated that 53% of the participants applied the information in their horse operation, which resulted in an annual net profit or savings of \$378 per producer. Total actual income saved or earned resulting from the 3-year series was \$484,823.

Adult horse owners received management and training information through a series of 13 statewide short courses and clinics, newsletters, extension bulletins and agent/specialist consultation services. The Educational conferences, co-sponsored by the North Carolina Horse Council, were popular methods of providing nutrition, breeding, business management, facility, waste management, health care, selection and training information. Over 2,771 Equine producers from 11 states attended the events held over 25 days. Attendance increased by 34% as compared to the 1995 attendance of 2,074 horse owners. Approximately 33% of the participants completed forms and indicated a projected \$829,742 in income earned or saved resulting from the knowledge and information acquired at extension short courses and clinics.

A follow-up survey was conducted in 1996 to quantify the impact of previous short course information on the management and profitability of horse farms. Participants indicated a 61% average adoption rate for 20 different feeding management practices. Producers reported improved feed efficiency and hair coats in mature horses (67%), improved body condition and decreased feed of grains (60%), reduced feed bills and improved weight gains in growing horses (53%), reduced incidence of colic (40%), and increased utilization of pasture systems (40%).

Poultry Extension Program Accomplishments:

The Poultry Science Extension program are producing results that are having significant impact on the state's poultry industry. A few of the highlights of these programs are as follows:

Poultry Science specialists are involved in the development of a prototype of a rapid shell egg cooler, utilizing cryogenic technology. This is being accomplished through cooperative agreements with processors in the North Carolina egg industry, allied industries, and a poultry granting organization. This work was begun as a request from the entire egg industry within the state and has triggered interest from the egg industry across the country. This technology has the ability of reducing post-processing growth of harmful organisms in shell eggs resulting in safer eggs for the consuming public. A conservative cost savings to the processors in North Carolina would be \$200,000 annually not to mention the marketing advantages this will create.

As a result of research work and Extension programs with probiotics and Bobwhite quail, over 200 quail producers are currently using the same probiotic as studied. These producers combined produce approximately 6,000,000 quail annually and each quail chick is valued at \$.50. They experienced a 10% reduction in mortality during the first two weeks after hatch which resulted in an approximate total savings of \$300,000 for these producers.

Programs in ostrich embryo incubation resulted in recommendations to producers that led to a decrease in embryonic mortality. The current value of a breeder ostrich chick is approximately \$2,000. Approximately 4,000 ostrich chicks were produced in North Carolina in 1996.

A special turkey field trial was conducted in cooperation with Prestage Farms. The objective of this study was to determine the effect of different incubation temperature profiles in single stage incubators on poul embryo physiology and hatching success. Positive results from this special study on poul embryo physiology will be included in Extension education programs for the turkey industry. Very small improvements in hatchability of turkey eggs will result in very large monetary returns to turkey hatcheries in North Carolina.

Another component of the Extension turkey program involves the annual North Carolina Turkey Industry Days. During the past three years there has been a total of 450 registrants for this annual conference. This conference has made it possible for forty-two experts to present the latest information impacting the turkey industry relating to turkey management.

Aquaculture Extension Program Accomplishments:

The North Carolina Cooperative Extension Service, Aquaculture program provides information to approximately 250 clients per month. The industry has continued to expand. Catfish processing at Carolina Classics is up over 50% from 1995. The hybrid striped bass industry expanded by 30%. North Carolina has a healthy (minimal business failures) and growing aquaculture industry. Farm gate value for the industry was approximately 15.25 million dollars. Although often overlooked, the NCCES Aquaculture program has provided education to many who have opted not to invest in the industry. In doing so, we have saved investment dollars by helping minimize business failures.

Program Success Stories for SMP 04:

Haywood

10 trout producers implemented a computer-generated production forecast for their farm. This allowed advance planning of trout egg and fingerling production and acquisition. In addition, 6 trout producers implemented suitable record keeping to assist in farm management decisions.

A grant of \$13,500 was applied for and awarded to implement a demonstration waste management system on a trout farm in Haywood county. This project will utilize an innovative and practical approach to inexpensive waste management on trout farms in

western North Carolina. Upon completion in 1997, the project will be used for demonstration to other trout farmers.

Pitt

The area aquaculture industry has benefited from the delivery of cutting-edge, research-based information. Both formal training and on-site activities have improved the efficiencies of production facilities in numerous topical areas, such as: feeds and feeding practices, fish nutrition, disease diagnosis, breeding technology, facility design, water quality management, and aeration mechanics. Increased farmer success indicates the value of this office and the NC-CES to the future development of this industry to the state.

Catawba County - Jeff Carpenter

Volunteers from Catawba, Lincoln and Gaston Counties were involved in planning, implementing and evaluating 2 youth livestock shows in 1996. Funds were raised, judges secured and the shows conducted by the planning committees for heifer, steer and lamb exhibitors. In the first year, over 60 entries were made in the lamb show and an additional 59 exhibits were made in the annual beef show. Youth involvement in livestock projects has nearly doubled in the past year in the 3 county area, mainly in the market lamb project. Participation is also increasing in livestock judging and other animal related 4-H activities.

Onslow County - Karen F. Spivey

A workshop entitled, "First Aid & Emergency Care" was conducted for 58 horse owners from 5 counties at the NCCES-Onslow County Center. Evaluations completed by participants showed that 31 had acquired new knowledge, 19 had improved their skills and 10 planned to adopt the practices taught, at a projected annual savings/profit of \$6900. The following week, one of the participants used the skills she gained in this workshop to administer a first-aid bandage to an injured horse, thus saving a horse valued at \$2000 and avoiding the \$200 expense of emergency veterinary care.

Onslow County - Karen F. Spivey

In 1996, a new program of the North Carolina Cooperative Extension Service called REINS (Regional Equine Information Network System) was implemented. Southeastern NC was selected as one of the pilot regions for the REINS Program. Eleven volunteers from seven counties in the Southeastern District received 42 hours of intensive instruction and were then tested to become Certified REINS Volunteers. These volunteers have since formed their own organization, have provided educational activities for other horse owners, and have documented 300 hours of volunteer service to Extension in their counties, valued at \$3000.

Caldwell County - Kevin E. Johnson

The Caldwell County Extension Service in conjunction with the Catawba, Alexander, and Burke County Centers held the first ever Western Piedmont Beef Field Day. The field day

was held at the Caldwell County Fairgrounds. The purpose of the field day was to educate beef farmers on the latest marketing strategies, intensive grazing, and cattle management. Over 100 producers attended the field day and informed us that they obtained very important information that would assist them in managing their beef operations. The joint effort between the four counties allowed us to obtain more resources and develop a stronger program.

Henderson County - Danny Peek

In 1996 7 people were trained and certified as Regional Equine Information Networking System (REINS) volunteers. They are currently working to develop educational programs to better meet the needs of the horse industry of Western North Carolina. In addition they have started writing articles for a REINS Newsletter to be distributed throughout the western part of the state.

Yadkin County - Phil Rucker

On the annual cattleman's tour, participants learned the principles and advantages of utilizing controlled grazing to maximize the animal gains on forage. Upon returning home, several producers began to implement intensive grazing practices and have realized the money saving advantages. They have been able to increase stocking rates while increasing total production without hurting the environment.

Yadkin County - Nancy W. Keith

In response to a dairyman who had been having problems in his herd with unhealthy cows and lowered milk production I began working with him on his feed ration. He had been purchasing a commercial mineral which was very expensive and wanted to cut the cost of the minerals by mixing his own. I balanced his feed ration and the cost of the mineral mix that he would be mixing was \$5000/year less than what he was buying. Along with this \$5000. savings the cows health improved and milk production increased 3 pounds/cow/day. This increase in milk production added up to approximately \$11,000. Not only were the cow healthier but the farmer was happier.

Stokes County - John Brasfield

As a result of educational programs that demonstrated sound sustainable farming practices: 27 producers (59% increase) utilized forage testing lab which resulted in a total of \$47,169 in feed savings. One producer implemented controlled grazing program which resulted in approximately \$4500 savings in supplemental feed costs. This management practice has also allowed this producer to increase his income through selling excess forage as hay.

Two new livestock handling facilities were constructed which allowed producers to sell on the NC State Graded Sales and adopt herd health programs which returned approximately \$2369 to these producers.

Johnston County - Ronald Hughes

Cotton By-Products Satisfy Cow Appetites

Both cattle and cotton production are increasing in Johnston County. Both of these commodities have more in common than their increased importance in the local economy. A cotton gin produces a tremendous amount of waste including cotton seed, cotton mote and trash. All of these waste products can be used in feeding cattle. With the help of Dr. Matt Poore, Extension Animal Science Nutrition Specialist a feeding trial was set up using the cotton products along with silage produced on the farm. The trial started in Jan 1995 and ended in April at the time of new grass growth. The cows were body scored at the beginning and again at the close of the test. All of the animals either increased or retained a positive body condition. The use of cotton by-products was a success. A field day was held with an attendance of about 10.

Burke County - Shannon L Morris

Most horse owners know quite a bit about horses but very little about forage management. A producer was referred to me concerning a new \$1.4 million paint horse breeding operation. I assisted the producer in testing his soils, choosing forage species, laying out his pastures and facilities, and designing an intensive grazing system. Of the 65 pasture acres, 21 were sown in a ryegrass/pearl millet rotation which will increase forage production by 101 tons per year and provide an additional 3,250 animal days of grazing which will reduce purchased forage by 32.5 tons at \$280 per ton for a savings of \$9100. 75 tons of lime were saved by the soil tests at a savings of \$1575. Net savings/increased production from adoption of Extension recommended practices will be \$10,675.00

Edgecombe County - Ralph E. Blalock, Jr.

Progressive livestock production is the mode for Edgecombe County producers. Swine and beef production is on the increase resulting in over \$22 million increase in gross income. Extension's educational progress has resulted in \$1.2 million income gains and savings toward the total livestock industry in the county. Extension's leadership was instrumental in the renewal of the graded feeder calf marketing program which brought \$570,000 of income to area beef producers. Extension played a key role in the formation of the newly formed Edgecombe County Pork Council to address the growing needs of the rapidly growing swine industry. Five county beef producers were featured in national magazine articles for their superior production techniques as a result of Extension's educational programs. Over 90 volunteers donated \$11,920 worth of time and efforts to orchestrate Extension livestock programs in 1996.

Franklin County - Martha L. Mobley

After determining a need for better record-keeping and genetic monitoring of beef cattle herds during the past few years, the agent worked with producers to increase their skills and knowledge of beef cattle management. In 1996, two Franklin County beef cattle producers were selected as the top commercial breeder and the top purebred breeder in North Carolina by the N.C. Beef Improvement Federation. They were both recognized and honored during

the national convention of the BIF in Birmingham, Alabama in May 1996. These two producers serve as a role model to other producers in the county and region.

Franklin County - Martha L. Mobley

With a need to assist approximately fifty new landowners relocating in Franklin County in 1996, educational information and technical assistance on small, part-time livestock farming was a constant demand. Under the guidance of Extension, the landowners have now learned about enterprising alternative agriculture, marketing techniques, and networking with other livestock producers. Many of the participants stated that the programs have changed their lives and increased their income potential.

Halifax County - Dan Campeau

I worked with two dairy farmers to change their management from a conventional dairy system to a forage based system. On David Iles dairy farm we were able to save 60000 dollars on labor costs and 70000 dollars on feed costs. Net profit per cow almost doubled . On the Justis West farm the main area we worked on was feed cost savings. He saved approx. 50000 dollars. On both farms we are establishing cow trails, watering systems and rotational grazing patterns that will enable them to continue saving money on feed costs and increase net profit per cow. The farms are also more environmentally friendly since they've been using the forage management systems on their farms.

Jackson County - Brian Beer

With increased television and newspaper attention on BSE and other meat safety issues, a Meat Issues Update Seminar was offered to extension homemakers. This was a joint effort involving the Family and Consumer Science Agent and the Livestock Agent in Jackson County. Fourteen homemakers increased their knowledge about meat quality, causes and prevention of foodborne illness, preparation techniques and the efforts of the meat and livestock industries to produce safe and wholesome products. With the use of pre and post testing, it was learned that participants had increased their knowledge of the subject matter by 30 percent. After attending the seminar, many participants said that they had increased confidence in the safety and wholesomeness of meat and a better understanding of meat inspection criteria.

Vance County - Ben Chase

Annual Bull Reproduction Day was held with 55 Breeding Soundness Evaluations (BSE) conducted. Three Of these bulls were classified as unsatisfactory breeders due to unsoundness, physical defects in ejaculate, and a corkscrew penis. It was recommended that these bulls be culled and not used for breeding. 1996 results: 46 (84 percent) Satisfactory Breeders 3 (5 percent) Unsatisfactory Breeders 6 (11 percent) classification Deferred-should retest.

According to the national average 1 in 5 bulls will not be a satisfactory breeder. The

importance of an annual BSE needs increased emphasis especially in single bull cow herds. If just one of these unsatisfactory bulls would have been put back with cows to breed, the producer could have lost a whole years calf crop which would have been a loss of \$9360 in calves, not counting the carry over cost of the bull and the cows. (x3= \$28080)

Vance County - Ben Chase

Educating our youth is a major priority in this program. Conducted 2 County livestock shows, The Four County Jr. Livestock Show & Sale, The NC State Fair, other shows, and multiple show clinics. 58 local youth from Vance and Warren Counties participated in these programs and demonstrated gained knowledge in animal husbandry and showmanship skills. These projects teach youth about life, about the real world and responsibility. It can also pull families together and perhaps shape a life of a kid. *Growing By Showing*

Gaston County - Peggy Drechsler

Business management is the heart of the DairyWise program. An initial workshop called "Managing For Success" provides the foundation for the workshops and provides a comprehensive look at managing a farm business, including creative problem solving, the functions of management, and basic management skills. There were subsequent workshops held which built on skills gained in "Managing For Success".

Nineteen dairy producers from 10 area dairies participated in DairyWise this year. Half of the dairies now have mission statements. 8 out of 10 dairies have written goals and objectives to help with long range planning.

Gaston County - Peggy Drechsler

One dairy farmer with 500 cows was having severe summer mastitis in the fresh cows. The dry cow lot was bare dirt with minimal shade. Several cow wallows were present, which when wet became mud holes. Cows were crowding under a couple trees for shade and lying in the mud, seeking relief from the heat. I convinced the farmer to improve the dry cow lot, including filling in the mud holes with gravel and building a large shade cloth structure. The mastitis problem among fresh cows has been solved. Cost per cow for improvements: \$25. Estimated savings in reduced antibiotic treatment and increased production: \$130 per cow. Estimated net profit from implementing recommendations: \$65,000.

Gaston County - Peggy Drechsler

Two dairy farmers were having troubles with coliform mastitis. Milk cultures revealed E. coli was the causative organism. The veterinarian recommended vaccination with J-Vac 5 E. coli vaccine, but the farmers remained skeptical about whether it would really work. After consulting with the farmers, and supplying them with additional literature, they decided to try the vaccine. They now use the vaccine regularly, and report greatly reduced incidence and severity of coliform mastitis. Cost per cow for the vaccine: \$3 dollars. Estimated return per cow: \$25 dollars. Estimated savings from implementing vaccination for these two herds:

\$22,500.

Buncombe County - Kenneth Reeves

A regional Equine information network system (REINS) was utilized to provide an organized multi county effort to coordinate educational opportunities for the horse industries in the area. This program is designed to expand the educational efforts at the state level to the region, while minimizing the individual agent responsibilities for this program. Producers from a six county area received specialized training as REINS volunteers. Extension Specialists from North Carolina State University and faculty members from the College of Veterinary Medicine provided training on horse management topics. Volunteers receiving 40 hours of training were charged with taking this information back to their home regions to share with other horse owners.

Buncombe County - J.D.Brooks

DairyWise (managing for success) workshops were conducted to help dairy people understand a different approach to dairy management. The basic two day course was followed with workshops on nutrition and financial management using the managing for success techniques. These workshops helped dairy people cope with the stressful dairy situation and gave them the insight to become better managers of labor and other resources.

Perquimans County - Jeff Copeland

Education is important to insure non-farm citizens' future support of a safe and abundant supply of agricultural products. Tom Dyson and Jeff Copeland (NCCES) designed the "Farm Day Adventure" to address this need. Students learned where many agricultural products originate. Students visited a livestock farm; a pumpkin patch; a cotton field; and a cotton gin. Processed agricultural products (cotton and wool clothing, insulin, marshmallows, a baseball glove, etc.) were shown. A lunch of livestock and crop products from the tour followed. Pumpkin pies students made from a whole pumpkin were served as dessert. Twelve parents, 74 second graders, 4 faculty, 4 cafeteria staff members, 3 bus drivers, 2 gin personnel, 9 farmers, and 9 Extension personnel were involved. A survey of participants indicated that the program was a "hit". Understanding of society's dependence on agriculture was increased in the parents and students attending.

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

Twenty-nine (29) Reporting Counties

Program Accomplishments: Measures of Progress

- 1. improved knowledge and attitudes about animal agriculture**

NUMBER FARMERS DEMONSTRATING: 4761
NUMBER OF NON-FARM CITIZENS DEMONSTRATING: 37535

2. newspaper, and other mass media stories/commentaries indicating enlightened information and knowledge about animal agriculture

NUMBER: 1349

Program Accomplishments: Impacts

1. increased understanding and appreciation of animal agriculture

NUMBER FARMERS DEMONSTRATING: 2435
NUMBER OF NON-FARM CITIZENS DEMONSTRATING: 15555

2. increased understanding of food supply facts and quality standards

NUMBER OF FARMERS DEMONSTRATING: 2188
NUMBER OF NON-FARM CITIZENS DEMONSTRATING: 10117

3. farms adopting appropriate standards, practices, and procedures to address industry concerns and issues

NUMBER ADOPTING: 1575

Volunteers Involved to Date:

| | |
|--------------------------|----------|
| Number: | 610 |
| Hours: | 3670 |
| Dollar Value at \$10/hr: | \$36,700 |

Narrative:

Part of this objective addresses the need to educate the non-farm public about the importance of animal agriculture to North Carolina. The committee felt very strongly that the agents needed some tools to assist with this endeavor. The committee initiated the development of a slide program with script, table top display and brochures. With the help of livestock agents across the state and specialists from NCSU an 80 slide program was put together along with a high quality display and brochure. Although they are still in the revision process, they have been received well where they have been shown. Funding for this project was received from administration, NC Cattlemen's Association, NC Dairy Producer's Association and the NC Pork Producer's Association.

Agents also reported five Ag Days held in the state reaching an audience of 3000 people. Several youth events were also reported, county fairs, Farm-City events, commodity promotions and one adult program that reached 50 people. Three Quality Assurance programs were included that involved 120 producers. Columbus county put together a

Demonstration farm that will be used for several years and another county formed a livestock producers association. Many newspaper articles and radio programs were presented across the state that addressed the importance of animal agriculture.

Success Stories

1. Northampton County-Tyrone Fisher

The producers of Northampton county had no forms of communication between each other. With issues such as livestock waste management causing uproars in the community, I felt the need to reorganize the county livestock association. By getting the producers together as a whole, they can work together and solve problems faster. I assembled producers together and we discussed the importance of speaking as a group rather than individually addressing issues within the county. Producers also addressed the role they would like for Extension to play in solving their problems. They especially addressed what type of programs they felt would be positive and good for the community.

2. Jackson County--Brian Beer

With increased television and newspaper attention on BSE and other meat safety issues, a Meat Issues Update Seminar was offered to Extension Homemakers. This was a joint effort involving the Family and Consumer Science Agent and the Livestock Agent in Jackson county. Fourteen homemakers increased their knowledge about meat quality, causes and prevention of foodborne illness, preparation techniques and the efforts of the meat and livestock industries to produce safe and wholesome products. With the use of pre and post testing, it was learned that participants had increased their knowledge of the subject matter by 30 percent. After attending the seminar, many participants said that they had increased confidence in the safety and wholesomeness of meat and abetter understanding of meat inspection criteria.

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Education is important to insure non-farm citizens' future support of a safe and abundant supply of agriculture products. Tom Dyson and Jeff Copeland (NCCES) designed the "Farm Day Adventure" to address this need. Students learned where many agricultural products originate. Students visited a livestock farm; a pumpkin patch; a cotton field; and a cotton gin. Processed agriculture products (cotton and wool clothing, insulin, marshmallows, a baseball glove, etc.) were shown. A lunch of livestock and crop products from the tour followed. Pumpkin pies that students made from a whole pumpkin were served as dessert. Twelve parents, 74 second graders, 4 faculty, 4 cafeteria staff members, 3 bus drivers, 2 gin personnel, 9 farmers and 9 Extension personnel were involved. A survey of the participants indicated that the program was a "hit". Understanding of society's dependence on agriculture was increased in the parents and students attending.

4. Catawba County--Jeff Carpenter

Volunteers from Catawba, Lincoln and Gaston counties were involved in planning, implementing and evaluating 2 youth livestock shows in 1996. Funds were raised, judges secured and the shows conducted by the planning committees for heifer, steer and lamb exhibitors. In the first year, over 60 entries were made in the lamb show and an additional 59 exhibits were made in the annual beef show. Youth involvement in livestock projects has nearly doubled in the past year in the 3 county area, mainly in the market lamb project. Participation is also increasing in livestock judging and other animal related 4-H activities.

SMP Committee

Steve Washburn, co-chair

Gerda Rhodes, co-chair

Geoff Benson

Mike Stringham

Richard Lichtenwalner

Ken Anderson

Ben Chase

Barry Foushee

Todd See

Tom Losordo

Bob Mowrey

Lon Whitlow

Walter Earle

Darwin Braund

Dwain Pilkington

Tomislav Vukina

Richard Melton

Paul Mueller

Child Care State Major Program (SMP 05)

Program Description:

The Child Care State Major Program focuses on opportunities which Cooperative Extension has to impact the quality, accessibility, and availability of child care. It has two objectives. The first objective is to improve the quality of child care. The second objective is to increase availability and accessibility. Cooperative Extension improves the quality of child care through training and technical assistance for child care providers, by training volunteers to work in centers and by supporting child care credentialing efforts. The need for more available and accessible child care is addressed by working with existing organizations to educate the public, by providing grant support to agents working to expand centers and create new centers, and by providing a variety of other child care resources to their communities.

Units reporting accomplishments:

Objective 1 - 48 counties reporting

Objective 2 - 17 counties reporting

See attached spreadsheets

Measures of progress:

See attached spreadsheets

Impacts:

See attached spreadsheets

Progress and Accomplishments:

Objective 1 - Improving the quality of child care.

Research has shown that the most important link to quality in child care is the level of staff training. Highly trained staff lead to appropriate activities for children, consistent discipline techniques as well as increased job satisfaction for staff. During the 1996 reporting year over 6,000 child care providers reported that they improved their skills through Cooperative Extension Service training. In addition 213 staff members received credentialing as a result of Cooperative Extension Service work with them. Child Care program quality is measured by licensing and accreditation. In 1996, 270 child care sites were licensed or registered, 111 sites increased licensing from A to AA and 37 sites were accredited by the National Association for the Education of Young Children (NAEYC) the national professional organization of child care professionals.

High quality child care gives parents the freedom to concentrate on work or school without worrying about their children. They do better quality work and can avoid dropping out of the workforce because they have no one to care for their children.

Significant work has been done by Cooperative Extension in the area of improving quality. The most frequent activity is training. Topics include age appropriate activities, business practices, nutrition and safe handling of food, helping children manage stress, writing effective lesson plans, multi-cultural activities, playground safety, CPR, Sesame Street PEP, and effective communication

with parents. Collaboration with other agencies continues to be a strength of the agents work. The list of collaborators is long and varied. It includes, Community Colleges, the Department of Human Resources, Head Start, the Red Cross, the North Carolina School-Age Care Coalition, the North Carolina Day Care Assn., the Corporation for National Service, the public schools, and the Partnership for Children.

Key elements of this goal include:

- Counties reported that they offered the training on playground safety. This training is a requirement of the Department of Human Resources in order to implement the new state rules. Training the necessary number of child care providers would not have been possible without the Cooperative Extension Service. Clearly we have met a vital need of the state through this work.
- More and more agents report that their work is augmented by grant funds. Typical funders include the Appalachian Regional Commission, Child Care and Development Block Grants, CDA funds, Smart Start and AmeriCorps.
- Agents report using needs surveys before instituting new programs or training. A clear indication of designing the program to fit the needs of the consumer.
- Many agents have been instrumental in facilitating the "Smart Start" program. By offering their expertise to this program they are bringing needed resources to their counties.
- By offering child care training at night or on Saturday, Cooperative Extension enables child care professionals who are often earning minimum wages to get the training needed without sacrificing their salary. We are helping citizens stay financially viable.

Objective 2 - Increasing the accessibility and availability of Child Care.

To be of value to parents child care needs to be of high quality, affordable and available. In our work to increase availability, field faculty have helped to create 2,500 new slots and 103 new centers for children. Almost 1 and 1/2 million dollars of resource money was obtained by Agents to support child care in their local communities. Collaboration expanded to many new agencies including The Partnership for Children and and the Support Our Students program. Over 1,400 volunteers worked to increase availability at an estimated value of \$60,370. Overall this is one of the most widespread efforts in the state to improve quality and increase availability.

Working to increase availability, Cooperative Extension agents have used a variety of means to achieve their goals. They have used needs assessments to determine the exact locations where child care is most lacking. They have secured funding to address the need, often serving on Smart Start boards but also helping to write proposals for SOS funds. Through these sources, agents have been able to provide scholarships and other assistance to families who cannot afford the full cost of child care. Quality enhancements to child care professionals through these grant funds had been important in raising the level of care for children. Agents have sought additional funds to support families in emergency situations find child care. Educating decision makers in the community is an important function for agents. This is done through brochures, radio programs, exhibits, fairs, newspaper articles and newsletters. Additional programming for youth was accomplished through new after school sites, intersession programs, and complete summer programming. Sections of the state which had not had child care available are now becoming the focus of attention and action.

SMP Report '96

Objective 1

| County | Measure of Progress | | | | Impact | | | Volunteers Involved | | | Cost Benefit Analysis | | |
|------------|------------------------|------------------------|--------------------------------|--------------------------|---------------------------|-----------------------------|---------------------------|---------------------|-------|-----------------|-----------------------|------------------|------------|
| | # Of Providers Trained | # Youth Dev. BS skills | # sites licensed or registered | # increased from A to AA | # improved skills adopted | # Ctrs. Accredited by NAEYC | # Staff rec'd credentials | Number | Hours | Value @ \$10/hr | \$ Value to Aud | \$ Value/Society | Est. Cost |
| Alexander | 92 | 14 | 2 | 0 | 47 | 0 | 0 | 16 | 59 | \$ 590 | \$ - | \$ - | \$ - |
| Alleghany | 53 | 0 | 5 | 0 | 13 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Ashe | 85 | 5 | 2 | 4 | 40 | 0 | 0 | 396 | 860 | \$ 8,600 | \$ 358,920 | \$ 205,431 | \$ 195,021 |
| Avery | 42 | 13 | 7 | 2 | 0 | 0 | 0 | 37 | 860 | \$ 8,600 | \$ 4,200 | \$ 10,000 | \$ 1,000 |
| Beaufort | 337 | 0 | 0 | 0 | 337 | 0 | 3 | 5 | 116 | \$ 1,160 | \$ 14,995 | \$ 14,995 | \$ 1,842 |
| Brunswick | 519 | 0 | 5 | 0 | 298 | 0 | 3 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Burke | 264 | 19 | 0 | 0 | 78 | 0 | 0 | 78 | 1,248 | \$ 12,480 | \$ 1,170 | \$ 38,400 | \$ 1,950 |
| Cabarrus | 95 | 60 | 0 | 45 | 45 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Caswell | 32 | 0 | 11 | 2 | 32 | 0 | 0 | 5 | 15 | \$ 150 | \$ 3,200 | \$ 7,000 | \$ 670 |
| Cleveland | 241 | 115 | 0 | 18 | 241 | 0 | 0 | 23 | 144 | \$ 1,440 | \$ - | \$ - | \$ - |
| Columbus | 343 | 10 | 3 | 2 | 343 | 0 | 0 | 7 | 42 | \$ 420 | \$ - | \$ - | \$ - |
| Cumberland | 34 | 0 | 34 | 0 | 34 | 0 | 34 | 0 | 0 | \$ - | \$ 500 | \$ 500 | \$ 10 |
| Davidson | 279 | 16 | 0 | 0 | 200 | 0 | 0 | 25 | 50 | \$ 500 | \$ - | \$ - | \$ - |
| Davie | 19 | 0 | 0 | 0 | 0 | 5 | 19 | 3 | 2 | \$ 20 | \$ 5 | \$ - | \$ 25 |
| Duplin | 514 | 28 | 118 | 0 | 514 | 0 | 0 | 514 | 1,464 | \$ 14,640 | \$ 146,648 | \$ 400,000 | \$ 100,000 |
| Edgecombe | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 90 | \$ 900 | \$ 2,085 | \$ 6,255 | \$ 1,250 |
| Forsyth | 302 | 23 | 0 | 0 | 125 | 0 | 0 | 9 | 4,944 | \$ 49,440 | \$ 53,395 | \$ 53,395 | \$ 12,000 |
| Franklin | 379 | 7 | 0 | 0 | 172 | 0 | 0 | 12 | 100 | \$ 1,000 | \$ - | \$ - | \$ - |
| Gaston | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 40 | \$ 400 | \$ - | \$ - | \$ - |
| Halifax | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 1 | 12 | \$ 120 | \$ - | \$ - | \$ - |
| Harnett | 1,006 | 17 | 17 | 0 | 0 | 0 | 0 | 44 | 880 | \$ 8,800 | \$ - | \$ - | \$ - |
| Haywood | 242 | 0 | 0 | 0 | 242 | 1 | 0 | 0 | 0 | \$ - | \$ 5,970 | \$ - | \$ - |
| Hertford | 170 | 0 | 6 | 3 | 170 | 0 | 1 | 5 | 10 | \$ 100 | \$ - | \$ - | \$ - |
| Iredell | 364 | 102 | 4 | 2 | 240 | 0 | 125 | 46 | 162 | \$ 1,620 | \$ 15,272 | \$ 84,260 | \$ 13,471 |
| Jones | 1,500 | 1,000 | 0 | 0 | 650 | 0 | 0 | 30 | 150 | \$ 1,500 | \$ - | \$ - | \$ - |
| Lee | 440 | 0 | 0 | 0 | 100 | 0 | 0 | 8 | 100 | \$ 1,000 | \$ 13,520 | \$ - | \$ 824 |
| Lenoir | 628 | 0 | 0 | 0 | 589 | 0 | 0 | 5 | 100 | \$ 1,000 | \$ - | \$ - | \$ - |
| Lincoln | 76 | 24 | 0 | 0 | 36 | 0 | 0 | 76 | 356 | \$ 3,560 | \$ 1,900 | \$ - | \$ - |
| Macon | 136 | 0 | 0 | 0 | 136 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |

Objective 1
SMP Report '96

SMP Report '96
Objective 1

| | | | | | | | | | | | | | |
|--------------|---------------|--------------|------------|------------|--------------|-----------|------------|--------------|---------------|-------------------|-------------------|---------------------|-------------------|
| Madison | 110 | 0 | 2 | 2 | 89 | 0 | 0 | 40 | 150 | \$ 1,500 | \$ 5,500 | \$ 3,003,750 | \$ 2,142 |
| Martin | 19 | 0 | 0 | 0 | 13 | 0 | 2 | 4 | 40 | \$ 400 | \$ 2,356 | \$ - | \$ 2,500 |
| Mitchell | 38 | 0 | 0 | 0 | 27 | 0 | 0 | 7 | 56 | \$ 560 | \$ - | \$ - | \$ - |
| Moore | 185 | 15 | 0 | 0 | 135 | 0 | 0 | 7 | 16 | \$ 160 | \$ - | \$ - | \$ - |
| Nash | 51 | 43 | 0 | 0 | 51 | 0 | 0 | 7 | 14 | \$ 140 | \$ - | \$ - | \$ - |
| Onslow | 335 | 0 | 3 | 0 | 335 | 0 | 0 | 42 | 252 | \$ 2,520 | \$ 11,900 | \$ 330,980 | \$ 2,200 |
| Orange | 60 | 0 | 2 | 0 | 60 | 0 | 0 | 136 | 4,896 | \$ 48,960 | \$ - | \$ - | \$ 10,000 |
| Pasquotank | 403 | 30 | 12 | 3 | 239 | 0 | 5 | 60 | 2,210 | \$ 22,100 | \$ 22,000 | \$ 25,000 | \$ 2,600 |
| Polk | 133 | 0 | 0 | 0 | 133 | 0 | 0 | 6 | 17 | \$ 170 | \$ - | \$ - | \$ - |
| Randolph | 93 | 10 | 0 | 0 | 7 | 0 | 0 | 7 | 17 | \$ 170 | \$ - | \$ - | \$ - |
| Robeson | 253 | 0 | 0 | 0 | 196 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Stanly | 73 | 10 | 9 | 7 | 16 | 10 | 0 | 10 | 20 | \$ 200 | \$ - | \$ - | \$ - |
| Surry | 57 | 25 | 0 | 0 | 39 | 0 | 0 | 8 | 32 | \$ 320 | \$ - | \$ - | \$ - |
| Vance | 112 | 0 | 0 | 0 | 62 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Warren | 189 | 0 | 0 | 0 | 189 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Watauga | 42 | 0 | 0 | 0 | 42 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Wayne | 190 | 22 | 2 | 0 | 0 | 0 | 0 | 12 | 6 | \$ 60 | \$ 2,850 | \$ - | \$ - |
| Wilkes | 42 | 15 | 5 | 0 | 42 | 0 | 0 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Yancey | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 60 | 200 | \$ 2,000 | \$ - | \$ - | \$ - |
| Total | 10,625 | 1,644 | 270 | 111 | 6,405 | 37 | 213 | 1,773 | 19,730 | \$ 197,300 | \$ 666,386 | \$ 4,179,966 | \$ 347,505 |

| | | | | | | | | | | | | | |
|--------------|-----|----|---|---|-----|---|---|----|-------|-----------|-----------|-----------|----------|
| Swain | 37 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Tarboro | 35 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Tarplee | 89 | 0 | 0 | 0 | 89 | 0 | 0 | 0 | 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Taylorsville | 55 | 18 | 0 | 0 | 37 | 0 | 0 | 18 | 1,249 | \$ 12,490 | \$ 7,130 | \$ 30,100 | \$ 1,900 |
| Tenover | 218 | 0 | 0 | 0 | 218 | 0 | 0 | 0 | 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Tipton | 201 | 0 | 0 | 0 | 201 | 0 | 0 | 0 | 118 | \$ 1,180 | \$ 14,000 | \$ 20,000 | \$ 2,240 |
| Union | 45 | 17 | 1 | 1 | 26 | 0 | 0 | 21 | 900 | \$ 9,000 | \$ 20,000 | \$ 20,000 | \$ 2,000 |
| Van Doren | 86 | 0 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Vernon | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Wake | 55 | 18 | 0 | 0 | 37 | 0 | 0 | 18 | 900 | \$ 9,000 | \$ 0 | \$ 0 | \$ 0 |

**SMP Report '96
Objective 2**

| County | Measure of Progress | | | Impact | | Volunteers Involved | | | Cost Benefit Analysis | | |
|------------|-----------------------|-------------------------------|---------------------|-------------|---------------|---------------------|-------|-----------------|-----------------------|------------------|------------|
| | # increased awareness | # new & expand collaborations | \$ of new resources | # new slots | # new centers | Number | Hours | Value @ \$10/hr | \$ Value to Aud | \$ Value/Society | Est. Cost |
| Alamance | 80 | 5 | \$ 12,000 | 0 | 0 | 10 | 12 | \$ 120 | \$ 20,000 | \$ 20,000 | \$ 12,000 |
| Alleghany | 15 | 10 | \$ 26,350 | 80 | 5 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Ashe | 74 | 5 | \$ 320,714 | 210 | 7 | 749 | 1450 | \$ 14,500 | \$ 549,610 | \$ 397,653 | \$ 386,944 |
| Burke | 79 | 12 | \$ 65,000 | 73 | 2 | 47 | 141 | \$ 1,410 | \$ 15,000 | \$ 75,000 | \$ 60,000 |
| Caldwell | 135 | 3 | \$ - | 0 | 0 | 405 | 135 | \$ 1,350 | \$ - | \$ - | \$ 5,600 |
| Davidson | 0 | 0 | \$ - | 0 | 0 | 0 | 0 | \$ 0 | \$ - | \$ - | \$ - |
| Forsyth | 0 | 1 | \$ 36,000 | 0 | 0 | 35 | 1400 | \$ 14,000 | \$ 14,000 | \$ 14,000 | \$ 4,000 |
| Halifax | 31 | 31 | \$ 31 | 31 | 31 | 2 | 4 | \$ 40 | \$ - | \$ - | \$ - |
| Harnett | 90 | 20 | \$ 64,458 | 498 | 26 | 0 | 0 | \$ - | \$ - | \$ - | \$ - |
| Iredell | 395 | 35 | \$ 1,500 | 500 | 4 | 40 | 160 | \$ 1,600 | \$ 39,500 | \$ 118,500 | \$ 8,758 |
| Jackson | 4 | 3 | \$ - | 0 | 0 | 0 | 0 | \$ 0 | \$ - | \$ - | \$ - |
| Macon | 0 | 3 | \$ - | 0 | 0 | 0 | 0 | \$ 0 | \$ - | \$ - | \$ - |
| Madison | 100 | 5 | \$ 39,950.00 | 65 | 2 | 65 | 155 | \$ 1,550 | \$ 18,095 | \$ 18,095 | \$ 16,372 |
| Onslow | 136 | 5 | \$ 69,170.00 | 360 | 5 | 10 | 540 | \$ 5,400 | \$ 66,900 | \$ 97,200 | \$ 69,168 |
| Orange | 0 | 16 | \$ 71,000.00 | 126 | 0 | 30 | 440 | \$ 4,400 | \$ - | \$ - | \$ 65,000 |
| Pasquotank | 285 | 9 | \$ 556,000 | 137 | 12 | 44 | 1600 | \$ 16,000 | \$ 580,000 | \$ 530,000 | \$ 3,250 |
| Robeson | 0 | 3 | \$ - | 0 | 0 | 0 | 0 | \$ 0 | \$ - | \$ - | \$ - |
| Stanly | 200 | 0 | \$ - | 223 | 5 | 0 | 0 | \$ 0 | \$ - | \$ - | \$ - |
| Wayne | 0 | 2 | \$ 46,000 | 64 | 2 | 0 | 0 | \$ 0 | \$ 118,800 | \$ - | \$ - |
| Wilkes | 42 | 10 | \$ 100,000 | 125 | 2 | 0 | 0 | \$ 0 | \$ - | \$ - | \$ - |
| | 1666 | 178 | \$ 1,408,173 | 2492 | 103 | 1437 | 6037 | \$ 60,370 | \$ 1,421,905 | \$ 1,270,448 | \$ 631,092 |

Key elements of this goal include:

- More child care is now offered (early childhood, full summer programs, after intersession and in sections of the state formerly underserved).
- Families who were not being served are finding resources through Cooperative Extension.
- Enhancement (including training) programs for child care professionals are becoming far more available in rural areas.

Success Stories:

Objective 1

Davidson County:

Monthly staff development training is held to improve the competencies of child care professionals. Over 351 employees were trained in eight months. As a result of this training one center director said "... I have been the director of Children's Center in Lexington for almost 19 years. During that time there has not been an agency in Davidson County that has shown more interest in and concern for child care than the Cooperative Extension office. My staff and myself have attended numerous workshops sponsored by this agency and have found these sessions to be extremely helpful. My staff doesn't hesitate to tell me when a session doesn't meet their needs... they do not tell me this about the Cooperative Extension Service."

Robeson County:

A workshop on menu planning was presented at a Regional Day Care conference. Results of the training indicate that twelve centers, feeding 901 children, will plan menus that are more nutritious, attractive or age appropriate; six centers feeding 563 children will use techniques to reduce fat or sodium.

Objective 2

Alleghany County:

A parent broke down and cried when told that her child qualified for a scholarship to the summer program. Because of funds received through grants, a self sustaining program for youth has been instituted.

Ashe County:

Full time wrap around afterschool care for school-agers regardless of income has been made available for over 285 youth during the school year and 250 youth in the summer. This increase in care came about as a result of grants from the child Care and Development Block grant, Family Resource Center, purchase of care funds and Smart Start. Expansion has made it possible to increase staff and staff training, expand to new sites and include a much needed pre-K component for the public schools to help special needs children prepare for kindergarten.

Harnett County:

Faced with an alarming need for infant/toddler child care in the Buies Creek area, Harnett County Child Care Resource and Referral which is a component of the county Cooperative Extension office, worked with a provider to establish a Family Child Care Home. The work

included training the provider and networking with the planning department and the area Child Care Consultant (Div. of Child Development). Because of this effort, 5 infants/toddlers have care and the provider feels she is making a worthwhile contribution to her community.

SMP 5 Committee:

- P. Carolyn Dunn - NCSU
- Karen Debord - NCSU
- P. Carolyn Goodman - Ashe Co.
- Wanda Hardison - Harnett Co. - Co-Chair
- Julie Landry - Ashe Co.
- Carolyn McKinney - Mitchell Co. .
- Howard Scott - Wayne Co.
- Carrie Thompson - Nash Co.
- Barbara Vandenberg - NCSU - Co-Chair
- Deborah Woomack - Forsyth Co.
- Lou Woodard - Johnston Co.

State Major Plan 06 Community Economic Development

- I. Brief Program Description: This state major program has four objectives: (1) integrating special audiences into the local community development process; (2) teaching economic development concepts to local leaders; (3) informing local leaders and citizens about economic trends and their expected impacts on the local economy; and (4) facilitating business development assistance by bringing together local private expertise with local needs for business management information.
- II. Units Reporting Accomplishments:
- Objective 1: 19 counties reporting accomplishments
 - Objective 2: 10 counties reporting accomplishments
 - Objective 3: 13 counties reporting accomplishments
 - Objective 4: 16 counties reporting accomplishments

III. Statewide Measures of Progress Totals:

Objective 1 Special audiences will use information about community services and the community development process to gain skills to participate in community development.

1. Number of participants gaining awareness and knowledge: 580
Total number of participants: 588
2. Number participating in groups: 3672
Total number of participants: 5142
3. New community organizations formed: 18
4. New community development projects formed: 41

Objective 2 Public and private community leaders will use economic development concepts to implement policies promoting sustainable economic development.

1. Number of persons gaining awareness and knowledge of computer models, videos, and fact sheets: 276
2. Applications made of computer models: 18
3. Applications made of videos: 35
4. Applications made of fact sheets: 70

Objective 3 Local leaders, business persons, and educators will acquire information about economic trends affecting local economic opportunities.

1. Number of persons attending conferences who increased their awareness and knowledge: 4981
2. Number of requests for additional information: 3388

Objective 4 Existing business persons and potential business persons will acquire information about beginning and running a successful business, including small and home-based businesses.

1. Number of persons attending workshops: 2237
2. Number of applications made of videos, notebooks, and fact sheets: 2751
3. Number of persons increasing their awareness and knowledge of opportunities: 2318
4. Number of persons increasing their awareness and knowledge of market plans and community analysis: 749

IV. Statewide Impacts Totals:

Objective 1

1. **Volunteers Involved**
 Number: 1368
 Hours: 11894
 Dollar Value at \$10/hr: \$118,940
2. **Benefit/Cost Analysis**
 \$ Value to Targeted Audience: \$13,750
 \$ Value to Society: \$2,044,050
 Estimated Program Cost: \$21,594

Objective 2

1. **Volunteers Involved**
 Number: 114
 Hours: 3165
 Dollar Value at \$10/hr: \$31,650
2. **Benefit/Cost Analysis**
 \$ Value to Targeted Audience: \$194,000
 \$ Value to Society: \$360,250
 Estimated Program Cost: \$275

Objective 3

1. **Volunteers Involved**
 Number: 624
 Hours: 4097

Dollar Value at \$10/hr: \$40,970

2. Benefit/Cost Analysis

\$ Value to Targeted Audience: \$20,458

\$ Value to Society: \$576,858

Estimated Program Cost: \$300

Objective 4

1. Volunteers Involved

Number: 74

Hours: 3097

Dollar Value at \$10/hr: \$30,970

2. Benefit/Cost Analysis

\$ Value to Targeted Audience: \$4,610,115

\$ Value to Society: \$5,116,200

Estimated Program Cost: \$98,235

V. Description of Program Progress and Accomplishments:

Progress toward the program objectives was accomplished through a number of methods and audiences. Leadership development workshops, community workshops, and workshops targeted to high school students were popular delivery methods. Videos, fact sheets, and radio and TV programs were also used.

The content of programs was varied and extensive. Programs ranged from using parks, agriculture, and tourism as economic development tools to developing an agreement among citizens with diverse views on economic development goals.

The method and content of all programs had one goal in common - they were all working toward the improvement of income opportunities for local citizens.

VI. Success Stories:

Two "success stories" follow.

SMP #: 6

Local System: Halifax

Person Reporting: Wanda Sykes

Long-range planning efforts with citizens and NCSU School of Design of the 4-H Rural Life Center have paid high dividends. Funding was secured and implementation begun of facilities and grounds. Rosenwald School was moved to the site and completely renovated. Agricultural Museum built and dedicated in October. These results have been due to strategic planning conducted and commitment from citizens, and County

Commissioners. It is viewed as an integral part of our programming efforts. Halawi-Saponi Tribal study conducted with Extension securing resources of N. C. School of Design. Tourism secured funding and Extension worked with NCSU to conduct study and publish results for long-range planning of a Native American Cultural Center. Extension secured resources for study and planning for National Peanut Museum to be located in the Town of Enfield. Total involvement of over 1000 people.

Date: Tues., Jan. 14, 17:55:11 EST 1997

SMP #: 6

Local System: Buncombe

Person Reporting: Elaine Gosnell

The Community Voices Program was introduced to three new communities. Thirty seven new clients learned about the program. Ten became co-facilitators and conducted several leadership sessions. Seven community residents participated in a city public forum regarding issues affecting their immediate community. They are still working on improving their community. Two of the co-facilitators participated in the Western North Carolina Rural Economic Development Institute which increased their knowledge in leadership development as well as gave them new insight into working with their community.

VII. SMP #: 06 Committee:

Mike Walden and Peggy Brown, Co-chairs

Simon Garber
Charles Moore
John O'Sullivan
Mitchell Renkow
John Richardson

Ellen Smoak
Marilyn Cole
Glenn Woolard
Frances Voliva
Carol Schwab

SMP 07

Crop Production and Marketing Systems

PROGRAM DESCRIPTION: Production of agronomic, horticultural, and forestry crops is economically, socially and environmentally important to the citizens of North Carolina. North Carolina crops are worth an estimated 2.5 billion dollars annually and represent approximately 15 percent of the state's total income. The diversity of agricultural crops produced in North Carolina has been a key ingredient in establishing and maintaining a viable economy. Though crop diversity has been essential for North Carolina agriculture, this diversity is threatened by public opinion, foreign trade agreements, and the possibility of eliminating government programs. The potential losses of economically important commodities, the introduction of genetically engineered crops, use of GPS and GIS, changes in government regulations, and expanding global markets are challenges facing all segments of North Carolina's agricultural community. The State Major Program "Crop Production and Marketing Systems" addresses the educational needs of full-time farmers, part-time limited resource farmers, agribusiness, and non-farm citizens. Our goal is to provide unbiased, research-based information on production practices, marketing options, understanding and use of new technologies in crop production, environmental concerns, and governmental regulations.

A total of 73 units reported accomplishments under one or more of the seven objectives outlined in the Crop Production and Marketing Systems State Major Program. Accomplishments and impacts for each objective are discussed separately.

Objective 1: Tobacco and peanut farmers will be assisted in evaluating alternative production practices, investigating innovative agricultural opportunities and exploring marketing options to ensure continued farm productivity and enterprise profits. **Counties Reporting Accomplishments:**

37

Tobacco and peanuts are valuable commodities for North Carolina, but these high value crops are facing uncertain times. Tobacco continues to be the leading cash crop for many North Carolina farmers. Extension programs have helped tobacco growers increase farm profits through diversification, improved farm management, and better marketing strategies. County educational programs included information on how to construct transplant greenhouses, transplant fertility requirements, and economics of using greenhouses versus plant beds. The establishment and proper use of greenhouses have reduced labor costs in many counties. Some growers have realized additional profits through off season use of the greenhouses to produce ornamentals and vegetables. Other educational programs have helped farmers reduce labor costs through no-till production and better pest management programs. Growers have also made better decisions about variety selection that impacts disease management by reducing the need for pesticides; on fertility; construction of curing facilities; marketing strategies; production of alternative crops. Farmers who put the information to use have increased profits per acre and helped reduce impacts on the environment.

In 1996 peanut producers were faced with declining support prices and a new peanut program. As a result, growers needed assistance in reducing production costs to maintain profit margins.

Extension programs helped many producers understand the value of IPM strategies to manage pests, which has reduced pesticide use and reduced costs. Growers are implementing insect and disease management programs based on need rather than a regular spray schedule. Not only are profits maintained, but production is more environmentally sensitive. Growers are delivering a more mature and thus higher quality peanut to the sheller because of extension programs that offer assistance in evaluating maturity of a farmer's field. Growers see an increase in yield and grade when a mature crop is harvested.

An estimated 3,200 farmers have adopted alternative production practices on 124,500 acres because of extension tobacco and peanut education programs. These growers increased profits \$7.1 million in 1996.

Marketing options were the subject of many extension educational programs. NCCES presented programs that explained options and as a result 375 farmers used alternative strategies and increased profits \$562,000.

Objective 2: Part-time and limited resource farmers will increase the sustainability of their farms through crop diversification, intensive management practices, water and nutrient management, and expanded markets. **Counties Reporting Accomplishments: 30**

Part-time and limited resource farmers have participated in many extension programs and as a result, increased farm profits. Several counties are making special efforts to involve part-time farmers in extension programs. The production of alternative crops is an option for many part-time farmers. Through diversification to include speciality crops these farmers can realize greater profits with little or no increase in inputs. In 1996, extension programs resulted in 200 North Carolina farmers including new crops in their operations affecting 3,830 acres. Profits increased more than \$977,000 because of the extension programs.

County programs designed to help these farmers include variety selection, use of no-till, BMP and IPM strategies to manage pests and reduce pesticides. These programs resulted in 394 adopting the recommended practices, affecting more than 20,500 acres. Profits for these farmers increased more than \$1.5 million in 1996.

Market options and strategies were also discussed at several meetings. Across North Carolina, 609 citizens increased their awareness of alternative marketing options, with more than 200 changing their strategies.

Objective 3: Farmers will continue to evaluate recommended or conventional production practices and management systems, integrating them into sustainable farming systems.

Counties Reporting Accomplishments: 54

North Carolina producers must consider many factors when preparing for the upcoming growing season, when managing the crop during the growing season, and in harvesting, storing, and marketing. Extension programs have been set up to help growers understand the impacts that decisions at all levels have on farm profits and sustainable farm life. Field demonstrations, field days, on-farm tests, and commodity meetings are considered the primary teaching opportunity for updating producers on new production practices and the potential of new varieties and agricultural

products. Through these channels producers can obtain unbiased, research-based production information for agronomic, horticultural, and forestry crop production and management.

Agents have presented the latest BMP information to growers. Most growers who carry out the suggested practices have seen an increase in profits that is often accompanied by a reduction of pesticide use, more efficient use of labor, and improved management skills. In 1996, approximately 11,120 citizens increased their awareness and knowledge of efficient production systems with 6,175 growers adopted extension recommendation for BMPs resulting in an increase of \$21 million state wide. It is estimated that more than \$7 million was saved through improved pest management.

Efforts were made to educate producers about practices that help keep production costs below farm income. More than 5,250 North Carolina farmers adopted recommended practices affecting 742,160 acres.

Objective 4: Growers and agricultural professionals evaluate and adopt appropriate alternatives to conventional pesticides, nutrients and tillage to enhance environmental quality and maintain profitability. **Counties Reporting Accomplishments: 39**

Extension efforts to educate producers on the importance of reducing adverse environmental impacts of farming have been effective. Through meetings, workshops, demonstrations, and field days, extension agents have increased grower awareness of IPM practices and benefits. Programs discussed new disease, insect, and herbicide tolerant varieties and their impact on reducing pesticides. Educational efforts have also targeted the importance of the use of scouting and spray thresholds to provide more effective pest control and reduce pesticide use. Farmers and consultants were offered scouting training in several areas of the state. Those who participated in the workshops have a better understanding of how to scout for pests and when control measures are needed. It was reported that 8,570 citizens increased awareness and knowledge of IPM with more than 3,000 producers carrying out recommended practices on 665,200 acres. Implementing these practices saved farmers \$11 million and reduced pesticide use by 717,150 pounds of active ingredient.

Educational programs have also targeted the benefits and restrictions of no-till production. An increase in no-till production in some areas has resulted in a reduction of soil erosion in environmentally sensitive areas. Other educational programs have helped growers choose management practices that reduce nitrogen use or promote the use of timely applications. The results are a reduction in nitrogen contamination of surface and ground water. The nursery industry has benefited for educational programs addressing the proper application of fertilizers, tissue and water analysis, and soil sampling. High quality plants have been produced when growers follow nutrient recommendations and apply nutrients at the proper time. An estimated \$11.7 million was saved through the adoption of recommended management practices.

Objective 5: Producers will become knowledgeable of regulations and environmental constraints on production practices, evaluate the impacts of these constraints on their farm, and develop least cost methods of compliance that will maintain quality of farm and rural life. **Counties Reporting Accomplishments: 34**

North Carolina farmers at all levels have been affected by changes in government regulations.

NCCES programs have been designed not only to inform farmers about new regulations but also to help them comply. Agents report the use of meetings and workshops for pesticide training at the county level. Included were topics such as new regulations, proper storage, application and container disposal, worker protection standards, and record keeping. The information presented to producers and agribusiness has given them the knowledge and skills needed to comply with state and federal regulations. Some 8,900 producers increased their awareness of the regulations. More than 3,400 producers adopted recommended practices to help them comply, affecting almost 317,000 acres of North Carolina crop land.

Animal waste management has become an area for educational needs. Farmers gained information about the efficient use of waste on crop land and pastures with emphasis on monitoring nutrient levels to prevent environmental damage. Producers have been helped in the development of waste and nutrient management plans with some agents going further to offer assistance in developing whole farm plans. Many agents reported cooperative educational efforts with other agencies such as NCAA and FSA. An estimated increase of more than \$4 million was seen when growers adopted BMP such and using IPM strategies, participation in cost-share programs and the proper use of soil, tissue, and waste analyses within environmental and safety regulations.

Objective 6: Farmers will utilize and citizens will become knowledgeable about biotechnology and the use, benefits, and risks associated with the production of genetically engineered plants. **Counties Reporting Accomplishments: 19**

1996 was the beginning of the New Technology Era for NC producers. Roundup Ready soybeans and Bt cotton became the first available genetically engineered crops for our farmers. NCCES responded to educational needs in the use of these new varieties through several avenues. Agents in many counties provided side-by-side demonstrations of Roundup Ready and traditional soybeans. In some areas the herbicide tolerant varieties did very well, while in others yields were disappointing. Extension programs helped growers understand the potential and limitations of these crops. It also allowed growers to determine if the new varieties fit into their current management practices. An estimated 4,500 producers became knowledgeable about the use of genetically engineered crops, using the new varieties on 38,920 acres. This represented a profit of almost \$1.7 million that includes a savings of \$438,320 in pesticide use.

Many counties reported efforts to educate the public about the positive and negative aspects of using genetic engineering in agriculture. Some counties provided programs for secondary schools. Others targeted adult civic groups. The result of these programs was an increase in knowledge of the use of genetic engineering to produce food, feed, and fiber. Citizens are better qualified to evaluate the use and safety of the new technology. Extension programs reached 3,284 citizens giving them an understanding of the use, benefits, and risks associated with food, food products, and fiber crops generated from genetically engineered crops.

Objective 7: Farmers, farm organizations, and agribusinesses will become knowledgeable of local and global market factors and develop strategies to cope with or take advantage of these factors to maximize farm profits. **Counties Reporting Accomplishments: 22**

Education programs were developed in several counties to help producers explore marketing options.

Educational delivery in the form of county or multi-county meetings, provided North Carolina farmers and agribusiness with information about alternative marketing systems and the benefits of using these systems. Several tobacco programs focused on the global market and on global competition and its impacts on North Carolina producers. The information helped producers make better decisions about when and how to market the commodities produced on their farms. In 1996, 5,227 became aware of the impacts of global trends and trade policies. More than 780 adopted practices associated with new products and 869 adopted practices that impact marketing success. The result was an increase of \$5.1 million through the adoption of new marketing strategies and \$1.2 million increase through adoption and marketing new products.

Success Stories: NCCES reported several success stories for the Crop Production and Marketing Systems SMP. Listed below are three successes that show significant impact to an area, group, or individual. Though not reported on SMP accomplishments, the contributions of county extension staff in helping farmers cope with hurricane damage should not be overlooked.

1. Wheat has traditionally served as a low input, low maintenance crop for most farmers. Recent years, however, have presented wheat farmers with new challenges of managing insect pressure. The cereal leaf beetle has found its way into Edgecombe County and is causing problems in localized areas. A program was initiated to educate farmers on insect, its life cycle, and thresholds through newsletter, news article, and personal visits. Farmers who followed the thresholds saved \$161,250 by preventing significant yield reduction. Since this insect does not appear to be lessening, more effort will be needed to increase growers' awareness and distribute more accurate thresholds.
2. In early July, a Northampton producer was concerned. He had just scouted 120 acres of cotton and saw what he considered to be severe aphid pressure. He had determined that he needed to control the pest with a treatment of dimethoate, but decided to first contact his county agent. The fields were checked that afternoon, and while the agent agreed that the aphid problem was significant, he also noted that beneficial insects such as lady beetles and parasitic wasps, as well as a beneficial fungi had already begun attacking the aphid population. With forecasts calling for wet conditions favorable for more fungi development, the agent recommended not spraying. The beneficials did their job and the farmer later stated that not spraying had saved him \$1,200. Holding off on the treatment may have actually saved him another \$1,200, since he was able to preserve beneficials that helped him control other pests.
3. Small acreage, part-time Burley Tobacco producers in Mitchell County were faced with a dilemma when it came to transplant production. Producing float transplants in a greenhouse required a substantial investment and purchasing the plants from other growers was too expensive. With the help of NC State county and campus faculty and University of Tennessee tobacco specialists an alternative was developed. Small outdoor float beds proved to produce quality transplants at a reasonable price. Twelve of the beds were utilized in Mitchell County with great success. When compared to purchasing float plants, these outdoor beds save growers \$150 per acre.

SMP 07 - Crop Production and Marketing Systems Committee

Jan Spears Co-Chair

James Stephenson Co-Chair

Doug Sanders

Michael Shaw

Mike Linker

Sterling Southern

Steve Hodges

Blake Brown

Craig McKinley

Roger Cobb

David Smith

II. STATEWIDE MEASURES OF PROGRESS TOTALS

Objective 8.1 - 26 MoP Reports stated that:

1. 7189 people increased awareness and knowledge about money management and the decision-making process
2. 2081 personal goals were made and written

SMP 08 FAMILY & CONSUMER ECONOMICS

The Family and Consumer Economics State Major Program promotes informed personal finance and other consumer decision making by individuals and families. Serious financial problems affecting families at all income levels can in many cases be prevented, and this program emphasizes education for prevention. For persons who have problems requiring immediate attention and assistance, SMP #8 prepares Extension Agents to provide accurate information about and make referrals to appropriate counseling and intervention services, in an active network of organizations with mutual concerns.

SMP #8 also emphasizes that the household is a producer of goods and services that can extend and/or increase income. While Extension Educators are encouraged to organize trained volunteers to deliver skill training to youth and adults, Agents themselves focus on both family and business resource management aspects of income production.

I. UNITS REPORTING ACCOMPLISHMENTS

52 Counties submitted 125 Accomplishment Reports, although 3 of these counties had not included any SMP #8 objective in their county plans of work. The number of reports for each objective are: #1 - 26; #2 - 29; #3 - 20; #4 - 33; #5 - 17.

OBJECTIVE 8.1 Limited resource consumers and families will make and use money management plans and adopt decision-making practices that will help them achieve family financial goals.

OBJECTIVE 8.2 Consumers will increase knowledge of and adopt financial planning techniques to meet changing responsibilities for self and others over the life cycle.

OBJECTIVE 8.3 Families, individuals and special needs groups will make informed decisions in securing and maintaining affordable housing that meets their changing needs.

OBJECTIVE 8.4 Individual consumers and families will learn decision-making skills and adopt practices that make better use of available resources and improve their financial status.

OBJECTIVE 8.5 Individuals and families will extend and/or increase income through home production for family use and/or production and marketing of goods or services through employment or self-employment.

II. STATEWIDE MEASURES OF PROGRESS TOTALS

Objective 8.1 - 26 MoP Reports stated that:

1. 7189 people increased awareness and knowledge about money management and the decision-making process
2. 2081 personal goals were made and written

3. 8755 people identified family and community resources
4. 5996 people demonstrated ability to use the money management skills and decision-making approach learned
5. \$209859 dollars of debt were reduced

Objective 8.2 - 29 MoP Reports stated that:

1. 65613 people increased awareness and knowledge of financial resources
2. 3301 people demonstrated goal setting, making financial plans and record keeping skills
3. 3022 people acquired knowledge of best management practices such as increased savings and investments, reduced consumer debt, more money designated for retirement management
4. 1875 people increased satisfaction with ability to use resources

Objective 8.3 - 20 MoP Reports stated that:

1. 698 people adopted practices which lead to living independently or living in affordable housing
2. 1888 people increased awareness and knowledge about housing financial decisions
3. 1588 increased awareness and knowledge of household budgeting
4. 1327 people increased awareness and knowledge about housing maintenance and/or repair
5. 1455 increased awareness and knowledge about selection of affordable home furnishing and home improvements

Objective 8.4 - 33 MoP Reports stated that:

1. 11377 increased awareness and knowledge of consumer decision making skills in such areas as financial services, insurance, transportation, health care, elder care, etc.-
2. 4448 adopted practices in the selection and care of consumer products that extend use and reduce costs
3. 3786 adopted practices in the selection and use of consumer services
4. 3397 increased knowledge of consumer credit options and concerns
5. 3660 increased awareness and knowledge of public policy issues affecting consumers

Objective 8.5 - 17 MoP Reports stated that:

1. 4734 increased awareness and knowledge of practices to extend or increase income
2. 2396 attained skills to produce consumer goods
3. 1962 adopted practices to extend or increase income
4. 1324 increased knowledge of home-based/other small business
5. 1148 increased decision-making skill regarding employment or self-employment

III. STATEWIDE IMPACTS TOTALS

Objective 8.1 - 26 reports stated that:

1. 2139 money management plans were made
2. 1434 people attained personal goals
3. \$172464 dollars saved or reallocated to meet family needs
4. 4939 individuals or families improved self-sufficiency
5. 1064 people succeed in the reduction of debt level

Objective 8.2 - 29 Impact Reports stated that:

1. 1652 demonstrated success in obtaining, protecting and using financial resources
2. 1434 adopted financial planning and record keeping system
3. 589 documented a plan for resources over life cycle
4. 7650 people improved their financial status resulting from financial planning

Objective 8.3 - 20 Impact Reports stated that:

1. 647 people had success in finding, securing and maintaining housing
2. 591 people adopted and implemented successful budgets for housing
3. 1521 people succeeded in budgeting for repair, maintenance and/or remodeling costs
4. 383 people succeeded in living independently in one's own home

Objective 8.4 - 33 Impact Reports stated that:

1. 5239 increased skill and satisfaction with consumer decisions
2. \$120828 in costs avoided through selection and care of consumer goods
3. \$21881 financial status of individuals and families improved
4. 697 people increased participation as informed consumers in the public policy debate on consumer issues

Objective 8.5 - 17 Impact Reports stated that:

1. \$71477 dollars saved through practices to extend income
2. 341000 increased income through employment
3. 35700 increased income through self-employment
4. 4517 improved use of human and financial resources

VOLUNTEERS INVOLVED - for all five objectives

Number: 3022
 Hours: 15573
 \$ Value: \$155730

V. OVERALL SMP #8 NARRATIVE

Objective 8.1 Narrative

Limited resource audiences across the state were engaged in programs to develop money management skills that contribute to the achievement of family financial goals. Program reports from 26 counties involved young single parents, pregnant and parenting teens, headstart mothers, senior citizens and individuals receiving public assistance. The

audiences involved included many individuals who are participants in the WorkFirst program, which is the state's welfare reform initiative. Extension Agents across the state are collaborating with local and state agencies to help these families develop skills that will help them become self-sufficient within state time limits. Audiences participated in skill building activities that helped them to: understand and develop a basic budget, navigate the maze of financial concerns associated with buying a home, use available resources to free up income to use to meet other family needs, get optimal use of income through wise consumer choices and make optimal use of retirement income. A large number of families involved had not previously attended educational programs about money management.

The involvement of the audience in these activities has helped them achieve such financial goals as: purchasing their first home; saving money by learning to do their own taxes instead of hiring a preparer; avoiding being drawn into fraudulent consumer transactions that result in income lost; and reducing their level of debt. Youth involved opened their first savings account and limited resource community residents were trained to conduct money management programs for others.

Lack of future orientation is an audience characteristic that is a deterrent to achieving financial goals. This suggests that the practice of developing a written plan would be limited, if not non-existent, in their households. Programs conducted with this audience have successfully worked toward changing this orientation. A significant number of program participants made written money management plans to aid them in meeting family needs and wants.

The 26 counties reported that 381 volunteers donated 1507 hours, valued at \$15070.

Objective 8.2 Narrative

29 counties reported working with a variety of audiences, both general and narrowly targeted audiences. Young people were reached through: workshops and day camps offered to the public; 4-H and other groups; and in the schools (especially the High School Financial Planning Program). Programs were offered on broad topics to adults in general and on specific topics such as: budgeting & recordkeeping; credit management; how and why to save money; investment fundamentals (including the role of CBS re investment clubs); budgeting for homeownership; planning for college costs; pre-retirement planning; living on a retirement budget; the impact of consumer fraud on otherwise sound financial plans. Targeted adult audiences included: mid-life and older women for the Women's Financial Information Program; Prospective and current Medicare beneficiaries; prospective and current Habitat for Humanity homeowners; pre-release prisoners; mental health patients, women's shelter residents; prospective and current small business owners; and pre-retirement audiences, especially regarding health care/insurance and other elder care issues.

Macon - 15 children ages 8-16 attended a 1-day, summer educational program on economic concepts and money management skills. Using materials from several different sources, they learned how the economy operates, toured the local bank, and practiced skills in money management. Reports from parents several weeks after concluding the program were very enthusiastic about the knowledge gained by the children and their

increased regard for saving money instead of just being consumers.

Brunswick - Senior's Health Insurance Information Program volunteer counselors are trained to assist adults with Medicare and Medicare Supplement billings/claims. The clients developed a Health Expense Payment Record to keep abreast of bills/claims. The expense record helped clients keep track of EOMB's and bills/claims not filed by the physician.

Mitchell - "Managing Your Money" has been used with young families and women trying to get back in the workforce. Participants indicated that debt management was the biggest challenge for them. At-risk youth were involved in a recordkeeping educational activity that taught them to write checks and keep up a bank account record for a business. Financial management publications have been distributed to local school teachers and at-industry worksites.

Durham - Participants in the monthly Chapter 13 budgeting class report learning the importance of goal setting, record keeping, and debt reduction in order to complete the requirements of the Middle District Bankruptcy Court.

Nash - Participants in retirement planning and estate planning programs have indicated that the information provided enabled them to become more knowledgeable about their retirement needs and methods of preparing for retirement as well as current laws and needs regarding estate planning. They indicate that the information allows them to be better prepared for more personalized professional counseling from financial planners and attorneys. Although it is difficult to assess the value of such programs, for many it means great tax savings and financial independence during retirement.

Sampson - The coordinator of a group of single mothers requested a short program in 11/96. They identified their problems, and created an outline of program topics to be covered in monthly meetings over the coming year. 6 of the 10 members have already completed short and long-range goal plans, completed family network statements, and developed family budgets. These budgets will be evaluated and modified in 3 months.

The 29 counties reported that 470 volunteers donated 1952 hours, valued at \$19520.

Objective 8.3 Narrative

20 Counties reported on a variety of affordable housing programs. Topics included whether to rent or buy, and multiple aspects of the homebuying decision. Educational activities were reported on how to budget for: getting into new housing (rental or purchase); selecting and caring for furnishings; maintenance and repairs; and remodeling. Counties reported specific programming on specific topics such as how to avoid unnecessary treatments for termites, fungi and septic tanks, and for targeted audiences such as first-time home-buyers. Selected reports below are typical.

Richmond, Anson & Montgomery. An educational program focusing on decision making skills was provided for fifteen tri-county citizens. The program was offered focused on

helping low literacy and limited resource first-time homebuyers understand buying affordable housing. Three different three-hour sessions were conducted. Participants learned about first-time mortgage opportunities, positive money management practices, and credit counseling. Participants estimated that their new skills will save each of them approximately \$1,500 a year for a total of 22,500. Presently 6 of the 15 participants have purchased affordable homes with a total value of \$90,000.

Forsyth. A total of 2,000 persons were reached through 24 programs on Alternative Housing, Home Maintenance and Upkeep, and Do-It Yourself Decorating. Sixty-five middle aged and senior citizens expressed plans to make their home more liveable for the rest of their lives by installing grab bars in the bathroom, sturdy rails for stair cases, and make things more accessible in the household for possible disabilities. The Housing Safety Classes at the highrise apartments decreased fires and accidents by 95%. The participants in the Home Maintenance and Winterization classes saved \$900 in their budgets and decorating classes saved \$3,000.

The 20 counties reported that 181 volunteers donated 1453 hours, valued at \$14530.

Objective 8.4 Narrative

33 Counties reported on educational programs that were designed and presented on consumer decision making issues of concern to general audiences such as senior citizens, young families, and youth. Targeted audiences included worksite groups, agency staff, prison inmates, teen parents, displaced homemakers, work-first families, African-American male teens. Topics included: distinguishing between needs and wants; health care and insurance; consumer credit options; auto purchase, insurance, and maintenance; clothing selection and wardrobe management; consumer fraud prevention; elder care planning and caregiving options, keeping holidays affordable. Random surveys of audience participants showed:

Buncombe - the Financial Fitness Network, a cooperative effort between NCCES, Pisgah Legal Services, BBB and CCCS developed a brochure on consumer shopping strategies and distributed them at an exhibit at the main branch of the public library during National Consumers Week in October 1996.

Person - In 4-H, 22 teens were involved in making financial decisions about college and eight teens were involved in the "Buying Your First Car" program. In both programs, the students learned how to intelligently choose insurance companies, the best interest rates, and to research the best financial sources for help in attaining their goals. Of the group involved in the college program sixteen have acquired financial assistance through loans or grants and five have either full or partial scholarships.

Wilkes - Helping increase consumer awareness of how to make informed consumer decisions was a teaching objective of this SMP. 250 consumers increased their knowledge about consumer fraud and buying goods and services in the marketplace. Consumers viewed video tapes, listened to illustrated talks, and received print materials to raise their awareness level. Evaluations revealed that 80 percent of the audiences had

increased awareness and changed at least one behavior relating to consumer buying.

The 33 counties reported that 1375 volunteers donated 7444 hours, valued at \$75550.

Objective 8.5 Narrative

17 Counties reported on educational programming for individuals and families to extend income and/or increase income. (An 18th report contained no data and was moved to the No Accomplishments section.) The overriding need for better management of available income is being met in part by educating adults and youth to produce some of the goods and services for their households. And the need for additional income is being met in some cases by educating adults and youth about home-based and other types of small business. Agents reported organizing volunteers to teach the skills needed for home production (to extend income) and/or to increase their marketable skills. They also reported on educational activities (in cooperation with the network of groups that counsel and assist small business) upon the value of Extension programs to meet the educational needs of current and prospective small business owners. [SMP 8.5 is working closely with the CRD grant involving FCS & ARE faculty. Special programs reported elsewhere did not appear in the ERS report, such as the Bed & Breakfast Seminar in Bertie, with its multi-county audience. Sample 8.5 programming is reported below.

Forsyth - The Forsyth County Marketeers, a group of low-income ladies that was organized to mass produce handcrafted items to sell to supplement their incomes, was expanded to include Goodwill Industries participant. Goodwill created and adapted the program as career exploration because of the great turnover of trainees. The 50 persons enrolled learned skills in cardmaking floral arrangement and woodworking. The group sold items at the CIAA Tournament in Winston-Salem and at Goodwill Industries netting a profit of \$1,000 which was distributed among participants. The pilot group (10 persons) received a grant of \$3,000 for a monogramming machine. The group learned bookkeeping, pricing, retailing, displaying, advertising, and investing.

Rowan - Utilizing volunteer craftsmen to teach others extends the clientele of Extension. Participants learn skills as a means of producing goods to extend/increase the family income, and sharing acquired talents with family, friends and others. Small business entrepreneurs increased their knowledge of home-based business operations and 15 prepared a business plan for seeking funding. 44 persons participate in the MCNC downlink to Rowan Cabarrus Community College on marketing, Mapping Your Business (from OK and promoted by NCSU-FCS). Extension and the Small Business Center at RCCC networked to provide the opportunity for a panel of small business owners to address participant questions after the videoconference. All attendees expressed gratitude for the educational publications and the opportunity.

The 17 counties reported that 615 volunteers donated 3217 hours, valued at \$32170.

V. OVERALL SMP#8 SUCCESS STORIES

Objective 8.1 Success Stories

Person - Volunteers recruited from residents of public housing and professionals who work with this audience were trained to conduct the BUC\$ program (Building an Understanding of Credit Services - Cornell CBS) with limited resource audiences. Nine volunteers were provided 20 hours of training. These volunteers conducted training for 50 families. Twelve families reported applying the credit knowledge learned to help them explore their credit options. The program was funded by the local banking institutions in the community.

Franklin - Seven volunteers were trained to conduct Money After 50, a financial management program for limited resource seniors age 50-64. Thirteen of the targeted population completed the training. All thirteen reported practicing at least one new financial management strategy that will benefit them in retirement. This program is in collaboration with AARP.

Forsyth - A 5-week money management series was held at a Day Reporting Center for persons on parole, reaching 10 people with budgeting information. 80% said they had never made a budget. Participants learned steps in budgeting and ways to save money. They learned how to apply for a job. 4 participants got jobs making at least minimum wage after attending classes. These participants are working towards fulfilling some financial goals as well as improving their self-esteem by becoming productive citizens and helping the economy.

Objective 8.2 Success Stories

Northampton - Extension sponsored two financial planning programs to help farm families with tax planning and investment strategies. "Financial Investment Strategies" discussed ways to meet financial goals, including investments to help defer taxes. "Farm Tax Planning" discussed changes in this year's tax codes and strategies for paying less taxes. Extension facilitated the programs with the help of local and state financial advisors. Participants reported an increase in knowledge of tax preparation and investment planning which would help them save money, and felt that professionals would have charged \$83 and \$64 to provide the information covered in the two programs. The perceived value of the two programs was approximately \$3500.

Rowan - Young, middle-aged and older women felt a need and desire to learn more about financial management to better manage their lives. The Women's Financial Information Program (I & II), and Managing for Lifelong Financial Security series reached 210 women. Participants gained knowledge, 82 % researched family, auto, home and life insurance policies, 94% studies credit profiles, 34% increased savings/investment plans, 41% worked on debt loan management. Local leaders sponsored a WFIP reception & seminar by financial author, Gail Buckner, for 92 attendees. Participants are planning programs to continue addressing their concerns.

Gaston - 43 employees of Gaston County Government attended a four-session workshop on pre-retirement planning organized by Extension in cooperation with the county personnel department. Extension materials were used with great success. Evaluations indicated that we had indeed shattered some impressions employees had about their

personal financial security when making plans for retirement. Guest speakers from Gaston County Personnel, Social Security Administration, and the private financial planning sector were all highly rated in evaluations. As a part of the course, some original handouts were prepared about the county health plan and retirement that had not previously been available in writing. From the course, there have been 9 follow-up sessions with individuals seeking ore information after adjusting their retirement plans. County personnel now refer retiring and already retired personnel to Extension to examine personal needs for Medicare supplemental insurance with the SHIIP program when they become ineligible for the County Health Care Plan at age 65.

Onslow - A team of eight people (3 CES and 5 USMC) took part in the training of reps from all 19 USMC bases in October 1996 on the use of the Financial Fitness curriculum -- developed by CES in California, Georgia and North Carolina to reduce serious financial problems in the USMC that also affect the community. The N.C. delegation is the first team to organize (as a pilot test of the entire USMC/CES project) a week-long course to train the appropriate sergeants in command units to serve as Command Financial Specialists (CFS). [The CFS training was successfully presented 1/27-31/97 to 20 trainees and received exceptionally high ratings]. CFS training will be presented regularly at each of the three bases in Onslow and Craven counties, and each CFS will work directly with the troops in his/her unit to reduce the incidence of bounced checks, overextended credit, repossessions, bankruptcy, and military discharge due to financial problems. NCCES is providing evaluation assistance for the N.C. team and Dr. Mustian serves on the national team designing evaluation of the entire project.

Objective 8.3 Success Stories

Triad - A total of 7 homebuyer workshops were conducted for first-time homebuyers (4 in Forsyth and 3 in Guilford). The 62 participants bought homes averaging \$58,000 which will increase the tax base for each county and city substantially since all loans were 30-year mortgages. In addition, each family received a budget booklet for wise money management throughout the year in which they identified short-term and long-term goals.

Mecklenburg - A Homebuyer Homestudy Course was promoted as a method for families to gain homeownership information on a schedule convenient to them. Fifty-six families completed the program this year. All have secured first mortgages and received additional information from CBS. Most were young, single-parent families, qualifying for loan programs with special terms, and had questions and concerns that were not addressed by either their realtor or loan officer. Individual consultations were held with each family to answer questions after they completed the homestudy course. Each family will save \$500-\$1000 in closing costs and potential thousands in reduced interest rates.

Objective 8.4 Success Stories

Chowan County has a significant number of people who are 60 and older and are at risk from telemarketers and others who profit through the use of deception. The Attorney General's office has produced a program that is aimed at reducing the risk of telemarketing fraud. This program was presented to senior citizens and extension homemakers who learned methods to protect themselves from telemarketers as well as

whom to contact to report or ask about deceptive schemes that are occurring. Many of the participants had been victimized prior to the program and felt better educated about recourse available in order to report the victimization without feeling ashamed or guilty.

Edgecombe - Landscaping for Beginners was conducted in September, a multi-disciplinary program. Most of the nineteen participants were inexperienced gardeners, the intended audience. A survey at the conclusion of the classes revealed that all of the participants plan to make landscape improvements in the near future. The majority responded that the class provided answers to their questions and that the resource materials and ideas will be useful in making decisions about plant selection, landscape design, and maintenance. At least one participant in the class has already put this knowledge to work. All of the foundation plants in front of the house were removed, a bed was created, new shrubs were selected, planted and mulched. Approximately \$275 was invested in materials and many hours by the homeowner to implement this project. The result is an attractive landscape design that has increased property value by an estimated \$3,000.

Objective 8.5 Success Stories

Catawba - "Sewing in September" was a volunteer-led series of workshops, demonstrations, and exhibits illustrating practices that made use of available resources to improve the financial status of Catawba County families. Using donated upholstery fabric, volunteers designed more than 100 prototypical articles of apparel, home decor, gifts, and accessories with an estimated value in excess of \$2000. Patterns, instructions and fabrics were provided for participants. Volunteers also provided demonstrations of sewing equipment, workshops of fabric enhancement techniques, mother-daughter sewing classes, budget holiday decoration samples, and techniques for the preservation of heritage textiles. More than half of the 162 participants comprise a new Extension audience and/or represent low-income families. They reported new skill acquisition and potential savings of more than \$30,000.

Randolph - "Timber is Tree-mendous" was a program targeted to women landowners. (A misprinted news release made the program open to everyone.) 72 participated with one-third responding to the final evaluation. More than 75% achieved their goals, increased knowledge, found handouts useful, learned how to use community resources, and could use and apply the information. One person saved \$2,000, one estimated \$1,000 and another saved "plenty" as a result of the program. The tax department was used as a source of names for the mailing list. Two female landowners were recruited into the forestry association as a result.

VI NAMES OF SMP COMMITTEE AND CO-CHAIRS

Linda Aycock
Sarah Kirby
Janice Holm Lloyd, Co-Chair
Nita Royal, Co-Chair
Mike Walden

Glennie Beasley
Ellen Miller
Claudette Smith
Bob Usry
Linda Washburn

SMP 09

FAMILY AND PARENT EDUCATION

Program Description: The Family & Parent Education State Major Program is helping parents and families acquire and develop the skills needed to foster qualities of responsibility, cooperation, courage and self-esteem. Appropriate actions are being taken to provide quality information on how to strengthen family relationships through improved parenting skills, financial management, problem-solving skills, empowerment, conflict resolution, effective communication, and stress management. In addition, Extension personnel are equipped to make appropriate referrals for family services, support services, and self-help support groups. The following objectives provide a glimpse of what success will look like for SMP 09 participants:

OBJECTIVE 1: Participating individuals and families will increase parenting skills related to caring for oneself, understanding ones children, motivating, nurturing and guiding them, and serving as advocates when needed.

OBJECTIVE 2: Limited resource parents will use effective parenting skills and identify possible solutions to family problems associated with money to promote optimal child development and to reduce stress to improve their ability to face the daily challenges of parenting

OBJECTIVE 3: Families and individuals will improve skills in critical thinking, family conflict resolution, and effective decision-making

OBJECTIVE 4: Families will become aware of support services and will use them effectively.

Units Reporting Accomplishments.

Objective 1: Alamance, Alexander, Alleghany, Anson, Ashe, Avery, Brunswick, Cabarrus, Caldwell, Catawba, Chatham, Chowan, Cleveland, Columbus, Davidson, Duplin, Franklin, Gaston, Gates, Greene, Haywood, Henderson, Hyde, Iredell, Jackson, Jones, Lee, Lenoir, Lincoln, Macon, Madison, McDowell, Mitchell, Moore, Newhanover, Northampton, Onslow, Orange, Pamlico, Perquimans, Pitt, Randolph, Richmond, Robeson, Rockingham, Swain, Transylvania, Union, Vance, Washington, Watauga, Wayne

Objective 2: Alamance, Catawba, Cleveland, Columbus, Forsyth, Guilford, Iredell, Lenoir, Macon, McDowell, Moore, Richmond, Robeson, Washington

Objective 3: Alleghany, Buncombe, Catawba, Edgecombe, Forsyth, Harnett, Iredell, Macon, Mecklenberg, Mitchell, Onslow, Pasquotank, Person, Richmond, Vance, Yancey

Objective 4: Anson, Buncombe, Columbus, Gates, Harnett, Henderson, Hyde, Iredell, Lenoir, Macon, Mecklenberg, Richmond, Robeson, Washington

Statewide Measures of Progress Totals.

Objective 1: 20373 people increased awareness and knowledge of developmental stages, basic

needs, and appropriate behavior of children. 15652 people increased awareness and knowledge of appropriate discipline strategies. 7093 people adopted of appropriate discipline strategies with their children. 10283 persons increased awareness and knowledge of techniques to control stress, time, and energy. And 10413 persons adopted techniques to control stress, time, and energy.

Objective 2: 1693 limited resource parents demonstrated proper application of techniques learned to resolve financial conflicts. 2275 limited resource parents who increased knowledge and awareness of strategies to resolve family financial conflicts. 1341 limited resource parents who increased knowledge and awareness of child growth and development. 974 limited resource parents adopting appropriate discipline techniques and critical nurturing practices.

Objective 3: 6657 people increased awareness and knowledge of skills in critical thinking, communicating, leadership, managing finances and managing stress. 977 persons adopted skills in critical thinking, communicating, leadership, managing finances, and managing stress.

Objective 4: 3029 people increased awareness and knowledge of community services. 875 persons increased their ability to communicate with service agencies. 740 persons increased their awareness and knowledge of skills such as listening, managing finances, and managing stress. And 512 people adopted skills such as listening, managing finances, and managing stress.

Statewide Impacts Totals.

Objective 1: 8019 people reported increased family stability by adopting skills which enhance interpersonal relationships. 11445 parents reported improved responsibility toward their children as a result of Extension programs. Another 10063 persons said they improved the quality of their family life through the adoption of techniques such as proper discipline strategies, stress reduction, and improved communication. The estimated net cost benefits for participants in Extension parenting programs was \$204,201.

Objective 2: 424 program participants reported improved family relationships through the resolution of financial conflicts resulting from the adoption of financial management principles. 845 limited resource parents reported improved responsibility toward their children. Additionally, 726 persons said their quality of family life was improved by adoption of effective parenting through appropriate discipline techniques and critical nurturing practices. Estimated cost benefits of Extension programs for society is estimated to be \$77,782.

Objective 3: 872 program participants reported improved self-esteem of family members by adopting strategies of affirmation, positive reinforcement, and expression of affection. 1502 persons said their quality of family life improved through the adoption of skills such as improved communication, conflict management, and effective decision making. And 755 people improved their interpersonal relationships through the adoption of skills in critical thinking, communicating, leadership, managing finances, and managing stress. The societal value of Extension programs in this area are estimated to be \$254,000.

Objective 4: 837 people said they improved their quality of family life through utilization of community services. 358 reported improved self-esteem by implementing suggested strategies for strengthening families. In addition, 458 persons reported improved family relationships through the adoption of skills such as listening, managing finances, and managing stress. The estimated value

to society as a result of Extension programs is \$56,210.

Narratives

Objective 1: Counties reported offering a variety of educational programs related to parenting and child care, including health and stability of the family; discipline strategies; communicating with children; developmental stages of children (social-emotional, intellectual, language and motor); nutrition education; financial planning; safety; emergency preparedness; child abuse awareness and prevention; communication and active listening; healthy male/female relations; quality time spent with children; literacy skills; age-appropriate toys; nutrition information and demonstrations of healthy snacks for infants and toddlers; appropriate behavior of children; techniques for dealing with anger; family resource management; and self-esteem. These programs were conducted in a variety of contexts with diverse target audiences, in collaboration with other government and community agencies, and utilizing appropriate delivery strategies.

A sampling of program results reported by the county faculty in Family and Consumer Sciences:

Anson County: Work First mothers and fathers reported they have increased their knowledge related to parental responsibility and developed communication skills that will enable them to relate to their children, other family members, and society members. They reported developed skills in their discipline techniques and they practice stress management activities regularly.

Ashe County: 35 employees in a local industry participated in a parent education program in which Extension was the lead agency. Random sampling shows that participants have more confidence in their ability to parent well and have a better understanding of child development.

Chatham County: The KINDERGARTEN PREPAREDNESS PROGRAM aimed at involving both the parents and their children in preparing their children to enter school. There were 12 parents and 10 children enrolled in this 14 hour program. Post evaluations showed that 100 percent of the children improved their school readiness skills. There was a 41 percent INCREASE in school readiness skills. 72 percent of the parents learned how to better prepare their children for kindergarten. 90 percent read a book to their child during the program, compared to 54 percent who had never read a book to their child before!

Greene County: The Parents As Teachers program has shown an impact in improved confidence in child rearing among parents, better cognitive and language development of children, and positive feelings about the program's usefulness. The program has also had an impact in detecting incidences of undetected hearing and language barriers in which the Denver II screening is a component of the program.

Iredell County: A series of 7 parenting classes were held for 16 parents and volunteers looked after the children. By having them several weeks we were able to observe some of the changes in discipline techniques plus lot of comments in the discussion indicated parents had made changes. *Lenoir County:* The Cooperative Extension Service has

become the center for information on parent education in Lenoir County. Agencies such as Social Services, Health Check, Mental Health, along with the Community College and School System rely on the Extension Service to provide leadership and guidance in the development, delivery and evaluation of county parenting programs.

Perquimans County: The 1996 Family and Parent Education Programs for Perquimans County addressed three concerns for our population: The Joy of Discipline, Emergency Preparedness, and Playground Safety. Extension reached 300 individuals involving 30 hours of training. Of the participants, 120 received Day Care Certification Hours, 90 met the New Day Care Playground requirements, and 25 became certified in First Aid through the Extension/American Red Cross Courses.

Richmond County: A pressing need for single parents to understand parenting skills, Extension jointly work with the Department of Social Services developed and conducted 3 of the 12 sessions of court mandated parents requirement. Two hundred-fifty participated. Following the completion of the program one hundred-fifty participants were to obtain custody of children. Many of the participants stated that the program had changed their way of communicating with their children for positive parenting.

Union County: Five county agencies cooperated to offer two series of parenting classes. Fifty parents, who were referrals from the Cooperative Extension Service, Department of Social Services, Health Department, and the Mental Health Center, attended. Transportation and child care were provided, and children's programs were taught by the Sheriff's Department. One week after attending the first class, one participant wrote, "I take a lot more time with my children and I consider their feelings a lot more. I don't raise my voice nearly as much and I give them lots of choices. I'm impressed with the results. I'm ready to learn more!" A father responded, "I learned that my wife and I have different styles of parenting, resulting in a 'good cop, bad cop' relationship with the children."

Counties reported that 1252 volunteers donated 9356 hours of their time, valued at \$93,560

Objective 2: A variety of educational programs were implemented with limited resource clientele including preventing bankruptcy; budgeting; alleviating stress; using discardables to make useful items; mend garments to save money; good grooming and dressing for success; rights and responsibilities of parenting; build children's self-esteem; effective discipline; self-control, responsibility and self-discipline; food preparation and food buying skills; literacy skills and education goals.

A sampling of program results include:

Alamance County: The participants in the programs have all been faced with difficult financial issues during the past year. Fourteen percent of the participants could prevent bankruptcy, court costs or the need to seek public assistance by utilizing information from the workshop in planning for and budgeting their financial obligations.

Forsyth County: Thirty-five Headstart Parents said they are more knowledgeable of budgeting their money to alleviate stress and have developed money saving skills by using discardables to make useful items.

Lenoir County: As a result of the parenting program in our county, 100 percent of the parents surveyed reported that they were more confident now in their role as parent. All families surveyed stated that they had adopted at least some of the nurturing and discipline strategies taught.

Richmond County: An educational program focusing on parenting skills development was provided to one hundred-forty-one parents. Parents learned about child development, positive parenting practices, and healthy eating habits for children. Participants estimated that their new skills will save each of them at least \$170 per year, or total savings of \$23,970.

Robeson County: In working with Limited-Resource families, we found that the children experienced a higher level of physical, mental, emotional and social well-being, as well as increased motivation, as a result of their parents enhanced skills. Out of the 170 families surveyed, 45 percent were now able to control their children (ages 2-18) much better which lowered everyone's stress level.

Counties reported that 115 volunteers donated 302 hours of their time, valued at \$3,020.

Objective 3: In responding to the challenge of this objective, counties reported conducting programming in leadership development; parenting skills; stress reduction; family diversity; conflict resolution; effective decision making; communication skills; handling problems relating to pressures in daily living; building strong families; marriage enrichment; family diversity; financial management; and understanding grief.

A sampling of program results include:

Buncombe County: Of those participating in parenting education programs, 60 percent of working parents gained knowledge in parenting skills, stress reduction and other family decisions. A workshop on family diversity was conducted that explored the diversity of families in Buncombe County. 85 percent of participants gained knowledge and changed attitudes regarding other cultures and non traditional families.

Mitchell County: "I've Gotta Be Me" Self-Esteem 2-month program was conducted on a weekly basis with at-risk youth in two schools. Emphasis was on each person's uniqueness and value. Eighty percent of the youth involved indicated an increase in their overall self-esteem. One high-risk female wrote, " Now, I talk out in class. I never felt like I could before."

Richmond County: In response to a pressing need for the Family Resource Center families to understand decision making skills, Extension developed and conducted an extensive educational program targeted for limited resource families. Sixty-three participated.

Following the completion of the program, sixty-one participants stated that the program had changed the ways they manage their stress in their lives.

Counties reported that 448 volunteers donated 1450 hours of their time, valued at \$14,500.

Objective 4: Extension educators often serve as a referral system to help families access specific kinds of professional help. Some of our SMP counties chose this objective as a focus of emphasis, and conducted programs in key issues facing our young people; poor achievement among youth; collaboration among agencies; health services; caregiver services available; community service exhibitions; advocacy for children and families; healthcare insurance; and others.

Since this objective focuses on resource referral, less opportunity is provided for end user impact studies. Referral efforts by Extension professionals is reflected in the following sample:

Buncombe County: A county wide Children's conference was held to bring together all agencies that are available to help children. 250 people attended and gained knowledge about services available. 32 senior citizens toured a regional health facility to become familiar with health services. 80 percent increased knowledge about updated service.

Gates County: Several grant programs work with families in educational programs which teach their resource identification: STP: Support for Teen Parents; PACTT: Parents and Children Train Together; YLS: Special Interest 4H workshop for youth grades 7-12; SAFE: Work-first families; SOLACE: Displaced Homemakers; GENESIS: African-American teen males youth grades 7-12.

Harnett County: Extension gave leadership to coordination of a committee of more than 40 agencies and concerned groups to offer the Harnett County State Of The Child Conference, a day to look at community support and services, as well as needs of children. 250 leaders and parents were present to attend workshops and view as well as visit with community service exhibitors. We also presented programs to 202 civic groups, educators and others on the importance of serving as advocates for children and families and the need to develop support services and programs for families in Harnett County.

Iredell County: Encouraging families to take advantage of local resources and helping them make contacts was one of the main thrusts of the Child Health and Safety Fair which was an outgrowth of some committee meetings to plan activities for the week of the young child. Agencies learned more about each other and formed a group to meet quarterly to coordinate activities for families of young children.

Richmond County: Informational guidance from Cooperative Extension Service Family and

Consumer agent resulted in thirty-four families effectively being able to find available resources in their community, and using them effectively. Families estimated that their awareness of support services save each of them at least \$75 per year, or total a saving

\$2550.

Robeson County: Families in Robeson County have increased their quality of life due to the use of services they learned about in our program. Extensions clients can now more effectively communicate with agency representatives such as Department of Social Services, Health Department, etc. As a result of making it easy to access services in our county, our clients have requested further information/services.

Counties reported that 307 volunteers donated 3308 hours of their time, valued at \$33,080.

Success Stories

Washington County: The Washington County Preschool Interagency has identified as a priority the need for parenting programs for at-risk families. In response to this need, Extension is teaching Family Life Education classes on an on-going basis with the logistical and financial assistance of the Interagency and Smart Start. Since the classes began in July, four families have been substantially upgraded in the process of regaining custody of their children. Several more parents have decided to go back to school while yet another parent is being allowed to assist with child care at Smart Start. Further, Guardian Ad Liteum has been granted their request that the court system require participation in our Family Life Education program for all court adjudicated parents.

Washington County: Washington, Hyde, and Tyrrell county F.C.S. agents held four Family and Consumer Science Fall Festivals at housing projects in these counties. The Festivals were held in an attempt to familiarize this population with Extension and to disseminate all manner of literature in the F.C.S. subject areas. Participants were exposed to exhibits, educational literature, and were served low fat snacks, complete with recipes. The programs attracted over 400 low income residents including 60 Hispanic women in a housing project for migrant workers in Tyrrell county. These clients were provided with an interpreter as well as Extension literature in Spanish.

Wayne County: In response to the need for individuals and families to increase parenting skills, Extension developed and conducted an extensive educational program targeting male prison inmates. Twenty-eight men participated. These inmates had an average of six months of their sentence left. Information was also shared with the mothers or persons responsible for the inmate's children at this time through newsletters and prepared packets. Participants indicated through surveys that they learned new ways to discipline and communicate with their children. They also indicated they learned developmental characteristics of children. One comment by a participant was "I now understand some of my children's actions that I misunderstood before." The participants also indicated that they would make changes in the way they parented based on the information they learned in class.

Forsyth County: 26 single dads participated in the Fathers and Friends Program held in the Happy Hill housing area. The participants are working on ways to increase their knowledge of being a positive parent to their children. Many of these fathers are "teen" dads and/or in their early 20's. In the sessions(2), the participants asked many questions related to taking care of children and how to interact with them. The participants are working on skills to improve communication between moms and themselves as well as focusing on social/emotional, intellectual, and physical development among their children.

Mecklinberg County: Parenting on Your Own workshops were expanded to include male inmates at the county jail. 139 male and female inmates have attended at least one session of the six week series, with 55 receiving certificates for completing at least 3 of the sessions. Storytelling and writing were added for inmates. Three male inmates have written children stories. A female inmate used information in a session on developing a support system to locate her immediate family. In a request to enroll, a male inmate wrote, "...I am a single parent who would like to improve my parenting skills. I have been away from my children for about six years and any added help can go to make me a better father... I hear that this class does help."

Johnston County: Day By Day is a facility that rehabilitates drug users. Women and men visit this facility to become clean of drug dependency. Participants that were parents filtered in as our parenting series began. Faces were not perky, but serene and tired. Dr. Seuss came to the rescue as "Oh The Places You Will Go" was read. Eyes perked up as I read quickly the routine of efforts we must all embrace as we strive to meet life's challenge, in their case drugs and effective parenting skills. As a result of this parenting program, 53 adults increased awareness and knowledge of basic developmental stages, basic needs and appropriate discipline of their children. Participants shared improved awareness of their roles and responsibilities as parents. Participants were eager to begin implementing new discipline strategies.

SMP 09: Family and Parent Education Team Members

Georgia Kight, co-chair

Wayne Matthews, co-chair

Jan Baldwin

Carol Birkhead

Reba Green-Holley

Jan Lloyd

Thearon McKinney

Margo Mosley

Jackie Roseboro

Claudette Smith

SMP 10

FOOD AND FOREST PRODUCTS MANUFACTURING

PROGRAM DESCRIPTION

The North Carolina Cooperative Extension Service, Department of Food Science works closely with the North Carolina food industry. The last few years, a major focus has been in the area of regulations. Since the E. coli outbreak in the western part of the US, the industry has redoubled its effort to produce a safe and secure food supply. Most of the industry is changing or will change to a Hazard Analysis Critical Control Point (HACCP) based safety system. This system was mandated in the 1960's for Food and Drug Administration (FDA) regulated canned foods and recently was extended to the seafood industry. More recently the United States Department of Agriculture (USDA) regulated meat and poultry industries have incorporated the process into their inspection program. This means the industry has turned from an inspection-based safety system heavily dependent on regulatory input, to a system now in tune with Total Quality Management. In this new system, the production processes are analyzed for potential hazard(s), controls are identified for the hazard(s), and monitoring of these controls by measurable criteria is effected. Reporting and verification steps keep the system working.

Food Science extension specialists have worked hand-in-hand with other agencies to help small businesses and new food entrepreneurs. Program coordination with the North Carolina Department of Agriculture's (NCDA) regulatory agencies, their marketing group, the Speciality Foods Association, and the Small Business and Technology Development Centers lends a hand to these individuals.

The North Carolina Cooperative Extension Service, Department of Wood and Paper Science works to increase the competitiveness and profitability of North Carolina's forest products industry, improve markets, and increase consumer understanding of forest products and their proper use. The continued long-term expansion of the state's primary and secondary wood products industries not only depends on the national and international economy, but on the individual firm's abilities to compete by obtaining and efficiently using raw materials and utilizing existing and new technology. Wood Products Extension concentrates its efforts on providing educational opportunities for managers and key personnel of primary and secondary wood products firms and the consumers of wood products. These opportunities allow clientele to develop their knowledge and skills to further their effectiveness in the assembly, processing, distribution, and use of wood products. The forest products industry modernization will increase their competitiveness in our growing international economy.

UNITS REPORTING ACCOMPLISHMENTS

Department of Food Science Extension Specialists: Pat Curtis, David Green, Dwain Pilkington, Lynn Turner, John Rushing, Donn Ward

Department of Wood and Paper Science Extension Specialists: Joe Denig, Craig Forbes, Larry Jahn, Phil Mitchell

Martin County Extension Center: Jim Kea

STATEWIDE MEASURES OF PROGRESS TOTALS

Objective 1: Food processors will adopt new technology, hire and train qualified personnel, and develop in-house quality systems to ensure regulatory compliance along with sustained growth and profitability.

Increased participation in training
Number participating 1,850

Objective 2: (A) Forest products manufacturers will increase their competitiveness, productivity, profitability, and utilization of innovative technology, and (B) North Carolina citizens will increase their knowledge of wood products, their proper application, and maintenance.

Adoption of new manufacturing techniques
Number of firms adopting 120

Consumer adoption of practices related to selection, use, and maintenance of wood products
Number adopting 15

Increased knowledge of economic importance of the wood products industry
Number increasing knowledge 750

Increased consumer understanding of forest products and their proper use
Number increasing understanding 1,456

Objective 3: New and potential entrepreneurs especially in the food and forest products manufacturing areas will benefit from programs in business setup, management, quality, technology, and regulations by entry into the marketplace showing sustained growth and profitability.

Requests for assistance from small business and entrepreneurs
Number 97

Number of new companies in food and forest products manufacturing
Number 10

STATEWIDE IMPACT TOTALS

Objective 1: Food processors will adopt new technology, hire and train qualified personnel, and develop in-house quality systems to ensure regulatory compliance along with sustained growth and profitability.

These have not been assessed in 1996. Long-term progress will be evaluated in 1997 through a grant.

Objective 2: (A) Forest products manufacturers will increase their competitiveness, productivity, profitability, and utilization of innovative technology, and (B) North Carolina citizens will increase

their knowledge of wood products, their proper application, and maintenance.

Dollars saved through improved utilization or productivity

Dollars \$2,281,500

Objective 3: New and potential entrepreneurs especially in the food and forest products manufacturing areas will benefit from programs in business setup, management, quality, technology, and regulations by entry into the marketplace showing sustained growth and profitability.

Increase in number of small businesses in food and forestry manufacturing

Number 42

NARRATIVE PROGRAM PROGRESS AND ACCOMPLISHMENTS

Food Science

Specialists in the Department of Food Science have taken an active role in preparing the food processing industry for the advent of new HACCP based regulations. With the new seafood rules from FDA and the USDA Food Safety Inspection Service (FSIS) Pathogen Reduction final rule for red meat and poultry, food processors are turning to training to learn how to comply.

A Seafood HACCP Training Curriculum has been developed that is recognized by the FDA as the national model. The development committee was chaired by an North Carolina State Food Science Specialist. A national cadre of 400 HACCP trainers has been qualified throughout the US by the Association of Food & Drug Officials. By special request from the NCDA, extension trained 40 state food inspectors. Food Science specialists will begin HACCP training for all North Carolina seafood processors during 1997.

The Red Meat and Poultry extension activities included training programs to ensure regulatory compliance in implementation of the Sanitation Standard Operating Procedure (SSOP) portion of The Pathogen Reduction Act of 1996. After training at the FSIS facility in College Station, Texas, two NCDA Meat and Poultry Inspectors and the red meat extension specialist presented SSOP training programs at eight different locations throughout the state. Assistance was given in the design and selection of equipment for a laboratory, and training of employees in procedures to microbiologically and chemically monitor products produced in a multi-plant facility. In addition, the red meat specialist has presented programs at the national and international level. Approximately 620 people attended these presentations, plus 80 poultry clients.

In the poultry area, a food science specialist served as an instructor in HACCP workshops. Two hundred individuals were trained and 150 of the participants met the requirements to become certified to develop their own program.

Assistance was given to at least twelve small businesses involved in meat processing. Two new companies were assisted during startup by developing formulations and processing procedures. Approximate gross sales were \$275,000.

In addition to working with established processors, Food Science Extension has worked with entrepreneurs and small business owners who are establishing new products for the market. When regulatory agencies or small business centers are approached by these persons, they recommend the person obtain guidance from Food Science Extension. There they receive assistance in formulation, processing, safety, and labeling. Their product is tested for shelf stability. The entrepreneur is then directed to the appropriate regulatory agency and to marketing and small business assistance.

Wood and Paper Science

The mission of the Extension Wood Products Group within the Department of Wood and Paper Science is to increase the competitiveness and profitability of North Carolina's forest products industry, improve markets, and increase consumer understanding of forest products and their proper use. The Group concentrates its efforts on providing educational opportunities for managers and key personnel of primary and secondary wood products firms and the consumers of wood products. In 1996, the Group participated in 24 seminars, workshops, and other educational opportunities reaching 1,011 individuals. Helping producers and buyers in solving problems or answering their questions associated with the production and use of wood products is also an important activity of the Group. Many of these problems and questions require extensive time in gathering the information needed by an agent, industry or final consumer. The Group handled 124 requests of this type in 1996.

Martin County Center

ProLogger, which focuses on continuing education requirements for North Carolina's loggers, is designed to improve logger safety, environmental concerns, and business management within one year. Those who complete the required 24 credit hours of training will receive the Professional Logger designation and a diploma. Approximately 50 local firms have participated in this training during 1996. Organizations involved in the training included the North Carolina Forestry Association (NCFA), the Cooperative Extension Service, the North Carolina Division of Forest Resources, the Society of Consulting Foresters, the American Pulpwood Association, and insurance carriers and equipment vendors for the forest products industry.

SUCCESS STORIES

Food Science

The Department of Food Science Cooperative Extension Specialists' major emphasis was assisting their respective commodity groups meet the forthcoming HACCP based federal regulations. The first phase of the FSIS Pathogen Reduction HACCP System federal regulation is development of a SSOP that must be written and in practice either January 27, 1997 (federal) or April 30, 1997 (state). Training and instructional programs were conducted at the state, national, and international level to assist plant owners/managers to comply with the various regulations. In-state training for the small plants was conducted jointly by the red meat specialist and the NCDA Meat and Poultry Inspection Service. The FDA seafood HACCP regulation becomes effective December 30, 1997. The seafood curriculum committee was chaired by the Department Extension Leader, who has also assisted in teaching the Certification program. Further, assistance has been given to clients in developing chemical and microbiological laboratories and training personnel in the techniques for meeting the respective HACCP regulations. Food Science Extension has instructed more than 1200 people, with

a majority of them from North Carolina. Additional programs will be presented in 1997 and 1998.

Wood and Paper Science

There is a great need to increase the competitiveness and profitability of North Carolina's forest products industry. To meet this need, extension specialists within the Department of Wood and Paper Science are actively involved in providing educational and technical assistance to North Carolina forest product manufacturers. A specialist worked with a sawmill in the area of equipment and mill layout. Based on his recommendations, production, grade recovery, and volume recovery are all up. Increased production is worth \$140,000 per year. Another mill requested help to improve their drying operations. Before Extension's visit, loss of material due to split lumber was 12 percent. Following the specialist's advice on correct drying procedures, losses due to split lumber are now only 0.4 percent. Estimated annual savings are \$100,000.

There is a great need to increase consumer understanding of forest products and their proper use. To meet this need, extension specialists within the Department of Wood and Paper Science are actively involved in providing educational and technical assistance to North Carolina homeowners. A specialist educated several homeowners about the proper procedures to follow in correcting moisture and mildew problems. Based on Extension's recommendations and information, these homeowners were able to avoid unnecessary and expensive treatments to solve their problems. Estimated savings are \$5,000.

Martin County Center

In 1993, 13 North Carolina loggers lost their lives, thousands of extra dollars were paid in workers compensation insurance and OSHA fines, and hundreds of hours were lost in productivity due to logging accidents. The ProLogger program started by Extension, the North Carolina Division of Forest Resources, and the NCFR has since trained over 1,400 industry personnel in safety and environmental sensitivity. Approximately 50 local logging firms have participated in this training program. Due to this program, North Carolina logging fatalities have dropped to four a year. It is estimated that local firms have saved \$32,500 in OSHA fines (the national average is five fractions at \$130 each per inspection). Safe operations save at least \$20 per \$100 of payroll in reduced workers compensation insurance (some as high as \$40 per \$100 of payroll). This would amount to \$2,000,000 savings for the 50 area firms alone.

TEAM MEMBERS

Darwin Braund
Tom Campbell
Bill Fowler, Co-Chair
Larry Jahn, Co-Chair
Jim Kea
John Rushing, Co-Chair
Donn Ward

SMP 11 Food Safety & Quality

Safety of the food supply is a shared responsibility. Food producers, processors, preparers and consumers must all follow appropriate food safety procedures so food enters and leaves their portion of the food supply chain safe for human consumption. Consumers not only deserve a safe food supply but one delivered in such a manner that they can determine it meets their nutritional quality needs.

While everyone is susceptible to food borne illness, most serious illnesses and deaths occur among infants, the elderly, and immunocompromised persons. People responsible for preparing foods for susceptible individuals such as day care providers and senior meals providers need to be aware of their clientele's needs and follow appropriate food safety procedures.

Food borne pathogens cause an estimated 6.5 to 33 million cases of human illness and 6,000-9,000 deaths annually in the U.S. The estimated total medical and productivity costs tied to common bacterial pathogens and parasitic organisms is over \$5 billion a year. This is over \$700 on average per case. Increased knowledge and adopting safe food handling practices has the potential to reduce these costs.

Units Reporting

| | | | |
|------------|----------|------------|--------------|
| Alamance | Chowan | Henderson | Pender |
| Alleghanny | Columbus | Hertford | Sampson |
| Ashe | Davidson | Iredell | Stokes |
| Avery | Duplin | Lincoln | Transylvania |
| Buncombe | Franklin | Newhanover | Vance |
| Cabarrus | Greene | Onslow | Wayne |
| Chatham | Gaston | Orange | Wilkes |
| | | | Yadkin |

Food safety programing targets consumers and food service. Examples of consumer audiences include high school youth, senior citizens, extension homemakers, families and paraprofessionals. Food service personnel include day care workers, congregate nutrition site workers, restaurant employees, hospital and other institutional food service workers and school food service workers.

Delivery strategies included packaged series programs, media (newspaper, television and radio), and single contact presentations. During hurricane Fran CES used the radio and newspapers to get timely accurate information to affected residents. These media releases resulted in numerous phone calls to county offices.

Program subject topics included home food preservation, basic food safety, sanitation,

personal hygiene, pressure canner testing, certification for food service and day care employees, seafood safety, quantity food service for occasional cooks, food handling for youth and other targeted audiences (mentally challenged, etc.) and master food preservers.

Statewide Measures of Progress

Objective 1. Participants will adopt behaviors that decrease the risk for food borne illness.

1. Target audience: CONSUMERS
Increased consumer knowledge about safe food handling
NUMBER INCREASING KNOWLEDGE: 175,043
2. Improved consumer attitudes about the need to handle food safely
NUMBER IMPROVING ATTITUDES: 160,663
3. Target audience: FOOD SERVICE
NUMBER INCREASING KNOWLEDGE: 881
4. Improved attitudes about the need to handle food safely by food service workers
NUMBER IMPROVING ATTITUDES: 1021

Objective 2. Target audiences will increase knowledge of and confidence in the safety and acceptability of the use of biotechnology in our food supply.

1. Increased consumer knowledge about the application of biotechnology on the food supply.
NUMBER INCREASING KNOWLEDGE: 46

Statewide Impact

Objective 1. Participants will adopt behaviors that decrease the risk for food borne illness.

1. Adoption of safe food handling practices by consumers. Adoption of these practices has the potential to reduce the incidence of food borne illness in homes.
NUMBER ADOPTING SAFE HANDLING PRACTICES: 49,711
2. Adoption of safe food handling practice by food service workers.
NUMBER ADOPTING SAFE HANDLING PRACTICES: 884

Objective 2. Target audiences will increase knowledge of and confidence in the safety and acceptability of the use of biotechnology in our food supply.

1. Improved consumer attitudes about the safety and acceptability of the use of biotechnology in the food supply.
NUMBER IMPROVING ATTITUDES: 46

Success Stories

Day Care

85 day care personnel in Wilkes County attended programs on food safety which included information on microbiology, safe food handling practices and personal hygiene. 100 percent of those attending reported that they had increased their awareness about food safety. 75 percent reported changing at least one behavior to improve food safety in the day care setting. 90 percent of those attending the classes successfully completed a post-test related to food safety after attending the session.

Two classes for Child Care Providers in Onslow County were given about food safety to 16 people. A pretest and post-test were given to evaluate knowledge gained. The scores on the post test increased from 56 to 70. However, the most progress noted was the increase in the number of participants who said they needed to change their food handling practices. Before the class, only 9 people thought they needed to change. After the class, 14 of the 16 said they needed to change! The most gratifying experience for the instructor was the attitude change in the participants from one of the "I don't want to be here" to "I'm glad I came and I enjoyed the class."

Hurricane Fran

During the weekend after Fran, articles on food safety after a power failure were run in the paper, reaching a readership of 64,936. An interview was done on the radio on Saturday and Sunday reaching 25,000 people. The Orange County agent gave out her home phone number on the air, and 15 phone calls on food safety were received at home on Sunday as a result and 149 were answered in the following week. A conference call was set up by the agent with a food science specialist and a local restaurant and as a result, the restaurant owner, who was not covered by insurance, was able to save \$300 worth of aged beef. Information was also given to the local electric coop and 6,000 people received this information by phone.

After hurricane Fran the Vance County Management contacted Extension requesting the Extension team to compile a newspaper page worth of disaster information to fulfill a request the newspaper had made of his office. By 3 p.m. that afternoon with everyone's input enough information for many pages was delivered to the newspaper. A number of articles appeared in the immediate edition and several were used later.

Youth Project

Hertford County CES served as a pilot county for a Youth Food Service/Food Safety project to provide training for high school youth to enter the food service job market. Assistance for the project was provided by specialists from NCSU Family & Consumer Sciences and Food Science Departments. A county committee of 8 school health department and business representatives provided input for the pilot effort. A Teen Focus group of 7 students voluntarily assisted in planning, designing and promoting the project. 19 youth participated in the 4 three hour sessions related to Getting a Job, Food Borne

Illness, Practice Makes Perfect & Attitudes Count. Students demonstrated skills learned by completing a resume, through role play of interview situations and food safety in food preparation. Food service representatives addressed job expectations and interviewing for the job. Certificates were awarded participants successfully completing the project.

SMP Committee Members

Pat Curtis, Co-Chair

Lynn Hoggard, Co-Chair

Cynthia Brown, Northampton County

Alice Pettitt, Orange County

Christine Smith, Wayne County

Dan Carroll, Food Science

Gary Davis, Poultry Science

Angela Fraser, Family & Consumer Sciences

Tom Hoban, Sociology & Anthropology

Brinton Hopkins, Animal Science

Frank Jones, Poultry Science

Carolyn Lackey, Family & Consumer Sciences

Ron Larson, Agriculture & Resource Economics

Dwain Pilkington, Food Science

John Rushing, Food Science

Lynn Turner, Food Science

Donn Ward, Food Science

Accomplishment Report SMP 12: Health and Human Safety

Program Description

Health and human safety are pressing public concerns at the individual, family and community levels. The North Carolina Cooperative Extension Service has developed community-based programs to enable individuals and communities to address health and safety needs including 1) healthy lifestyles, 2) home safety and crime prevention, 3) agricultural health and safety, and 4) community capacity building.

Units Reporting Accomplishments 37

Accomplishments for Each Objective

Objective 1. Healthy Lifestyles: NC youth and adults will adopt healthier lifestyles by reducing high-risk behaviors and taking responsibility for their health related decisions.

Statewide Measures of Progress Totals:

29,985 increased awareness of preventive health behaviors such as eating properly, exercising, and safety in the home.

17,106 adopted recommended health care practices including dietary guidelines, exercise, and reduced substance abuse.

8,672 increased knowledge of appropriate use of available health care service and facilities.

Statewide Impact Totals:

1761 individuals demonstrated more appropriate use of medical care including visits to physicians, emergency rooms, or urgent care centers.

Costs avoided through reduced high risk behavior total \$858,500.

Costs avoided through preventive health behaviors such as immunizations, proper diets and exercise total \$409,350.

Narrative Description of Accomplishments: Several county reports indicate partnerships with local Health Departments and other groups to provide educational information to pregnant teens and Medicaid mothers. The educational focus is on nutrition and healthy lifestyles, to enhance the chance of having healthy babies, and to reduce the cost related to having pre-term or low-birth weight babies. In one county, Extension teamed with County Partnership for Children and local Health Department to secure a \$25,000-

Pregnant Teen Center grant for the county. The goal is to ensure healthy birth outcomes for teen parents and their babies and to reduce the rate of repeat unplanned teen pregnancies. Extension's role in the program is career planning, nutrition, life skills and self esteem education for the teens.

Education for healthy diets, exercise, fitness and wellness has been targeted to a variety of audiences, from Senior Citizens to school age youth. In every program reported, positive behavior changes and/or practices adopted have been noted. Most frequently, participants report lower cholesterol readings, lowered blood pressure levels, greater fitness as well as improved weight control. Such behavior changes have the impact of fewer physician's visits and prescription medication, as well as long term health benefits.

Early childhood immunization continues to be a focus of educational programming. Extension is increasing its role in county immunization efforts and in several instances has assumed leadership of county immunization education programs. Coalitions for immunization continue to function and grow. In at least one county bilingual immunization education has been a focus.

Objective 2. Home Safety and Crime Prevention: Individuals and families will adopt one or more home safety practices to promote a healthier living environment.

Statewide Measures of Progress Totals

2,875 individuals adopted practices to remove safety hazards in homes.

1,923 individuals adopted practices promoting safer homes by installing devices and conducting safety audits.

904 individuals adopted preventive practices including installing ventilation systems, radon testing, carbon monoxide testing, etc. which promote indoor air quality.

2,6899 individuals increased their first aid skills.

Statewide Impact Totals

Costs avoided through the reduction of accidents in the home total \$32,300.

Costs avoided through adoption of practices such as reduction of pollutants, improvement of air and water quality, improvement of the indoor environment, that promote a healthier environment total \$5,500.

844 persons adopted practices to insure indoor air quality.

The increase in the number of individuals knowledgeable of the delivery of first aid is 1,256.

Narrative Description of Accomplishments: NCCES staff have formed local collaborations with grant funded projects, Grange, Progressive Farmer, American Red Cross, local business and industry, local health departments, police and sheriff's departments to impact positively on Home Safety and Crime Prevention. Targeting audiences has maximized impact.

Teen mothers, farm wives and day care workers are among the targeted audience of 1,256 individuals completing certification in CPR/First Aid in 1996 as a result of NCCES programming. In addition, training leading to certification in playground safety hazards has been conducted. In one county 68 day care operators and teachers were certified, and agreed to conduct safety audits and remove hazards. This training has provided a safer environment in 25 day care settings, reduced the risk of injury to children and liability to the day care operators.

Water-screening programs for homeowners/renters were conducted in several counties and towns. Participants whose water samples were found to have levels above the safe drinking water standard for nitrogen and lead were counseled on appropriate steps to protect their drinking water and address their problems.

NC is vulnerable to a number of natural disasters, and NCCES has developed a comprehensive web site, "Natural Disaster Program for Families." The site was accessed by more than 10,000 individuals and media outlets following a flood and 2 hurricanes. Information included Food Safety, Clean up and Sanitizing Housing, Home Furnishings, Clothing, etc. Preparing for natural disaster is a focus of proactive programs. Strategies include demonstrating preparation of family emergency/disaster kits. 460 employees at one worksite learned to prepare kits.

Objective 3. Agricultural Health and Safety: Educationally and economically diverse people involved in various aspects of agriculture and natural resource management will understand the health and safety concerns inherent in their work, will develop skills and techniques allowing them to adopt appropriate practices to reduce illnesses and injuries.

Statewide Measures of Progress Totals

1991 individuals increased awareness and knowledge of agricultural (chemical) exposures and other agriculturally related health risks that can result in illnesses.

1552 persons increased awareness of and use of personal protective, safety and other equipment.

202 medical personnel increased awareness of agriculturally related illnesses and injuries.

993 individuals adopted best practices for storage and use of pesticides.

Statewide Impacts totals:

Costs avoided through reduced agricultural illnesses, injuries and/or environmental inequities totals \$100,100.

Costs avoided through reduced medical attention/treatment total \$16,600.

108 health professionals improved recognition and treatment of agriculturally related health illnesses and injuries.

Costs avoided through proper use and storage of pesticides total \$11,100.

1012 individuals adopted practices to reduce agricultural injuries, illnesses, and/or environmental inequities.

Narrative Description of Accomplishments: In an era of increasing awareness of farm health and safety issues, audiences targeted for farm safety issue education include farmers and farm workers, farm wives and youth.

An innovative educational strategy successfully implemented in several counties is the Farm Safety Day Camp Program for youth. Day camp classes included first aid, fire safety, chemical and equipment safety. Targeted audiences included farm youth, and youth who work on, and visit farms.

According to reports from 10 counties, targeted Farm Safety Programs reached a total of 396 people. Safety, including machinery, equipment and animal were the primary emphases. Health issues for the agricultural audience included farm-related illnesses such as allergies, respiratory problems, skin cancer and hearing loss. Preventive measures and safe pesticide handling/storage were presented at the programs.

1552 people increased awareness/use of personal protective, safety and other equipment. 700 pesticide users became aware of pesticide storage, handling, disposal and safety through Extension conducted pesticide certification/recertification classes. 1012 people adopted 1 or more practices to reduce agricultural injuries, illnesses and/or environmental inequities. The medical community is becoming more aware of and involved with agricultural health and safety issues. In 10 counties 108 health professionals reported improved recognition and treatment of agriculturally related health illnesses and injuries. Members of the medical community participated in Farm Safety Programs also.

Objective 4. Community Capacity Building for Health and Safety: North Carolina communities will improve their capacity to analyze and take action related to health and health related needs through the adoption of recommended practices, public policy education, and community mobilization.

Statewide Measures of progress totals:

26 health networks and coalitions established.

112 community health assessments were conducted.

Statewide Impact Totals:

21 strategic partnerships were formed and coalitions for improving health statuses.

Costs avoided through improved health statuses of program participants total \$62,710.

27 partnerships/coalitions were established, to meet the health and health-related infrastructure needs of counties.

Narrative Description of Accomplishments: Communities in the 7 counties reporting have established partnerships and coalitions to take action to improve health statuses. Community-driven models have been designed to meet the unique needs of individual communities. Effective community action often requires external funding, and a number of coalitions have obtained grant funding to provide positive community health impacts. Examples follow:

With Extension facilitation, 2 rural communities have developed leadership and direction for health through an Economic Development Grant and collaboration with 11 agencies.

In a rural mountain county, Extension staff with the Health Care Coordinating Council developed a community assessment as result of a collaborative Smith-Reynolds Foundation Grant. In the same county, a Partnership for Children Health Task Force has been developed to assess and improve health related needs of families with children under age 5. As a result, two projects to improve the health status and immunization of young children have been designed, approved and funded to begin in 1997.

Overall Narrative Description of accomplishments: Community-based programming and the resulting impacts reported above were the result of coalition building with local leaders, volunteers, public and private organizations. Health and Human Safety programming addressed needs including healthy lifestyles, home safety and crime prevention, agricultural health and safety, and community capacity building. In the 37 counties reporting, it is estimated that 1,478 volunteers contributed 21,800 hours to local programs impacting positively on health and human safety. The dollar value of these contributions is estimated at \$218,000.

In addition to community-based programming, three area or statewide, grant funded projects provide positive impact on Human Health and Safety as described below:

1. In 1996, the Southern Appalachia Leadership Initiative on Cancer focused on proliferation, development and nurturing of community cancer control groups in 4 counties. Approximately 40 community groups conducted breast cancer control outreach through local churches, senior citizen centers, quilting groups, work sites, civic organizations and other community sites. CDC sponsored Breast and Cervical Cancer

Program sites in SALIC counties have reported exceeding breast screening goals by as much as 300%. The NC SALIC 4 county coalition, "Beyond Breast Cancer Celebration," reached over 300 women, mostly breast cancer survivors, half of whom have since volunteered to work with SALIC to reach rural women with the early detection message. The SALIC Tri-State Coalition hosted a 3 day all SALIC Summit, "Networking Communities Together: Empowering Volunteers to Action" with 250 SALIC partners and volunteers from 3 states participating.

2. Over 2,000 disabling injuries occur on NC farms annually, resulting in 30,000 lost workdays for farmers/farm workers. Rural isolation, limited personal resources, gaps in services and inadequate access to help are obstacles farm families face. Responding to these conditions, NCCES and a network of organizations and farmers have established a program to accommodate disabilities, eliminate barriers, and organize services for farmers and farm families with disabilities (NC ABILITY Program). This program, begun in 1993 in selected counties, was extended statewide in 1996 with acquisition of a \$200,000 grant. As a result, a direct approach is taken in visiting farms, assessing individuals and providing information on obtaining disability-related equipment/modifications. Programming includes: expert on-site farm visits, need assessments, recommendations of devices, information on alternatives, and referral to various agencies; county presentations with a demonstration van to illustrate assistive technology to groups; and over 200 telephone consultations. 15 farmers received new assistive technology or modifications.

3. In 1996, physicians, NCSU and ECU faculty/ administrators, farmers, health and extension educators, agribusiness leaders and others worked to create a strategic plan for the NC Agromedicine Program. Partnerships were begun, and enthusiasm for the possibility of safe and productive agriculture and healthy farmers, farmworkers, and families was ignited. The product was a shared, well articulated mission, vision and a set of goals for a program with broad ownership. A Steering Committee and an Advisory Board were established to guide the Agromedicine Program in realizing its vision of being responsive to community needs. The program provides education to extension professionals through subscriptions to the Journal of Agromedicine, and to ECU School of Medicine residents through presentations. The Agromedicine Program and Progressive Farmer have formed a collaboration providing training in conducting farm safety day camps.

Three programs were developed and executed at the state level addressing Extension professionals' training needs in health and safety. "The Dark Side of the Sun" is a skin cancer awareness program that includes a written outline/program with assessment tools, a video and an educational display. A self-study video, "Topics in Agricultural Health and Safety" includes research on Noise-Induced Hearing Loss, Skin Diseases in Farmers and Accessing Educational Resources in Health and Safety. "Farm Safety for Youth" is a curriculum designed to introduce awareness and early adoption of safe farming practices for youth. More than 70 Extension professionals have participated in training in preparation for programs impacting on local needs.

Success Stories:

1. Greene County: Noonliting, a weight control and wellness program ended with lasting impacts on participants involved. 30 participants, ages 17-50 improved health by lowering fat intake to below 30%. Of these, 12 lowered dietary cholesterol to 300 mg/day by walking 2-3 miles two to three times weekly. An average of 643 lbs. were lost among the participants. They also increased their knowledge in how to reduce risk for chronic disease and changed food preparation techniques to promote a healthier diet.

2. Randolph County: Farm children are doing all aspects of farm work because of the cost and lack of labor and with this comes the chance of injury. The need for farm safety education for these youth was inevitable. With the help of the Livestock Association, NCCES in Randolph County hosted a "Progressive Farmer" Farm Safety Camp for Kids in July 1996. All aspects of farming were taught from ATV safety to skin care to tractor and equipment safety. 65 farm youth ages 7-15 participated. The results were great. The youth went home and told parents what they were doing wrong as far as safety on the farm. If we can save one finger or limb it was worth all the effort in doing the camp. We had 6 volunteer instructors and 20 parent volunteers.

3. Mecklenburg County: Moisture control, mildew prevention, and removal are the most common Home Environment problems in Mecklenburg County. A resource kit containing a moisture audit form, and a selection of CES brochures on various aspects of moisture/mildew control is used for quick response. 62 kits were mailed and 160 phone calls responded to throughout the year. According to one caller, a local engineer, "I got accurate information... the tools to help me solve my problem". In addition, 5 educational programs were presented by the housing agent on moisture control, and 20 programs taught by trained EH volunteers, reaching 300 additional families.

4. Graham County: In 1996, three seminars were conducted to create awareness of radon and indoor air quality. During the sessions, over 125 radon detection kits were distributed. Results of 75 of radon tests reveal a serious radon problem in the county. 45% had a reading over the safe level. Each client was visited and mitigation measures discussed.

5. Ashe County: Through collaboration with the local Health department a health check and developmental screening of children ages 0-5 was established, resulting in 98% of all children in this age group receiving full immunization in the past year. A cancer action team was formed which led to the formation of health action teams in each community. These teams, along with "Women in Touch" (breast cancer awareness), have provided communities a system for networking with health professionals.

SMP Co-Chairs: Judy Mock and Mitch Smith

SMP Team: Margaret Bullock, Barbara Garland, Wilma Hammett, Sarah Kirby, Steve Lilley, Nolo Martinez, Robert McLymore, Donna Mull, Sharon Rowland, Ellen Smoak, Julia Storm, Fred Yelverton.

1996 Statewide Accomplishment Report SMP13 - Leadership and Volunteer Development -

Objective 1.

Program Description: The development of leadership skills targeting limited resource and other non-traditional audiences is the program focus. The skills learned help individuals and groups of community leaders work to identify important issues and solve problems related to those issues in their community and county.

Units Reporting Accomplishments: 35

Statewide Measures of Progress Totals:

1. Number of participants who increased knowledge and awareness of leadership skills
NUMBER: 9179
2. Number of participants who adopted sound leadership and decision-making practices
NUMBER: 3308
3. Number of participants who demonstrated proper application of leadership skills and problem solving techniques learned
NUMBER: 3378
4. Number of participants who identified community problems
NUMBER: 2669
5. Number of participants who developed and implemented action plans to resolve problems
NUMBER: 1399
6. Number of projects completed/problems resolved
NUMBER: 661

Statewide Impact Totals:

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

NUMBER: 4203

2. Dollars saved by increased involvement in addressing community concerns by limited resource and non-traditional leaders

DOLLARS SAVED: \$360,360

3. Dollars of economics value to community/county for community projects/solving community problems

DOLLARS SAVED: \$719,547

4. Community organizations developed to continue resolving community problems

NUMBER: 142

Volunteers Involved:

Number to date: 6056
Hours to date: 49898

Dollar Value at \$10/hr: \$498,980

Program Cost/Benefit Analysis:

\$Value to Targeted Audience to Date: \$582,747
\$Value to Society to Date: \$1,281,577
Estimated Program Cost \$192,891

Narrative of Program Progress and Accomplishments:

Community residents across the state have been engaged in leadership development activities that have contributed to the well-being of self, family and community. Issues addressed through leadership programs and follow-up activities include: environmental concerns, crime, problems of youth and the elderly and health concerns targeting high risk groups, like minorities and women.

Beautification projects, the renovation of deteriorating buildings for community use, the development of a community park by teen leaders, individuals organizing to develop a volunteer system to continue a service threatened by shrinking dollars, involvement of citizens in the passage of a minimum housing code and the development of community watch programs are projects and activities that residents conducted to address community problems and issues.

Conflict resolution, decision making skills, issue identification and the development of action plans are examples of skills that participants obtained. Individuals have also demonstrated the value of these leadership skills in their lives. Young mothers for instance, are volunteering to help conduct enrichment activities for their children and community residents are getting involved in community activities for the first time. Government agencies, state agencies, schools and local communities were involved in collaborations to achieve these accomplishments.

Success Stories:

Edgecombe County

Local residents will remember 1996 as the year that they had to take over and make things work in their community. A community with a senior citizen feeding site was told that they would not have a full time site manager. Instead she would only work two hours a day. The community responded. The community organization immediately organized volunteers to perform the additional duties. Due to the actions of the community organization twenty persons still receive a hot meal each day.

Rockingham County

Twenty six limited resource volunteers conducted mini-camps for project "Playing To Learn" that included exploring citizenship. The camps were conducted in six high risk communities. One hundred and fifty-six (156) limited resource youth became more aware of community resources available to them.

Henderson County

A poor community populated by African Americans, Hispanics and Whites was involved in the Community Voices Leadership program. A grant from the Mary Reynolds Babcock Foundation provided funds for the project which aimed to involve citizens in the Green Meadows Community in leadership development and self-empowerment. The community was targeted because of the high crime and unemployment rates, the drugs activity and violence that has been documented. Twelve volunteers were trained in the program. Collaborations with other agencies have also been established to help this community address these issues and restore Green Meadows to a viable, safe and productive community..

Anson County

A Habitat for Humanity affiliate was organized in Anson County. Twelve volunteers were trained in leadership skills to prepare them to serve on the Habitat Board effectively. This effort has resulted in one house being successfully built at the cost of \$23,000 while its' appraised value was \$40,000.00.

SMP 13 - Leadership and Volunteer Development -

Objective 2.

Program Description: This objective is primarily designed to empower volunteers, paid staff and other professional to act on a shared vision by empowering individuals in manager roles to accomplish more by sharing leadership. Several curriculum support this objective such as TAXI (Taking Anyone to Expanded Involvement), master volunteers, and Community Voices. Training coupled with performance of real leadership roles is the vehicle for volunteer development. Some

of the training volunteers need include team building, development of a shared vision, teaching skills, volunteer recruitment, training and support skills, and supervisory and project management skills. Results of efforts on this objective will be outreach to new Extension audiences, continuation of programs in the absence of grant funding, new group organized and improved leadership skills.

Units Reporting Accomplishments: 56

Statewide Measures of Progress Totals:

1. Increased knowledge of opportunities for volunteers to contribute

NUMBER INCREASING KNOWLEDGE: 10802

2. Adoption of volunteer management system practices

NUMBER ADOPTING: 4864

3. Number of volunteer management systems established

NUMBER OF SYSTEMS: 402

Statewide Impact Totals:

1. Empowerment of volunteer systems

NUMBER OF SYSTEMS EMPOWERED: 1252

2. Economic value of volunteer intervention

DOLLARS: \$1,684,424

DOLLAR VALUE OF VOLUNTEER HOURS @ \$10/HR.: 9047 volunteers
132,503 hours \$1,325,030 PROGRAM COST/BENEFIT

ANALYSIS:

| | |
|-----------------------------------|-------------|
| Dollar value to targeted audience | \$1,028,576 |
| Dollar value to society | 2,585,352 |
| Estimated program cost | 474,570 |

Narrative of Program Progress and Accomplishments

Many counties are embracing the master volunteer concept to partner with paid staff in teaching other volunteers or helping with various training programs. They are also serving as mentors to new leaders in their program area such as 4-H club leaders. Another major contribution of these master volunteers is in managing major or minor aspects of a program. Sometimes these master volunteers will organize a special part of the program from beginning to end.

Many counties are reporting new organizations emerging from their leadership and volunteer development programs. One county cited a renewed 4-H program Committee with three focus areas of involvement of the 26 members. The results of their efforts were increased numbers of volunteers recruited and trained for specialized youth development roles and outreach to new audiences. Other counties reported strengthening or organizing 4-H Leader Associations, 4-H Clubs, Extension Homemaker Councils and others. Harnett County said a leadership development program with organization officers resulted in countywide coalitions to address community needs.

Another area of progress is in involvement of volunteer managers who are responsible for programs. Nash County has an exemplary program to involve senior citizens with day care centers and other youth programs. All of this is managed by a retired social worker volunteer. Gaston County reported creation of management teams which have increased volunteer involvement and assuming leadership responsibilities. All counties are pleased with the increased sense of ownership and commitment volunteers experience as a result of their increased involvement and development.

Success Stories:

Forsyth County

Forsyth County has a new 4-H volunteer who attended Master Volunteer Training and used skills learned at the training to work with 15 inner-city youth in completing their record books. She also spoke to the Congressional Aides on the value of 4-H. She stated this was the first time she had spoken to a group in public and she gave all the credit to the training she had received in 4-H.

Edgecombe County

In Edgecombe County, Joe Dickens Jr., reports: 1996 will be a year that local community residents will remember as one that they had to take over themselves and make things work within their community. One of our communities that has a senior citizen feeding site was told that they would not have a full time site manager; she would only work two hours per day. The community organization immediately organized volunteers to perform the additional duties and the 20 participants still received a hot meal each day.

Gaston County

In Gaston County, Martha Burris reports: Elected officials participated in four Elected Officials Seminars focusing on economic development. The seminars covered an overview of economic development issues, water-sewer, transportation, and education. The elected officials on the steering committee determined topics, recruited presenters and presided at the programs. Over 50-percent of elected officials attended the programs. Cities and county are working on transportation and water-sewer extension. The elected officials used the information as background to begin addressing these issues.

Anson County

In Anson County, Russell Sikes reports: helped organize a Habitat for Humanity affiliate

in Anson County. This required training volunteers to serve on the Habitat Board and teaching 12 volunteers leadership skills so that their committees could function properly. The first house was successfully built at the cost of \$23,000 while it was appraised at \$40,000.

SMP 13 - Leadership and Volunteer Development - Objective 3.

Program Description: Citizens/leaders will increase knowledge of community, public policy decision making and help citizens to successfully participate in units reporting accomplishments:

Units Reporting Accomplishments: 29

Statewide Measures of Progress Totals:

1. Number of persons who demonstrated improved leadership and problem solving skills

NUMBER: 7593

2. Number of persons who demonstrated acquired/improved facilitation knowledge and skills

NUMBER: 4032

3. Number of persons participating in a community collaboration problem solving process

NUMBER: 4077

4. Number of persons participating in community/public policy process as a result of leadership training experience

NUMBER: 2710

5. Number of community issues addressed (in progress)

NUMBER: 261

Statewide Impact Totals:

1. Cost avoided through the resolution of (a) community issue(s)

DOLLARS: \$202,700

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

DOLLARS: \$697,250

Volunteers Involved:

1. Number of volunteers involved: 5,966
2. Number of volunteer hours: 57,274
3. Value of volunteer hours @\$10.00 per hour: \$572,740

Program Cost/Benefit Analysis:

1. Dollar Value to Targeted Audience: \$1,576,736
2. Dollar Value to Society: \$3,142,940
3. Estimated program cost: \$222,806

Narrative of Program Progress and Accomplishments:

Two hundred and sixty-one community issues were addressed throughout the 29 reporting counties by Extension volunteers as a result of workshops and experiential activities. The volunteers ranged from youth to adults and the issues ranged from juvenile delinquency and youth at risk issues to community policy issues involving water and sewer concerns, transportation concerns, and land use planning.

Volunteers are learning to improve their leadership skills, helping to facilitate group problem solving, learning to build coalitions with other organizations and acquiring the knowledge and skill needed to participate in community policy processes. This past year \$697,250 were saved as a result of achieving resolution of community issues while \$202,700 in costs were avoided through the resolution of community issues.

Success Stories:

Extension Volunteers Help With Youth Intervention Programs

The rise in juvenile delinquency and adjudication of youth has brought about wide based public concern in Currituck. Five "At Risk" programs have been initiated to address the issue. Advisory boards and master volunteers have been trained to run intervention programs and assist with after school activities. Youth participants have decreased criminal activity indicated by the number of declining arrests and many have begun to improve school performance.
Contact: Rodney Sawyer, Currituck County

Alleghany County Meets Teen Needs Through Grant

The 4-H County Council identified the need for teen programs in Alleghany. Using the Council's idea, a committee was formed to look at what resources the county would need to develop a teen program. The committee joined forces with Alleghany County Schools and Extension to

successfully seek \$40,000 grant from the N.C. Crime Commission over the next two years. The youth were involved in the entire process including the hiring of the ACTS (Allegheny County Teen Service) Coordinator.

Contact: Bob Edwards, Allegheny County

Extension Assists Public Decisions Concerning Land Use and Sub-Division Regulations

Following a four-year effort the Allegheny County Commissioners passed land use and subdivision regulations. The issue was addressed in public gathering in the county's seven precincts using Extension's Public Policy Process model. In each of the meetings participants were provided the opportunity to learn about the alternatives and consequence and comment on the proposals. Comments were feed back to the commissioners, who leaned heavily on the citizen input as they deliberated.

SMP 13 Committee

Claudette L. Smith- Co-chair

Dick Peterson - Co -Chair

Si Garber

John Gibson

Judy Groff

Richard Liles

Shirley Rouse

Rodney Sawyer

Robert Williamson

Leon Danielson

1996 ACCOMPLISHMENT REPORT
**SMP 14 Marketing and Production of Alternative Income Opportunities
and Enterprises**

PROGRAM DESCRIPTION:

The goal of the program is to assist commercial (objective #1), and small, part time and limited resource producers (objective #2), to select among and implement alternative opportunities so as to increase their income. Program efforts have been made in commercial horticultural production and marketing, speciality crops and niche markets (herbs, organic), livestock (goats, sheep, raites, range fed poultry), small scale agriculture (management and direct marketing), natural resources. The SMP team has focused on shared experiences among counties, offering a wide range of program opportunities and evaluation as a learning experience.

UNITS REPORTING ACCOMPLISHMENTS:

Objective #1: Burke, Columbus, Currituck, Davie, Guilford, Haywood, Hertford, Johnston, Lenoir, Onslow, Orange, Pasquotank, Sampson, Surry, Warren.

Objective #2: Alleghany, Chatham, Columbus, Cumberland, Currituck, Halifax, Hertford, Jackson, Johnston, Onslow, Orange, Pasquotank, Randolph, Swain.

STATEWIDE MEASURES OF PROGRESS TOTALS

Objective #1

1. *Producers indicating interest in developing alternative enterprises
NUMBER 956
2. *Number of producers who try alternative enterprises, methods and practices
NUMBER: 195

Objective #2

1. *Number of producers interested
NUMBER: 1185
2. *Number of producers who try alternative enterprises, methods and practices
NUMBER: 288

STATEWIDE IMPACTS TOTALS

Objective #1

1. *Dollars of new investment in production and marketing of alternative enterprises.
DOLLARS: \$640,130.
2. *Dollars of gross income resultig from new investment and marketing of alternative enterprises.
DOLLARS: \$1,852,179.
3. *Number of producers who gain knowledge about alternative production and marketing

practices.

NUMBER: 630

Objective #2

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

NUMBER: 1578

2. *Funding support obtained

DOLLARS: \$21,300

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

DOLLARS: \$234,230.

NARRATIVE SUMMARY

In many ways there are several SMPs addressing similar issues of promoting ways farmers can increase income and minimize risk while sustaining the environment and rural communities. Both the Impact indicators and Success Stories show that farmers, both commercial and small scale, are exploring alternative enterprises and increasing their income in the process.

SUCCESS STORIES SUMMARY:

The success stories show there is interest in a very diverse list of enterprises and opportunities across North Carolina. People need help sorting through selecting and implementing their choices- especially in terms of marketing. Creative program delivery was explored. Programs based on tours, discussions and sources of basic information met peoples' needs. Income has been generated, new alternatives tried and producers are looking at such in terms of business decision making.

LIST OF SMP COMMITTEE AND CO-CHAIRS:

John M. O'Sullivan, Bill Jester (Co-chairs)
Jeanine Davis, Morris Dunn, Bob Edwards, Ed Estes, Rick Hamilton, Ray McKinnie, Matt Poore, Gwynn Riddick, Doug Sanders.

1996 Accomplishment Report: SMP 15

NATURAL RESOURCES CONSERVATION AND MANAGEMENT

Educational programs dedicated to increasing value to society and private landowners from natural resources produced an estimated \$18,753,970 value by increasing environmental awareness among youth, increasing the involvement and quality of decision making by citizens, increasing the market sale of timber and recreational leases on private lands, and increasing fisheries and wildlife value accruing to landowners and lease holders. In all, 915 volunteers joined with North Carolina Cooperative Extension Agents and Extension Specialists to deliver targeted educational programs to 20,354 citizens. A total of 102,098 acres of forested and wild lands and waters were managed better through implementation of improved management practices through the Forest Stewardship Program and through fisheries and wildlife management programs.

To further strengthen existing educational programs for each objective the following projects have been undertaken by Extension Specialists: (1) a new inventory of the natural resource base of North Carolina, with particular attention to those resources challenged by development, is in final review for publication; (2) a Spanish version of "School Yard Environmental Projects; A Planning Primer" is in press; (3) English and Spanish versions of Student Activity Sheets for School Yard Environmental Projects are published or in press; (4) a World Wide Web page for all educational resources generated by the North Carolina Cooperative Extension Service is in preparation; (5) the Guide to Pond Management is being prepared for full utilization from the World Wide Web, to include some video content extracted from the Pond Management Video Tape; and (6) a regional demonstration of enhancement of wildlife and environmental quality on eastern North Carolina farmlands involving cooperators in Wilson, Hyde and Terryll Counties is underway.

OBJECTIVE 1: ECOLOGICAL AWARENESS THROUGH ENVIRONMENTAL EDUCATION

Program Description: Participants, particularly youth, will increase their appreciation for and knowledge of biological diversity and ecosystem management. Educational programs presented by Extension Agents to teachers of youth included Project Learning Tree, Project WILD, Aquatic WILD, Catch Clinics, and Wildlife Habitat Judging.

Units Reporting Accomplishments: 19

Statewide Measures of Progress:

- 11,786 persons participated in environmental education programs.
- 4,636 persons delivered educational programs
- 303 requests for leadership training in educational program delivery were fulfilled

Statewide Impacts:

- 5,784 environmental educational programs were delivered
- 483 volunteers were involved
- 2,340 hours were donated by volunteers
- \$23,400 was the value of volunteer involvement

Cost/Benefit Estimates

\$value to targeted audience : \$22,810

\$value to society: \$10,022,999

Estimated Program Cost \$10,273

Narrative:

Through the training of volunteers and direct leadership, North Carolina Cooperative Extension Agents provided educational programs to youth audiences that stimulated growth in ecological understanding and appreciation of the benefits of natural resource stewardship. Many of these programs were conducted as part of the 4-H program, particularly the 4-H summer camping programs. The majority of the educational programs involved partnerships between North Carolina Cooperative Extension Service and state natural resource management agencies, particularly North Carolina Wildlife Resources Commission and North Carolina Division of Forestry. The North Carolina Forest Stewardship Program incorporates environmental education through Project Learning Tree, with significant leadership of the program emanating from the Forestry Extension Program. New materials to help volunteer educators were produced, including "Branching Out" The North Carolina Forest Stewardship Activity Guide".

Success Story:

#1: In Mecklenburg County, Extension Agent John MacNair reported that Dorothy Jenkins of the County School System sought out the Project Learning Tree program to provide hands-on environmental education programs for elementary school children. 14 teachers were trained to use PLT, and these teachers reported they used the programs to educate their 350 students, greatly improving the quality of environmental education in the public school system.

#2: In Vance County, County Extension Director Ben Chase reported that one of the newer elementary schools got teachers and students back to nature through establishment of a nature trail and implementing Project Learning Tree programs. 16 troubled youth directed their energies toward the positive production of the nature trail. Teachers, students and the community at large was informed of the activity through trips on the trail and newspaper articles.

OBJECTIVE 2: NATURAL RESOURCE DECISION MAKING

Program Description: People confronted with a wide range of viewpoints on natural resource and environmental management issues will gain knowledge, awareness, understanding, and skills to develop plans for overcoming barriers that prevent them from realizing the link between informed decision making and the capacity to sustain natural resources.

Units Reporting Accomplishments: 10

Statewide Measures of Progress:

4,299 programs or presentations were made

3,234 people made presentations

Statewide Impacts:

558 people adopted practices or techniques to promote sustainable ecosystems
1,072 people participated in forums and public meetings to help make better decisions
297 volunteers presented programs
697 hours were spent by volunteers delivering educational information
\$6,490 of value were added to the program through volunteer participation
\$505,000 of value to targeted audiences was generated
\$1,005,000 of value was provided society
\$19,500 was spent to generate these benefits

Narrative:

This objective involves education of youth and adult audiences about sustainable development and environmental quality. Youth audiences were reached through publication of "School Yard Environmental Projects: A Planning Primer" written especially for school teachers and 4-H Extension Agents who worked with youth groups. The planning guide directs youth leaders to educational support programs from the Forest Stewardship Program and from cooperating state agencies.

Success Story:

In Henderson County, Extension Agent Joy Staton reported that Community Development Groups increased their appreciation for natural resources and stewardship through establishing a recycling program in the Flat Rock Community. Special clients, ages 18 to 60, were provided jobs by shredding reyclable materials from the County Extension Center and other business sites.

OBJECTIVE 3: FOREST STEWARDSHIP

Program Description: Participants will maintain or improve the long-term sustainability of North Carolina's forests.

Units Reporting: 22

Statewide Measures of Progress:

4529 people were educated about the Forest Stewardship Program
252 Forest Stewardship Plans were approved
49,098 additional acres of North Carolina forest land are in stewardship plans
1,105,240 acres of forested land provide recreational benefits through leasing

Statewide Impacts:

831 landowners have adopted new practices
\$1,298,498 income was generated from recreational leases of stewardship lands
\$27,289,899 income was generated from timber harvested from stewardship lands
\$3,661,999 of value was created through stewardship activities

110 volunteers delivered programs on Forest Stewardship
703 hours were spent by volunteers
\$7,030 of value was generated by volunteers for Forest Stewardship

\$ value to targeted audiences was \$8,966,400

\$ value to society was \$7,650,971

Estimated cost of program was \$44,514

Narrative:

The Forest Stewardship Program is the leading example of how the North Carolina Cooperative Extension Service adds value to North Carolina through working with the North Carolina Forestry Division. The program is comprehensive, involving all phases forestry from education of youth (reported above in objective 1) to educating private landowners in planning and utilization of natural resources on their forested land. Every County Extension Center was provided a new video explaining the Forest Stewardship Program in 1996.

Success Stories:

#1: Extension Agent Eric Spaulding of Johnston County reports landowners interested in programs on forest management, taxes, aesthetics, and wildlife enhancement. 38 landowners used Extension Strategies. 7 increased the realized value of their properties by \$85,000 through thinning nearly mature stands and creating desirable wildlife habitat. Two landowners were certified as Forest Stewardship Farms, recognizing their completion of significant improvements to their properties by improving soil conservation, timber management, aesthetics, recreation and wildlife habitat enhancement. 10 landowners increased the value of their properties by \$744,000 when they implemented forest stewardship plans. 20 small landowners increased their income by \$40,000 through a cooperative timber marketing program, following Hurricane Fran. Several of these landowners were approached prior to the marketing program by timber buyers who would remove the trees with no return to the landowners. Clearly, by working through the Forest Stewardship Program, landowners both large and small, benefited in Johnston County!

#2. In Wayne County, Extension Agent Bryan Page reported the Wayne County Forestry Association met on November 26 and learned that Hurricane Fran damaged 140,000 acres of timber, causing losses of \$33 M. A comprehensive educational program was provided to woodland owners, dealing with taxes, salvage techniques and after storm management strategies. 75 landowners completed the training, with participants concluding that the training had saved them hundreds if not thousands of dollars. The training program alone generated at least \$75,000 of value.

OBJECTIVE 5: WILDLIFE AND FISHERY MANAGEMENT

Program Description: Participants will improve management of wildlife and fishery resources.

Units Reporting Accomplishments: 5

Statewide Measures of Progress:

823 landowners increased their awareness through educational programs
153 landowners implemented practices developed after educational programs

Statewide Impacts:

53,000 acres are managed for wildlife and fishery resources
71,000 acres are impacted by adoption of wildlife and fishery practices
109,000 Acres are leased for hunting and fishing

25 volunteers delivered Extension programs on wildlife and fishery management
485 hours were spent by volunteers
\$4,850 of value was added to extension programs by volunteer participation

\$75,000 of value was provided to targeted audiences
\$75,000 of value was provided to society through enhanced wildlife and fishery resources
\$828 was expended by the North Carolina Cooperative Extension Service

Narrative:

A new initiative in wildlife management is being developed via applied research through the North Carolina Cooperative Extension Service. Over 2,000 acres of farm land is being impacted directly in Wilson County on lands of 8 cooperating farmers. In Hyde County two large farm systems, with acreage of 18,000 acres combined are involved. The initiative seeks to link wildlife conservation to water quality initiatives, while maintaining agricultural profitability. This program has generated widespread support through media attention and through successful grant programs, supported by USDA Sustainable Agriculture Research and Education, EPA Agriculture in Concert with the Environment, EPA Non-Point Pollution Program, North Carolina Soybean Producers Association, and Quail Unlimited. County Extension Directors Connie Jernigan in Wilson County and Mac Gibbs in Hyde County are helping coordinate the program. The effort began in 1996 and will conclude in 1999.

SMP 15 TEAM MEMBERS

Peter T. Bromley, Zoology Department Extension Leader (Co-Chair)
James Pearce, County Extension Director, Edgecomb County (Co-Chair)
Clare-Marie Hannon, 4-H Center Director, Riedsville
Ed Jones, Forestry Department Extension Leader
Bill Gardern, Forestry Extension Specialist
Rick Hamilton, Forestry Extension Specialist
Mark Megalos, Forestry Extension Specialist
Scott Payne, Forestry Extension Specialist
Jim Rice, Zoology Extension Specialist (Fisheries)
Bob Williamson, Natural Resources Extension Specialist
Bill Lord, Neuse River Environmental Education Extension Specialist
Janine Rywak, 4-H Agent, Anson County

Accomplishment Report: SMP#16

Nutrition and Wellness

Description:

The Nutrition and Wellness SMP promotes optimum nutrition and healthy lifestyle management for positive outcomes for all North Carolinians throughout the life continuum. Nutrition needs change throughout life and have a direct impact upon health, quality of life and the ability to achieve physical and mental potential. Diet-related risks involved in chronic diseases can be lowered through improved (healthier) behaviors and positive pregnancy outcomes can result from better prenatal nutrition. Program objectives include changes in knowledge, attitudes, skills and aspirations, as well as the adoption of behaviors that promote optimal nutrition, health and wellness. The impacts expected include reduced risk of chronic diseases, increased quality of life, and healthier pregnancy outcomes.

Units Reporting Accomplishments:

67 units for Objective 1: Participants will adopt behaviors to promote a healthier diet.

48 units for Objective 2: Participants at risk for chronic disease/condition will change behavior resulting in reduced risk.

23 units for Objective 3: Participants in nutrition and wellness programs for parents or caregivers and/or children will improve knowledge and adopt behaviors to promote a healthy diet.

63 units for Objective 4: Limited resource audience will adopt behaviors that improve the nutritional quality of their diets.

Measure of Progress

Under Objective 1:

1. Participants increased awareness of need to have good nutrition habits.
Number of participants demonstrating: 65,388
2. Participants increased knowledge that promotes health.
Number of participants demonstrating: 51,440
3. Participants increased attitudes and aspirations that are indicative of need for good health.
Number of participants demonstrating: 40,704

Under Objective 2:

1. Participants adopted practices such as decreased fat intake.
Number of participants adopting: 11,188
2. Participants adopted practices such as decreased sodium intake.
Number of participants adopting: 6,111
3. Participants adopted practices such as increased fruit and vegetable intake.
Number of participants adopting: 11,983

4. Participants adopted practices such as increased calcium intake.
Number of participants adopting: 3,343
5. Participants adopted positive attitudes and aspirations for improved health
Number of participants adopting: 13,048
6. Participants gained knowledge that leads to reduced risk for chronic disease.
Number of participants demonstrating: 22,227
7. Participants increased skills that lead to reduced risk for chronic diseases.
Number of participants demonstrating: 11,396

Under Objective 3:

1. Parents increase awareness and knowledge of importance of good nutrition for children
Number of parents demonstrating : 5141
2. Parents increase knowledge about good eating habits for children
Number of parents demonstrating: 4403
3. Parents and children participate in food and nutrition activities together
Number participating together: 5154

Under Objective 4:

1. 5427 (94%) adult EFNEP and 5139 (90%) youth EFNEP participants improved their diets.
2. 8138 (94%) adult EFNEP and 5082 (89%) youth EFNEP participants increased their knowledge of nutrition.
3. 4905 (85%) adult EFNEP and 4429 (81%) youth EFNEP participants increased food buying skills.
4. 4431 (80%) adult EFNEP and 4200 (78%) youth EFNEP participants increased food safety skills.
5. 4086 (81%) adult participants improved food management skills. 979 (90%) of pregnant teen mothers surpassed recommended minimum birth weight (5.5 lbs): Mean birth weight - 7 lb 6 oz.
6. 5792 (65%) EFNEP participants were enrolled in WIC.
2600 (36%) EFNEP participants were enrolled in food stamp program.
7. Of 1384 WIC mothers who initiated breastfeeding in 10 counties and enrolled in the In-Home Breastfeeding support program 64% were still breastfeeding at six weeks postpartum. State average: 47%.

Impact

Under Objective 1:

1. Adoption of diets consistent with dietary guidelines for good health.
Number adopting: 25,438
2. Volunteers involved:
Number: 2,333
Hours: 19,398

Dollar Value at \$10/hr: \$193,980.00

Under Objective 2:

1. Physiological changes such as high blood cholesterol decreased

Number showing decrease: 8,538

2. Physiological changes such as high blood pressure decreased

Number showing decrease: 2,208

3. Physiological changes such as high blood sugar decreased

Number showing decrease: 461

4. Physiological changes such as excess weight decreased

Number showing decrease: 2,928

5. Volunteers involved:

Number: 646

Hours: 11,027

Dollar Value at \$10/hr: \$110,270.00

Under Objective 3:

1. Parents adopt food behaviors consistent with the Dietary Guidelines and Food Guide Pyramid

Number adopting: 3064

2. Children adopt food behaviors consistent with the Dietary Guidelines and Food Guide Pyramid

Number adopting: 4940

3. Volunteers involved:

Number: 733

Hours: 2,485

Dollar Value at \$10/hr: \$24,850.00

Under Objective 4:

1. 3216 graduated homemakers will save \$10 per month (\$386,000/yr) through improved skills in shopping for groceries.

2. For 760 infants who breastfed longer than 8 weeks estimated savings from 4 fewer doctor/emergency visits during first 12 months (at least \$70 per visit)

total: \$212,800.

3. 35 small farm families have potential to gain \$100,000 in extra income from supplying produce to Farmers Market, to be redeemed with WIC vouchers.

4. 979 healthy babies born to teenaged mothers cost approximately \$4720 per delivery, whereas care for low birth-weight baby may cost from \$11,670 -

\$39,420. Savings in medical bills for 979 healthy weight infants was

approximately \$20,388,00.

5. Volunteers involved:

Number: 1,746

Hours: 12,745

Dollar Value at \$10/hr: \$127,450.00

Overall Program Progress and Accomplishments:

Programming for this SMP spans the gamut of ages, income levels, and food and nutrition education needs of participants. A central theme throughout was equipping consumers with knowledge of tools that would help them evaluate their eating habits and make positive changes. Three tools, the Food Guide Pyramid, the Nutrition Label, and the Dietary Guidelines were used with a variety of audiences to increase their knowledge of healthy diets and provide skills to understand a food composition and select foods that are appropriate for one's dietary needs. The importance of regular physical activity was included in program topics.

Special focus was put on programs such as the nationally recognized diet and cancer initiative, Five-A-Day For Better Health, with the Black Churches United for Better Health project as well as the Five-A-Day programs promoted throughout the state in conjunction with the Five-A-Day statewide coalition, Noonlighting (weight control series), and H.E.L.P (Healthy Eating for Life Program) which is designed for educating the elderly about nutrition. These programs are designed to have multiple contacts with participants and, therefore, to lead to greater chances of increasing behavior changes but also maintenance of those new behaviors. H.E.L.P was actually delivered to the home-bound elderly over a period of 15 weeks, which represented the first attempt to deliver nutrition education materials to this particular clientele in this state.

Specific audiences receiving food and nutrition education included free living as well as home-bound senior citizens, migrant workers and their families, Head Start enrolls and parents, school children, adults in weight control programs, students at Goodwill Industries, 4-H youth, handicapped clientele, pregnant and parenting teens, county government employees, youth in summer programs, Civic groups, restaurant employees, food stamp recipients, and minority church members. Some non-traditional youth groups included physically challenged, academically gifted, Native American, Hispanic, youth of seasonal farm worker families and court adjudicated youth.

Other audiences were in professional situations which promoted sharing and use of food and nutrition information with their clientele. These included Day Care Providers, School Teachers, 5-A-Day church leaders, After School program providers, In-Home Health Aides, Scout Leaders, Librarians, School Foodservice employees, and Restaurant owners.

Delivery techniques, in addition to classroom interactions, included displays in malls, county festivals, such as the strawberry festival where Five-A-Day materials were promoted, community and industry sponsored health fairs, county fairs, plays at church events, church bulletin boards, and inserts in church bulletins. For example, four food and nutrition exhibits were featured at a School of Medicine's public lecture series which were attended by approximately 400 consumers. The HomePlate materials (four part video, activity sheets and fact sheets) for young children and their parents was provided in settings such as pediatrician's offices, elementary and middle school classrooms, and Health Fairs. Mass media (radio, television and print) provided opportunities to market programs and provide short educational messages. Distance education technology

brought nationally produced programs to clientele. Phone and face-to-face communications are still means of providing clientele with answers to their immediate education needs.

The sphere of NCCES influence and impact has grown as we have continued to network with additional agencies and groups to enhance education opportunities and to target a wider variety of audiences. These included Churches, Chef's Associations, Health Departments, Community Colleges, In-state (including Duke, UNC-CH, UNC-G, ECU, and Bowman Gray) and Out-of-state Universities (including KSU, St. Louis U., U of Illinois at Urbana, Ohio State U.), Commodity Foods Distribution programs, NC Department of Agriculture, Services for the Blind, Food Stamp services, School Food Service, Women Infants and Children program (WIC), Day Care Associations, American Heart Association, Cancer Society, Work First programs (welfare reform program), YMCA, Senior Adult Association, County Wellness Task Forces, Cherokee Safe Program, NC Extension Homemakers Association, Inc., Social Services, Mass Media businesses, Medical Societies, School Parent and Teachers Associations, Food Banks, Emergency Food Programs, Dietetic Associations, and College and University faculty. The variety of individuals/families being reached in programs for limited resource groups in North Carolina CES has grown. Enrollment of WIC participants increased considerably because of ES/WIC funded projects, such as the pregnant teen program expansion throughout the state and the In-Home Breastfeeding Support program in 10 counties. In 1996, EFNEP staff increased their teaching efforts with groups, largely with preformed groups referred by other agencies. Of 5237 participants, 72% were taught in groups in 1996.

Counties used a variety of methods to reach adults (including hispanics), elderly, parents, caregivers and children with nutrition information. Many counties targeted in-home health aides, congregate nutrition program providers, and child care providers for nutrition training. Agents gave workshops for day care workers on teaching children about nutrition and various topics related to quality nutrition for their clients. A number of counties used the HomePlate program to reach parents of children 5-8 by providing them with in-home learning materials on nutrition for their families. Parents were also involved in a variety of programming which stressed the importance of using the food guide pyramid and eating a variety of foods. Pregnant teens received valuable food and nutrition information for themselves and their child in the Hey What's Cooking Program. The Out for Lunch program reached out to low income mothers with young children with information on food buying, meal planning and food preparation. Some of the less traditional adult groups were taught in community shelters and correctional centers. Youth were taught in Alternative school programs, After-school Programs, Youth Foster Homes, Boys and Girls Clubs as well as in community groups. Focus groups were held with migrant workers and their family members to ascertain their nutrition needs and ways to reach them. As a result of these sessions, a display was developed that was targeted to this audience and was written in Spanish. Classes were held using an interpreter to help the migrants garden and process their garden produce. Many programs used volunteers to assist in programming. Statewide over 700 citizens volunteers over 2000 hours to assist agents in their efforts to reach parents, caregivers and children with nutrition messages.

In 1996, most of the 979 teenaged mothers who participated in CES programs were supported through the use of an experiential curriculum "Hey, What's Cookin'?". Many joined school groups, while the home-bound learned individually. Their greatest knowledge improvement is in the relationship of diet and a healthy pregnancy outcome; this is followed by knowledge of other important prenatal behaviors. Participants average completion of lessons was 12 out of 18. Four counties reported other methods of teaching pregnant and parenting teenagers. These included classroom presentations on food budgeting and the food guide pyramid, individual counseling and a specially-targeted health fair.

By 1996 the breastfeeding support program, based on the pilot in Wake County, had expanded to 10 counties which were a mix of urban and rural sites. Seven were established through federal ES/WIC grants, two of which were continued with WIC funds and three through the state Smart Start program. In five years, over 5800 WIC clients have participated in the program. Results showed that numbers of WIC clients choosing to breastfeed had increased and that a significantly greater number and percent were still breastfeeding at key periods postpartum, when compared with baseline WIC records. These effects were independent of urban and rural status. Similar results were reported by Michigan State CES, where the North Carolina model (Wake County pilot) was carried out with ES/WIC project funds.

The goal of the Out For Lunch Program is to reach food-stamp-eligible customers with food, nutrition, food budgeting, and food safety education through a cooperative approach of the North Carolina Cooperative Extension Service and the North Carolina Division of Social Services. The program targets families in North Carolina who are eligible for Food Stamps and are not participating in the Expanded Food and Nutrition Education Program (EFNEP). In April, 1996, eighteen counties implemented Out For Lunch. An additional 8 counties implemented the program in September, 1996.

SUCCESS STORIES:

"Black Churches United For Better Health" is a National Cancer Institute funded project to promote fruit and vegetable consumption among African-American church members in ten rural counties in Eastern North Carolina to prevent cancer. African-Americans are an extremely important audience because they have higher rates of cancer morbidity and mortality compared to Euro-Americans. The 4-year project, a collaborative effort by the North Carolina Cooperative Extension Service, the NC Department of Environment, Health and Natural Resources (lead agency), the Sarah Stedman Center for Nutritional Studies at Duke University, and the Department of Public Health Nutrition at UNC-Chapel Hill, is a multilevel, community-based intervention partnering with 50 churches (through church pastors, leaders and lay health advisors), ten local county agencies (county cooperative extension center agents and health department representatives), and the Cancer Information Service to promote the "Five a Day" message of consuming five or more servings of fruit and vegetables a day to rural African-American church members through the channel of the church. The counties were pair-matched and then randomly assigned to intervention and delayed intervention. The project was completed in December, 1996, and the preliminary results* show some

significant changes, including the following. First, the major goal, to increase the fruit and vegetable consumption in the intervention county church members (n = 1129) by half a serving, was accomplished (members went from 3.7 to 4.4 servings) and that this change in behavior was significant (pr > F 0.0001). The church members (n = 1159) in the delayed intervention county churches did not significantly change their fruit and vegetable consumption (remained at 3.7 servings). Second, the percent believing that 5 or more fruits and vegetables a day are needed for good health increased significantly (pr > F 0.0001) in the intervention churches (from 11.7 to 37.6) but did not change significantly in the delayed intervention churches (from 11.1 to 14.2). Third, the self-efficacy of members related to how very sure/sure they were of eating five daily servings of fruits and vegetables increased significantly (pr > F 0.0001) from 34.7% to 47.5% in the intervention churches but not in the delayed intervention churches (from 26.4% to 30.5%). The CES agents were actively involved in the planning and carrying out of the intervention activities such as the educational sessions, rapport and skill building activities, meetings, celebrations, food tastings, gardening efforts, and coalition building. Using churches to reach this audience is a unique accomplishment because the focus of most community health promotion programs are on schools, worksites and community health centers. The African American audience requires such a targeted approach to affect behavior change. *due to time limitations, only 90% of the final data was available for this preliminary analysis.

Noonliting Success Stories

Noonliting is a 15 week weight control program usually taught to groups of 20 people or more during 30 minutes of employees lunch hours. It focuses on losing weight gradually with modification in fat intake portion control and moderate exercise. The program is in its eleventh year of use. Impact data from several counties below is representative of program successes.

In Hertford County CES conducted 5 sessions of Noonliting. 65 graduates lost a total of 279 lbs. and walked a total of 2619.5 miles. In comparing entry to exit statistics on one group of 15 participants, /12 of the graduates experienced a decrease in blood pressure. 100% of the graduates experienced a decrease in cholesterol (an average of 24 points per person over the 15 week period). Roanoke-Chowan Hospital participated as a partner providing community health screening/assessment, referral and encouraged follow through of at-risk individuals in the program.

In Wayne County four heart disease programs and a Noonliting program were conducted. Results indicate that 259 participants lost 1206 pounds. Seventy-five percent (194) lowered their blood pressure and cholesterol. Participants walked a total of 13,900 miles.

In response to clientele indicating they needed to develop a healthy diet to promote weight loss six Noonliting classes were offered in one county with an enrollment of 73 participants. Class participants, most of whom whose physical activity was fairly sedentary, walked an average of 5.8 miles at the programs end. Seventy-two percent reached their weight loss goals, all of which were 7 pounds or more in the 15 week program.

In another county 19 people enrolled for Noonliting with 15 completing the program

(retention rate, 79%). Sixty met their weight loss goals. In another county 28 people enrolled. Eighteen completed the program with 55% meeting their weight loss goals. This group had an average loss of 5% body fat.

One avid Noonlifter in one county is now teaching Noonliting on a volunteer basis. He maintains a 34 pound weight loss after three years. He states that some of the most meaningful information was the emphasis on proper nutrition, reduction in portion sizes and exercise.

In another Noonliting series one-half of the graduates had decreased their blood pressure by the program's end. All participants who had blood cholesterol levels tested experienced reduced cholesterol levels with the average reduction being 24 points.

The North Carolina Home-Bound Elderly Project Success

The fastest growing age group in NC, the 65 years-and-over segment, run disproportionate risks of malnutrition and poverty as well as poor overall health status. In fact, over 85% of older adults suffer from chronic diseases and could benefit from dietary intervention. One very needy group within this audience that is especially difficult to reach and is at great risk of malnutrition and chronic disease is the home-bound elderly. Because of this and to fulfill current federal guidelines concerning providing nutrition education to program recipients, the NCCES collaborated with the NC Division of Aging to pilot the delivery of nutrition education materials to the Meals on Wheels participants. This effort, called "The North Carolina Home-Bound Elderly Project," involved delivering the 16 HELP (Healthy Eating for Life Program) learn-at-home lessons, based on the Food Guide Pyramid, to 177 participants in five counties. The participants were a relatively old, less-well educated, predominantly Caucasian, female and poor population. Preliminary analysis of the data suggests that HELP had a positive impact on stages of change for fruit and vegetable consumption (the only food group measured in order to insure low respondent burden) and that milk consumption needs to be a focus for future educational programs for this audience.

Youth Nutrition Success

At Ebenezer School in Iredell County, all third graders were presented a program on basic nutrition by the Family and Consumer Science Extension Agent. Each child was given a copy of the HomePlate video and program packet to take home and use with their families. After two weeks the children returned the videos and a forma that was included with the program. Each student wrote a letter telling what they had done with it at home and what they had learned. Over 70 parents completed the evaluation forms and indicated they had done one or more suggested activities with their child and had learned more about nutrition. Letters from students revealed they learned more about selecting a variety of foods, healthy snacks and food safety rules.

Eating for Health Success

Diabetes mellitus, the 7th leading cause of death and disability, is a major public health problem in NC with 1,568 people dying from it in 1993. The 1993 rate per

100,000 is 14.2 vs 12.4 for the national average. Diabetes poses an economic burden on NC's health care system as more than 294,000 North Carolinians have it and there are at least that many more who have it but have not been diagnosed (which can be very dangerous).

To address the high rate of diabetes in Forsyth County, a coalition composed of representatives from hospitals, health department, and other local agencies working with diabetics was established. An event was held to educate people and detect undiagnosed cases. Approximately 100 attended and 10 were found to have undiagnosed diabetes. Plans continue on this project.

One year hospitalizations related to diabetes in Halifax County cost \$8,048,703. This cost each citizen \$145. Diet plays a vital role in the management of diabetes. CES reached 68 diabetics with an educational forum. All participants reported they would apply knowledge gained to daily food selection and preparation. Inservice education was also conducted for 40 home health aides. All reported that they would apply knowledge and skills gained with diabetic clients. Knowledge and effective management behavior can reduce diabetic complications which result in need for hospitalization. Collaborators included: the Diabetes Control Program, local hospital and health department.

Food Guide Pyramid Success

Parenting teens and single mothers gained knowledge in selecting nutritious foods from the food guide pyramid to help them develop a balanced diet for themselves and their children. Participants were able to identify foods from the food guide pyramid to help them develop a balanced diet. These ladies identified the correct number of servings they should eat from this guide. They also became aware of the nutrient value of certain foods. The food guide silhouette was used to show proportion of food needed per serving. Food replicas were available to help determine serving sizes.

4H Summer Fling Program Success

The 4H Summer Fling Program is a great way to involve children in foods and nutrition education activities. Bread making is a favorite hands-on class for children. Twenty-five children were involved in breadmaking classes during the 1996 summer program. They learned the importance of including grains in the diet for better nutrition; then they enjoyed making whole grain breads. Many of these young people followed up on their breadmaking skills by baking bread for the county fair competition. One hundred thirty youth learned more about the Food Guide Pyramid as they prepared International Foods in Clover Camps.

Expanded Foods and Nutrition Program Success

In a rural county in western North Carolina, a young homemaker was referred to EFNEP from the Department of Social Services. At that time, she was pregnant and was about to lose custody of her older children because of unsanitary conditions in the home. Her first EFNEP lessons were about safe food handling. The EFNEP Program Assistant gave her extra support during the period when her children were placed in a temporary

shelter. That support continued when the baby was born prematurely and with an abnormal heart condition. The mother needed to learn how to provide the special care involved. She was so grateful for the help she received at a crucial time that the mother named her baby after the EFNEP Program Assistant. The mother is now self-sufficient, and is working at a fast-food restaurant. Agency personnel applaud the EFNEP experience for their client because she learned how to provide safe food for her family and has her children living at home again.

In an effort to reduce our county's (Forsyth) high infant mortality rate, EFNEP Program Assistants have begun teaching "Hey, What's Cookin'?" curriculum to pregnant teens. Twenty-one of the teens who have graduated from the program have given birth. Nineteen babies were born healthy and of good birth weight. One infant was premature and one was born at term but weighing only 5.2 lbs. However, neither of the two mothers enrolled in the program until late in their pregnancies. One pregnant teen reported that she smoked when she enrolled in the program. After several months of participation, she had stopped smoking and gave birth to a healthy baby.

Prenatal Care Success

In response to a pressing need for pregnant women to understand healthy prenatal behaviors, the Richmond County CES conducted an extensive educational program at two health fairs. Of 200 pregnant women who participated, 59 (30%) received an additional educational package of materials on prenatal care. Seventy-five (38%) reported making informed prenatal care decisions such as stopping smoking and consumption of alcohol.

WIC Program Success

Six hundred and fifty-three WIC families who participated in the Farmers Market Nutrition Program (Lee County) received fresh locally-grown vegetables and fruits and extended their family food dollars by redeeming their WIC vouchers. In order to promote the use of fresh produce, the county Extension Homemakers are conducting 15 weekly cooking classes for WIC clients at the Health Department. The Farmers Market, open two days a week for 20 weeks, is estimated to generate an additional \$100,000 of income for 35 small farm families.

Teenage Pregnancy Services Success

"TAPS" means Teenage Pregnancy Services. In Mecklenburg County, this program is run at a special school for pregnant and parenting teens where EFNEP taught the "Hey, What's Cookin'?" curriculum to 168 pregnant teens. Hands-on learning is provided in kitchen facilities to give teenagers the opportunity to experience cooking techniques, safe food handling and group support. This beginning has opened the door for EFNEP to work with two more homes for pregnant teens in the county.

County Employee Fitness Program Success

In Robeson County, CES and the Health Department developed a County Employee Fitness and Wellness program. With the approval of County Commissioners 45 county employees participated in the program. The program was delivered during the lunch hour and continued for five weeks. Follow-up data indicated that 68% lost weight, 95% lowered fat and sodium intake and 71% started a regular exercise program. The County Commissioners decided to continue the program beyond the five weeks. An educational program is now offered once a month. Participants completed a computerized Health Risk Appraisal and blood laboratory analysis.

Farmer's Market Voucher Program Success

The Cooperative Extension Service was instrumental in getting a local Farmer's Market certified to participate in the Farmer's Market/Nutrition Program. WIC participants may now use WIC vouchers to purchase produce from 35 farm vendors at the Farmer's Market. Six hundred fifty-three families are participating in the Farmer's Market voucher program. Extension family and consumer sciences agents teach classes at the Health Department to extend clientele's use of fruits and vegetables in their diets.

EFNEP and WIC Success

In two large urban counties, EFNEP staff taught WIC clients on a full-time basis, using a modification of the ERIB curriculum and using a computerized program to reconcile the two reporting systems. In one county EFNEP enrolled 2,300 WIC participants in four clinic sites; 980 graduated during the year. Agencies proved to be more responsive to having EFNEP offer the ERIB curriculum when the curriculum was tailored to their interests, needs and scheduling constraints. This increased on-site teaching and resulted in a more cost-effective program delivery. Innovative programs included night meetings as more low-income homemakers are employed outside the home. In increasing numbers, groups of immigrant populations participated in EFNEP; in 1996, 350 (4%) Hispanics were enrolled.

Co-Chairs: Jacquelyn W. McClelland & Nancy Smith

SMP Committee Members:

Carolyn Lackey
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Angela Fraser
Carolyn Dunn
Ngairé van Eck
Candace Murray
Sharon Farless
Betty Howe

1996 Accomplishment Report: SMP 17

Residential and Community Horticulture, Turf, Forestry and Pest Management

PROGRAM DESCRIPTION. The demand for county programs in the area of noncommercial horticulture and forestry and residential pest management have increased significantly. Both urban and traditionally rural counties have experienced increased demand for educational information in these areas. The greater awareness of more diverse publics of the economic as well as environmental importance of landscape stewardship has emerged. Emphasis on reduced pesticide use has also increased the need for additional chemical and alternative pest control education. These clientele are aware of the educational programs of the Cooperative Extension Service and have begun to expect assistance in these relatively new program areas. Numerous requests are received for very specific and focused information. This has created a large demand.

Programs in support of this State Major Program seek to educate target audiences so they adopt best management practices for residential and public facility pests. Programs also educate target audiences about proper selection and management of plants for residential landscapes, including turf, edible plants, ornamental plants and trees.

Sixty six counties have educational programming that supports this State Major Program in their county plan of work. Fifty seven counties reported under one or more of the following objectives.

OBJECTIVE 1: Target audiences will adopt best management practices for residential and public facility pests.

Statewide Totals of Measure of Progress:

1. Increased knowledge of IPM practices by targeted audiences and volunteers.
Number demonstrating = 37,515
2. Increased awareness and knowledge on the part of the public and professionals concerning the current state and federal guidelines governing wildlife control/depredation.
Number demonstrating = 17,886
3. Adoption of IPM practice by target audiences, including improved decision making abilities in determining the need to spray and/or obtain the assistance of a pest control professional.
Number demonstrating = 32,234

Statewide Totals of Impact Indicators:

1. Dollars saved (by the consumer) through reduced insecticide use (fewer pesticide purchases) = \$ 1,297,595
2. Dollars saved through reduced pesticide related contamination problems (e.g.

runoff into municipal sewer systems, and container disposal problems) =
\$ 1,020,202

3. Reduced risk of people (and pets) being exposed to insecticides through reduced and/or targeted insecticide use.

Number demonstrating = 16,243

4. Better understanding on the part of the general public and pest control professionals about the use of IPM as a means of enhancing their ability to be good environmental stewards.

Number demonstrating = 41,016

656 Volunteered 6,271 hours valued at \$62,710.

Value to targeted audience \$1,117,300.

Value to society \$1,256,650.

Estimated Program Cost \$155,685.

The proactive focus for addressing these objectives has been the delivery of pertinent information through several delivery systems. Printed information produced by NCCES Specialists or by field faculty in the county centers has been distributed directly to the public or through retail centers where pesticides are sold (e.g. lawn and garden centers). Local (county) meetings that target specific topics and groups, e.g., moisture control around homes, and wildlife damage control have been presented. There has also been participation in state/regional presentations. Timely delivery of information through articles in newspapers, magazines, radio/TV appearances has been accomplished.

There has also been reactive educational opportunities which have included responding to telephone calls to CES centers about pest problems, identification of pests brought to the CES center, and site visits to troubleshoot existing problems or make recommendations to prevent future pest problems (which is proactive to a large extent).

Most callers want quick responses (and quick solutions) to pest problems. Providing them with facts about the problem allowed them to better understand the extent to which the pest problem was severe or not. In turn, this education enables them to evaluate their problem and their selection of control tactics. In one county which handled about 2400 calls from homeowners and pest control operators, they found that 600 of their callers needed additional management information to understand the management/control of their particular pest. About 30 required only management strategies for complete pest control, while another 50 were able to directly reduce their control costs. Alternative pest management options are often the cheapest control. The change from chemical control to alternative management strategies (in concert with pesticide use) saved each person an average of \$25. The addition of management strategies reduces pesticide costs about \$12 per person. These figures do not reflect the decrease in potential negative impacts to the environment, pets and people that often accompanies reliance on pesticides as the sole means of pest control.

In other instances, the encroachment of wildlife on suburban areas of the state has increased the public's concern (and need to understand) issues pertaining to wildlife and potential disease problems (such as rabies). Educational forums and local task forces that were initiated to deal with these issues have helped ease public concern. In addition, increased awareness of state wildlife regulations also helped these clients answer questions relating to trapping of certain vertebrate pests.

With the increasing public awareness of safety issues pertaining to pesticide use and wildlife encroachment in and around homes and public areas, we will continue to expand our proactive approach to providing information to the public, allowing them to develop their own strategies for dealing with these issues before they become a serious economic or health problem.

Several examples of the accomplishments under this objective are given here. First is the case of two families in Lee County. By following information provided by the NC Cooperative Extension Service the families made informed decisions about termite/fungi treatments that saved them a combined \$1200.

In another example, the city engineer for Winston-Salem contacted the Forsyth Cooperative Extension Center for confirmation of a powder post beetle infestation in a refurbished house being used as a community center. A local company had identified the problem and recommended tenting and fumigating the structure. The cost was estimated at \$4000.00. Before making this investment in the structure, the city wanted another opinion. The NC Cooperative Extension Service assisted in determining that the damage was extremely old. The actual new infestation was limited to one siding board. The total for eliminating the problem was reduced to about \$100.00.

A third example occurred in The Village of Whispering Pines (Moore Co.). They have routinely sprayed insecticides throughout the village for control of mosquitoes. Identification of pests and targeting of treatment was emphasized at a meeting between village officials and Extension Specialists and Agents. Spraying was discontinued for most of the summer of 1996 until after Hurricane Fran in September. Complaints of mosquito problems did not increase significantly.

Objective 2: Target audience will adopt tree, shrub, turf and ornamental plant selection and management practices in residential and community landscapes to improve the economic and aesthetic value of the property while ensuring environmental stewardship and urban ecosystem protection.

Statewide Measures of Progress Totals:

1. Increased knowledge and awareness of proper plant selection, proper plant management and proper plant pest management practices in residential and community landscapes.

Number demonstrating = 134,770

2. Increased awareness, improvement of attitude, and increased skills of private citizens and municipal workers for the role that they play in protection of the environment and the urban ecosystem through best management practices and proper pesticide use.
Number demonstrating = 56,877
3. Increase in skills of private citizens and municipal workers in tree, shrub, turf and ornamental plant care.
Number demonstrating = 86,821
4. Increase in citizen satisfaction (change in attitude) with aesthetic appearance of and ecological protection of their residential and community landscapes.
Number demonstrating = 145,852

Statewide Totals of Impact Indicators:

1. Increased value of property through adoption of landscaping practices, such as planning, design, establishment and maintenance. Dollar value = \$3,771,790
2. Increased protection of the environment and the urban ecosystem through proper plant growth, plant health care, and integrated pest management.
Number implementing practices = 46,153
3. Increased citizen satisfaction with improved aesthetic appearance of residential and community landscapes.
Number of citizens with increased satisfaction = 82,208

1663 Volunteered 32,890 hours valued at \$328,900.

Value to targeted audience \$3,947,445.

Value to society \$4,000,660.

Estimated Program Cost \$128,373.

This objective covers the educational programs related to homeowners and municipal workers in the area of landscaping, ornamental plants, lawns and urban trees. The Cooperative Extension Centers present educational material to their citizens through distribution of NCCES publications such as "Carolina Lawns" and "Residential Landscaping," Horticulture Information Leaflets, and by answering questions about residential and community ornamental plants.

Many counties have used workshops, demonstrations and short classes to teach the public. The Master Gardener program to train volunteers who then disseminate information to the public is being used in 64 counties. Many agents report numerous site visits to help citizens in a "one on one" manner.

The measures of progress document changes in knowledge, attitude, skills, and awareness of the topics in this objective. Six agents used a pre and post test to determine these changes. They found that the Master Gardeners increased knowledge, skills and awareness in all areas.

Statewide Measures of Progress Totals:

The first step in environmentally friendly landscaping is proper plant selection. Across the state, 134,770 citizens increased their knowledge and awareness of proper plant selection, management and pest management. Citizens totalling 56,877 increased their awareness of their role in protecting the environment through best horticultural and pest control practices. More than 86,000 citizens mastered new skills to properly care for landscape plants. These skills included planting, fertilizing, pruning and pest management. An increase in citizen satisfaction with the appearance of their landscapes and with their ability to protect the ecology of their environment was documented for 145,852 citizens.

It is documented that the value of a home can increase by 10 to 15 percent with good landscaping. Through extension landscape design, installation and maintenance information, a total of \$3,771,790 was added to property values across the state.

Protection of the environment is one of the goals of the Consumer Horticulture program. 46153 participants in Extension programs reported an increased protection of the environment and the urban ecosystem.

Several examples of the accomplishments under this objective are given here. A homeowner in Mecklenburg County needed help in deciding whether an oak tree with a fungus growth was hazardous. The agent determined that the tree was hollow and was a hazard to the homeowner. The homeowner appreciated not just the value of being informed about the hazard condition of the tree, but that she had been educated about the applicable topic of what causes tree decline.

In Buncombe County a series of classes on Home Landscaping continued to be popular. At two of the classes seating capacity of 160 was exceeded and an estimated 100 people had to be turned away. Attendance at some or all of the classes totalled 280. An evaluation survey indicated a high level of satisfaction with the classes. Carteret County reported that 2000 new residents to coastal Carolina received information on wind and salt tolerant plants, information which will greatly increase the survival of plants and reduce the need for pesticide inputs for weak plants. Chatham County reported that CES had cooperated with the town of Pittsboro on a street beautification project. The beautification project has increased citizen and business satisfaction with the appearance of the town. Craven County developed a demonstration garden outside the Extension Center. There were over 550 visitors to this garden during 1996 and approximately 10 to 20 percent of the citizens are expected to use better adapted species in their landscape. By selecting and planting urban trees from this group of better adapted plants, much storm related damage will be avoided in future years.

Objective 3: Target audience will adopt best management practices for residential and community edible landscapes to improve economic feasibility while practicing environmental stewardship.

Statewide Measures of Progress Totals:

1. Increase knowledge of Best Management Practices for gardening.
Number demonstrating = 54,577
2. Adopt Best Management Practices for growing fruits and vegetables.
Number demonstrating = 26,652
3. Adopt gardening Best Management Practices that minimize water pollution and maximize water conservation.
Number demonstrating = 20,478

Statewide Impact Indicator Totals:

1. Cost avoided (dollars saved) by adopting Best Management Practices. Dollar value = \$459,770
2. Total square feet of gardens grown by program participants.
Square feet of garden = 4,808,909
3. Reduced water usage through implementation of Best Management Practices.
Gallons reduced = 9,468,067

767 Volunteered 9,280 hours valued at \$92,800.

Value to targeted audience \$632,425.

Value to society \$534,710.

Estimated Program Cost \$69,404.

Gardening seminars and classes were conducted in most counties. Teaching points emphasized best management practices to reduce inputs and increase productivity while decreasing potential harm to the environment. Some counties concentrated on a few management practices, e. g. Mecklenburg County emphasized mulching to conserve water and reduce plant diseases.

In Pitt County class participants demonstrated increased knowledge by scoring 20 points higher on a post class test. Participants have been able to decrease their expenditures (Columbus county, \$40 per person), while other counties report an increase in the value of food produced (\$250 per person in Iredell County).

Several new fruit demonstration orchards have been established. Fruit tree pruning demonstrations continue to be an effective method of changing consumers' growing practices. An evaluation in Surry County revealed that 75 percent of participants attending a pruning demonstration changed their pruning practices.

An increasing number of counties are created demonstration gardens to show environmental and cost effective gardening practices such as: mulching, composting, and cultivar selection. Many of these gardens are located at the county extension centers. Others have collaborated with organizations to facilitate access by the public, e. g. 3,000 square feet of garden at the Western North Carolina Nature Center, a compost demonstration at N. C. D. A. Farmers market. A number of school gardens have been established to provide hands on science education.

Increasing efforts are being made to reach targeted clientele, such as minorities, low income citizens, and individuals with disabilities. Pasquotank and Northampton counties offered training to members of minority churches. One of the church gardens was 9,000 square feet. Produce from this community garden was shared with low income members of the community. A project in Lee County saved low income families over \$2,000 in food cost. Volunteers in Cherokee County constructed raised bed gardens for disabled individuals, while volunteers in Guilford county developed gardens for AIDS patients.

In addition, a large number of telephone and walk-in requests to the County Extension Centers were handled. This method of information access is preferred by many county citizens. A three year study in Randolph County indicates citizens saved an average of \$30 as a result of information they received by telephone or by fact sheets sent through the mail. A savings of \$35 was determined for office visits. This method of delivery is increasing being served by Master Gardener Volunteers.

- Charles Apperson**
- Art Bruneau, Turf Action Team Leader**
- David Curtis**
- Erv Evans, Edible Landscapes Team Leader**
- Lewis Howe**
- Sandy Maddox, SMP Team Co-Chair**
- Katie Perry, SMP Team Co-Chair**
- Alice Russell, Ornamental Landscapes Team Leader**
- Bill Skelton**
- Mike Waldvogel, Structural Pest Team Leader**

1996 Accomplishment Report: SMP 18

Residential and Community Water & Waste Management

Program Description:

Residential and Community Water and Waste Management has environmental and economic impact on both the private and public sectors in North Carolina. Proper management of solid waste, wastewater and watersheds ultimately effect water quality.

Counties reporting accomplishments (Total 38 Counties)

| | | | |
|------------|------------|-----------|----------|
| Alexander | Johnston | Iredell | Jackson |
| Avery | Lee | Onslow | Macon |
| Brunswick | Lincoln | Pamlico | McDowell |
| Buncombe | Orange | Burke | Nash |
| Caldwell | Pasquotank | Cabarrus | Randolph |
| Cumberland | Pender | Carteret | Surry |
| Davidson | Rowan | Caswell | Wayne |
| Gaston | Watauga | Davie | Wilkes |
| Guilford | Chatham | Edgecombe | Yancey |
| Jackson | Craven | | |

Measure of Progress:

- 4951 people in 18 counties increased their knowledge and awareness of quality water best management practices to prevent contamination of water
- 3655 people in 18 counties adopted best management practices to prevent contamination of water
- There were 1115 decreased number of cases of water contamination resulting from adoption of best management practices to detect and treat contaminated water
- 1020 people in 9 counties increased knowledge and awareness of waste water systems
- 93 people in 9 counties had their septic tanks pumped
- 67 people in 9 counties adopted one or more best waste water management practices
- 54 homeowners in 9 counties indicated their septic systems were functioning properly now
- 204 people in 9 counties adopted best management practices to conserve industrial and residential water
- 5699 people in 9 counties increased their knowledge and awareness of need for water quality and conservation
- 19,977 people in 26 counties increased their knowledge and awareness of waste management principles
- 1438 recycling programs were implemented in 26 counties
- 150 industries and municipalities adopted waste management practices
- 17,359 consumers in 26 counties adopted improved waste management practices

- 75,871 gallons of used oil were recycled by farmers and do-it-yourselfers
- 132,800 pounds of household hazardous materials collected for recycling/reuse

Impact

- \$24,400 was saved through improved water quality
- \$125,000 was saved through decreased cases of water contamination
- \$144,000 was saved in avoided healthcare costs through detection and treatment of contaminated water
- \$102,333 in costs were avoided through decreased incidences of water borne diseases
- \$52,000 in costs were saved through reduced incidences of failed septic systems
- \$400,300 in costs were avoided through improved individual water quality
- \$116,000 in costs were avoided through improved residential water quality
- \$1,400 in costs were avoided through decreased use of residential water
- \$2,200 in costs were avoided through decreased use of public water
- \$75,426 was saved by municipalities through reduction of amount and toxicity of waste
- \$1,151,930 was saved through reduced waste in landfills
- \$300,884 was saved through recycling materials
- \$10,996 was saved by county or municipality through Project HERO

Water Quality

A residential water screening program was conducted in 26 counties. 1,550 samples were screened for lead and 1,844 samples were screened for nitrate. 55 of the 1550 samples screened for lead were greater than 15 ppb, the standard for public drinking water. Those having high levels of lead were referred to the local health department to have blood level testing of children done. Of the 1,844 samples screened for nitrate, 41 exceeded 10 ppm nitrate-nitrogen, the standard for public drinking water while 318 samples had levels of nitrate that indicated surface water contamination but below 10 ppm. All those people were educated regarding proper well construction and practices that might be a potential hazard to their well water and encouraged to get their water tested by a private company to verify results. Of the 2,146 people who had water samples screened for lead and nitrate, 57% were new to Extension. Extension Homemakers in 2 counties in the state have been trained to conduct the screenings. Thus, the water screening program in those counties is ongoing--not just a special one-day event. 615 water samples in 6 counties were screened for pesticides including Triazine and Alachlor with very few above the maximum limit allowed in public drinking water.

2,870 persons were reached with educational programming in water quality including programs in home septic system maintenance, proper well construction and maintenance and best management practices for homeowners, businesses and agricultural producers. The Farm-a-Syst and Home-a-Syst programs were used by 106 families to analyze their private well situations.

Over 200 realtors were reached with information on private drinking water supplies and underground storage tanks.

Wastewater Management

663 people in 9 counties learned about septic system operation and management through exhibits at county health fairs, mall exhibits, and special interest programs.

Education factsheets on septic system maintenance were distributed in one county to all new homeowners who install septic systems.

One on-site wastewater demonstration site was used to teach 300 people including graduate students, contractors, homeowners, health professionals, educators and engineers about the operation of various types of on-site wastewater management systems. 125 contractors passed certification exams to become subsurface operators after completing a training session from the Cooperative Extension Service.

Tremendous economic growth over the last 20 years has increased the population of Craven County to the point that the growth has put strains on the county's management and disposal of wastewater. By the year 2003, homes and businesses in Craven county are estimated to be producing one million more gallons of wastewater each day than they do today. With a grant of \$100,000 from the County Board of Commissioners through the Department of Environmental Management, Extension put together a team of experts to study the issue and to work with a county committee of 21 residents to develop a plan. After holding community informational meetings and studying the effects on water quality in the Trent and Neuse River, the committee developed a ten-year comprehensive plan for wastewater management. This document will be used by county commissioners, developers, the Regional Wastewater Advisory Committee, municipalities and even other counties in planning for growth while ensuring the environmental quality of the resources in the area.

Watershed Management

\$113,200 in grant funds were secured to install and evaluate best management practices and monitor stream quality in the North Toc and Watauga River Watershed. Water quality has a direct impact on the sustainability and profitability of the agricultural industry in these areas-work with EPA 319 Grants has provided demonstration sites and educational programs to residents along coastal waters including implementation of best management practices along streams and estuary waters such as buffer strips, selection pest control and use of slow release fertilizers. Work with the municipality of Surf City to develop a storm water management plan has generated a cost savings that has amounted to \$10,000.

3,706 persons were reached with educational programming in watershed education, including environmental field days, groundwater models, water quality protection methods, and best management practices.

Waste Management

Nine counties participated in the "Project HERO" used oil recycling program with a combined total of 75, 871 gallons of used oil recycled. Two counties indicated the amount of used oil collected for

recycling had increased 15% and 20% respectively. Another county (Edgecombe) indicated a 47% increase in the amount of used oil collected for recycling. One county reported a 12.5% decrease in the amount of waste going to the landfill. Pesticide container recycling was promoted by 7 counties with over 26,000 containers processed for recycling. Recycling and composting programs were established including office paper recycling, organic waste composting, textile waste recycling, and industrial waste recycling. These resulted in a savings of \$74,000. 2566 adults and 3881 youth participated in educational programming in waste management topics including recycling, vermiculture, composting, packaging, source reduction and products made from recyclable materials.

In Guilford County dumping of tires and white goods by the growing population has increased. Conscientious farmers have had to become warehouses for many of these discarded items. Other county residents have simply stored those items in the "shed out back" since there were no disposal options. The Guilford County Cooperative Extension Service held a tire and white goods disposal events in 1996 in cooperation with two commercial recycling companies. A total of 55.5 tons of white goods and 52.4 tons of tires (740 stoves and 3,493 car tires) were collected for recycling.

In July, 1995, the Mitchell County Commissioners decided to make recycling mandatory for county residents. The county commissioners asked Extension to conduct public education on recycling and solid waste management. Three public meetings were held. Extension developed notebooks on recycling and solid waste management and placed them in each school in the county to be used by teachers for resources when teaching students about waste reduction. Extension also developed with the help of local volunteers, a waste reduction brochure which was distributed to all county residents. It is now estimated that 96 percent of the county residents are participating in the recycling and waste reduction effort. There has been a 22 ton per day reduction in solid waste disposal saving the taxpayers \$177,000 annually. Over \$50,000 has been earned from the sale of recyclables. The county has exceeded the state goal of a 40% reduction in the waste stream.

Co-Chairs:

George Atry
Wilma Hammett

Committee Members:

| | | |
|----------------|---------------|---------------|
| Greg Jennings | Judy Mock | Deanna Osmond |
| Bob Rubin | Sarah Kirby | Mike Hoover |
| Frank Humenik | Sandy Wiggins | Mitch Renko |
| Rhonda Sherman | Dorothy Miner | Will Harman |
| | Brenda Morris | |

1996 State Accomplishment Report

SMP 19: Resilient Youth, Families and Communities Program Description

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

The "Resilient Youth, Families, and Communities State Major Program" of the North Carolina Cooperative Extension

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

Accomplishments for 1996 will be reported in the context of three objectives

1. Youth
2. Families
3. Communities

Objective 1: Youth in high risk environments will participate in community based programs resulting in youth acquiring coping skills, making informed decisions and developing a sense of purpose and future.

Units Reporting Accomplishments:

38 Counties(see attached)

Statewide Measures of Progress:

1. Increased communicating, decision making, working in groups, understanding self, and relating to significant adult life skills

NUMBER DEMONSTRATING: 25874

2. Increased literacy

NUMBER DEMONSTRATING: 6232

3. Increased community involvement

NUMBER DEMONSTRATING: 6656

Increased knowledge and awareness of and alternatives to drugs and alcohol use

NUMBER DEMONSTRATING: 16899

Statewide Impact Totals:

1. Increased life skills

NUMBER DEMONSTRATING: 16231

2. Improved academic performance

NUMBER DEMONSTRATING: 3932

3. Expanded citizenship involvement

NUMBER DEMONSTRATING: 4478

4. Reduced use of drugs and alcohol

NUMBER DEMONSTRATING: 2845

5. Reduced judicial involvement

NUMBER DEMONSTRATING: 644

6. Reduced incidence of violence

NUMBER DEMONSTRATING: 663

Narrative:

Extension professionals in the 38 reporting counties demonstrated extreme creativity in attacking the youth objective. Counties consistently collaborated with other agencies, schools and organizations to to realize the fullest possible programmatic potential in the context of benefits to youth resiliency. National regional and state research continues to indicate youth are at risk for alcohol and other drugs, sexual activity, violence, and academic failure. County program designs consistently dealt with one or more of these risk factors while driving toward expanded life skills and protective factors.

Selected Success Stories:

Alexander County:

Dept. reports a reduced judicial involvement and incidence of violence by court referred youth which participate in the Alex. 4-H Summer Camping Program. Three residential and one day camp experiences are available to the above referral agencies. Eighty-eight percent of juvenile youth which participated reported increased life skills and improved academic performance. Juvenile court counselor reports that the CBA/4-H Camping Program gives these youth a challenging experience and an alternative to training school.

Bladen County:

The Bladen County 4-H Outreach Program is a community based alternative program funded through the Division of Youth Services. This program serves 32 youth that have been involved in the juvenile court system or are at risk of becoming involved. This guided growth program seeks to improve behavior, increase skills in self-reliance, decision-making and goal setting. Eighty percent of the participants have improved their behavior at home, in the community and at school. The program has also kept these young people from becoming further involved in the court system. The impact of this type of program is tremendous in that it costs \$45,000 per year to house one youth in a training school facility.

Madison County:

Targeted high risk youth (juvenile court referred) participated in the 4H career education program. These youth were given instruction on completing job applications, interviewing, developing resumes as well as participating in discussions on the value of staying in school, career interests, and career choices. Youth were paired with community volunteers who served as mentors to them for 2 hrs/wk for 10 weeks.

Wayne County:

Wayne County 4-H conducts after school programs for limited resource youth in three inner city housing communities. Each day the 4-H staff works with the students with academic skills and in homework. By evaluating the third nine week report cards, the following was observed:

Total of 85 students are in the program each day. Eighty-one (95 percent) of the students had no failing subjects.

Four (5 percent) of the students had a failing grade. No student in the program failed their grade for the year.

OBJECTIVE 2: FAMILIES

Families will participate in educational experiences enabling them to identify problems, determine solutions, and develop skills to cope with adverse family situations.

UNITS REPORTING ACCOMPLISHMENTS:

18 Counties(see attached)

STATEWIDE MEASURES OF PROGRESS TOTALS:

1. Number of money management plans made

NUMBER DEMONSTRATING: 1175

2. Increased knowledge and awareness of effective communication skills

NUMBER DEMONSTRATING: 3593

3. Increased knowledge and awareness of family coping and nurturing practices

NUMBER DEMONSTRATING: 2446

STATEWIDE IMPACT TOTALS:

1. Dollars saved/relocated through effective money management

DOLLARS SAVED: 46127

2. Reduced conflict through improved family and interpersonal communication

NUMBER DEMONSTRATING: 1885

3. Adoption of family coping and nurturing practices

NUMBER DEMONSTRATING:1407

NARRATIVE:

Limited resource families are reached in one-to-one and small group sessions. Communication was an issue of importance to most of the participants. Through open discussions in the sessions, participants gained knowledge and demonstrated their skills in coping with adverse situations.

Participants in money management classes learned to use community resources available to them. Participants also made a commitment to save at least \$10.00 per year. Several families had at least \$50-\$75 to put in a savings account each pay period. Families improved their money management skills.

SUCCESS STORIES:

Durham County:

Three hundred fifty-three(353) clients in public housing who have been victims of crime have participated in counseling sessions. Parents have reported an improvement in family relationships after having participated in the program. Three (3) self-help groups have been established for children in public housing units who have been traumatized by witnessing the abuse of a parent, guardian, or loved one. Self-help groups for children have also opened opportunities to provide therapeutic services for adults who have been victimized by crime in a more direct way.

This victim's assistance program has worked with the community resident councils to reach victims of crime living in public housing. Door to door contacts by volunteers and community meetings have proven helpful in educating neighborhoods and building confidence among residents who seek help after being victimized.

The victim's assistance program has established two battered women's groups to serve the designated housing communities. One group, based in and supported by a local church, serves women who have been raped or have suffered other forms of abuse. Participants in this group benefit from participating in the counseling sessions that are provided. Reports cite improvements among clients who have participated in the counseling program.

Ashe County:

Six hundred (600) displaced workers received information on budgeting, crisis and stress management when a local industry closed. As a result of working directly with families and through the industry, 20 families set up budgets and gained knowledge on how to manage resources during crisis situations resulting from job loss.

Currituck County:

One hundred forty nine (149) participants completed the simulation exercise of stating a goal, developing a plan and listed steps for normal family living for one month. Based on interviews of ten participants: 50% reported developing a written spending plan, 90% reported establishing short and long-term goals, 100% reported accomplishing at least one short term goal.

Tyrell County:

The Family and Consumer Education Fall Festival was designed to introduce Cooperative Extension and to share educational information to non-traditional audiences. Approximately 350 people who live in public housing communities had the opportunity to view displays, speak with agents, take home educational pamphlets, and sample healthy snacks in festival-like atmosphere. Via survey, 96% of the participants indicated

that they had learned something and 97% indicated they would be interested in attending other, similar events. Fifteen (15) people who had not previously participated in Extension programs have requested additional information from Extension agents.

Tyrell County:

In response to a an ncreasing need for migrants to understand basic life skills, an educational program specifically targeted for Hispanic women reached 65 women through the assistance of an interpreter. As a result of the program, 100% of the participants(via survey) indicated they would like to participate in more educational programs. Seventy five percent(75%) reported they would review the information received when they returned home. This program reinforced the need for Hispanic programming and future programming in this area is being planned.

Forsyth County:

Families from two public housing communities formed a collaborative effort to strengthen their communities. Issues focused on crime, violence, finances, and community development. Youth from the two communities interacted to develop educational exhibits, displays, and a 4-H drill team. A 4-H club was formed with 30 youth to teach life skills. The adults formed a residents' council that rotates monthly from one community to the other.

Greene County:

Eight families increased their knowledge on how to handle family conflicts such as anger, stress, discipling techniques, and other issues of concern. Forty(40) families reported a reduction in stress that is caused by family problems. Fifty percent of families reported that the class on effective communication skills helped them to listen and relate verbally and non-verbally to family members. Evaluation results show that parents are making better decisions as a result of improved communication.

OBJECTIVE 3: COMMUNITIES

Community groups will take action to stengthen communities by creating environments whcih reduce youth and family risks through collaborative intervention and prevention programs in high risk communities.

UNITS REPORTING ACCOMPLISHMENTS:

21 Counties (see attached)

STATEWIDE MEASURES OF PROGRESS TOTALS:

1. Number of collaborations established

NUMBER: 209

NARRATIVE:

2. Number of prevention programs developed

NUMBER: 117

3. Reduction in criminal activity in targeted communities

NUMBER REDUCED: 114

SUCCESS STORIES:

4. Number of economic and community development programs established

NUMBER: 73

5. Number of support programs established for families(i.e. child care, counseling, etc.)

NUMBER: 118

6. Increased knowledge and skills among participants about community collaboration and prevention programs

NUMBER DEMONSTRATING: 1974

Hamart County:

STATEWIDE IMPACT TOTALS:

1. Value added to community through economic and community development programs

DOLLAR VALUE: 1488395

2. Increased leadership roles

NUMBER DEMONSTRATING: 23964

3. Money saved through increased collaborative efforts

DOLLARS SAVED: 182383

4. Costs saved through reduced risk factors (i.e. community crime, anti-social behavior, low neighborhood attachment and community disorganization, academic failure, low commitment to school, youth and adult drug use, alienation, rebelliousness, and negative peer involvement

DOLLARS SAVED: 167100

Yancey County is a rural county with 8 elementary, 3 middle and 1 high school. Risk factors for youth identified by the Youth Services Advisory Committee include: lack of positive role models; inability to accept authority; negative attitude toward school; lack of positive self-esteem; and parent support of irresponsible. Protective factors include involvement of caring adults; opportunities for long-term involvement; encouragement to

NARRATIVE:

Programs managed by Extension professionals are having a huge impact on the social, governmental and economic well being of at-risk communities in North Carolina. Programs being managed through extension education centers are driving collaborations to establish and maintain both preventive and interventionary programs. Many of the at-risk communities of our state are much stronger because these programs exist.

SUCCESS STORIES:

Gates County:

Through interagency collaboration with Gates County Schools, Gates County Community Center, Gates County DSS, area agencies and local businesses, Gates County's youth and families are able to participate in programming which strengthens family resiliency and reduce risk factors. Programs addresses clientele's needs are custom tailored to the target audience and involve families and youth together in the same setting and individually. Families involved include 'work-first' families, limited resource families and youth, African-American teen males and teen parents. Impacts have been documented by various members of the target audiences demonstrating leadership skills, knowledge and skills gained and becoming "self-sufficient".

Harnett County:

160 new slots were created to provide quality child care and enrichment activities for at risk youth. 240 of the youth improved their reading skills and read over 25 books during the summer. Survey results from the parents indicated that 800 of the youth increase their self confidence and gain new decision making skills. The program helped parents by providing a safe, convenient and economical environment for limited income families and single families.

Out of the 87 leaders and parents completing the leadership training course approximately 80 are more involved with their children, community and other youth. Twenty of these at risk leaders are sitting on county boards and serving on advisory groups within the community, holding health fairs, and conducting community family health workshops. Four of the twelve community partnerships have formed a coalition to gain non profit status to address economic and leadership development for at risk youth.

Yancey County:

Yancey County is a rural county with 6 elementary, 2 middle and 1 high school. Risk factors for youth identified by the Youth Services Advisory Committee include: absence of positive role models, inability to accept authority, negative attitude toward school, lack of positive self-esteem, and parent support of irresponsibility. Protective factors include involvement of caring adults, opportunities for long-term involvement, encouragement to

develop life skills. Programs are implemented during and after school and the summer. Nearly 220 youth attended the after-school programs on a monthly basis.

Program resources include CareerSmarts, environmental/recycling, wildlife and Talking with TJ curriculum.

Ashe County:

The establishment of true collaboratives to work toward community empowerment has evolved through efforts as the Ashe County Partnership for Children, which funded 50 plus projects for children and families as a result of securing \$721,820.00 through Smart Start and blended funding. Other collaborations have resulted in:

- development of the Ashe Information and Referral System

- Children's Christmas Project - 12 agencies and businesses collaborated to provide support for limited resource families, youth and elderly.

- industries, businesses, and individual volunteers "adopted" 777 youth from 442 families, as well as 42 elderly (shut-ins) and provided them with presents, food and warm coats.

- 7 agencies collaborated in order to reduce duplication of services and to combine resources in serving limited resource families during the holiday season. An estimated savings of \$25,000.00.

- Community gained awareness of needs-limited resource families and opportunities for involvement.

- 200 adult volunteers and 75 youthvolunteers helped implement community service program.

Narrative description #2 of accomplishments:

A community survey of human services and organizations brought forth the opinion that "services are needed but we don't know what exists or where to go." Task force accepted the challenge of addressing this problem.

County Directory was created, funded, and distributed in an effort to create "one stop shopping" theory and to assist those looking for services.

2 new programs (Ashe HelpLink and Ashe Youth Leadership Program) were designed and implemented as a result of community need and the collaboration with 5 new agencies.

SMP 19 TEAM:

Jean Baldwin, Co-chair, Millie Bruton, Carolyn High, Steve Lilley, Eddie Locklear, Thearon McKinney, Co-chair, Wayne Mathews, Bettina Odum, Robin Roper, Shirley Rouse, Ellen Smoak, Bob Williamson

SMP 20: YOUTH DEVELOPMENT

Program Description:

The basic tenants on which 4-H was founded produces the general backdrop for helping the over 200,000 youth and adults we work with reach their fullest potential. North Carolina 4-H focuses on life skills taught through a broad spectrum of subject matters. Life skills are defined as abilities, knowledge, attitudes and behavior that must be learned for success and happiness. Life skills enable people to adapt to and manage their life situations. They give individuals a frame of reference for perceiving and responding to life situations and enabling them to achieve an inner satisfaction and happiness (National 4-H Curriculum Manual for Youth K-3, 1994). Some skills are more important than others at different ages, however, major emphasis throughout 4-H is to help youth participating in the 4-H program to develop competencies that will allow them to become both independent and interdependent human beings.

The State Major Program 20 has three active objectives that focus on developing life skills. Objective One deals with the opportunities that young people are provided by 4-H long term units/clubs. The 4-H School Enrichment Program and it's impact on school performance is covered by Objective Two. Objective Four focuses on life skill development with young people that reside in diverse housing. The Third Objective: Workforce Preparedness will not be reported on until 1998.

Accomplishments:

Objective One: Long term support systems will develop competent youth in the following life skill areas: 1. Managing relationships; 2. Decision Making; 3. Communications; 4. Serving the community.

Units Reporting Accomplishments:(86)

Alamance Alexander Anson Ashe Avery Beaufort Bertie Brunswick Buncombe Burke Cabarrus Caldwell Chatham Cherokee Reservation Chowan Cleveland Columbus Craven Cumberland Currituck Davidson Davie Durham Edgecombe Forsyth Franklin Gaston Gates Graham Guilford Halifax Haywood Henderson Herford Hoke Hyde Iredell Jackson Johnston Jones Lee Lenoir Lincoln Macon Madison Martin McDowell Mecklenburg Mitchell Montgomery Moore Nash New Hanover Northampton Onslow Orange Pasquotank Pender Perquimans Person Pitt Polk Randolph Richmond Robeson Rockingham Rowan Rutherford Sampson Stanly Stokes Surry Swain Transylvania Tyrrell Union Vance Wake Warren Washington Watauga Wayne Wilkes Wilson Yadkin Yancey

Measure of Progress:

1. *Increased awareness of community service
NUMBER DEMONSTRATING: 30320

2.*Increased communication skills
NUMBER DEMONSTRATING: 25149

3.*Increased knowledge gained
NUMBER DEMONSTRATING: 81897

4.*Increased leadership
NUMBER DEMONSTRATING: 20893

5.*Increased decision making skills
NUMBER DEMONSTRATING: 33557

6.*Number of new clubs formed for youth 5 to 8
NUMBER: 190

7.*Number of families actively involved in 4-H
NUMBER: 44406

Impact:

1.*Dollars saved by the community from 4-H Community Service Projects
DOLLARS: 576035

2.*Scholarship dollars received by 4'Hers
DOLLARS: 345365

3.*Dollars earned by 4-H'ers as a result of their 4-H project work
DOLLARS: 588022

4.*Dollars saved by 4-H'ers as a result of their project work
DOLLARS: 731727

5.*Increased competency in youth as illustrated by the following areas: *managing relationships
NUMBER DEMONSTRATING INCREASED COMPETENCY: 24381

6.*communication skills
NUMBER DEMONSTRATING INCREASED COMPETENCY: 54916

7.*making decisions
NUMBER DEMONSTRATING INCREASED COMPETENCY: 30571

8.*self-confidence
NUMBER DEMONSTRATING INCREASED SELF CONFIDENCE: 31380

Volunteers Involved:

Number: 10125

Hours: 166152

Dollar Value at \$10/hr.: 1661520

Narrative:

The 4-H long term/club unit is the major delivery mode that agents can utilize to help young people in their communities develop life skills. An accomplishment report from Mitchell County summarizes many of the life skills young people are learning in the club setting. "Traditional project and community clubs in Mitchell County involved approximately 275 youth with a democratic environment for developing life skills; self-confidence; leadership; public speaking; cooperation; critical thinking, planning and goal setting. This is a key delivery mode because of a long-term supportive system."

During the past year, many counties reported increases in their club enrollment, family involvement, record books completed, and community service projects. In Alexander County, forty-seven percent of the 4-H members participated in at least one of the 35 different community service projects conducted during the year.

Another example of positive youth development as a result of 4-H can be seen in a report from Ashe County. Participants in the 4-H Ropes Challenge Program experienced challenge and sense of accomplishment, increased self-esteem, communication and leadership skills. Participants report "I liked working together as team"; "learned I am a natural leader..."; "I liked being able to rely on other people"; "you have to trust yourself and your friends"; "I can do things I didn't think I could do."

Young people in North Carolina are growing and developing into responsible adults as a result of their involvement in 4-H.

Objective 2: Youth involved in targeted knowledge transfer development activities will demonstrate improved academic performance.

Units reporting accomplishments:(58)

Alexander Anson Ashe Beaufort Bertie Brunswick Buncombe Caldwell Chatham Columbus Cumberland Currituck Davie Edgecombe Forsyth Franklin Gaston Gates Graham Greene Guilford Haywood Henderson Hertford Hoke Iredell Jackson Johnston Jones Lenoir Lincoln Macon Madison Martin McDowell Mecklenburg Mitchell Montgomery Nash Northampton Onslow Pasquotank Perquimans Person Polk Randolph Richmond Robeson Rowan Rutherford Stokes Swain Union Vance Wake Watauga Wilkes Yancey

Measure of Progress:

- 1.*Increased knowledge of teachers
NUMBER DEMONSTRATING: 4070

Impact:

Narrative:

1.*Number of students experiencing improved academic performance:

***Class attendance**

NUMBER NO CHANGE: 7814

NUMBER SOME CHANGE: 14739

NUMBER GREAT CHANGE: 8374

2.*Homework completed

NUMBER NO CHANGE: 4610

NUMBER SOME CHANGE: 12556

NUMBER GREAT CHANGE: 7421

3.*Quality of Homework

NUMBER NO CHANGE: 5723

NUMBER SOME CHANGE: 12492

NUMBER GREAT CHANGE: 6567

4.*Science Grades

NUMBER NO CHANGE: 4585

NUMBER SOME CHANGE: 15580

NUMBER GREAT CHANGE: 8397

5. Behavior improvement

***Dollars saved by the school system as a result of using the 4-H school enrichment material**

DOLLARS: 168718

Volunteers Involved:

Number: 2888

Hours: 41682

Dollar Value at \$10/hr.: 416820

Narrative:

The 4-H School Enrichment Program involves over 90,000 school children annually. Teachers and students alike benefit from this program. Teachers receive subject matter and teaching technique training. In addition to increasing student knowledge, involvement with 4-H during the school day has also helped some students improve their academic performance. For example, McDowell County reported training 33 teachers and volunteers in the use of 4-H Embryology curriculum. The teachers reached 450 students with the study of Embryo development. Evaluation instruments used concluded that all teachers strongly agreed that the student's positive perceptions of science were enhanced by utilizing 4-H Embryology and student's scientific knowledge and skills were enhanced through the use of 4-H Embryology.

Many of the 58 counties reporting conduct field days for school systems. One county reported that two hundred fifty sixth grade students participated in the 4-H Environmental Awareness Field Day. This was a cooperative effort between the Extension Service and five other government agencies. Students learned about soil conservation, water conservation, bluebirds, recycling, beekeeping, and wildlife conservation. Teachers and students value this program as it was hands on, taught outdoors, and taught by professionals. Student evaluations showed an increase in knowledge of environmental concerns and how to be better stewards of our land.

Objective 4: Limited income youth residing in Diverse/Public Housing will increase life skill development which will ultimately result in making informed decisions about life choices to manage life situations and transitions. (Saying "no" to peer pressure without guilt, defining and establishing aspirations, communicating feelings, pregnancy prevention, agricultural health and safety, conflict resolution, and understanding consequences of one's actions are some of the life skills that will be addressed.)

Units reporting accomplishments:(27)

Alleghany Bladen Buncombe Caswell Cherokee Reservation Davie Forsyth Franklin Graham Hertford Iredell Lee Lenoir Martin Mecklenburg Northampton Pasquotank Perquimans Person Pitt Richmond Robeson Rowan Sampson Tyrrell Union Warren

Measure of Progress:

1. *number of clubs formed for the 5 to 8 year olds in diverse housing

NUMBER: 29

2. *youth acquiring skills in using the decision making process

NUMBER DEMONSTRATING: 2490

3. *youth acquiring skills in saying "no" to peer pressure

NUMBER DEMONSTRATING: 2194

- 4.*youth writing statements of clearly defined aspirations

NUMBER DEMONSTRATING: 524

- 5.*youth increasing knowledge and skills in conflict resolution

NUMBER DEMONSTRATING: 2547

- 6.*number of youth participating in 4-H through programs targeting diverse housing

NUMBER: 2855

Impact:

- 1.*Dollars saved as a result of community service

DOLLARS: 24234

- 2.*Youth improving resistance to peer pressure

NUMBER DEMONSTRATING: 1115

- 3.*Youth defining aspirations

NUMBER DEMONSTRATING: 568

- 4.*Youth (5-8) increasing competency within the environment as related to play, clothing, the outdoors, bug out, community, safety, grooming and the other relevant topics

NUMBER DEMONSTRATING: 1649

Volunteers Involved

Number: 556

Hours: 10183

Dollar Value at \$10/hr: 101830

Narrative:

Agents in the twenty seven (27) reporting counties offered a wide variety of 4-H programs to limited resource youth residing in diverse housing. The programs ranged from the traditional 4-H club to afterschool programs. Many of the 4-H groups were involved in programs designed to help young people say "no" to negative peer pressure and deal with conflict in a non-violent manner. Two accomplishment reports from Person County

illustrate what limited resource children and their parents are doing in 4-H. In Person County, the Brookwood 4-H club was formed in early June by three concerned parents who wanted to provide constructive activity for the children in their housing complex. They have opened their homes to the children because there is no community building at which they can meet. They meet two times each month and have formed a community tutoring team which donates 20 hours a week, and a community drill team. The club is actually two clubs in one. There are 11 5-8 year olds for whom the older teens serve as mentors. At the present time the group is conducting a major fundraiser to purchase playground equipment for the community. This effort will save the community residents approximately \$500.

The tutoring club has saved parents in the community approximately \$300.00 a week in fees or a total of \$7,000 since the origin of the club six months ago.

The Weatherly Heights 4-H Club was organized five years ago and reorganized in 1996. Through networking with the local housing authority, a proposal has been submitted to secure funding from the Housing Authority to employ a part-time person to coordinate 4-H activity in the Weatherly heights community as well as in another low income housing community.

The Weatherly Heights Club has 18 members ranging in age from 5 to 14. The group has become noted for their community service projects in the community. A local bread company provides the group with food to distribute to needy families in the area. The officers and members of the club have organized the distribution of the food on a monthly basis, saving the residents approximately \$1500 a year in bread products.

In Tyrrell County youth in diversified housing participated in a program to help develop skills in decision making a resisting peer pressure. Nine teenagers and adult volunteers cooperate with an existing after school tutoring program to give 137 youth hands on experiences to enrich their activities. Sixty youth participated in the Nancy Reagan Afterschool Program which helps them to develop skills to improve their decision making and their resistance to peer pressure. Twenty-five youth participated in "Talking with T.J.". This program helps youth to explore their thoughts and feelings and to learn to resolve conflicts.

Success Stories:

"When I'm angry I hit my dad." This was a statement that came from a nine year old during a recent 4-H meeting. We were talking about making wise choices in face of difficult circumstances. The program director and I sat back in amazement as the other children began to offer positive ways to handle anger that would not involve violence.

"Hit a pillow, go for a walk, talk things out with someone you can trust, run around the outside of your house, etc." It was powerful to think that peers could make such a difference in helping one another make healthy choices and that 4-H played a role in providing curriculum that invites teamwork and encourages becoming quality leaders in a world that has a number of obstacles for youngsters. Ashe County

Local 4-H groups participating in the Hands to Service Project and hurricane relief programs contributed to community service efforts through the following ways: 1. Collected 303 food items in two hours for the distribution to needy families through the White Oak Ecumenical Outreach Ministries: 2. Concession stands were set up at an auction to raise money for a needy child's Christmas: 3. Made 24 quarts of strawberry jam and distributed to Onslow Meals On Wheels: 4. Helped with hurricane Fran clean-up by removing debris: 5. Collected clothes and food items to be distributed to hurricane and flood victims, over 250lbs of non-perishable food and 500 articles of clothing was collected: 6. Other fund raisers to help the community service efforts were yard sale, craft sale, flea market booths in all raising \$500 dollars. Onslow County

In 1996, Davidson offered the teen version of the Myers Briggs inventory on 2 occasions to 36 youth 15-19 years of age. A 4-H alumni member serving as admissions officer at High Point University administered the inventory. Seventy percent of the participants indicated they came initially because their parents made them while the remainder wanted to know more about themselves. In the end, all participants felt good about participating and learning more about how they related to their environment, work and others. When parents were given permission to sit in on the program and learn about the profile types in general and of their own children specifically, the parents said they gained a better understanding of how to relate to their children. The program served as a spring board for a leadership series of programs being offered across the county. Davidson County

Creekside Clovers 4-H Clubs are for school identified at-risk youth living in a 200 plus mobile home park. 62 youth meet weekly for one of three 4-H clubs meetings. 45% participated in at least half or more of the activities. Youth improved their end of grade reading test scores ranging from 2% to 24%. Their discipline problems decreased as illustrated by the fact they were not referred to the Principal's office as frequently. Youth had weekly structured, supervised, and productive activities in which to participate instead of gravitating to delinquent groups. To quote a club member: "it [4-h] gives kids something to do to keep them out of trouble." These youth tend to experience changes in their households. It is vital for them to have constant and steady relationships and belong to a support group. 4-H provides this support. In the words of a teen member: "we are like one big family." Gaston Co.

Wayne County 4-H conducted a retreat to train middle & high school age youth in Character Education activities. The 3-day retreat taught activities in which the teens taught other youth in schools, clubs and churches. The teens on the retreat acquired skills in communications, conference, organizing thoughts and knowledge of positive character.

These teens taught 845 additional youth positive character skills over a 4-month period. When they went into classrooms, the teacher's evaluation showed, on a scale of 1 to 3 with 1 low & 3 excellent, that the teens average 2.78 on value of program, 2.82 on their ability to relate to youth they were teaching, 2.71 on overall quality of the experience for the youth they were teaching. Wayne County

SMP 20 Team
Candace Goode, Co-Chair
Diane Gibson, Co-Chair
Shirley Rouse
Ed Maxa
Sharon Rowland
Travis Burke
Eve Kindley
Lou Otto
Cassandra Caldwell
Travella Robinson
Steve West

Local 4-H groups participating in the Hands to Service Project... programs contributed to community service efforts... 1. Collected 303 food items in two hours for the distribution... White Oak Ecumenical Outreach Ministries; 2. Concessions stands... auction to raise money for a needy child's Christmas; 3. Made 24 dozens of... and distributed to Ontario Meals On Wheels; 4. Tagged with hula hoops... and remaining debris; 5. Collected clothes and food items to be distributed... Hood victims over 2500 lbs of non-perishable food and 500 articles... collected; 6. Order fund raises to help the community service efforts were... collected; 7. Order fund raises to help the community service efforts were... sales, the market books in all raising \$300 dollars. Ontario Co.

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