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N. C. COOPERATIVE EXTENSION SERVICE

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North Carolina Cooperative Extension Service

NORTH CAROLINA STATE UNIVERSITY
NORTH CAROLINA A&T STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

ANNUAL FEDERAL REPORT 1997

Program Overview

The North Carolina Cooperative Extension Service provide educational programs to help North Carolinians improve the quality of their lives. North Carolina State University and North Carolina A & T State University deliver a coordinated Extension educational program available to all people in North Carolina.

This annual report represents the cumulative results of six years of Extension educational programs from 1992 to 1997. The accomplishments indicated in this report reflect the impacts that Extension programs are having on the people of North Carolina. These results are the end products of educational programs coordinated by the two cooperating land-grant universities in each of the state's 100 counties and the Cherokee Reservation. The programs are supported through the cooperation of county, state and Federal governments, and wide variety of organizations, groups, and individuals.

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

This final report for the PPARS programmatic efforts includes all programs including national initiatives, 3d special funded programs and, civil rights. An overview of the State Major Program results for all Cooperative Extension programs conducted during the year of 1996 is also included.

HIGHLIGHTS OF NATIONAL INITIATIVES

FOOD SAFETY AND QUALITY

The Food Safety and Quality initiative was addressed by multidisciplinary teams at both state and county levels. Food Safety and Quality clientele involved in food service received targeted information. These included day care employees, restaurant employees, food processors, occasional food preparers, populations at increased risk foodborne disease, home food preparers, and food bank employees. Programs were designed to meet diverse audiences' needs. A variety of education methods were used. Television, radio, newspaper, newsletters and distance education classrooms were used for wide distribution of information. The major focuses of the Food Safety and Quality Initiative continue to be food safety education for food producers, food processors, food handlers, educators, nutrition and health professionals and the consumer. Programs like ServSafe, HACCP, and safe quality food preparation continue to expand to additional audiences.

Extension provided programming for participants in the Department of Aging Nutrition Program and the Mental Health's Rainbow Ridge Program for people with emotional problems. Extension was asked to provide training so participants would understand the importance of keeping food safe to eat and of good quality. After participating in the Food Safety and Quality workshop participants were given the opportunity to take their leftovers home. 52 clients were provided information on storing, preparing, and reheating foods so they remain safe. School food service employees (144) increased their knowledge of food and equipment safety. One-hundred thirty-two reported adopting new behaviors. Ten schools improved or developed a kitchen safety checklist to be used daily in their operations.

Over 54,000 Extension clientele increased their adoption of recommended food handling practices since 1992. 36,678 (1992-1997) Extension clientele improved practices and processes that promote the production and protection of a food supply with minimal risk. 32,207 (1992-1997) extension clientele improved their understanding of risks and responsible practices in relation to food and health. 56,523 (1992-1997) program participants increased their knowledge of the risks and benefits of specific food components, processing technologies or food production chemicals.

PLIGHT OF YOUNG CHILDREN:

The North Carolina Cooperative Extension Service continues to work to improve the lives of its youngest citizens. With programs such as the Expanded Food and Nutrition program, work with breast feeding moms and the Out for Lunch Program, agents are able to reach limited resource families with invaluable information for the health of

their families. Agents are also working with the state Initiative Smart Start.

Immunization of North Carolina's youngest citizens is critical for their health and well being. A community approach to the problem of children not receiving proper immunization is being employed in one of North Carolina's urban counties. An immunization coalition is working at the grass roots level to educate citizens about the importance of proper immunization. The coalition is also working to address barriers to immunization such as transportation, cost, availability and lack of understanding. The coalition has held immunization fairs, and is working with local private practice physicians to provide free or low cost vaccines to families. Approximately 79 community action groups have assisted Extension during the year in designing and implementing a plan to meet the needs of limited resource families with young children. Over 20,000 (1992 - 1997) limited resource parents of young children and of young children (prenatal through age five) living in limited resource families have been reached directly by Extension staff and volunteers. 33,851 (1992-1997) trainers reached limited resource families with young children (e.g., agency personnel, religious leaders, child-care and other service providers) whom Extension instructed.

DECISIONS FOR HEALTH

In 1997, twenty-one counties reported health and health-related activities under the NC state major program: Health and Human Safety. An additional four counties reported breast and cervical cancer control activities associated with the Southern Appalachia Leadership Initiatives on Cancer (SALIC) Project and fifteen counties participated in the ABILITY Projects for disabled farmers, farmworkers and their families. All 100 counties also disseminated health and health-related information provided specifically for Medicare recipients. The pesticide management programs continued to impact North Carolina's agricultural community.

External resources for the support of the NC Extension health programs continues to increase with substantial monies being obtained at the county level. State level externally-funded projects include $90,000 for the Agromedicine program and $872,963 in 1997 support for the NCCES Rural Health Program activities (ABILITY Project, $226,000 and SALIC, $646,963).

County Extension - led health programs included the ongoing Community Health Advocates Program (CHAP), childhood immunization coalitions, child safety seat campaigns, breast cancer outreach education, health care insurance education programs, home safety and crime prevention programming, farm safety camps for children and youth and agricultural safety and health programs.

Collectively, Extension efforts in health and safety have had considerable impact on individuals, families and communities in North Carolina.

The Onslow County Community Advocates Program (CHAP) continues to represent a major health program accomplishment as it enters it's sixth year of training community volunteers to serve as local health resources.

The initial USDA AgrAbility project has been parlayed into an ongoing outreach program for disabled rural residents including farmers and farm workers through the provision of additional support from a private foundation and the NC Department of Human Resources. The NCCES ABILITY Project has expanded to all 100 NC counties.

Faculty and staff with the NC Cooperative Extension Service continued to serve as conveners of the National Network for Health under the auspices of the National Extension CYFAR Project.

670,522 people have adopted healthy life styles and reduced risk behaviors by taking responsibility for their health decisions since 1992. 150,000 individuals learned to make informed decisions through the use of available health-related services and facilities since 1994. Thirty-three counties participated in an immunization campaign.
Sixty-two counties collaborated to improve the availability of existing health-related services and facilities other than those related to immunization of young children. 211 community (counties) groups improved their capacity to access and take action related to health and health-related infrastructure needs not met by existing services and facilities since 1992.

SUSTAINABLE AGRICULTURE

The Sustainable Agriculture Task Force went through a reorganization based on critical input from field and campus faculty. This new organization is based on identified focus areas and subgroup participation of faculty, NGO's and others. The reorganization was the result of the NGO/land grant summit and sustainable agriculture retreat. NGO representatives and land grant faculty were given the charge to indicate the top five areas for moving sustainable agriculture forward in North Carolina. These areas were: 1)develop a mission/vision statement; 2) help in the development of sound public policies with regard to agriculture; 3) foster support for systems approach to long-term field research; 4) develop a strong curriculum at the land grant universities dealing with sustainable agriculture concepts and practices; and 5) develop protocols for collaborative on-the-farm research between researchers and farmers.

Sixty-three additional extension staff have been trained on sustainable agriculture concepts and approaches, this brings the total to 363. An additional 710 programs and 467 demonstrations were implemented. The total for the 6-year period is 2,288 programs and 1,913 demonstrations. Eight thousand five hundred more produces

adopted recommended sustainable agriculture practices, bringing the total to 36,982.

During the past 6 years, training has been conducted for extension agents each year with total attendance over 300. Numerous meetings have been held for producers, agents, and others as well as collaborative efforts with other organizations and agencies on sustainable agriculture concepts and practices. The Center for Environmental Farming Systems was dedicated in 1994 in an effort toward long-term, large-scale, systems research and demonstration. The 2,100-acre farm includes organic production, no-tillage production, and farming systems comparisons, and is a cooperative effort of the two land grant universities and the North Carolina Department of Agriculture and Consumer Services.

Youth-At-Risk

During the past six years, North Carolina Extension agents have been involved with the Youth-At-Risk Initiative. The Youth-A-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 has provided leadership in building coalitions and designing educational programs for youths in high risk environments.

Coalitions:
More than 700 coalitions worked to address youth-at-risk issues. Coalitions have helped maximize scarce resources and bring together the expertise needed for effective and efficient youth-at-risk programming. Approximately 351 long-term coalitions worked to monitor the long-range goals. More than 21,511 volunteers donated over 48,446 days to the Youth-At-Risk Initiative. Over $4,398,352 of federal, $3,769,968 of state, $222,959 of local government, and $453,211 of private dollars were used to support youth-at-risk programs.

Youth Impacts:
Extension agents provided training for over 13,263 school-age child care workers. These workers provided care for nearly 118,228 youths, including 4-h, home economics, and agriculture. Over 2,960 adjudicated youths have reduced their involvement in the judicial system. Nearly 42,300 youths improved their academic performance as a result of Extension programs. Improved study habits, increased school attendance, and reduction of out-of-school and in-school suspensions have also occurred.

Nearly 8,400 youths decreased their alcohol and other drug usage after participating in Extension programs. Many youths are postponing sexual involvement. There has also been a reduction in teenage pregnancy. Career training and preparation have been provided to over 40,250 youths. Many youths have improved their literacy skills as a result of youth-at-risk programs. Nearly 2,200 science and technology programs have been conducted. More that 6,700 youths improved their literacy skills as a result

of Cooperative Extension programs.

Program Linkage:
Youth-at-risk are being mainstreamed into 4-H and other successful programs for youth and families who live in at-risk environments. In 1994, Governor Hunt initiated the Support Our Students Program (SOS). The 64 non-profit agencies in 64 counties which received these grants, 8 of which are 4-H programs, are being supported by State and County Extension personnel in the areas of training, technical assistance, and curriculum. The Governor's Smart Start program, an early childhood initiative started in 1992-93, is also being supported by Extension agents. In 1997 the Extension Service was asked to initiate a pilot program to provide training and technical support to 10 Family Resource Centers. Through Dependent Care, Block Grant, AmeriCorps, and Support Our Students funds, more that $5 million have been used to help create safe and developmentally appropriate child care for children and youths in most of North Carolina's 100 counties.

Summary:
In summary, there continues to be a need for youth-at-risk programming. Extension agents have been successful in building coalitions, utilizing diverse volunteers, and securing funding to help establish support systems for youths. The Cooperative Extension Service is an important component in helping communities develop effective youth-at-risk programs.

COMMUNITIES IN ECONOMIC TRANSITION

While local effects vary widely, many rural North Carolina communities continue to be influenced by the social and economic changes taking place at the state and national level. As local citizens experience these changes they sense they need to take stock of what is happening and address their opportunities. This involves two of the three thrusts of the program in North Carolina, 1) community strategic planning and 2) leadership development. The development of community leadership and strategic plans has resulted in the development of two museums, a study of a native American cultural center, and plans for further attracting tourism to a rural county.

The third component of the program is enterprise development or entrepreneurship. The extension-sponsored Edgecombe Entrepreneur Organization has been supported through efforts of local legislators to the amount of $25,000. This organization is partnering with the Tarboro-Edgecombe Chamber of Commerce to provide information and support of the development and retention of small businesses.

Over the past six years, extension programs have helped over 35 communities go through a strategic planning process and develop local leadership. As a result of Extension's assistance, numerous small and home-based entrepreneurs have developed their own business and/or marketing plans, while more than 200 new start-ups occurred during the program.

WATER QUALITY

Animal waste management has continued to be a focal point of the citizens in the state. The Animal Waste Applicator Certification program initiated in 1996 for swine waste applicators was expanded to include operators of all liquid waste systems. Special emphasis has been placed on innovative animal waste treatment technologies, especially those with the potential to eliminate waste treatment lagoons.

The Neuse River Education Team was established to address specific needs for pollution reductions in the river basin. The Extension lead team will focus primarily on nonpoint sources of nutrients which have been implicated as one of the sources of excess nutrients reaching the lower Neuse River. Considerable time has been spent in team building and program development so that educational programs will be in place when the final basinwide management plan is adopted.

Drinking water and well testing programs continue in several counties. Participants are learning ways to address and prevent contamination. In one county 75% of the participants were new to Extension programs. Over the six-year period approximately 958 wells have been tested.

Agriculture producers are reducing the amount of nitrogen applied to corn in North Carolina. It has gone from an average of 165 lbs/acre in 1992 to 120 lbs/acre in 1997. The number of acres on which alachlor is applied to corn has dropped from 9,000 in 1993 to 3,000 in 1997.

HIGHLIGHTS OF 3d PROGRAMS

FARM SAFETY

Health and safety programs were conducted throughout the state in a variety of ways involving 5,900 participants. Programs and seminars were conducted on CPR, first aid, home moisture control and prevention, equipment safety, fire safety, recycling materials, radon and indoor quality, and child safety. These programs and seminars involved volunteer leaders, Extension Professionals, local health professionals, and local officials interested in providing a safe environment for their communities. The result of these programs range from saving an infant's life due to a nurses' quick thinking and training; 260 fifth grade students participated in an Environmental Field day; 60 youth and volunteer leaders participated in a Farm Safety Day Program; and water screening for people in counties which have found high levels of contaminants. Onslow County Extension Center is now able to provide CPR and First Aid classes to day care providers at a reduced rate compared to other sources in the county. Home

moisture control, mildew prevention, and removal are the most requested type of home environment information in Mecklenberg County. Sixty-two kits were mailed and 160 phone calls were responded to throughout the year.

"Green Homes, Green Communities" seminar was held, with 2150 participants including architects, educators, recycling coordinators, and builders. Seventeen different sessions were conducted. $4,500 in donations helped to make this an affordable and successful workshop.

With the help of Randolph Livestock Association, the Cooperative Extension Service in Randolph County hosted a "Progressive Farmer" Farm Safety Camp for kids. Sixty five farm youth from the ages of 7 - 15 participated in this first ever safety camp.

Forty five family members were involved in educational programs on a health home environment in one county. Seventeen of the participants were from limited income families.

The Cooperative Extension Service in Warren County quickly became involved with helping local residents recover from Hurricane Fran. Agriculture agents immediately began working with local farmers answering questions on crop harvesting and livestock protection. A 24 hour disaster loss report for agriculture was filed showing more than $7.5 million in agricultural losses. Information was distributed to all residents on food and water precautions, dangers and recommendations.

RENEWABLE RESOURCES EXTENSION ACT

NCCES programs supported by the Renewable Resources Extension Act have made a difference in the management of the forest lands of North Carolina, improved efficiency in processing of wo *RENEWABLE* RESOURCES EXTENSION ACT

NCCES programs supported by the Renewable Resources Extension Act have made a difference in the management of the forest lands of North Carolina, improved efficiency in processing of wood products, and improved fish and wildlife habitat and at the same time enhancing income landowners realize from their natural resources. Workshops on quality control in plywood manufacturing have helped plants improve their operations to be more efficient. An advanced dry kiln workshop, with teaching materials, has provided the lumber and furniture industries with updated computer controls and specialized drying schedules. With the high value of timber, many landowners are interested in improving their income potential from their woodlands. Landowners attending two workshops learned about using herbicides as a tool, 90 percent of the participants said they would use herbicides with 70 percent indicating that participation in the workshop would save them money. One example of

extension's continued effort to encourage private landowners to use professional foresters in making management and marketing decisions has resulted in one couple receiving $21,000 more than originally offered to them by a timber buyer.

Youth are an important component in natural resources extension programs. NCCES is instrumental in the Project Learning Tree program in North Carolina. The number of teachers trained is increasing annually with a goal of 2,000 by the year 2000. Youth are actively involved in 4-H forestry and wildlife competitions with teams attending the national events. One youth active in both programs was named the North Carolina Youth Conservationist of the year for 1996.

Over the six-year period of the plan, extension programs have assisted landowners in enhancing their economic viability, over $26,454,945 were earned or saved in forestland education programs, $2,928,400 were earned or saved from efforts related to fish and wildlife management, and there was an increased savings and earnings of approximately $6,199,340 from more efficient utilization of renewable resources. Continuing education is an important component of renewable resources management; 25,681 contact hours have been provided. Additionally over 322,700 people have increased their knowledge of environmentally appropriate practices from participating in extension programs.

PESTICIDE APPLICATOR TRAINING

North Carolina has 27,945 private pesticide applicators. Private applicators must be re-certified every three years by attending a 2-hour class. This is the fifth 3-year recertification cycle conducted for farmers. Eight hundred and ninety-nine new applicators were certified and 8,231 applicators were recertified this past year. An agricultural health study, conducted by Survey Research Associates, Inc. and sponsored by the National Cancer Institute was completed in which farmers, during recertification classes, participated in a comprehensive pesticide use survey.

Commercial pesticide applicators are licensed in 14 different categories. Currently there are 13,282 commercial pesticide applicators, public operators, and consultants. Typically, 16 two-day classes are held across the state to train new applicators/dealers each year. Additionally, 22 one-day schools were held for specialty groups such as electric power companies, public school employees, vocational agriculture teachers, university workers, and others. There were 1,631 newly certified commercial applicators and 1,133 applicators were recertified during the plan year.

Over the 1992-1996 period, 2,510 recertification classes were held for over 9,000 commercial applicators, public operators, consultants, and dealers. In addition approximately 25,000 other people learned more about pesticides and pesticide use in programs other than certification classes. Approximately 250 special two-hour Worker Protection Standards meetings for 10,100 employers were held in the 100 counties to help employers train their handlers and workers. Extension does not train

the employees directly nor issue EPA verification cards.

PESTICIDE IMPACT ASSESSMENT

In an effort to inform clientele of the activities of the North Carolina Pesticide Impact Assessment Program, a home page was created and publications (newsletters, fact sheets, etc.) were linked to the home page. Other sites that relate to pesticide use, regulation and safety as well as pesticide management are linked to the home page which is constantly maintained and updated. Work was initiated on a home page for NAPIAP. To maintain linkages with extension and nonextension audiences, appropriate specialists participated in state, regional and national commodity and pesticide meetings to update efforts in North Carolina and learn about other issues and developments.

During the plan period, mail surveys were conducted of 940 sweetpotato producers in 17 counties, 1,115 cotton producers in 18 counties, 281 tomato producers in 25 counties, approximately 3,000 poultry producers in 54 counties, 95 potato producers in 14 counties, 936 Christmas tree producers in 24 counties, and 1,036 peanut producers in 13 counties in North Carolina to determine pesticide use patterns on sweet potatoes in 1991, cotton in 1992, tomatoes and poultry (i.e., broilers, broiler breeders, egg layers, and turkeys) in 1993, potatoes and Christmas trees in 1994, and peanuts in 1995. Data on herbicides, insecticides, miticides, nematicides, fungicides, rodenticides, disinfectants, growth regulators, and/or nonchemical pest management practices used by sweet potato, cotton, tomato, poultry, potato, Christmas tree and peanut producers were collected and stored in a database along with pesticide use data for the 1988 peanut crop, 1989 potato and flue-cured tobacco crops, and 1990 apple and cucumber crops. Information in the database includes chemical and nonchemical pest management alternatives used, percentage of acreage treated with the alternatives, application rates, number of applications, methods of application, costs of application, and yield and quality effects of alternatives. The database is used to respond to inquiries for pesticide use data from USDA's NAPIAP and other organizations.

During the plan period, approximately 200 searches were performed in the National Information Retrieval System and information retrieved on registered pesticide products was used by extension and research personnel to assist North Carolina growers with the management of pests.

INTEGRATED PEST MANAGEMENT

NCCES programs about Integrated Pest Management have resulted in substantial successes in a number of areas. In 1997 3500 more farmers adopted IPM practices bringing the six-year total to 17,837. Twenty-five more crop consultants were trained with a total of 383 having participated in programs on integrated pest management. During the past year, 1,005 scouts were trained and 3,337 growers were trained on

IPM.

During the six-year reporting period, IPM activities were reported in 89 of the 100 counties involving alfalfa, apples, Christmas trees, corn, cotton, potatoes, greenhouses, pastures, peanuts, small grains, soybeans, tobacco, turf, vegetables, beef, swine, poultry, and urban. This effort has resulted in widespread adoption of IPM techniques by growers farming at least 2.7 million acres using 3 or more of the following IPM methods: 1) pesticide applications based on scouting and thresholds, 2) pesticide applications based on predictive models, 3) crop rotations used to hinder or destroy pest establishment and survival, 4) pest resistant varieties are used, or 5) use of early maturing varieties to avoid pest problems. This represents 68% of the harvested row crops in North Carolina. Between 70-90 scouting schools are held each year with an average total attendance of 3,500 producers and/or fieldmen. Annual on-farm demonstrations average 300 grower participants. Annually over 400 scouts are trained to monitor crops. An intensive program of field faculty training in IPM with both classroom and field components support IPM outreach efforts.

Field crops receive the bulk of the IPM efforts as the majority of pesticides are used on these crops. Over 2,000 growers have been involved in IPM training efforts and tours. A special project that targeted 15 counties to increase the use of postemergent herbicides instead of preplant incorporated and preemergent herbicides resulted in a savings to growers of $1.1 million and reduced herbicide use by 80 tons total active ingredient.

The Fraser fir Christmas tree industry is important to the economy of western North Carolina and the IPM program has made dramatic shifts in production and management of this commodity. In the largest Christmas tree producing county, there has been a 35% average reduction in pesticide use, and 77% of the growers are using the ground cover suppression technique of weed management.

IPM programs have been developed and delivered in urban settings for municipal pest managers, school officials, and interiorscape professionals. Over 350 have been trained. Special training has been conducted for Master Gardners on biological control, resistant varieties, and economic thresholds. Mosquito IPM educational efforts continue to show the disparity between citizen knowledge of this pest's biology and fact.

EFNEP

The EFNEP program has reached more than 41,000 adults and 31,000 youth during the period of FY: 92-97.

While most were reached through traditional EFNEP program efforts with individuals and small groups, increased opportunities have included preformed groups referred by cooperating agencies. Percent of adult participants being reached in groups rose from 56% in FY: 92 to 72% in FY: 95. This percent dropped to 60% in FY: 96 because

of substantial enrollment of breastfeeding mothers in the regular EFNEP program. In FY: 97 76% of adults were reached in groups.

Evaluation data indicates that adult and youth participants during FY: 92 - FY: 97 achieved knowledge, skills and dietary improvements similar to those of past years. This indicates that increased teaching in groups has not compromised program results.

An expanded version of the national adult curriculum (ErlB 3) was implemented In FY: 96. This curriculum included lesson plans, learning activities, participant handouts, tested recipes and visual displays for teaching individuals and groups.

In 1995, each EFNEP unit in North Carolina began reporting locally using the EFNEP Evaluation/Reporting System (ERS).

Agency cooperation increased during the six-year period. Enrollments of WIC participants in EFNEP rose from 63% in 1992 to 93% in 1997. Enrollment in the Food Stamp Program remained above 50%.

Some of the non-traditional audiences reached through EFNEP include court referred parents who are assigned to a day reporting center, Work First participants, Commodity Food Distribution recipients, students in English--as a Second Language class--at local Community Colleges and Head Start parents. Group instruction has been offered at local churches and public housing community centers. EFNEP has worked with many different groups to recruit participants. Examples include: child protective services, the court system, Work First, WIC, private health practitioners, public health, hospitals, Public Housing, Public Schools and Smart Start.

3167 participants who graduated from EFNEP during FY: 97, 1900 (60%) improved their diets to include at least one serving of foods from each food group (40%) increase from program entry.

In 1997 eight (8) paraprofessional positions were funded by Smart Start, a state-wide initiative which provides funds for county-level coalitions. These paraprofessionals conduct traditional and innovative (Breastfeeding and Pregnant Teen) EFNEP programs in five (5) counties. The strong linkages CES and EFNEP have in North Carolina counties has made these positions possible.

EFNEP paraprofessionals in a number of counties are also involved with Hispanic community leaders to provide nutrition education for migrants. Extension professionals have supported the EFNEP program by serving on interagency councils charged with addressing the needs of Hispanic communities.

Paraprofessionals are training staffs at day care centers. Not only do the children benefit from the nutrition education provided for the staff members, but staff members earn continuing education credits.

One project targeted inner-city youth involving two public housing communities. It

was successful in part due to the collaboration with community churches. The youth participated in the preparation of healthful meals with the support of a strong volunteer base evolving from the local churches. A grant has been submitted in conjunction with the local churches to secure continuation funding for 1998.

Since it began in 1994, a special project working with pregnant teens has reached 211 adolescents. The average age of the mothers is 16 with a range of 10-19. Pre and post tests show an 86% increase in knowledge and attitude toward behavior fostering positive pregnancy outcomes. Of the 211 adolescents, 202 delivered babies with birth weights exceeding the 5.5 pound goal.

One paraprofessional with the adult EFNEP program reported that all of her individual participants were referrals from the breastfeeding support program in her county. She finds these breastfeeding mothers to be motivated EFNEP participants.

Two hundred seventy brochures were distributed at the quarterly commodity food pick-up in one county. An EFNEP group was started through this recruitment.

71,859 program participants have promoted farm safety awareness and adopted safe farming practices since 1992. 18,365 (1992-1997) requests for farm safety materials were received. Over 33,732 Extension clientele adopted one or more safe farming practices since 1992. 8,391 (1992-1997) clientele improved their knowledge of farm accidents rescue procedures.

State Major Plan 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.

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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 safety 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 saving 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 availabliity 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, intersession 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 practioners 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.

Forth 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.

NORTH CAROLINA 1997 ANNUAL REPORT:
OVERVIEW

FTE ESTIMATES FOR ALL PROGRAMS

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	770.8	30.0	0.0	166.3	28.8	0.0
1993	770.8	30.0	0.0	166.3	28.8	0.0
1994	770.8	30.0	0.0	166.3	28.8	0.0
1995	770.8	30.0	0.0	166.3	28.8	0.0
1996	770.8	30.0	0.0	166.3	28.8	0.0
1997	770.8	30.0	0.0	166.3	28.8	0.0
Total	4624.8	180.0	0.0	997.8	172.8	0.0

CONTACTS

NORTH CAROLINA 1997 ANNUAL REPORT:
FOOD SAFETY AND QUALITY(01)

NARRATIVE SUMMARY OF ACCOMPLISHMENT

The Food Safety and Quality initiative was addressed bymultidisciplinary teams at both state and county levels. Clientele involved in foodservice received targeted information. These included day care employees, restaurant employees, food processors, occasional quantity food preparersl, populations at increased risk for foodborne disease, home food preparers, food bank employees. Programs were designed to meet diverse audiences'needs.
Programming was provided in a variety of settings to reach the intended audiences. Clientele were reached in schools, day care facilities, youth alternative classrooms, youth clubs, senior nutrition sites, worksite wellness programs, and through distance education. Others groups were reached in community settings such as housing authorities, professional conferences and food safety certification courses.
A variety of education methods were used. Mass media was used to provide quick information to clientele and prepare agents to respond to questions. Television, radio, newspaper, newsletters and distance education classrooms were used for wide distribution of information. The Food Safety Science Fellows summer program reached 27 students. Print media, bulleting and fact sheets were used to reinforce food safety message.
The major focuses of the Food Safety and Quality Initiative continue to be food safety education for food producers, food processors, food handlers, educators, nutrition and health professionals and consumer. Programs like ServSafe, HACCP, and safe quantity food preparation continue to expand to additional audiences.

SUCCESS STORIES
Extension provided programming for participants in the Department of Aging Nutrition Program and the Mental Health's Rainbow Ridge Program for people with emotional problems. Extension was asked to provide training so participants would understand the importance of keeping food safe to eat and of good quality. Only after participating in the Food Safety and Quality workshop were participants given the opportunity to take their leftovers home. The leftovers help to supplement their diets. The Extension agent provided 52 clients with information on storing, preparing, and reheating foods so they remain safe.

Improper holding temperatures, poor personal hygiene, contaminated equipment, and inadequate cooking are major causes of foodborn disease. A Kitchen and Equipment Safety Program was developed be Extension, the county school board, and the county fire marshall. School foodservice employees (144) increased their knowledge of food and equipment safety. One-hundred thirty-two reported adopting new behaviors. Ten schools improved or developed a kitchen safety checklist to be used daily in their operations.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES
OBJECTIVE 1
Extension clientele will increase their adoption of recommended food handling practices.
INDICATOR 1
Enter the number of participants, and the percent of participants who incr their adoption of recommended practices. (Press F2 for explanation.)

	Percent Increasing	Number of Program
6yr Proj	75.0	31000

	Adoption	Participants
1992	75.0	2552
1993	75.0	9761
1994	75.0	6351
1995	75.0	10968
1996	75.0	11560
1997	75.0	12880
Total		54072

Data Collection Methodology

The indicators for Food Safety and Quality programs include the collection of total participation data (from enrollment records) and assessment of impact on clientele. It is recommended that measurement of clientele impact be done on the basis of sampling at the state (vs. county) level to minimize burden and standardize methods. Evaluation methodology and sample size should be determined for each program based on the characteristics of that program.

OBJECTIVE 2

Extension clientele will improve practices and processes that promote the production and protection of a food supply with minimal risk.

INDICATOR 1

Enter the number of program participants, and the percent of participants who increased their adoption of practices that protect the food supply. (Press F2 for explanation.)

6yr Proj	95.0	20000

	Percent Increasing Adoption	Number of Program Participants
1992	95.0	1673
1993	95.0	4728
1994	95.0	2022
1995	95.0	10605
1996	95.0	8760
1997	95.0	8890
Total		36678

Data Collection Methodology

The indicators for Food Safety and Quality programs include the collection of total participation data (from enrollment records) and assessment of impact on clientele. It is recommended that measurement of clientele impact be done on the basis of sampling at the state (vs. county) level to minimize burden and standardize methods. Evaluation methodology and sample size should be determined for each program based on the characteristics of that program.

OBJECTIVE 3

Extension clientele will improve their understanding of risks and responsible practices in relation to food and health.

INDICATOR 1

Enter the number of program participants, and percent of participants who increased their knowledge of food safety public

policy issues. (Press F2 for explanation.)

6yr Proj	95.0	20000

	Percent Increasing Knowledge	Number of Program Participants
1992	95.0	87
1993	95.0	11867
1994	95.0	2556
1995	95.0	4837
1996	95.0	7300
1997	95.0	5560
Total		32207

Data Collection Methodology
The indicators for Food Safety and Quality programs include the collection of total participation data (from enrollment records) and assessment of impact on clientele. It is recommended that measurement of clientele impact be done on the basis of sampling at the state (vs. county) level to minimize burden and standardize methods. Evaluation methodology and sample size should be determined for each program based on the characteristics of that program.

INDICATOR 2

Enter the number of program participants, and percent of program participants who increased their knowledge of the risks and benefits of specific food components, processing technologies or food production chemicals. (Press F2 for explanation.)

6yr Proj	95.0	3400

	Percent Increasing Knowledge	Number of Program Participants
1992	95.0	257
1993	95.0	2400
1994	95.0	6494
1995	95.0	16825
1996	95.0	15757
1997	95.0	14790
Total		56523

Data Collection Methodology
The indicators for Food Safety and Quality programs include the collection of total participation data (from enrollment records) and assessment of impact on clientele. It is recommended that measurement of clientele impact be done on the basis of sampling at the state (vs. county) level to minimize burden and standardize methods. Evaluation methodology and sample size should be determined for each program based on the characteristics of that program.

PART B OBJECTIVES AND INDICATORS

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	575000
1993	575000
1994	575000
1995	575000
1996	500000
1997	500000
Total	3300000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	10.0	0.2	0.0	1.0	0.5	0.0
1993	10.0	0.2	0.0	1.0	0.5	0.0
1994	10.0	0.2	0.0	1.0	0.5	0.0
1995	10.0	0.2	0.0	1.0	0.5	0.0
1996	9.0	0.2	0.0	1.0	0.5	0.0
1997	9.0	0.2	0.0	1.0	0.5	0.0
Total	58.0	1.2	0.0	6.0	3.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	550
1993	550
1994	550
1995	550
1996	550
1997	550
Total	3300

ADDITIONAL COMMENTS

PROGRAM CONTACTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
SUSTAINABLE AGRICULTURE(03)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
The Sustainable Agriculture Task Force composed of faculty from North Carolina's two land grant universities, farmers, non-governmental organizations (NGO) and state and federal agency representitives have provided leadership during the past 6 years for sustainable agriculture in North Carolina. At its inception in 1992, the Task Force was charged with examininig the status of existing sustainable agriculture projects and programs as well as future direction for the program. Program efforts during the past 6 years have involved:

TRAINING: Sustainable agriculture training has been conducted each year since 1992. Total agent attendence during the past 6 years has been over 300. Training has been conducted in basic concepts of sustainability as well as specific areas such as bio-control, organic vegetable production, no-tillage practices, controlled rotational grazing, waste management, riparian zone management and water quality, and cover cropping/crop rotations.

MEETINGS: From 1993 through 1996 the Task Force sponsored a Sustainable Agriculture Forum dealing with current and relevant agricultural issues in North Carolina. Theses meetings were attended by approximately 500 farmers, extension agents, AG agency and NGO personnel and land grant faculty.

Beginning in 1995 the NGO community and land grant faculty have participated in discussions to find innovative methods of networking and collaboration. These meetings have served to introduce and aquaint university faculty and administrators with the diversity and function of NGO's in North Carolina with agricultural agendas.

For the past six years, the land grant universities have assisted and financially supported the Carolina Farm Stewardship Association's annual "Sustainable Agriculture Conference". Faculty have participated in seminars and fiield demonstrations associated with the conference.

For the past three years land grant faculty have been directly neworking with the North Carolina Sustainable Agriculture Working Group (NCSAWG). NCSAWG meets monthy and represents a diverse group of NGO's with programs related to agriculture.

CEFS: The Center for Environmental Farming Systems, CEFS, was dedicated in 1994 as an effort toward long-term, large-scale, systems research and demonstration. This farm is a partnership between the state's two land grant institutions and the North Carolina Department of Agriculture. The 2,100 arce farm has three main thrusts which include organic production, no-tillage production and farming systems comparisons.

PROPOSALS: In 1994 and 1995 funding was received from the Z. Smith Reynolds Foundation in support of the sustainable agriculture effort at NCSU. These funds were used to fund a mini-grant program and 18 projects were funded during the two year period. In addition funding was used to initiate a World Wide Web site for the North Carolina Sustainable Agriculture program. In 1994 the two land grand universities and five North Carolina NGO's received funding from the Kellog Foundations Integrated Farming Systems Initiative. This collaboration is focusing on four separate communities in NC.

PUBLICATIONS: In 1994, the Task Force published a sustainable agriculture program statement and distributed the publication to all of North Carolina's

one hundred counties. In 1995 the Task Force together with the North Carolina IPM program provided Dr. Mary Peet with support for a comprensive organic vegetable production manual. This manual was purchased for each county office in the state and it was also mounted on WWW site.

STRATEGIC PLANNING: In 1995, a subgroup of the Task Force composed of farmers, NGO's and land grant faculty drafted a strategic plan and implementation plan for training. A strategic plan was published which outlined the major objectives of the program.

1997 ACTIVITIES: In 1997 the Task Force went through reorganization based on critical input from field and campus faculty. This new organization is based on identified focus areas and subgroup participation of faculty, NGO's and others. The reorganization was a product of the 1997 NGO/land grant summit and sustainable agriculture retreat. NGO representatives and land grant faculty were given the charge to indicate the top five priority areas for moving sustainable agriculture forward in NC. These areas were identified as: Mission/Vision, Public Policy, Systems Approach, Curriculum Development, and On-Farm Research Protocol Development.

SUCCESS STORIES
THE NORTH CAROLINA SUSTAINABLE AGRICULTURE TASK FORCE

Since 1994 the North Carolina Sustainable Agriculture Task Force has provided leadership and direction for sustainable agriculture efforts in North Carolina. The Task Force is composed of faculty from the state's two land grant institutions, farmers, and representatives of non-governmental organizations and state and federal agencies. This group has made concrete contributions toward enhacing sustainable agriculture in North Carolina. As a direct result of Task Force recomendations: (1) a one-half time sustainable agriculture coordinator has been named for the College of Agriculture and Life Sciences (CALS); (2) three new campus faculty have been added (in the departments of horticulture, entomology and plant pathology) with specific responsibilities in sustainable agriculture; (3) a 2,100 acre farm specifically dedicated to long-term systems has been dedicated; (4) formal discussions have begun concerning curricula for susatinable agricuture in CALS; (5) a comprehensive survey of the NC cooperative extension service has been made to provide vital benchmark information regarding attitudes toward sustainable agriculture; the sustainable agriculture and IPM programs have jointly sponsored training opportunites and collaborated in numerous projects to advance sustainable agriculture in the state; (6) a Task Force sub-committee has produced a strategic plan for training and an implementation plan. During 1996 a program evaluation was conducted by a consultant.Evaluation consisted of telephone and personal interviews and two questonnaires. Results indicated that training objectives were being met. For example, at least one agent in 99 of 100 counties attended a trainig session dealing with sustainable agriculture principles. Also it was determined through phone interviews that 95% of the receptionists in county offices were familiar with the term, sustainable agriculture, and agreed that their office provided related information.

In April of 1997 the Sustainable Agriculture Task Force held a NGO/land grant summit meeting and identified the top five priorities for moving sustainable agriculture forward in North Carolina. These areas were: (1) develop a mission/vision statement (carry this forward to expand understanding of the concept); (2) Help in the development of sound public policies with regard to agriculture; (3) Foster support for systems approach to long-term field research; (4) Develop a strong curriculum at the land grant universities dealing with sustainable agriculture concepts and practices; and (5) develop protocols for collaborative on-farm-research between researchers and farmers. The Task Force is now reorganized around these topics in order to facilitate

and monitor achievements.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

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

INDICATOR 1

Enter the number of Extension staff trained on sustainable agriculture concepts and approaches.

6yr Proj	50

	Number of Staff Trained
1992	64
1993	41
1994	29
1995	122
1996	44
1997	63
Total	363

Data Collection Methodology

Staff survey. Use a definition of "sustainable agriculture" that fits Sta context.

INDICATOR 2

Enter the number of sustainable agriculture programs and demonstrations implemented.

6yr Proj	50	50

	Number of Programs Implemented	Number of Demos. Implemented
1992	22	2
1993	42	190
1994	41	243
1995	751	524
1996	722	487
1997	710	467
Total	2288	1913

Data Collection Methodology

Maintain a roster of State and county staff involved in sustainable agriculture programs. Conduct an annual survey to identify programs and demonstrations implemented, projects submitted and, if successful, source of funds.

INDICATOR 3

Enter the number of producers adopting recommended sustainable agriculture practices and the total number of all practices adopted by all producers.

6yr Proj	50	0

	Number of Producers	Number of Practices Adopted
1992	0	0
1993	4989	9
1994	4744	9
1995	9949	9
1996	8800	9
1997	8500	9
Total	36982	45

Data Collection Methodology

Survey an appropriate sample of producers, selected in the most practical way, and project statewide estimates.

OBJECTIVE 2

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

INDICATOR 1

Enter the number of projects developed for funding by the Sustainable Agriculture Act of the U.S. Congress.

6yr Proj	2

	Number of Projects Implemented
1992	0
1993	6
1994	4
1995	6
1996	4
1997	7
Total	27

Data Collection Methodology

INDICATOR 2

Enter the number of projects developed for and funded by sources other than the Sustainable Agriculture Act of the U.S. Congress.

6yr Proj	2

	Number of Projects Developed
1992	0
1993	1
1994	2
1995	14
1996	12
1997	10
Total	39

Data Collection Methodology

PART B OBJECTIVES AND INDICATORS

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	1368750
1993	1368750
1994	1368750
1995	1368750
1996	1368750
1997	1368750
Total	8212500

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	16.0	1.3	0.0	6.0	6.0	0.0
1993	16.0	1.3	0.0	6.0	6.0	0.0
1994	16.0	1.3	0.0	6.0	6.0	0.0
1995	16.0	1.3	0.0	6.0	6.0	0.0
1996	16.0	1.3	0.0	6.0	6.0	0.0
1997	16.0	1.3	0.0	6.0	6.0	0.0
Total	96.0	7.8	0.0	36.0	36.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	120
1993	120
1994	120
1995	120
1996	130
1997	130
Total	740

+-------+------------+

ADDITIONAL COMMENTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
WATER QUALITY(05)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
Animal waste management has continued to be a focal point of the citizens in the state. The Animal Waste Applicator Certification program initiated in 1996 for swine waste applicators was expanded to include operators of all liquid animal waste systems. Special emphasis has been placed on innovative animal waste treatment technologies, especially those with the potential to eliminate waste treatment lagoons.

The Neuse River Education Team was established to address specific needs for pollution reductions in the river basin. The Extension lead teams will focus primarily on nonpoint sources of pollution which have been implicated as one of the sources of excess nutrients reaching the lower Neuse River. Considerable time has been spent in team building and program development so that educational programs will be in place when the final basinwide management plan is adopted.

SUCCESS STORIES
KEEP AMERICA BEAUTIFUL COMMUNITY. One county has been certified as a Keep America Beautiful Community. This National Program provides leadership in the areas of litter education and prevention. Keep America Beautiful certifies about 20 communities a year. This program on a local level will focus on litter prevention and recycling education. Program efforts are expected to generate $20,000 worth of increased revenues from recycling volume increase. The program also networks this county of the N.C. Cooperative Extension Service with eight other government agencies which increase the effectiveness of the programming efforts.

WATER QUALITY AND POLLUTION PREVENTION INFORMATION PROGRAM
Because of increased public awareness of pollution problems in the southeastern section of North Carolina, a water quality and pollution prevention information program is being developed. To date, more than 560 people in two counties have attended program presentations. Program participants have included Master Gardeners, landscapers, 4-H groups and local community groups. The response has been very favorable and presentations have already been requested for 1997. One county nurseryman commented that the information presented related directly to an increased storm runoff problem on his properpty and that he knew some steps that he might take to help correct the problem.

CLEAN COUNTS
In collaboration with a local public works department, one county received a $7400 pilot project grant for "Clean Counts", a pesticide container recycling program. Fifty-two pesticide applications were trained in the importance of container recycling, pressure rinsing techniques, container preparation and collection site information. Applicators who agreed to recycle 80% of their containers received a pressure rinse nozzle. A site collector was hired for monthly collection days. A survey indicated a variety of reasons why participants were not regularly recycling containers. Site locations were expanded to better accommodate farmers and others. The program continues to be monitored and evaluated.

COUNTY WATER QUALITY/WASTE MANAGEMENT TASK FORCE
A county Water Quality/Waste Management Task Force was organized. This task force is a mixture of private business, county organizations, community organizations, and general public. The first goal the task force felt had to be accomplished was to spark an awareness in the general public about water

quality issues. With this in mind, the task force teamed up with North Carolina State University to conduct a Residential Water Screening Program. Fifty-six samples were screened. Those individuals whose samples exceeded background levels were counseled on how to prevent contamination. A big accomplishment of the water screening program was the opportunity to interact with customers who had never used or heard of Cooperative Extension. Of those who had water screened, 75% had never participated in a Cooperative Extension program.

COUNTY DRINKING WATER SCREENING. Lead and nitrate screening was provided for county residents for the second year. Fifty participants brought 49 samples for lead and 34 water samples for nitrate-nitrogen screening. Over half of participants were new to Extension. Results indicated most water samples screened were free of potentially unsafe levels of lead, only one sample was exceptionally high. Nitrate screening showed 6 samples exceeding acceptable limits for public water supplies. Results indicated that nitrate contamination was not a widespread problem, but in isolated cases, near crops or septic systems contamination of water supplies may occur. This program will serve as a basis for future educational programs in drinking water safety.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

NUTRIENT MANAGEMENT

Agricultural producers will reduce/prevent water degradation from plant nutrients.

INDICATOR 1

Enter the average annual rate of application of commercial nitrogen fertilizer in the identified problem area for the crop, the nitrogen fertilization of which is expected to pose the greatest nitrate threat to water quality in the state/territory over the next four years. (Press F2 for definitions and suggestions).

6yr Proj	corn	110	15117

	Name of Crop	Average Lbs/acre of N Applied	Total Acres of Crop in Problem Area
1992	corn	165	0
1993	corn	155	16000
1994	corn	130	16000
1995	corn	130	16000
1996	corn	121	18000
1997	corn	120	14000

Data Collection Methodology

1. Fertilizer recommendation for corn is 120-140 lbs/acre.
2. Published recommendations in North Carolina Agricultural Chemical Manual and Extension Soil Fact Sheets are used.
3. Data is collected by project personnel which survey all farms.

INDICATOR 2

Please list in this narrative section the THREE highest priority practices for producer adoption that potentially result in reduced rates of application of commercial nitrogen to the identified crop and/or potentially reduced rates of loading of nitrate to water resources in the identified problem area. And, DESCRIBE Extension plans to get these practices adopted. Choose specific practices from the list available via the F2 key. Modify and add to the list as necessary.

1997 ACTUAL RESULT(S)

1) Nitrogen recommendations are based on crop needs, soil type and yield potential.

2) Credit is given for all sources of nitrogen including animal waste, legume crops and cover crops which are plowed in.

3) Split application of nitrogen is used on soils with high leaching potential.

Data Collection Methodology

1. Fertilizer recommendation for corn is 120-140 lbs/acre.
2. Published recommendations in North Carolina Agricultural Chemical Manual and Extension Soil Fact Sheets are used.
3. Data are collected by project personnel which survey all farms.

OBJECTIVE 2

PESTICIDE MANAGEMENT

Agricultural producers will reduce/prevent water degradation from pesticides.

INDICATOR 1

Enter the acres of application of the most water quality sensitive pesticide for the selected crop. This pesticide has the active ingredient which is expected to pose the greatest pesticide threat to water quality in the state or territory over the next four years. (Press F2 for definitions and suggestions).

6yr Proj	alachlor	corn,soybeans	13537	27073

	Name of Pesticide	Name of Crop	Acres Applic. of Pesticide to Crop	Total Acres of Crop in Problem Area
1992	alachlor	corn,soybeans	13537	27073
1993	alachlor	corn	9000	16000
1994	alachlor	corn	8200	16000
1995	alachlor	corn	8000	16000
1996	alachlor	corn	8500	18000
1997	alachlor	corn	3000	14000

Data Collection Methodology

Crop: Corn

Data Collection: From ASCS reports.

INDICATOR 2

Please LIST in this narrative section the THREE highest priority practices for producer adoption that potentially result in reduced acres of application of the pesticide to the crop and/or potentially reduced rates of loading of the pesticide to water resources in the identified problem area. And, DESCRIBE Extension plans to get these practices adopted. Choose specific practices from the list of examples available via the F2 key. Modify and add to the list as necessary.

1997 ACTUAL RESULT(S)

1) Schedule planting to reduce potential for pest infestation.

2) Select the pesticide with the least potential for negative water quality impacts.

3) Use scouting to determine timing and frequency of pesticide application.

Data Collection Methodology
OBJECTIVE 3
ANIMAL WASTE MANAGEMENT
Agricultural producers will reduce/prevent water degradation from animal wastes.

INDICATOR 1

Enter the type of animal waste that is expected to pose the greatest threat to water quality in the state/territory over the next four years. Then, enter the number of animal units (of the species of animal producing the identified type of animal waste) for which producers use one or more practices to hold to an acceptable degree the runoff and/or infiltration from concentrations of the specified type of animal waste. (Press F2 for definitions and suggestions.)

	Specified Animal Waste	Animal Units for which Practs. Used	Total Animal Units in Prob. Area
6yr Proj	swine	22800	57000
1992	swine	22800	57000
1993	swine	34000	60000
1994	swine	45000	71000
1995	swine	58000	75000
1996	swine	82000	83000
1997	swine	77000	90000

Data Collection Methodology
Type of waste: Lagoon Liquid
Data Source: Extension Agent Survey

INDICATOR 2

Please LIST and discuss in this narrative section the THREE highest priority practices for producer adoption that potentially result in holding animal waste runoff and infiltration to an acceptable degree and/or potentially reduced rates of loading of animal wastes to water resources in the identified problem area(s). And, DESCRIBE Extension plans to get these practices adopted. Choose specific practices from the list of examples available via the F2 key. Modify and add to the list as necessary.

1997 ACTUAL RESULT(S)

1) Upgrade existing waste treatment lagoons.

2) Properly construct new waste treatment facilities.

3) Follow certified waste utilization plans.

Data Collection Methodology
OBJECTIVE 4
QUALITY OF WELL WATER/WELLHEAD PROTECTION
Households will protect/improve quality of private domestic use well water.

INDICATOR 1

Enter the number of domestic-use wells in the problem area, the number of such wells tested, and the number of those wells tested found to be polluted, i.e., do NOT meet health standards, due to

biological, nitrate and/or pesticide contaminants. (Press F2 for definitions and suggestions.)

	Number of Tested Wells Polluted	Number of Wells Tested	Total Number of Wells in Problem Area
6yr Proj	150	750	1500
1992	40	189	1500
1993	24	98	1500
1994	24	120	1500
1995	24	120	1530
1996	19	311	1600
1997	28	120	1700

Data Collection Methodology
Data sources are:
1. North Carolina Extension Groundwater Education and Testing Program and EPA Well Testing Program

INDICATOR 2
Please LIST in this narrative section the THREE highest priority wellhead protection practices that potentially result in minimizing the number of polluted wells in the identified problem area(s). And, DISCUSS Extension plans to get these practices adopted. Choose specific practices from the list of examples available via the F2 key. Modify and add to the list as necessary.
1997 ACTUAL RESULT(S)
1) Properly site household waste system away from the well.

2) Mix and load chemicals away from wellhead.

3) Properly maintain septic system.

4) Improve wellhead protection practices.

Data Collection Methodology
OBJECTIVE 5
PUBLIC POLICY EDUCATION
Public officials and citizens will act at the local level to protect and/or improve water quality.
INDICATOR 1
Enter the number of counties in the identified problem area(s) where Extension conducts public policy education to improve/protect water quality, and the total number of counties in the identified problem area. (Press F2 for definitions and suggestions.)

	Counties Recv. Ext. Pub. Pol. Ed.	Total Number of Counties in Prob. Area
6yr Proj	3	3
1992	3	3
1993	3	3
1994	3	3
1995	3	3
1996	3	3
1997	3	3

Data Collection Methodology
INDICATOR 2
Please LIST in this narrative section the THREE highest priority public policy education processes that potentially result in strengthening public policy regarding water quality in the identified problem area. And, DESCRIBE Extension plans to get these processes implemented relative to community leaders, local government, etc. Choose specific processes from the list of examples available via the F2 key. Modify and add to the list as necessary.
1997 ACTUAL RESULT(S)

1) Inform policymakers, public officials and citizens on the risks and cost of impaired water quality and alternative solutions.

2) Inform policymakers and public officials on sources and utilization of water quality data, scientific studies and state/federal regulations and guidance documents.

3) Involve all key persons, public sector agencies and private sector organizations in identifying water quality problems and evaluating alternative solutions.

4) Work with state water quality agency in delivering animal waste operator certification training program.

Data Collection Methodology

PART B OBJECTIVES AND INDICATORS

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	4497500
1993	4497500
1994	4497500
1995	4497500
1996	4497500
1997	4497500
Total	26985000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	79.3	0.0	0.0	12.3	0.0	0.0
1993	79.3	0.0	0.0	12.3	0.0	0.0

1994	79.3	0.0	0.0	12.3	0.0	0.0
1995	79.3	0.0	0.0	12.3	0.0	0.0
1996	79.3	0.0	0.0	12.3	0.0	0.0
1997	79.3	0.0	0.0	12.3	0.0	0.0
Total	475.8	0.0	0.0	73.8	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	3500
1993	3500
1994	3500
1995	3500
1996	3500
1997	3500
Total	21000

ADDITIONAL COMMENTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
YOUTH AT RISK(06)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
NORTH CAROLINA 1997 ANNUAL REPORT
YOUTH AT RISK (06)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
NORTH CAROLINA 1997 ANNUAL REPORT:
YOUTH AT RISK (06)
NARRATIVE SUMMARY OF ACCOMPLISHMENT

During the past six years, North Carolina Extension agents have been involved with the Youth-At-Risk Initiative. This initiative has involved total staff participation and has allowed the Cooperative Extension Service to serve an important audience of youths.

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. Effective youth-at-risk programs must be holistic in design, involve the expertise of various groups and agencies, and use the ecological model to encompass all factors which place youth at risk. Coalitions of agencies must identify the needs of youths and design programs to address the needs and build support systems for youths and families. The North Carolina Cooperative Extension Service has provided leadership in building coalitions and designing educational programs for youths in high risk environments.

In the early 1990's the Youth-At-Risk initiative was a new programming area for the Cooperative Extension Service. However, Extension agents and state specialists have been extremely successful in designing and implementing programs to support youths and families in at-risk environments. A primary reason for the success of Extension's efforts in youth-at-risk programming is the effective use of coalitions. During the past six years, more than 700 coalitions worked to address youth-at-risk issues. These groups were involved with needs assessments and helped Extension agents plan, implement, and evaluate programs for youth-at-risk. Coalition members were active as teachers, mentors, and role models for at-risk youths. Coalition members also identified financial and human resources; priortized needs and programs; and provided accountability to stakeholders. Coalitions have helped maximize scarce resources and bring together the expertise needed for effective and efficient youth-at-risk programming. Approximately 351 long-term coalitions worked to monitor the long-range goals. More than 21,511 volunteers donated over 48,446 days to the Youth-At-Risk Initiative. Over $4,398,352 of federal, $3,769,968 of state, $222,959 of local government, and $453,211 of private dollars were used to support youth-at-risk programs.

School-age child care programs were also used to support at-risk youths and families during the past six years. Extension agents provided training for over 13,263 school-age child care workers. These workers provided care for nearly 118,228 youths. Youths in before and after school child care participated in many Extension sponsored educational programs, including 4-H, home economics, and agriculture.

The Cooperative Extension Service youth-at-risk programs have had a positive impact on youths. Over 2,960 adjudicated youths have reduced their involvement in the judicial system. Nearly 42,300 youths improved their academic performance as a result of Extension programs. Improved study habits, increased school attendance, and reduction of out-of-school and in-school

suspensions have also occured. Nearly 8,400 youths decreased their alcohol and other drug usage after participating in Extension programs. There had been a reduction of behavior problems at home, school, and with authority figures. Many youths are postponing sexual involvement. There has also been a reduction in teenage pregnancy. Career training and preparation have been provided to over 40,250 youths. Many youths have improved their literacy skills as a result of youth-at-risk programs. Nearly 2,200 science and technology programs have been conducted. More than 6,700 youths improved their literacy skills as a result of Cooperative Extension programs.

In addition to these results, more than 9,900 youths improved their life skills, self-esteem, and decision-making skills. Youths developed conflict resolution skills and improved their interpersonal skills.

Youth-at-risk are being mainstreamed into 4-H and are increasing their knowledge in numerous 4-H subject matter areas. These youths are participating in summer day and residential camps, public speaking and fashion revue contests, county fairs, presentations, and various citizenship and leadership roles. Many have improved their communication skills with peers, parents, and other adults. Parenting classes have been provided to help parents be more effective at communicating with and relating to their children.

Cooperative Extension's work in youth-at-risk also helped develop many other successful programs for youth and families who live in at-risk environments. In 1994, Governor Hunt initiated the Support Our Students Program (SOS). The SOS program is an after school program which targets at-risk, middle school age youths. The 64 non-profit agencies in 64 counties which received these grants, 8 of which are 4-H programs, are being supported by State and County Extension personnel in the areas of training, technical assistance, and curriculum. Cooperative Extension will assist with the expansion of this program during 1997-98.

The Governor's Smart Start program, an early childhood initiative started in 1992-93, is also being supported by Extension agents. The program is in many North Carolina counties and Extension agents serve on Smart Start Advisory committees and steering groups.

Extension agents were also involved with the development of Family Resource Centers in numerous counties. During the development of the centers, the Department of Human Resources sought the support of county Extension agents to help plan, design, and implement programs to support the work of the Family Resource Centers. Resources of the Cooperative Extension Service serve an important role in the success of the Centers. In 1997 the Extension Service was asked to initiate a pilot program to provide training and technical support to 10 Family Resource Centers.

Extension agents have been very successful in building collaborative relationships with schools and other groups to improve the quality and availability of school-age care programs. Through Dependent Care, Block Grant, AmeriCorps, and Support Our Students funds, more than $5 million have been used to help create safe and developmentally appropriate child care for children and youths in most of North Carolina's 100 counties. These programs have helped decrease many of the negative consequences associated with children being home alone (i.e. accidents, pregnancy, substance abuse, loneliness, depression, and over exposure to television).

Over the past six years, the Cooperative Extension Service has demonstrated its capacity to have a positive impact on families and youths who live in at-risk environments. The youth educational opportunities planned and conducted by Cooperative Extension have prevented many youths from dropping out of school,

becoming pregnant, getting involved with substance abuse, and being incarcerated. These youths will become productive, contributing, and successful members of society. The impact of Extension's youth-at-risk programs will benefit society for many years. However, there are still many youths and families who live in at-risk environments and who need the support of the Cooperative Extension Service.

Although Extension has been successful with its Youth-At-Risk programs, there is more work to do. The fact is that dual working parents, single parents, poverty, and negative peer pressure will continue to place youth at risk of failing to reach their potential. Many youths do not have support systems to help them cope with risk factors (i.e., poor parenting, negative peer pressure, poverty, poor school performance, etc.) which they face. Research suggests that protective factors at various levels -- individual, family, peer group, school, and community -- must be in place to support youth-at-risk audiences. The global society of today is creating greater competition in the marketplace. Many youths are not prepared for the job market. School dropout, low academic achievement, teen pregnancy, drug abuse, child abuse, crime, violence, and other adverse behavior prevent youths from being competent, coping and contributing members of society.

During the past six years Extension agents demonstrated a need for youth-at-risk programming. These agents have been successful in building coalitions to identify youth needs and designing programs to address these needs. The agents have secured funds to support youth-at-risk work. Agents have been effective in utilizing volunteers and other resources to build support systems for youth-at-risk audiences. Agents are having long-term impact on targeted audiences. Agents have developed holistic programs which involve all aspects of the youths' environments: parents, families, schools, peers, and community. Appropriate resource people are being used to ensure effectiveness and efficiency of programs delivered.

In summary, there continues to be a need for youth-at-risk programming. Extension agents have been successful in building coalitions, utilizing diverse volunteers, and securing funding to help establish support systems for youths. The Cooperative Extension Service is an important component in helping communities develop effective youth-at-risk programs. Therefore, there is a need for Cooperative Extension to continue providing leadership in helping design programs for youths who live in high risk environments. These programs must be holistic and involve all aspects of a youth's environment (i.e. family, peer group, community, school, and work). The work of Cooperative Extension personnel has increased Extension's credibility among various groups and agencies. More and more groups are looking to Extension to provide leadership in youths and family programs. Our work in youth-at-risk during the past six years has taught us that in order to be successful, our work must encompass all aspects of a youth's environment. Therefore, we plan to expand our work to include children, youth, and families-at-risk with special emphasis placed on developing resilient youth, families, and communities and continue to expand our work in child care programming for pre-school and school-age youths. It is imperative that Cooperative Extension take the opportunity to provide leadership in this important societal issue. With Extension's leadership and support, programs can be designed to help youths become competent, coping, and contributing members of society.

SUCCESS STORIES
CATAWBA COUNTY

4-H programs are conducted at Hilltop Apartments, a low-income, multi-cultural area. Many of the children reside with single parent families, receive little parental support, and do not participate in activities beyond their community.

The older youth became involved with 4-H presentations and weekly presentation help sessions were planned. Eight youth worked on presentations; 5 gave their presentations at County Activity Day. Through the presentation process, these youth were able to establish individual goals/plans. Several weeks after the competition, one of the children told me she had to give a speech at school. She was not scared because she did a presentation and knew she could give her speech. A parent told me that she was pleased to see her child in 4-H and explained that 4-H was the only after-school activity he was interested in attending. Their presentations were very simple, but they learned and accomplished a geat deal.

FORSYTH COUNTY

Most latch-key youths do not understand their nutritional needs or have basic food preparation and kitchen safety skills. Cooperative Extension, in cooperation with the Triad Chapter of the American Culinary Federation, planned and conducted the "Chef and the Child", a 5 day series of foods and nutrition education classes for low-income youth ages 8-12. Thirty youth participated with the assistance of 6 local chefs and the family and consumer educator. By the end of the week, most of the youth had mastered basic measuring, food preparation, kitchen safety techniques and a better understanding of the importance of making nutritious food choices. The youths also had the opportunity to learn more about what it means to be a chef and see that as a possible career opportunity. Started in Forsyth County in 1990, this program now reaches out to 5 additional counties in our area to help young people learn more about foods, nutrition and kitchen safety.

WAYNE COUNTY

Wayne County 4-H Youth Development conducts an after school program for students at two inner city schools funded by an SOS (Support Our Students) grant. The program is comprised of 45 to 55 students at each school conducted Monday thru Thursday on school days. Students are divided into groups and rotate into activities such as: recreation, homework, and a 4-H project activity. During homework time, students are given time to work on class assignments and receive assistance when needed. Students from Mount Olive College and Goldsboro High School volunteered to help the 4-H staff and serve as tutors for the students. Teachers were surveyed to measure the impact the 4-H After School Program was having on the students school performance. The results were: 76% of students increased class participation, 60% increased homework completion, 65% increased the quality of homework, 70% increased grades.

WAYNE COUNTY (2ND SUCCESS STORY)

Wayne County 4-H collaborates with Goldsboro Housing Authority to provide after school care for families that live in the three inner city communities. There are a total of 76 students in these programs. Each day these students attend the program after school until 6:00 p.m. The program in two communities operate full days during the summer and school holidays. Another program operates half days during this time. Youth in the program are divided into age groups and participate in a variety of activities including 4-H projects, recreation and homework. Evaluations of these students' third nine-week report cards show that 94% of the students had no failing subjects. This is a direct result of the 4-H after school staff working with these youth on their homework.

AVERY COUNTY

Avery County Partnership for Children is the organization in our county which

handles the Smart Start funds. The Partnership has been able to help 4 more Child Care Homes get started with Smart Start funds and additional funding from an area business and 20 new child care slots have been created. Two new programs have been established and are run through volunteers. One program is a support group for 8 Hispanic women and their 12 children, which is made possible with the help of 6 volunteers. They are learning health issues, English as a second language, and other living skills. The second program is the Kindersport program which involves 2 volunteers and 19 parents and 18 children each week.

MADISON COUNTY

The licensed summer program for school-age children which began in 1996 has been continued with a 30% increase in participation. Additional interested youth must be put on a waiting list due to lack of available spaces. While volunteers are recruited to serve as guest speakers and program/project leaders, community citizens now contact us and ask to volunteer with our program. Children tell their parents/guardians not to pick them up until closing time because they're enjoying themselves so much. With limited available summer care for school-agers, 4-H is meeting a critical need for working parents.

MITCHELL COUNTY

A child that has been diagnosed borderline autistic attends the 4-H Discovery After-School Program daily. Three years ago this child would not raise her head off her chest or speak a word to the counselors or tutors. When given instructions, or asked for a response, she only pointed and gave a blank stare. We began working more one-on-one with this child, and in small group settings. We incorporated 4-H curriculum; SPACES and I've Got To Be Me into the after-school activities. We worked on self-esteem building and success in her daily activities. After three years this child still somedays only gives us a smile for a response, however, she walked down the runway at the 4-H Fashion Show in front of approximately 300 people and read aloud at the 4-H Babysitting Clinic.

RUTHERFORD COUNTY

Communication between child care providers and parents is a key issue in quality child care. Through Extension's Child Care Training Units curriculum, twenty-three providers gained knowledge of the role effective communication plays in quality child care. One-on-one conversations and role playing activities defined communication techniques and demonstrated common barriers to effective communication. All providers stated that the training provided them with new knowledge and skills. Thirty-three percent reported learning how to incorporate good communication skills into problem solving techniques. Twenty-five percent said presenting negative situations to parents in a positive manner was a new skill they could immediately put into practice.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

SCHOOL AGE CHILD CARE EDUCATION: Extension will help communities establish school age child care educational programs for ages 5-14 and encourage existing providers to adopt Extension curriculum.

INDICATOR 1

Enter the number of communities needing School Age Child Care (SACC) out of the total number of communities surveyed.

6yr Proj	1210	1200

	Number of Communities Surveyed	Number Needing SACC
1992	11	9
1993	430	430
1994	372	372
1995	388	388
1996	410	410
1997	320	320
Total	1931	1929

Data Collection Methodology
Community needs assessment.

INDICATOR 2
Enter the number of children served by child care programs established with Extension involvement.

6yr Proj	66000

	Number of Children Served
1992	1000
1993	23475
1994	15554
1995	25049
1996	28150
1997	26000
Total	119228

Data Collection Methodology
Survey child care providers.

INDICATOR 3
Enter the number of existing provider staff receiving training.
Enter the number of provider staff adopting Extension curriculum.

6yr Proj	6725	6300

	Number of Provider Staff Trained	Number Adopting CES Curriculum
1992	1610	1175
1993	2060	2060
1994	1357	1357
1995	1697	1697
1996	2150	2150
1997	5999	5999
Total	14873	14438

Data Collection Methodology
Survey child care providers.

OBJECTIVE 2
YOUTH LITERACY: Extension will enhance the reading and science/technology literacy of program participants.

INDICATOR 1
Enter the percent of the total number of participants involved in literacy programs showing literacy improvements.

6yr Proj	15.0	15000

	Percent Showing Improvement	Number of Participants
1992	0.0	0
1993	56.0	9491
1994	100.0	1474
1995	100.0	395
1996	100.0	1560
1997	100.0	3306
Total		16226

Data Collection Methodology
Staff records of participation and enrollment, supplemented by narrative description of accomplishments.

INDICATOR 2
Enter the number of science/technology programs and/or projects initiated or projects rewritten to emphasize science and technology content and approaches.

6yr Proj	5

	Number of Sci/Tech Programs
1992	0
1993	353
1994	532
1995	416
1996	491
1997	400
Total	2192

Data Collection Methodology
Staff records of participation and enrollment, supplemented by narrative description of accomplishments.

OBJECTIVE 3
COLLABORATION FOR HIGH RISK YOUTH: Extension will obtain commitment of other academic resources at the Land Grant University and work with community agencies to provide training and other educational components for the developmental needs of high risk youth.

INDICATOR 3
Enter the number of longer-term collaborations/coalitions organized to address complex issues.

6yr Proj	15

	Number of Cooperations/ Coalitions
1992	3
1993	67
1994	85
1995	48
1996	291
1997	60
Total	554

Data Collection Methodology
Survey university and community collaborative efforts.

INDICATOR 4
Specify the purpose(s) of longer-term collaboration/coalitions to address complex issues.

1997 ACTUAL RESULT(S)
The long-term coalitions were used for many of the same purposes as short-term coalitions. The long-term coalitions developed holistic progams designed to address issues of families and their children. The primary goal of the long-term coalitions was to develop resources which would improve the quality of life for families. Many of the programs had parent components in addition to the youth-at-risk aspect. Coalitions were used to identify long-term goals and reduce and prevent duplication of services. These coalitions provided long-term tracking and evaluation of educational programs provided to youth-at-risk audiences. Specific roles of coalition members include accessing needs, prioritizing needs and program funding, referral services networking to maximize resources, tutors, advice, teachers, mentors, expanded quality child care services, providing service for children with special needs and increasing availability of child care.

Data Collection Methodology
Survey university and community collaborative efforts.

PART B OBJECTIVES AND INDICATORS

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	680000
1993	680000
1994	680000
1995	680000
1996	680000
1997	680000
Total	4080000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	9.4	1.8	0.0	3.4	1.3	0.0
1993	9.4	1.8	0.0	3.4	1.3	0.0
1994	9.4	1.8	0.0	3.4	1.3	0.0
1995	9.4	1.8	0.0	3.4	1.3	0.0
1996	9.4	1.0	0.0	3.4	1.3	0.0
1997	9.4	1.0	0.0	3.4	1.3	0.0
Total	56.4	9.2	0.0	20.4	7.8	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	1040
1993	1040
1994	1040
1995	1040
1996	1040
1997	1040
Total	6240

ADDITIONAL COMMENTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM(07)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
A.OBJECTIVES

Three thousand seven hundred and fifty (3750) EFNEP families will acquire the knowledge, skills, attitudes and changed behavior for nutritionally sound diets and to contribute to their personal development.

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

The EFNEP state program will increase interagency cooperation.

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

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

B. NON-EXTENSION RESOURCES

Total of $1,213,301 in additional funds. This includes $443,016 in state grants (WIC program and Smart Start): and $770,285 from local and private contributions.

Non-Extension agencies providing training, support and/or referrals: local agencies (Health Departments, WIC program, Social Services-TANF, Food Stamps, Governor's Smart Start program, Public Schools, Community Colleges, Head Start, N C Food bank, Habitat for Humanity, Parks and Recreation Programs), Private Sector (banks, agribusiness, local business, medical community), Advisory Councils/Committees, Law Enforcement, Churches, Civic groups, United Way, Women's Shelters, Women's Correctional Facilities, Day Care Sites, Boys and girls Clubs, After School programs, Mass media, La Leche League, Homeless Shelters, Public Housing Authorities, Youth Foster Homes, graduated program participants, volunteers who assist in teaching the ERIB curriculum.

In FY:95 a state-wide EFNEP task Force was established to provide recommendations for the substainability of EFNEP in North Carolina. The Task Force included representatives from all levels of CES programming and administration. The resulting recommendations included the requirement of a similar county financial match for EFNEP paraprofessional positions as was required for other county Extension employees. North Carolina County Extension programs were given two years to plan and budget for these matching funds. These county match requirements became effective in July, 1997, when filling any vacant paraprofessional position. This ensures a gradual phase-in of county support for EFNEP positions.

D. OTHER INDICATORS AND ACCOMPLISHMENTS

INTERAGENCY COOPERATION

Evidence of increased agency cooperation during the six-year period is clear. The numbers and percent of enrollments of WIC participants in EFNEP rose from 3883 (63%) in FY:92 to 5112 (93%) in FY:97; percent enrollment in Food Stamp program remained above 50% throughout the four year period when total

enrollment increased, and reached 66% in FY:97. Enrollment of WIC participants increased considerably because of ES/WIC grant-funded projects, such as the breastfeeding support program in ten counties, the pregnant teen program with its expansion throughout the state, and special group teaching at a number of WIC sites.

During the same period, EFNEP staff increased their teaching efforts with groups, largely with preformed groups referred from other agencies. Percent of EFNEP participants being taught in groups rose from 56% in FY:92 to 76% in FY:97, (Note: These numbers excluded 1518 breastfeeding support program participants in FY:97 who were all taught on an individual basis.)

By the end of FY:97, eight (8) paraprofessional positions were funded by Smart Start, a state-wide initiative which provides funds for county-level coalitions. These paraprofessionals conduct traditional and innovative (Breastfeeding and Pregnant Teen) EFNEP programs in five (5) counties. The strong linkages CES and EFNEP have in North Carolina counties has mades these positions possible.

DIETARY IMPROVEMENT

Of 3167 participants who graduated from EFNEP during FY:97, 1900 (60%) improved their diets to include at least one serving of foods from each food group (40%) increase from program entry). Three hundred and forty-nine participants (13%) achieved recommended food servings in all food grous, an increase of 11% from program entry.

BREASTFEEDING SUPPORT PROGRAM

Breast Milk provides infants with optimal nutrition for healthy growth and development, in addition to protection from infection and allergic reactions. Breastfeeding is the preferred method of feeding infants.

Beginning in 1992, a pilot program in breastfeeding support to WIC mothers was carried out in Wake County. Funded by WIC, a specially trained EFNEP paraprofessional provided in-home breastfeeding support for WIC clients. Analysis of data indicated that greater numbers of women established lactation and were still breastfeeding at 2 weeks post-partum than with a control group. Breastfeeding duration also increased significantly among those who received EFNEP support.

By FY:96, the breastfeeding support program had expanded to nine additional counties, a mixture of urban and rural sites. Seven were established through federal ES/WIC grants and two through the state Smart Start program. In September of FY:96 ES/WIC funds ended. As a result, some breastfeeding project counties were successful at identifying funding sources resulting in sustainability of the program. Still other new counties demonstrated interest and also identified funding sources. As of FY:97, two county breastfeeding projects are funded by the WIC program, two county projects are funded by a private philanthropic foundation, one is funded by the regional hospital, and four county projects are funded by Smart Start for a total of nine current projects (Note: grant proposals are currently being considered for three additional projects).

Results showed that numbers of WIC clients choosing to breastfeed had increased, and that a significantly greater number and percent were still breastfeeding at two weeks, six weeks and eight weeks post-partum when compared with baseline WIC records. These effects were independent of urban or rural status. Similar results were reported in Michigan where the Wake County model was carried out with ES/WIC project funds.

Because breastfed babies are protected from many common diseases of infancy, it has been estimated that $29 million could be saved annually if all WIC mothers in the US breastfed their babies exclusively for the first month of life. In the ten breastfeeding project counties in North Carolina in FY:96, over 70% of participants were still breastfeeding at four weeks post-partum. Fifteen hundred eighteen (1518) breastfeeding mothers in 7 counties were enrollind in the In-Home Breastfeeding Support Program during FY:97. Six year Total: 7320.

Also through ES/WIC funds North Carolina collaborated with the Children's Nutrition Research Center at Baylor College of Medicine, regional lactation professionals and the EFNEP and WIC programs in Michigan to develop a comprehensive training curriculum appropriate for preparing high-school graduates to be non-professional breastfeeding counselors. This curriculum (In-Home Breastfeeding Support Program) includes a detailed teaching guide and all required teaching materials (video, handout masters, transparencies, and slides). A companion notebook was developed to provide a management guide for replication of North Carolina's In-Home Breastfeeding support Program.

PREGNANT TEEN PROGRAM

An ES/WIC grant has addressed the need of support to pregnant teens in achieving positive pregnancy outcome. An experiential curriculum emphasizing nutrition and peer support involves the teens in interactive learning. The curriculum was pilot tested, edited and printed during the initial year. Delivered in school groups and individually to homebound teens, the project evaluated changes in nutrition knowledge and food preparation skills. The utimate outcome is the birth of babies who exceed the minimum desired birth weight.

Data gathered during the project grant indicated 95% of the live births exceeded the minimum weight with a mean birth weight of 6 lbs. 15 ounces.

The pre/post curriculum survey indicated that the biggest improvement made by the participants was in diet knowledge, followed by knowledge of other prenatal practices. Of the possible 18 lessons, the pregnant teens participated in an average of 12. Analysis of the 24-hour food recalls showed improvement in the minimum food consumption pattern, but only a slight increase in achievement of the recommended pattern.

The pregnant teen program has experienced success with counties other than the pilot with more than 4,000 pregnant teens being reached through EFNEP in the 6-year period, FY:92-97. One of the project objectives of the 1994-95 proposal was the training of all EFNEP program assistants against the curriculum "Hey What's Cookin'". Funding for additional program assistants to target pregnant teens in several counties was secured through the state Smart Start program.

The EFNEP program has reached more than 41,000 adults and 31,000 youth during the period of FY: 92-97.

While most of them were reached through traditional EFNEP program efforts with individuals and small groups, increased opportunities arose to teach preformed groups referred by cooperating agencies. Percent of adult participants being reached in groups rose from 56% in FY:92 to 76% in FY: 97. (This does not include breastfeeding mothers, who were taught individually).

Evaluation data indicated that adult and youth participants during FY:92 - FY:97 achieved knowledge, skills and dietary improvements similar to those of past years. This indicates that increased teaching in groups has not compromised program results.

In FY:96, an expanded version of the national adult curriculum (ERIB3) was implemented. The expansion included lesson plans, learning activities, participant handouts, tested recipes and visual displays for teaching individuals and groups.

In October 1995, each EFNEP unit in North Carolina began reporting locally using the EFNEP Evaluation/Reporting System (ERS). In previous years, EFNEP data were reported via state computer program. This data was compiled and transferred to ERS in the state EFNEP office.

During FY:97 eleven multi-county units were established with eleven area agents supervising paraprofessionals both in EFNEP and FNP.

Some of the non-traditional audiences reached through EFNEP include court referred parents who are assigned to a day reporting center, Work First participants, Commodity Food Distribution recipients, students in English as a Second Language classes at local Community Colleges, Head Start parents. Group instruction has been offered at local churches and public housing community centers. EFNEP has worked with many different groups to recruit participants. Examples of these organizations include: child protective services, the court system, Work First, WIC, private health practitioners, public health, hospitals, Public Housing, Public Schools, and Smart Start.

EFNEP paraprofessionals in a number of counties are also involved with Hispanic communicty leaders to provide nutrition education for migrants. Extension professionals have supported the EFNEP program by serving on interagency councils charged with addressing the needs of hispanic communities.

Many paraprofessionals are teaching "mini lessons" as recruitment activities at WIC clinics and Department of Social Services offices; several have agreements to teach on-site at these agencies on a regular schedule. In some counties, WIC has asked EFNEP paraprofessionals to individualize their "recruitment interactions" to address the normal nutrition needs/interest of their clients.

In a number of counties community church groups served as volunteers by providing incentivies, transportations, recruiting participants, financial assistance and facilities to support EFNEP group instruction.

Paraprofessionals are training staff of day care centers. Not only do the children benefit from the nutrition education provided for the staff members, but staff members earn continuing education credits.

Several innovative projects were funded during the summer months to extend the reach of EFNEP to additional youth audiences. Youth groups have always been a challenge in remote county sites. Lessons are often taught outside on the hood of a car, under a tree or using a card table inside. An important focus of the work with teens includes the importance of kitchen sanitation and food safety. Teens are often quite interested in the relationship of handwashing and food safety. Facilitating a demonstration of proper handwashing techniques is often challenged by the lack of running water, however using wipes, bringing water into the home in "coke bottles" or other containers has increased their appreciation of sanitation issues.

SUCCESS STORIES

Two counties teamed to do programming with migrants involved with Head Start. On-going training for staff and parents was done over a 3-month period. Staff training occurred during the day with parents attending workshops in the evening. Paraprofessionals worked with interpreters to translate EFNEP forms and handouts into Spanish.

One project targeted inner-city youth involving two public housing communities. It was successful in part due to the collaboration with community churches. The youth participated in the preparation of healthful meals with the support of a strong volunteer base evolving from the local churches. A grant has been submitted in conjunction with the local churches to secure continuation funding for 1998.

In one county, EFNEP has had good response from participants involved in a series conducted at a police sub-station site located in a public housing community. Graduates have been instrumental in recruiting others for subsequent groups within the community. One of the participants reported that she had come to recognize the link between a good breakfast and school performance. As a recently employed public assistance recipient, the single mother learned to prepare breakfast items the night before for effective time management.

Collaboration with the county public school system and the Migrant Farmers Association contributed to the success of a program in Montgomery County. Forty-seven percent (132) of the youth in the program were Hispanic, some of whom were non-English speaking. As a result of negotiations and comprehensive joint planning, the Montgomery County School System became a major player in the program. The school system paid for eight teachers and translators to work with the program. Also, through the school system's Migrant Education fund, monetary assistance was provided to meet the special needs of the Hispanic youth. The essence of community partnerships, which is to make the best match of resources to needs, was achieved.

Wayne County- The summer 4-H EFNEP program built upon a long-term relationship with the Goldsboro Housing Authority in order to provide nutrition project clubs to the young people residing in public housing. In coordination with Resident Council leadership, the process of galvanizing organizations in support of community driven initiatives was achieved. Adults from the community were trained to serve as volunteers to help coordinate and maintain the clubs. Teenagers were instrumental in designing nutrition training materials and kits that were delivered in the clubs to younger youth. The result of this collaborative effort is community capacity building, skill development and empowerment. The program provided a concrete way in which community members could impact the health of its youth.

Since it began in 1994, a special project working with pregnant teens has reached 211 adolescents. The average age of the mothers is 16 with a range of 10-19. Pre and post tests show an 86% increase in knowledge and attitude toward behavior fostering positive pregnancy outcomes. Analysis of dietary recalls show an increase in nutritive value of foods consumed, an increase in dairy products and vegetable and fruit consumption. Of the 211 adolescents, 202 delivered babies with birthweights exceeding the 5.5 pound goal. One of the pregnant adolescents was placed on bed rest during her seventh month of pregnancy. The paraprofessional visited the young woman weekly to provide encouragement and support. The baby was born at term and weighed five pounds, 12 1/2 ounces. The physicians were amazed.

Another pregnant teen joined the program during her third month of pregnancy. The paraprofessional reported the following: "When I met her, her dietary habits were unhealthy. She was eating chips, sodas, candy and fats. She was having trouble with leg cramps, sleeping and vomiting. After working with her on a regular basis, her health improved. She is having less leg cramps, her vomiting has reduced and she is now learning the importance of eating fruits and vegetables and other nutritious foods to have a healthy baby."

Another paraprofessioanal has worked with a home day care training program for individuals wishing to establish home day care businesses on a local air force base. Nutrition education through EFNEP is a required component of the course. Most of the students in the program are young mothers who qualify for EFNEP. The paraprofessional reports: "I teach the entire EFNEP program concentrating heavily on meal planning, the Food Guide Pyramid, the dietary requirements of young children, and how to follow a plan when food shopping. I have had over 40 graduates this year from the home day care program. Even the ones who never open a business say this is time well spent because it helps them to feed their families better with less money. There are currently 34 home day care businesses on Seymour Johnson Air Force Base. All of the operators have graduated from EFNEP. They all participate in the CACFP program. These graduates say they share the nutrition information they learned in EFNEP with the parents of the children they care for. They are not only improving their families basic nutrition but that of other families as well. Over the last four years I have graduated more than a hundred young mothers from the day care training program."

One paraprofessional with the adult EFNEP program reported that all of her individual participants were referrals from the breastfeeding support program in her county. She finds these breastfeeding mothers to be motivated EFNEP participants.

Two hundred seventy brouchures were distributed at the quarterly commodity food pick-up in one county. Through this recruitment, an EFNEP group was started.

One hispanic participant responded that she had learned a great deal from her EFNEP experience. During a food safety lesson, she commented to the paraprofessional that she had been purchasing large packages of meat and thawing out the whole package every time she was going to use some, and then refreezing the rest. The paraprofessional reported: "She quickly realized what she was doing was unsafe and she was grateful that I had showed her the correct way to package and store food for future use."

A paraprofessional enrolled a participant with very below standard housing. Over the months of her participation, in addition to providing EFNEP instruction, the paraprofessional provided referrals to organizations that could assist the participant with her housing concerns. The participant often needed assistance with the forms required by these organizations. As the months of her EFNEP participation progressed, renovations for the participant's home were approved. At graduation, the paraprofessional reported: "One of the most important things I learned from this episode is how much EFNEP paraprofessionals can help their clients. Often we are aware of programs and agencies taht our clients are not and when we use this knowledge, we can make a difference in someone's life. When we make a difference in the lives of our clients, we make a difference in their children's lives as well."

A number of paraprofessionals have concentrated efforts with Hispanic clients. One paraprofessional shared a specific experience with the Migrant Headstart Program. "This year I was able to work with Hispanic families through the Migrant Headstart program. Headstart provided transportation and interpreters which eliminated two significant barriers. Forty families were enrolled and graduated as a result."

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

EFNEP families will acquire the knowledge, skills, attitudes and changed behavior necessary for nutritionally sound diets and to contribute to their personal development.

INDICATOR 1

In the table below, enter the total number of EFNEP families who participated in programs to improve diet, and the percentage of those families who actually improved their diets.

6yr Proj	8000	90.0

	Number EFNEP Families Participating	Percentage Improving Diets
1992	3054	88.0
1993	3955	87.0
1994	4088	88.0
1995	4769	91.0
1996	5774	94.0
1997	3167	92.8
Total	24807	

Data Collection Methodology
EFNEP data management records.

INDICATOR 2

In the table below, enter the total number of EFNEP families who participated in programs to increase their knowledge of the essentials of human nutrition, and the percentage of those families who actually increased their knowledge.

6yr Proj	25000	80.0

	Number EFNEP Families Participating	Percentage Increasing Knowledge
1992	6179	86.0
1993	4618	89.0
1994	5438	97.0
1995	8635	79.0
1996	8657	94.0
1997	1123	51.0
Total	34650	

Data Collection Methodology
EFNEP data management records.

INDICATOR 3

In the table below, enter the total number of EFNEP families who participated in programs to increase their ability to select and buy food that satisfies nutritional needs, and the percentage of those families who actually improved food selection.

6yr Proj	15400	90.0

	Number EFNEP Families Participating	Percentage Increasing Ability
1992	0	0.0
1993	3832	78.0
1994	4322	83.0
1995	6959	87.0

1996	5770	85.0
1997	1123	51.0
Total	22006	

Data Collection Methodology
EFNEP data management records.
INDICATOR 4
In the table below, enter the total number of EFNEP families who participated in programs to improve practices in food production, food preparation, storage, safety and sanitation, and the percentage of those families who improved practices.

6yr Proj	15000	80.0

	Number EFNEP Families Participating	Percentage Improving Practices
1992	0	0.0
1993	3804	72.0
1994	4331	79.0
1995	6682	81.0
1996	5539	80.0
1997	1212	55.0
Total	21568	

Data Collection Methodology
EFNEP data management records.
INDICATOR 5
In the table below, enter the number of EFNEP families who participated in programs to increase their ability to manage food budgets and related resources (such as Food Stamps), and the percetage of those families who actually improved food management skills.

6yr Proj	18700	67.0

	Number EFNEP Families Participating	Percentage Increasing Ability
1992	6179	63.0
1993	3792	69.0
1994	3317	74.0
1995	5162	82.0
1996	5045	81.0
1997	1779	80.0
Total	25274	

Data Collection Methodology
EFNEP data management records.
OBJECTIVE 2
4-H EFNEP youth will acquire the knowledge, skills, attitudes and changed behavior necessary for nutritionally sound diets and to contribute to their personal development.
INDICATOR 1
Enter the number of EFNEP youth who participated in programs to eat

a variety of foods, and the percentage of those youth who actually eat a variety of foods.

6yr Proj	26000	63.0

	Number EFNEP Youth Participating	Percentage Increasing Variety
1992	6295	87.0
1993	3952	70.0
1994	5301	71.0
1995	8479	90.0
1996	5710	90.0
1997	5637	90.0
Total	35374	

Data Collection Methodology
EFNEP data management records.

INDICATOR 2

In the table below, enter the number of EFNEP youth who participated in programs to increase their knowledge of the essentials of human nutrition, and the percentage of those youth who actually increased their knowledge.

6yr Proj	26000	80.0

	Number EFNEP Youth Participating	Percentage Increasing Knowledge
1992	6295	87.0
1993	5399	75.0
1994	6076	83.0
1995	6517	91.0
1996	5710	89.0
1997	5637	89.0
Total	35634	

Data Collection Methodology
EFNEP data management records.

INDICATOR 3

In the table, enter the total number of EFNEP youth who participated in programs to increase their ability to select low-cost, nutritious foods, and the percentage of those youth who actually improved food selection.

6yr Proj	22000	50.0

	Number EFNEP Youth Participating	Percentage Increasing Ability
1992	4155	87.0
1993	3631	64.0
1994	5301	74.0
1995	6856	82.0
1996	5468	81.0

1997	5637	81.0
Total	31048	

Data Collection Methodology
EFNEP data management records.

INDICATOR 4

In the table, enter the number of EFNEP youth who participated in programs to improve practices in food preparation and safety, and the percentage of those youth who demonstrated improvement.

	Number EFNEP Youth Participating	Percentage Improving Practices
6yr Proj	21000	50.0
1992	4155	87.0
1993	1868	58.0
1994	5301	66.0
1995	7709	77.0
1996	5384	78.0
1997	5637	78.0
Total	30054	

Data Collection Methodology
EFNEP data management records.
Survey to track eating patterns

OBJECTIVE 3

EFNEP State programs will increase interagency cooperation.

INDICATOR 1

Enter the number of WIC offices within EFNEP communities and the percent whose clients are served by EFNEP.

	Number of WIC Offices	Percent Served by EFNEP
6yr Proj	70	100.0
1992	35	100.0
1993	63	75.0
1994	70	100.0
1995	74	100.0
1996	74	100.0
1997	94	78.0
Total	410	

Data Collection Methodology
EFNEP data management records.

INDICATOR 2

Enter the number of Food Stamp offices within EFNEP communities and the percent whose clients are served by EFNEP.

	Number of Food Stamp	Percent Served by
6yr Proj	43	100.0

	Offices	EFNEP
1992	35	100.0
1993	43	91.0
1994	41	88.0
1995	45	100.0
1996	45	100.0
1997	56	93.0
Total	265	

Data Collection Methodology
EFNEP data management records.

INDICATOR 3

Enter the number of formal agreements and/or coalitions with public or private organizations providing assistance to limited resource audiences.

6yr Proj 2

	Number of Agreements/ Coalitions
1992	21
1993	58
1994	79
1995	153
1996	81
1997	313
Total	705

Data Collection Methodology
EFNEP data management records.

INDICATOR 4

Enter the amount of money (in dollars) obtained by grants, contributions or other sources to supplement Federal EFNEP allocations.

6yr Proj 20000

	Non-Federal Dollars Obtained
1992	33542
1993	24949
1994	193385
1995	807500
1996	452840
1997	1213301
Total	2725517

Data Collection Methodology
EFNEP data management records.

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	2500000
1993	2500000
1994	2500000
1995	2500000
1996	2500000
1997	2500000
Total	15000000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	8.0	0.0	0.0	73.0	0.0	0.0
1993	11.0	0.0	0.0	81.0	0.0	0.0
1994	11.0	0.0	0.0	81.0	0.0	0.0
1995	11.0	0.0	0.0	81.0	0.0	0.0
1996	11.0	0.0	0.0	82.3	0.0	0.0
1997	11.0	0.0	0.0	79.0	0.0	0.0
Total	63.0	0.0	0.0	477.3	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	2000
1993	2000
1994	2000
1995	2000
1996	2000
1997	2000
Total	12000

ADDITIONAL COMMENTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
FARM SAFETY(08)

NARRATIVE SUMMARY OF ACCOMPLISHMENT

Health and safety programs were conducted throughout the state in a variety of ways involving 5,900 participants. Programs and seminars were conducted on CPR, first aid, home moisture control and prevention, equipment safety, fire safety, recycling materials, radon and indoor quality, and child safety. These programs and seminars involved volunteer leaders, Extension Professionals, local health professionals, and local officials interested in providing a safe environment for their communities. The results of these programs were very diverse, ranging from the saving of an infant's life due to a nurses' quick thinking and training; 260 fifth grade students participated in an Environmental Field day learning about a variety of environmental issues; 60 youth and volunteer leaders participated in a Farm Safety Day program; and water screening for people in counties which have found high levels of contaminants.

These programs resulted in trained clientel and volunteers who are in leadership roles in their respective counties with the necessary tools to continue providing these programs.

SUCCESS STORIES

The Extension Office in Onslow County is now able to provide CPR and First Aid classes to daycare providers at a reduced rate compared to other sources in the county. Other places have been charging $43.50 per person for their classes and we are able to provide classes for $10.00. The majority of the providers are paid minimum wage. We also educate them in other program areas they may be interested or need information. We will now be providing their classes for them on a quarterly basis. One of the daycare owners spoke in regards to this at our "Report to the Commissioners" and she thanked them for allowing us to work with the business owners in Onslow county and for providing their staff with up-to-date education. Two participants have told instances of where they used their skills successfully.

Home moisture control, mildew prevention, and removal are the most requested typeof Home Environment information in Mecklenburg County. A resource kit was compiled to quickly respond to information needs. It contains a moisture audit form, as well as, a selection of CES brochures on various aspects of moisture/mildew control. Sixty-two 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, five educational programs were presented by the housing agent on moisture control, and 20 programs taught by trained EH volunteers, reaching 300 additional families.

" Green Homes, Green Communities" seminar as held with 150 participants including architects, educators, recycling coordinators, and builders. Seventeen different sessions were conducted, as well as, two tours - one of the Environmental Resource Center and the second of a low-income green community. $4,500 in donations helped to make this an affordable and successful workshop. Topics included: indoor air quality, photovoltaics, heating and air condition update, and the use of recycling building mateials.

Farm children are doing all aspects of farm work becaus of the cost and lack of good labor and with this comes the chance of injury. The need for farm safety education for these youth ws inevitable. With the help of the Randolph

Livestock Association, the Cooperative Extension Service 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. Sixty five farm youth from the ages of 7 - 15 participated in this first ever safety camp. The results were great. The youth went home and told parents what they were doing wrong as far as safety was concerned on the farm. If we can save a finger or limb it was worthall the effort in doing te camp. We had six volunteers and over twenty parent volunteers.

Forty-six family members were involved in educational programs on a healthy home environment. Seventeen of the participants were from limited income families. Information was presented on choosing safer products for the home. The health benefits of using simpler, safer products was promoted as well as the economic savings. Reading labels on products and buying fewer products was also encouraged. Some of the participants had heard about using the home recipes that were shared, but thought they were old fashioned and were buying a variety of commercial products for household use. Some did not realize the potential health hazards of some products that you can buy off the shelf. Others were amazed at the warnings on product labels. The participants indicated that they plan to try using one or more safer products and that they would make an effort to read labels before purchasing products.

When Hurricane Fran hit Warren County, the Cooperative Extension Service became quickly involved with helping local residents recover. Agricultural agents immediately began working with local farmers answering questions on vcrop harvesting and livestock protection. A 24 hour disaster loss report for agriculture was also filed showing more than $7.5 million in agricultural losses. Family and Consumer Education Agent, Margaret Bullock, also worked with the Health Department and Emergency Management officials in getting information to all residents on food and water precautions, dangers and recommendations.

Decisions for health and safety are critical at individual, family and community levels. The majority of people in Ashe County obtain their water from springs and wells. Many have been concerned about water quality due to the Christmas tree industry in the county. Some were concerned that herbicides used on trees are contaminating springs and wells. The water screening was a cooperative effort of many: local media, Blue Ridge Electric, Soil and Water Conservation, Health Department, area businesses, town manager, civic clubs, 25 volunteers involved with the actual screening and North Carolina State Biological Engineering. Recent random sampling shows that participants in the water screening whose water was higher in lead than the recommended levels, continue to practice Extension's recommendation of allowing their water to run before using.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

Extension will promote farm safety awareness and adoption of safe farming practices.

INDICATOR 1

Enter the number of participants in educational programs.

6yr Proj	51500

	Number of Program Participants
1992	3500

1993	16300
1994	17200
1995	14000
1996	15000
1997	5859
Total	71859

Data Collection Methodology

staff reports.

INDICATOR 2

Enter the number of requests for farm safety materials.

6yr Proj	8000

	Requests for Farm Safety Materials
1992	750
1993	715
1994	1500
1995	5000
1996	4500
1997	5900
Total	18365

Data Collection Methodology

Staff reports.

INDICATOR 3

Enter the number of Extension clientele adopting one or more safe farming practices.

6yr Proj	23000

	Clientele Adopting Practices
1992	95
1993	7137
1994	8000
1995	7500
1996	5500
1997	5500
Total	33732

Data Collection Methodology

Data collection methods should reflect the total resources allocated to the individual state's farm safety program, and the most effective means of obtaining that data. It is recommended that measurement be obtained from a representative sample, and that this measure be used to estimate the total impact on all clientele taught. The number reported, therefore, will reflect the estimated impact on all clientele taught.

OBJECTIVE 3

Farm workers, rescue and medical personnel will increase knowledge of appropriate injury prevention and accident response.

INDICATOR 1

Enter the number of clientele improving their knowledge of farm accident rescue procedures.

6yr Proj	10000

	Number Increasing Knowledge
1992	2800
1993	1541
1994	1800
1995	0
1996	500
1997	1750
Total	8391

Data Collection Methodology

Pre- and post-test for professional rescue and medical personnel receiving education credit is recommended. Post-test questionnaires, surveys or other equally effective means are recommended for all others.

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	987000
1993	987000
1994	987000
1995	987000
1996	950000
1997	950000
Total	5848000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	18.0	0.0	0.0	0.5	0.0	0.0
1993	18.0	0.0	0.0	0.5	0.0	0.0
1994	18.0	0.0	0.0	0.5	0.0	0.0
1995	18.0	0.0	0.0	0.5	0.0	0.0
1996	18.0	0.0	0.0	0.5	0.0	0.0

1997	18.0	0.0	0.0	0.5	0.0	0.0
Total	108.0	0.0	0.0	3.0	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	1600
1993	1600
1994	1600
1995	1600
1996	1600
1997	1600
Total	9600

ADDITIONAL COMMENTS

PROGRAM CONTACTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
INTEGRATED PEST MANAGEMENT(09)

NARRATIVE SUMMARY OF ACCOMPLISHMENT

During the six year reporting period IPM activities were reported in 89 counties (out of 100) involving alfalfa, apples, Christmas trees, corn, cotton, I. potatoes, greenhouses, pastures, peanuts, small grains, soybeans, tobacco, turf, vegetables, beef, swine, poultry, and urban. This effort has resulted in widespread adoption of IPM techniques by growers. Extension agent reports show that the IPM program has influenced over 5,000 growers farming at least 2.7 million acres using 3 or more of the following IPM methods: 1) pesticide applications based upon scouting and thresholds, 2) pesticide applications based upon predictive models, 3) crop rotations used to hinder or destroy pest establishment and survival, 4) pest resistant varieties are used, 5) use of early maturing varieties to avoid pest problems. This represents 68% of the harvested row crop acres in NC. Between 70-90 scouting schools are held each year (row crops/vegetables/animal) with an average total attendance of 3,500 producers and/or fieldmen. Annual on-farm demonstrations average 300 grower participants. Annually over 400 scouts are trained to monitor crops. An intensive program of field faculty training in IPM with both classroom and field components support IPM outreach efforts. Field faculty with no previous IPM training are especially targeted with the intent of increasing IPM educational programs in counties. Participants attend classroom training (a total of 60 contact hours) meeting weekly for 3 hours over a 4 month period. Field training (total of 80 contact hours) is conducted during the growing season. A WWW IPM site (http://:ipmwww.ncsu.edu/) has been established that allows users to access a large array of IPM information including scouting guides.

Field crops (corn, cotton, peanuts, soybean, tobacco) receive the bulk of the IPM effort as the majority of pesticide use is in these crops. Over 2,000 growers have been involved in IPM training efforts and tours. Special projects are used to bring emphasis to problem areas. For example, 15 counties targeted increased use of postemergence herbicides as a special effort to avoid the use of preplant incorporated and preemergence herbicides. As a result, on one year, growers saved $1.1 million and reduced herbicide use by 80 tons total active ingredient reducing the chance of ground or surface water contamination since postemergence herbicides have a low probability of moving off site. Another state-wide program targeted increasing the number of alternative (to pesticides) pest practices adopted by growers. 17 counties used this approach resulting in 1,500 growers initiating new pesticide reducing practices on 175,000 acres. Corn and soybean IPM efforts continue to increase grower returns. One county reports a $1.1 million savings in corn and soybeans over a 3 year period as a result of growers adopting IPM practices. Tobacco IPM has increased the use of disease resistant varieties by almost 50%. A demonstration project showed that a rye cover crop to suppress root-knot nematode was as effective as a conventional nematacide treatment increasing profits by $938/acre. A shorter, simplified scouting guide was developed for burley tobacco and distributed to growers. Reducing peanut production costs is critical to growers as the new farm bill reduces gross income by approximately $100/acre. IPM can contribute to grower profitability as pesticide costs are 20-30% of production outlays. A peanut grower survey shows that changing grower attitudes will be a challenge. Growers identified fear of crop failure and subsequent economic ruin as the major concern in adopting IPM. They also expressed a lack of confidence in their ability to monitor pests. Most felt they were so diversified and stretched for time that they could not use IPM properly. IPM efforts focus on convincing growers they can master IPM methods. At-planting herbicides and insecticides, disease treatments, and soil insecticides have been targeted as pesticides that can be changed to an

as-needed basis. Peanut leafspot forecasting is an important part of the IPM program because fungicides have traditionally been applied on a scheduled 2-week basis. The forecasting system gives growers the information needed to treat only when conditions are favorable for disease development. All peanut producing areas have implemented a leafspot forecasting system resulting in 80% of the growers using the system to time fungicide applications. Half the peanut producing counties have upgraded to computer based forecasting system which will enhance accuracy and ease of use. Growers are contacted through a variety of ways from call-in messages, email, WWW to faxing results. This system saves peanut growers 1.5 - 2.5 treatments a year reducing the amount of pesticide applied by approximately 250,000 lbs. ai total and $2.5 - 4 million. One large peanut growing county reports that the advisory system saves growers $2 million annually.

Cotton acreage increases in the last 6 years has challenged the IPM program to train new scouts, consultants, and new growers to prevent excessive insecticide use and/or insect damage. This effort prevents excessive insecticide applications when insect levels are low and insures the appropriate response in difficult insect years. A state wide survey of cotton growers showed that 98% have their crop scouted and that 60% used rotation as a means of controlling pests. In low insect years agent estimate that growers save $1,000,000 and 13,000 lbs ai/acre of insecticide. New methods of cotton production have been demonstrated as over 1,000 growers viewed projects to demonstrate how IPM and sustainable agriculture practices in cotton can be used to insure efficient fertilizer and pesticide use. New cotton growers (500+) presented a challenge as most had little or no experience in cotton pest management. Profits can quickly be eliminated by pest damage or the cost of poorly planned pest management. This is especially true for new growers as cotton pest management is complex with many difficult decisions. For these new growers IPM information must be readily available and current. Special cotton scouting schools were held just before and during the season to give growers every opportunity to learn new pest monitoring methods. During the winter, an average of 1,500 growers attended winter cotton pest management training. Due to the high level of IPM implementation average insecticide treatments are down 0.8 applications in lower than average insect years showing that IPM programs can, and do, modify grower behavior resulting in pesticide use only when necessary. The IPM program established light traps in all counties with new growers to monitor insect levels and alert growers when more intensive scouting was needed. These light traps were added to a state-wide series of light traps (44 total) that serve as an insect early warning system for growers and consultants. Light trap catches are widely circulated via print and electronic (email, WWW, fax) methods. The bollworm egg threshold, developed by NCSU researchers, is now employed by all cotton growers saving $20-25/acre ($16 - 20 million statewide) annually in insect damage with no increase in insecticide costs. Cotton aphids are controlled by natural enemies in almost all cases. IPM program emphasis on biological control of this pest saves an estimated $550,000 annually. Despite constant warnings from special interests to cotton growers of plant bug dangers, producers and consultants followed extension IPM recommendations to monitor square retention and sweep for plant bugs. Through this approach growers treated less than 1% of the acreage saving unnecessary treatments. Special attention in cotton has focused on post-directed weed treatments so growers can effectively control weeds after emergence depending less on preplant or preemergent treatments.

The Fraser fir Christmas tree industry is important to the state ($100 million)and very important to the economy of the mountain region. This industry faces many pest challenges in a region where off-site movement of pesticides, nutrients, and soil is of high concern. Fraser fir IPM program provides strong leadership to the tree growers. Over 700 growers are involved in IPM training annually. A Fraser Fir IPM guide was developed and distributed

to 500 growers. Christmas tree activities for growers included tree fertility meetings, weed management workshops, and beginner IPM training sessions. These efforts have changed the way tree growers think about pest management and significantly improved their pesticide decision making. IPM program counties now cover approximately 90% of the state's production capacity. The IPM program introduced the idea of using natural ground cover but making it non-competitive by using extremely low rates of post-emergence herbicides leaving plants less able to compete with trees but not dead. By fall, these plants have recovered but it is too late in the season to damage trees. One county, in only the second year of an IPM program, reports that 43% of their growers are using the ground cover suppression method of management. A grower survey in the largest Christmas tree producing county found that pesticide reductions averaged 35% and 77% of the growers were using the ground cover suppression method of weed management. Agent reports indicate that IPM is the model for tree production in their county. One of the first year IPM demonstration counties reports a 5% reduction in pesticide use and an increase in tree quality. Another first year county reports that in a grower survey conducted before and after the growing season, grower knowledge of IPM grew from a 2.5 at the beginning to 7.5 after the project (on a 10 point scale where 1 represents little knowledge). IPM training is provided to agents during annual conference and in-field. There is little doubt that this 6 year effort has had results. Growers are able to scout and evaluate their own pest problems and respond in an appropriate manner. This came at a time when growers were facing land use and watershed regulations. The IPM program helped growers improve their pest management, deal with new pests in an intelligent manner, and handle water and/or land use concerns. The Fraser fir IPM effort has come full circle as a private consultant industry is in the beginning stages. NCCES Fraser fir IPM classes were held for perspective private consultants and 9 completed the entire course. Growers from three areas were surveyed to determine the results of the IPM program. Growers included were: (1) Producers involved in an IPM demonstration, (2) producers in the county where an IPM demonstration was conducted but not a part of the program, and (3) growers in a county where an IPM program had not been introduced. Positive results were found for herbicide timing (use of postemergence as needed versus preemergence), use of a hand lens to scout (several insect pests are difficult to identify without a hand lens), removing insect infested trees instead of spraying entire stands, and keeping field records of pests, treatment methods, and results.

Urban IPM efforts center around instruction for municipal pest managers, school officials, and interiorscape professionals. IPM programs have been developed and delivered to decision makers who work in urban areas. Over 350 have attended training. A printed guide "Integrated Pest Management for North Carolina Municipalities" was created to provide attendees with continued guidance. Post-meeting surveys revealed over 85% of participants rated the meeting as good or excellent and 89% reported they intended to incorporate IPM principles into their practices. A world wide web site (http://ipmwwww.ncsu.edu/ urban/cropsci/toc.html) was developed to allow access to urban IPM information by as many citizens as possible. Another means of getting IPM information to urban audiences is through the Master Gardener program. Special training has been conducted in biological control, resistant varieties, and economic thresholds. New chapters in IPM and biological control have been added to their guide. A continuing urban IPM program included 400 homeowners. The objective of this project was to determine the kinds of pest problems encountered by homeowners and their response to these problems. The most common problem was poor plant selection or site location. Pest problems were secondary to the initial problem of poor site/plant selection. Homeowners often had a poor understanding of pests, pesticides, fertilizers and plant care. This demonstration project will be used to plan future IPM efforts in the urban area. Mosquito IPM educational efforts continue to show the disparity between citizen knowledge of this pest's biology and fact. In a

citizen survey they ranked ditches and swamps as the areas with greatest potential for mosquito production. A study of flooded, discarded, man-made containers revealed that 64% contained mosquito larvae or eggs and were more likely to be the primary source of mosquitoes. This disparity in knowledge clearly shows that citizen education on pest biology/ecology is needed to direct efforts at non-pesticidal solutions to a pressing problem. 6 golf courses were used as a demonstration of how to manage problem insects by using simple weather monitoring equipment to pinpoint insecticide applications to replace prophylactic treatments. This demonstration was highly effective with one course reporting over a 50% reduction in insecticide costs and a 66% reduction in mole cricket damage to the course, increasing playability and customer satisfaction. Turf IPM programs continue to increase the number and availability of decision aids for this commodity. Computer based environmental monitoring systems were installed at two golf courses to demonstrate insect pest prediction capabilities. One golf course documented a $250,000 savings due to enhanced pest management programs. All golf courses in the coastal region (where insect problems are most severe) have adopted at least part of the current IPM program.

Animal IPM programs target fieldmen working with over 1,000 producers affecting 120 million animals (turkeys, broilers, layers, hogs). Our educational approach is to "train the trainer" with groups of service personnel undergoing instruction. This approach has immediate impact on pest management practices as industry service personnel can require changes in producer practices. Annually approximately 200 industry fieldmen are trained in IPM improving production methods and reducing pesticide use. For example, an improvement in pesticide application timing for the control of the lesser mealworm was adopted by 40% of service personnel as a standard practice required of their growers.

Apple IPM methods are changing as buyers and processors pressure growers to reduce or eliminate pesticide use. A grower survey identified grower confidence in their ability to scout and apply pest management as a major barrier to more widespread use of IPM. Part-time producers felt they would not have the time to use IPM evaluation methods. The IPM program is providing convincing arguments to gain grower acceptance as New apple IPM methods are being adopted by growers. In the largest apple producing county routine insecticide sprays for codling moth are being replaced by treatments based upon pheromone trap catches. Almost 50% of the growers eliminated 2 insecticide treatments on 6,000 acres saving growers $180,000. New approaches such as Bt insecticides and mating disruption are being evaluated to replace regular insecticide applications. After careful testing in IPM on-farm trials the use of Bt insecticides in place of more toxic insecticides is being recommended to growers. This action will affect over 5,000 acres of apples. Growers must be convinced to make this change as there is no short-term economic incentive to make a change.

A state wide survey of tomato growers was conducted to determine their understanding, attitude, and application of IPM. Most (80%) are aware of IPM and interested in learning more. A majority (87%) reported that they learned about IPM primarily from the Extension Service and a much lower number used other farmers (25%) or chemical dealers (25%). Tomato growers in the western part of the state are more aware of IPM that those in the east. This result underscores the value of Extension IPM demonstration as, to date, tomato IPM demonstrations have been conducted only in the western part of the state. Results also showed that tomato growers prefer farm visits, on-farm demonstrations, and workshops over all other forms of communication to receive IPM information. A project to demonstrate the value of IPM in fresh market tomatoes resulted in 38% less insecticide being required. While there was no net reduction in fungicides, disease prediction and control was improved.

Private consultants provide IPM services for 500,000 acres so maintaining close communication to exchange IPM information is important. Effective contact with private consultants is maintained with an Extension IPM computer based pest alert system and bulletin board. Through this system weekly pest updates by university extension specialists are posted. Consultants can post and read observations. To further insure close communications with consultants, an annual round table with NCSU faculty is held to provide a forum for idea interchange. The program is developed from consultant's suggestions. Annually 90% of the consultants attended the round table which focused on improved scouting procedures for small grains. Another meeting with consultants addressed the role of Bt cotton in N.C. and changes in scouting procedures and thresholds. Half the consultants indicated they used the information to work with clients who grow Bt cotton.

SUCCESS STORIES
Going Full Circle - The Fraser Fir IPM Program

In the mountains of North Carolina, Fraser fir Christmas trees represent a vital economic base. In many counties, this commodity generates millions of dollars of agricultural income and supports 1000's of producers. For the majority of these growers, Christmas trees is a second job. In 1991, these growers were facing increasing pressures from several different fronts. Increased competition and market uncertainty, demand for more uniform quality, and ever escalating land and environmental pressures caused growers increasing concerns. Producers had to change just to maintain the same market position by developing better cost containment and quality control methods while addressing environmental problems. Many tree producers were using outdated production methods and were using herbicides to keep the ground under trees bare leading to erosion and water quality problems. Pest control and fertility management in a competitive market requires careful management to prevent these visible production problems. In too many cases calendar-based sprays were used to control annual insect pests. As the mountains of Western North Carolina became increasingly crowded, neighbor complaints affected tree grower pesticide decision- making. Public concern over agricultural use of pesticides ran high and pesticides were increasingly regulated. Growers reported that they were very concerned about negative perceptions from the community and they too were very apprehensive about the environment. Producers needed better information on which to base their pesticide decision-making. The tools of integrated pest management (IPM) are designed to help growers cope with these environmental, social, and economic issues. Clearly, different means were needed to avoid the cost and risks of unnecessary pesticide applications.

The NCCES started a county-based IPM demonstration that has provided the basis for regional scouting and IPM education for that crop. The program has had an economic and social impact beyond the scope of participating farmers. The IPM program began in March, 1991, in Avery County with six community workshops. These meetings brought together 31 growers who were interested in improving their ability to manage pests. Through an intensive one-on-one training program and follow-up meetings with these growers, IPM principles were applied to cooperating farms. Growers were guided through the practice of IPM for three years. Growers were taught to scout their own trees, keep records, and use decision keys to make pesticide decisions. After three years, they had the skills to practice IPM with follow up support from NCCES staff as problems arose. A scouting guide and video was developed as reference materials for producers. New ways of managing weeds by maintaining a cover crop replaced the old "bare ground" philosophy. Pesticides, if needed, were based upon scouting and economic thresholds. Some cooperating growers were able to reduce their pesticide and chemical fertilizer inputs by as much as fifty percent. The majority of growers reported that they are growing better quality trees at less cost without threatening their land and water. This program enabled

growers to produce quality trees without endangering the environment or losing irreplaceable topsoil and gave the industry a positive image.

News of the success of the Avery County program spread to other counties leading to a demand by growers to learn more about IPM. The objective of this program was to teach the skills to growers needed to apply IPM in his fields. IPM programs expanded into adjacent counties and across the whole region. To date, almost 90% of the tree growing capacity is covered by IPM programs. Recent grower surveys show that they have changed production practices to avoid pest problems, keep ground covers to protect topsoil, use weather forecasting models, and look to the NCCES for new information on IPM. To insure this program would be continued, the NCCES began a class for private consultants designed to teach them how Fraser Fir IPM works. Nine consultants completed the course and have started businesses. Larger growers and absentee producers especially need the services of these consultants. The NCCES IPM program will continue their responsibility of demonstrating new IPM methods and private industry can provide the services needed to implement IPM.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

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

INDICATOR 1

Enter the number of farmers using IPM practices.

6yr Proj	300

	Number of Farmers Using IPM
1992	800
1993	2200
1994	4000
1995	4000
1996	3337
1997	3500
Total	17837

Data Collection Methodology

Staff estimates.

INDICATOR 3

Enter the number of county and regional pest control demonstrations conducted.

6yr Proj	10	0

	Number of County Demos.	Number of Regional Demos.
1992	12	0
1993	21	0
1994	0	0
1995	0	0
1996	0	0
1997	0	0

Total	33

Data Collection Methodology

Staff reports.

OBJECTIVE 2

Private crop consultants will gain knowledge of integrated pest management practices.

INDICATOR 1

Enter the number of consultants trained by Extension.

6yr Proj 15

	Consultants Trained by Extension
1992	25
1993	25
1994	25
1995	0
1996	283
1997	25
Total	383

Data Collection Methodology

Staff reports.

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	1625000
1993	1625000
1994	1625000
1995	1625000
1996	162500
1997	162500
Total	6825000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	25.0	0.0	0.0	20.0	0.0	0.0
1993	25.0	0.0	0.0	20.0	0.0	0.0
1994	25.0	0.0	0.0	20.0	0.0	0.0

1995	25.0	0.0	0.0	20.0	0.0	0.0
1996	35.0	0.0	0.0	0.0	0.0	0.0
1997	35.0	0.0	0.0	0.0	0.0	0.0
Total	170.0	0.0	0.0	80.0	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	200
1993	200
1994	200
1995	200
1996	200
1997	200
Total	1200

ADDITIONAL COMMENTS

PROGRAM CONTACTS

H. M. Linker
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N.C. State University
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Raleigh, NC 27695-7620
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Table IV
Pest Management Programs - Annual Report
FY - 97
State- NC

Commodities or Other Project Designations Program Costs ($):	1. row crops	2. animals	3. urban	4. fruit/veg	5. Forestry	Totals
1. Smith-Lever 3(d)	48,240	63,482	46,333	39,365	17,980	215,400
2. other CES funds	1,410,000	602,500	1,100,000	1,000,000	355,000	4,467,500
3. grower payments to:						
a. extension	35,000	0	0	5,000	5,000	45,000
b. consultants	7,500,000	0	0	100,000	0	7,600,000
c. grower organizations	70,000	0	0	10,000	0	80,000
4. others						
Acres or units handled by:						
1. CES programs	16,800	0	50,000	6,000	1,500	74,300
2. Private consultants/firms	310,000		1,000,000	20,000	0	1,330,000
3. Grower organizations/coops	35,000	0	0	0	0	35,000
4. industry fieldmen	25,000	5,000,000	0	10,000	1,000	5,036,000
5. others influenced by extension	2,700,000	100,000,000	1,000,000	25,000	2,000	103,727,000
CES Staff Years:						
1. State specialists	14	1.25	6	8	3.5	33
2. Multi-County Staff	6.5	4.5	8	6	1.5	27
3. County Staff	15	12	16	12	4	59
Number of Scouts Trained:	661		330	5	9	1,005
Number of growers trained:	2,857	0	0	300	180	3,337
Number providing IPM services:						
1. Extension sponsored programs	68	0	10	8	6	92
2. Private consultants/firms	25	5	250	3	0	283
3. Grower organizations/coops	80	5	0	0	0	85
4. Industry fieldmen	70	250	0	15	5	340
5. Others influenced by extension	30,000					30,000

State advisory committee:	one advisory committee for all commodities
No. people on committee	35
No. agencies and departments	8 NCSU depts.*, 2 agencies, 2 NGOs, 2 farmers, 2 private consultants *research, extension, and teaching represented

NORTH CAROLINA 1997 ANNUAL REPORT:
PESTICIDE APPLICATOR TRAINING(10)

NARRATIVE SUMMARY OF ACCOMPLISHMENT

North Carolina currently has 27,945 private pesticide applicators. Applicators can be certified by attending a 4 hour class with emphasis on new Federal Core manual. Five slide/tapes sets were prepared in North Carolina for this program. These lessons are (1) Pest Control/Labeling/Formulations, (2) Pesticides in the Environment, (3) Harmful Affects/Protective Clothing, (4) Handling/Missing/Applications and (5) Calibration/Transportation/Storage/Disposal. A sixth slide/tape sets covers Federal and N. C. Laws and Regulations. A second certification method involves filling in an Applying Pesticides Correctly Programmed Instruction Workbook and then meeting with the County Pesticide Coordinator for a 30 minute review and test. This manual is also used by applicators who fail to get re-certified and must pass a State Administered Test to get recertified. This manual was revised in 1994 and a chapter on the Worker Protection Standard was added.

Private pesticide applicators (farmers) must be re-certified every three years. Applicators are certified by attending a 2-hour class conducted by the County Pesticide Coordinator. This is the fifth 3-year recertification cycle conducted for farmers. Every 3 years pertinent subjects and a current review of laws and regulations are covered.

An Agricultural Healthy Study sponsored by the National Center Institute is being conducted in N. C. by SRA, Survey Research Associates, Inc. in Durham, N.C. The farmers are reached during the recertification meetings where they fill out an initial survey and take comprehensive pesticide use forms home for the grower and spouse to complete. Follow ups to check on farmer health and possible relationships with pesticide used will continue.

North Carolina currently has 13,282 commercial pesticide applicators, public operators and consultants. Approximately 16 two-day schools are held across the State to train new applicators/dealers each year. One day is spend on core material Applying Pesticides Correctly and N. C. Federal Laws/Regulations and half a day on the specialty subjects (i.e., Ornamental-Turf, Structural, etc.) On the second afternoon, the N. C. Department of Agriculture offers tests in all commercial applicator categories. In N. C. we have persons licensed as follows: Aquatic 348, Public Health 246, Forest 451, Right of Way 766, Regulatory 71, Ag. Animal 142, Ag. Plant 1483, Ornamental/Turf 4305, Seed 34, Demonstration & Research 612, Wood Treatment 82, Aerial 92, Structural 1106 and Dealers 1007. In addition to the 14 two-day schools, 22 one-day schools were held for specialty groups such as Electric Power Companies, Public School Employees, Vo. Ag. Teachers, University Workers and others.

During 1992-96, 2,510 recertification classes were held for over 9,000 commercial applicators, public operators, consultants and dealers. These applicators/dealers/consultants need 3-20 hours of recertification hours per 5 year period depending on licensing specialty and number of specialties in which they are licensed. These sessions are typically 1-3 hours in length but some offer up to 6 hours of credit. They are held on county, commodity and state meeting levels. Over 70 slide tapes sets and 109 video's are available for this type of training and are used in 40% of the classes.

Approximately 250 special two-hour worker Protection Standard Meetings for 10,100 employers are held in our 100 counties. WPS supplies were delivered to 100 counties and the agents trained to help employers train their handlers and workers. Extension will not train workers/handlers directly nor issue EPA verification cards. Certain agencies/groups will issue these cards after

meeting N. C. Department of Agriculture training, testing and recordkeeping requirements.

Other pesticide applicator training activities involved an attempt to establish a pesticide container recycling program statewide, an agromedicine program (with Julia Storm), protective clothing workshops (with Jennings and Mock), water quality programs (with Humenik), safety programs (with McLymore), a manual "Dancing with Danger" for Spanish speaking workers (with Steve Derthick), pest management programs (with M. Liner and Patty Pritchard), pesticide impact assessment programs (with S. Toth), Master Gardener programs with (L. Bass) and aerial applicator programs (with S. Southern).

SUCCESS STORIES

A slide set consisting of more than 125 slides were developed for training commercial applicators seeking certification in the Agricultural Pests - Plant category. The slides present the information in the instructural manual. The slides, developed in Power Point software on a personal computer, have text accompanied by images captured from photographic slides. Images included on the slides include insect, mite, plant disease, weed, and vertebrate pests and their damage. Also included are images of beneficial insects. The slide set has been used for training commercial applicators at five two-day commercial applicator training schools in North Carolina in 1997. Future plans are to make the slide set available via the World Wide Web for possible use as a tutorial. The slide set was developed by Stephen J. Toth, Jr., Department of Entomology, Turner B. Sutton, Department of Plant Pathology, and David W. Monks, Department of Horticultural Science, North Carolina State University.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

Pesticide applicators improve their knowledge and attitudes.

INDICATOR 1

Number of trainees attending PRIVATE applicators training for certification or recertification.

	Trainees Attending for Certification	Trainees Attending for Recertificat.
6yr Proj	9000	34000
1992	1248	9228
1993	520	9248
1994	3225	9450
1995	3980	5560
1996	3645	5580
1997	888	8121
Total	13506	47187

Data Collection Methodology

Program records.

Private applicators newly certified in North Carolina from October 1, 1996 through September 26, 1997 = 899 (11 by taking test).

Private applicators recertified in North Carolina from October 1, 1996 thr September 26, 1997 = 8,231 (110 by taking test).

Total number of active private applicators in North Carolina as of Septemb 26, 1997 = 27,945.

* Above numbers provided by the North Carolina Department of Agriculture's Pesticide Section.

INDICATOR 2

Number of trainees attending COMMERCIAL applicators training for certification or recertification.

6yr Proj	5000	10500
	Trainees Attending for Certification	Trainees Attending for Recertificat.
1992	993	2213
1993	1404	3201
1994	1350	4000
1995	1143	852
1996	1250	1110
1997	1631	1133
Total	7771	12509

Data Collection Methodology
Program records.

Commercial applicators newly certified in North Carolina from October 1, 1 through September 26, 1997 = 1,631.

Commercial applicators recertified in Norrth Carolina from October 1, 1996 through September 26, 1997 = 1,133.

* The above data were provided by the North Carolina Department of Agriculture's Pesticide Section.

INDICATOR 3

Number of trainees trained, other than in the previous two tables, as required by state regulations (e.g., Registered Technician).

6yr Proj	1000
	Number of Trainees
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

Data Collection Methodology
Program records.

INDICATOR 4

Number of Extension clientele obtaining pesticide education (i.e., urban gardeners, IPM) NOT through traditional certification training.

6yr Proj	15300

	Number of Trainees
1992	0
1993	5000
1994	5000
1995	5000
1996	5000
1997	5000
Total	25000

Data Collection Methodology
Program records.

INDICATOR 5
PRIVATE APPLICATOR TRAINING MATERIALS (Table 1 of 2)

Specify training materials developed or updated in the following areas (enter "N" for new materials and "U" for updated materials).

6yr Proj	na	u	na	na
	Agriculture (Plant)	Agriculture (Animal)	Vegetable	Small Fruit
1992				
1993		u		
1994	N			
1995	u			
1996				
1997				

Data Collection Methodology
Program records.

INDICATOR 6
PRIVATE APPLICATOR TRAINING MATERIALS (Table 2 of 2)

Specify training materials developed or updated in the following areas (enter "N" for new materials and "U" for updated materials).

6yr Proj	na	u	na	n--aquatic
	Chemigation	Greenhouse/ Nursery	Fumigation	Other
1992				
1993				u
1994				
1995				n
1996				
1997				

Data Collection Methodology
Program records.

INDICATOR 7
COMMERCIAL APPLICATOR TRAINING MATERIALS (Table 1 of 4)

Specify training materials developed or updated in the following categories (enter "N" for new materials and "U" for updated materials).

6yr Proj	N	U	
Agriculture (Plant)	Agriculture (Animal)	Forest	Ornamental and Turf
1992			
1993	u		
1994	N (2)	N	
1995	u		
1996			
1997	N (slide set)		

Data Collection Methodology
Program records.

A slide set consisting of more than 125 slides was developed for training commercial applicators seeking certification in the Ag. Pest - Plant categ

INDICATOR 8
COMMERCIAL APPLICATOR TRAINING MATERIALS (Table 2 of 4)

Specify training materials developed or updated in the following categories (enter "N" for new materials and "U" for updated materials).

6yr Proj	na	n	na	na
Seed Treatment	Aquatic	Right-of-way	Non-ag. Industrial	
1992				
1993	u	u	u	
1994				
1995			u	
1996				
1997				

Data Collection Methodology
Program records.

INDICATOR 9
COMMERCIAL APPLICATOR TRAINING MATERIALS (Table 3 of 4)

Specify training materials developed or updated in the following categories (enter "N" for new materials and "U" for updated materials).

6yr Proj	na	n	na	u
Non-ag. Institutional	Non-ag. Structural	Non-ag. Health Related	Public Health	
1992				
1993	u			

1994	
1995	
1996	
1997	

Data Collection Methodology
Program records.
INDICATOR 10
COMMERCIAL APPLICATOR TRAINING MATERIALS (Table 4 of 4)

Specify training materials developed or updated in the following categories (enter "N" for new materials and "U" for updated materials).

6yr Proj	N	na	na

	Regulatory	Demonstration	Other
1992			
1993			u
1994			
1995	u		u
1996			
1997			

Data Collection Methodology
Program records.
INDICATOR 11
Enter the number and approximate FTEs of STATE SPECIALISTS involved in training and in developing materials (enter numbers reflecting only staff involved in PAT work).

6yr Proj	45	6.0	9	1.3

	Specialists Training (Number)	Specialists Training (FTE)	Specialists Develop. Mat. (Number)	Specialists Develop. Mat. (FTE)
1992	0	0.0	0	0.0
1993	15	2.0	4	0.5
1994	15	2.0	3	0.5
1995	15	2.0	2	0.1
1996	14	1.9	1	0.1
1997	15	2.0	3	0.1
Total	74	9.9	13	1.3

Data Collection Methodology
Program records.
INDICATOR 12
Enter the number and approximate FTEs of COUNTY/AREA AGENTS involved in training (enter numbers reflecting only staff involved in PAT work).

6yr Proj	310	15.0

	Agents Training	Agents Training

	(Number)	(FTE)
1992	0	0.0
1993	100	5.1
1994	100	5.0
1995	100	4.0
1996	100	4.8
1997	100	4.8
Total	500	23.7

Data Collection Methodology
Program records.

OBJECTIVE 2
Pesticide applicators use safe, environmentally sound pesticide practices.

INDICATOR 1
Enter the number of pesticide applicator trainees who adopted different pesticide-use practices as a result of PAT.

6yr Proj	28000

	Number of Trainees Adopting
1992	0
1993	9248
1994	9100
1995	9220
1996	8802
1997	9455
Total	45825

Data Collection Methodology
Data not available for 1997.

INDICATOR 2
Specify the practices adopted by private and commercial applicators. Identify private and commercial separately.
1997 ACTUAL RESULT(S)

Data Collection Methodology
Follow-up survey.

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	200000
1993	225000
1994	250000
1995	275000
1996	250000
1997	250000

Total	1450000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	11.6	0.0	0.0	0.0	0.0	0.0
1993	11.6	0.0	0.0	0.0	0.0	0.0
1994	11.6	0.0	0.0	0.0	0.0	0.0
1995	11.6	0.0	0.0	0.0	0.0	0.0
1996	11.6	0.0	0.0	0.0	0.0	0.0
1997	11.6	0.0	0.0	0.0	0.0	0.0
Total	69.6	0.0	0.0	0.0	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

ADDITIONAL COMMENTS

PROGRAM CONTACTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
PESTICIDE IMPACT ASSESSMENT(11)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
1. Surveys of Pesticide Usage on North Carolina Agricultural Crops

Conducted mail surveys of 940 sweetpotato producers in 17 counties, 1,115 cotton producers in 18 counties, 281 tomato producers in 25 counties, approximately 3,000 poultry producers in 54 counties, 95 potato producers in 14 counties, 936 Christmas tree producers in 24 counties, and 1,036 peanut producers in 13 counties in North Carolina to determine pesticide use patterns on sweetpotatoes in 1991, cotton in 1992, tomatoes and poultry(i.e., broilers, broiler breeders, egg layers and turkeys) in 1993, potatoes and Christmas trees in 1994, and peanuts in 1995. Data on herbicides, insecticides, miticides, nematicides, fungicides, rodenticides, disinfectants, growth regulators, and/or nonchemical pest management practices used by sweetpotato, cotton, tomato, poultry, potato, Christmas tree and peanut producers were collected and stored in a database along with pesticide use data for the 1988 peanut crop, 1989 potato and flue-cured tobacco crops, and 1990 apple and cucumber crops. Information in the database includes the chemical and nonchemical pest management alternatives used, percentage of acreage treated with the alternatives, application rates, number of applications, methods of application, costs of application, and yield and quality effects of alternatives. The database is used to respond to inquiries for pesticide use data from the USDA's NAPIAP and other organizations. The database also serves to document the acceptance and implementation of integrated pest management (IPM) by growers in North Carolina and to evaluate extension and research programs in the state.

2. Pesticide Benefit/Use Assessments

Provided information to USDA's NAPIAP on the benefits and uses of methyl bromide on tobacco (plant beds), broccoli, cauliflower, apples, eggplant, melons, peppers, strawberries, tomatoes (plant beds and fields), forest tree transplants, ornamentals, stored tobacco and peanuts, and field corn in North Carolina. Extension specialists in the state participated in the NAPIAP five-state benefits assessment of methyl bromide, attending a regional meeting held in Columbia, South Carolina on April 28, 1992. The benefit/use information on methyl bromide submitted to the NAPIAP was included in a USDA publication on the economic effects of banning methyl bromide for soil fumigation.

Data on the efficacy of propargite and other miticides for mite control on apples in North Carolina were submitted on April 4, 1996 in response to a request from the NAPIAP. The data were provided by James F. Walgenbach, Extension Entomologist, North Carolina State University. Kenneth A. Sorensen, Extension Entomologist, North Carolina State University, served as chairman of the NAPIAP Strawberry Assessment Team. Data to support the FY 1997 Pest Management Alternatives Program were solicited from C. W. Averre, W. O. Cline, D. W. Monks, K. A. Sorensen, T. B. Sutton and J. F. Walgenbach for submission to NAPIAP. Information on carbofuran use in North Carolina was provided to the NAPIAP in September 1997 in response to a NAPIAP request.

3. Pesticide Product Registration Information

Provided extension and research personnel in North Carolina with current information on pesticide products registered with the U. S. Environmental Protection Agency and North Carolina Department of Agriculture via the National Pesticide Information Retrieval System (NPIRS). Approximately 200 NPIRS

searches were performed from 1992-1997. Information retrieved was used by extension and research personnel to assist North Carolina growers with the management of pests.

4. Information on Pesticide Issues and Programs

Prepared and distributed a pesticide newsletter containing information on pesticide registration, use and safety. Thirty-four issues of the newsletter were mailed to approximately 250 persons from 1992-1996. The newsletter was also distributed to state and county extension personnel on a statewide extension electronic news network and an undetermined audience on the internet (World Wide Web) from 1994-1996. Pesticide information, including notices from the NAPIAP's Reregistration Notification Network, was distributed on the statewide extension electronic news network. Seventy-five articles were posted on the network from 1992-1997. A fact sheet describing pesticide-related extension electronic and research programs in North Carolina was prepared and distributed to 100 county extension centers, extension specialists and researchers, North Carolina Department of Agriculture personnel, growers, commodity organizations, other interested persons, and an undetermined audience on the internet. State and county extension personnel, growers, commodity organizations, pesticde dealers, agricultural consultants and others were educated on pesticide issues and programs through newsletters, electronic news articles and fact sheets.

A home page on the World Wide Web was created for the North Carolina Pesticide Impact Assessment Program in an effort to inform our clientele groups of the activities of the program. Publications (i.e., newsletters, fact sheets, etc.) on the internet are linked to this home page. Also, a list of World Wide Web sites relating to pesticide use, regulation and safety as well as pest management is provided with links to the respective sites. The home page is constantly maintained and updated. Work began on a home page for the NAPIAP and is scheduled for release in October 1997. The NAPIAP home page has information on the history, organization, strategic plan, federal, regional and state personnel, pesticide/commodity assessments, and publications of the NAPIAP. The home page also contains contains links to home pages for pesticide impact assessment programs in the states and territories.

5. Information on Pest Management Practices Used in North Carolina

Educational displays containing information on insecticide use on the 1990 apple crop, 1990 cucumber crop, 1991 sweetpotato crop, 1992 cotton crop, 1993 poultry crop, 1994 potato crop and 1995 peanut crop in North Carolina and pest management practices used in the production of agricultural crops in North Carolina were presented at ten professional meetings and more than 20 state and county grower meetings. Five extension bulletins containing pesticide use information collected through surveys of peanut, potato, cucumber, apple and sweetpotato growers in North Carolina, three fact sheets containing pesticide use information collected in the survey of cotton, poultry and potato growers, a fact sheet containing information on pest management practices in the production of agricultural crops in North Carolina collected through grower surveys, and a fact sheet containing information on the National Agricultural Pesticide Impact Assessment Program were published and distributed to state and county extension personnel, the USDA's NAPIAP, growers, commodity organizations and other interested persons. These educational displays, extension bulletins and fact sheets informed scientists, growers, the NAPIAP and others on the use of pesticide and nonchemical pest management practices on North Carolina agricultural crops.

6. Educational Publications for NAPIAP State Liaison Representatives

Eighteen publications relating to pesticide use and safety, pest management, and crop production were purchased and distributed to NAPIAP state liaison representatives in 50 states, 5 U. S. territories, and the District of Columbia from 1994-1997. The publications provided the NAPIAP state liaison representatives with knowledge of these subjects. Eight Southern Region Pesticide Impact Assessment program pesticide fact sheets were edited, printed and distributed to each state and territory in the Southern Region. A total of 13,000 copies of each fact sheet were printed and 850 copies were mailed to each state and territory in the the region. The fact sheets were also made available on the internet. Copies of the fact sheets have been mailed to more than 100 persons and organizations requesting them by mail, telephone, fax or electronic mail.

7. National Pesticide Impact Assessment Workshop

Developed, in cooperation with the USDA Extension Service and other USDA agencies, a National Pesticide Impact Assessment Workshop to train state NAPIAP personnel on the NAPIAP benefits assessment process and discuss the respective roles of federal and state NAPIAP personnel in the process. A total of 100 persons from 45 states, Guam, Puerto Rico and the District of Columbia received training at the workshop held on February 26-27, 1992 in Raleigh, North Carolina. Proceedings of the workshop were published and distributed to workshop participants, state and federal NAPIAP personnel, and other interested persons.

8. Evaluation of Pesticide Benefits Assessment Computer Model

Evaluated the Pesticide Benefits Assessment (PBA2) computer model for its potential use in NAPIAP pesticide benefits assessments. Pesticide benefit/use data for apples, cucumbers and peanuts were used to evaluate the model. This model is currently being used in assessments of pesticide benefits by the NAPIAP.

SUCCESS STORIES

1) In 1995, the pesticide use database maintained by the North Carolina Pesticide Impact Assessment Program was recognized as a source of accurate pesticide use data by a subcommittee of the North Carolina Pesticide Board's Pesticide Advisory Committee. The North Carolina Pesticide Board considered a recommendation by the North Carolina Center for Public Policy that the North Carolina Department of Agriculture compile accurate data on the amounts of pesticides used in the state. Also, the database provided baseline data on the use of pesticides and non-chemical pest management practices for two federally-funded projects at North Carolina State University which evaluated the success of IPM implementation by North Carolina apple and peanut growers.

2) In 1996, a number of pesticide-related educational publications produced by the North Carolina Pesticide Impact Assessment Program have been formatted and placed on the internet (World Wide Web) which has greatly expanded the audience for these publications. Available on the internet are the "Pesticide Broadcast" newsletter, six pesticide fact sheets, and eight Southern Region Pesticide Impact Assessment Program pesticide fact sheets. The internet versions of these publications are located on the North Carolina component of the National Integrated Pest Management Network. A home page for the North Carolina Pesticide Impact Assessment Program was developed and is currently being maintained at North Carolina State University.

3) In 1996 and 1997, the Extension PIA Specialist served as a co-editor of the "North Carolina Pest News," a newsletter which provides timely information on the status of insect and disease pests in North Carolina and their management. The newsletter is published electronically each Friday from April to September

on the North Carolina Cooperative Extension Service electronic news network (available to county extension agents) and the World Wide Web. The web version of the newsletter contains links to images of the pests and their damage and publications describing the biology and management of the pests. In addition, light and pheromone trap data for major insect pests of North Carolina crops are provided weekly in the newsletter. The newsletter is placed on the web in cooperation with the National IPM Network. A display titled "North Carolina Pest News": Insect-Management Information on the World Wide Web" received an award for the "Outstanding Extension/Regulatory Display" at the annual meeting of the Entomological Society of America in Louisville, Kentucky, December 8-12, 1996.

SPECIAL FUNDS ABSTRACTS

Stephen J. Toth, Jr. A Survey of Pesticide Use on Cotton in North Carolina. $16,614. USDA/Extension Service National Agricultural Pesticide Impact Assessment Program (Project # 92-EPIX-1-0071).

Stephen J. Toth, Jr. A Survey of Pesticide Use on Poultry and Tomatoes in North Carolina. $20,223. USDA/Extension Service National Agricultural Pesticide Impact Assessment Program (Project # 93-EPIX-1-0130).

Stephen J. Toth, Jr. Purchase, Production, and Distribution of Pesticide-Related Educational Materials. $61,366. USDA/Extension Service National Agricultural Pesticide Impact Assessment Program (Project # 93-EPIX-1-0145).

Stephen J. Toth, Jr. A Survey of Pesticide Use on Potatoes and Christmas Trees in North Carolina. $20,501. USDA/Extension Service National Agricultural Pesticide Impact Assessment Program (Project # 94-EPIX-1-0174).

Stephen J. Toth, Jr. A Survey of Pesticide Use on Peanuts in North Carolina. $23,176. USDA/Extension Service National Agricultural Pesticide Impact Assessment Program (Project # 95-EPIX-1-0222). Abstract: Comprehensive data on pesticide use/benefits in peanut production in North Carolina are needed due to the economic importance of peanuts in the State. A mail survey of producers will be conducted to obtain data on their pesticide use during 1995. Additional pesticide use/benefit data will be furnished by extension specialists at North Carolina State University.

H. Michael Linker. An IPM Analysis of NAPIAP Surveys. $22,000. USDA/Extension Service National Agricultural Pesticide Impact Assessment Program. Abstract: A direct linkage between IPM adoption and non-chemical pest management should be established. Information collected for NAPIAP surveys contain data that may be helpful in finding this linkage. NAPIAP data require careful analysis to determine the relationship between non-chemical use and IPM. This project is designed to identify linkages by developing a detailed description of the IPM program for 3 crops (peanuts, potatoes and apples) and using previous NAPIAP survey data to analyze non-chemical pest management activities.

Ross B. Leidy and Stephen J. Toth, Jr. Pesticide Impact Assessment Research and Extension in North Carolina. $55,616. USDA/Cooperative State Research, Education and Extension Service (Project # 96-EPIA-1-8136). Abstract: The U. S. Department of Agriculture (USDA) established the National Agricultural Pesticide Impact Assessment Program (NAPIAP) in 1976 to provide accurate and objective data to evaluate benefits and risks of selected pesticides having critical agricultural and forestry uses. Data generated were provided to the U. S. Environmental Protection Agency's pesticide registration and Special Review processes. NAPIAP involves the USDA and land grant university personnel in preparing documents on the biological and economic benefits of pesticides and supports state programs through selected funding. The North Carolina

Pesticide Impact Assessment Program will support federal pesticide registrations important to the state agriculture through the collection of pesticide use data, notify the commodity and grower groups on actions which might impact, adversely, on their respective crops, inform state clientele and university scientists with NAPIAP-generated information and develop procedures to assess pesticide use in North Carolina. In addition, university scientists will be notified when NAPIAP research proposals become available and the potential to serve on NAPIAP Assessment Activity Teams.

Stephen J. Toth, Jr. Sweetpotato Pesticide Use Survey in North Carolina. $20,000. Southern Region Pesticide Impact Assessment Program (Project # 96-17-S-NC). Abstract: Comprehensive data on the use of pesticides and non-chemical pest management practices in sweetpotato production are needed to document pesticide benefits and implementation of IPM. North Carolina sweetpotato growers will surveyed by mail to obtain data on their methods of pest management in 1996. Additional pesticide use/benefit data will be collected from Extension specialists in the state. These data will be submitted to the NAPIAP and added to a pesticide use/benefit data base maintained in North Carolina. Extension and/or research publications containing information generated from the present and prior grower surveys will be prepared and distributed to interested parties, including growers, agricultural groups, government agencies and scientific organizations.

Stephen J. Toth, Jr. Purchase, Production and Distribution of Pesticide-Related Educational Materials. $15,360. USDA/Cooperative State Research, Education and Extension Service (Project # 96-EPIS-1-8104). Abstract: The purpose of this project is to support the educational role of the National Agricultural Pesticide Impact Assessment Program by providing NAPIAP State Liaison Representatives educational materials (printed and electronic) relating to pesticides. Educational materials designated by the USDA Cooperative State Research, Education and Extension Service NAPIAP Program Leader will be purchased or produced at North Carolina State University and distributed to NAPIAP personnel in the states and territories.

Stephen J. Toth, Jr. Development of a World Wide Web Home Page and Selected Publications for the National Agricultural Pesticide Impact Assessment Program. $6,000. USDA/Cooperative State Research, Education and Extension Service (Project # 59-0790-6-144). Abstract: The purpose of this project is to develop and maintain a home page for the National Agricultural Pesticide Impact Assessment Program on the World Wide Web, to contract for the editing of NAPIAP publications upon the request of the NAPIAP Director, and to support the development of an annual report for the NAPIAP. The principle investigator of the project will coordinate these activities with the NAPIAP Director's office.

Ross B. Leidy and Stephen J. Toth, Jr. Pesticide Impact Assessment Research and Extension in North Carolina. $55,616. USDA/Cooperative State Research, Education and Extension Service(Project # 97-EPIA-1-0002). Abstract: The U. S. Department of Agriculture (USDA) established the National Agricultural Pesticide Impact Assessment Program (NAPIAP) in 1976 to provide accurate and objective data to evaluate benefits and risks of selected pesticides having critical agricultural and forestry uses. Data generated were provided to the U. S. Environmental Protection Agency's pesticide registration and Special Review processes. NAPIAP involves the USDA and land grant university personnel in preparing documents on the biological and economic benefits of pesticides and supports state programs through selected funding. The North Carolina Pesticide Impact Assessment Program will support federal pesticide registrations important to the state agriculture through the collection of pesticide use data, notify the commodity and grower groups on actions which might impact, adversely, on their respective crops, inform state clientele and university scientists with NAPIAP-generated information and develop procedures

to assess pesticide use in North Carolina. In addition, university scientists will be notified when NAPIAP research proposals become available and the potential to serve on NAPIAP Assessment Activity Teams.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 2

Extension establishes and maintains linkages with Extension and non-Extension initiative programs.

INDICATOR 1

Name specific Extension and non-Extension initiatives and programs with which NAPIAP in your state has developed/maintained linkages and describe what is accomplished by each linkage.

1997 ACTUAL RESULT(S)

The NAPIAP State Liaison Representative and Extension Pesticide Impact Assessment Specialist in North Carolina attended the Southern Extension an Research Activity - Information Exchange Group 1 (Pesticide Impact Assessm annual meeting on July 25-26, 1995 in San Antonio, Texas. Research and extension priorities for pesticide impact assessment in the Southern Regio were discussed at the meeting.

The Extension Pesticide Impact Assessment (PIA) Specialist also attended a presented a display at the Third National Integrated Pest Management Sympo and Workshop in Washington, D.C. from February 27 - March 1, 1996, and participated in a Pesticide Database Development Workshop sponsored by the Western Region Pesticide Impact Assessment Program in Reno, Nevada on May 1996 and Davis, California on May 14-15, 1996.

The Extension PIA Specialist participated in the following in-state meetin 1) Regional Apple IPM Project Meeting, Fletcher, November 1-2, 1995; 2) Ea Regional Potato Meeting, Plymouth, December 5, 1995; 3) Eastern Christmas Overview, Kinston, January 20, 1996; 4) Sandhills Turf/Ornamental Conferen Carthage, January 30, 1996; 5) North Carolina/Virginia Peanut Overview, Suffolk, Virginia, March 27, 1996; 6) North Carolina Cooperative Extension Service Annual Conference, Raleigh, November 11-15, 1996; 7) Peanut Agent Training, Windsor, January 14, 1997; 8) Sweetpotato Commission Meeting, Wi January 16, 1997; 9) Southern Farm Show, Raleigh, February 5, 1997; and 10 Sweetpotato Meeting, Tabor City, February 20, 1997. These meeting provide opportunity for the Extension PIA Specialist discuss pesticide impact assessment activities with the program's clientele and receive input from groups on pest management problems in the state.

The Extension Pesticide Impact Assessment Specialist served on the followi committees of North Carolina State University's College of Agriculture and Sciences: 1) Pesticide Impact Assessment; 2) Integrated Pest Management; 3 Extension Vegetable Crops Coordinating Committee; and 4) Agricultural Chem Manual Editorial Committee. Service on these committee provides linkages and cooperation with programs at the University related to pest management pesticide use.

Data Collection Methodology

Program records.

OBJECTIVE 3

Extension develops and maintains a pesticide usage database.

INDICATOR 1

List databases maintained and describe variables in each.

1997 ACTUAL RESULT(S)

Databases maintained;

Pesticide Usage/Benefits for North Carolina Agricultural Crops

Variables: Crops (peanuts, flue-cured tobacco, potatoes, apples, cucumbers,sweetpotatoes, cotton, tomatoes, poultry, and Christmas trees); variety; average yield; acres planted; acres harvested; target pests; herbicides, insecticides, miticides, nematicides, rodenticides, fungicides growth regulators, and disinfectants used; nonchemical pest management practices (i.e., scouting, cultivation, resistant varieties, insect monito traps, nematode sampling, crop rotation, soil testing, and others); percen of acreage treated with pesticides; average number of applications of pesticides per acre; treatment rates; treatment costs; yield and quality effects of pesticide used.

Data Collection Methodology
Program records.

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	106250
1993	106250
1994	106250
1995	106250
1996	106250
1997	106250
Total	637500

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	1.5	0.0	0.0	0.0	0.0	0.0
1993	1.5	0.0	0.0	0.0	0.0	0.0
1994	1.5	0.0	0.0	0.0	0.0	0.0
1995	1.5	0.0	0.0	0.0	0.0	0.0
1996	1.5	0.0	0.0	0.0	0.0	0.0
1997	1.5	0.0	0.0	0.0	0.0	0.0
Total	9.0	0.0	0.0	0.0	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	0

1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

ADDITIONAL COMMENTS

1. The following publications contain data generated from pesticide use surveys conducted by the North Carolina Pesticide Impact Assessment Program:

a. Bailey, J. E., Johnson, G. L., and Toth, S. J., Jr. 1994. Evolution of a weather-based peanut spot advisory in North Carolina. Plant Disease 78:530-535.

b. Toth, S. J., Jr., Duncan, H. E., Monks, D. W., Sorensen, K. A., and Wilson, L. G. 1993. Potato Pest Management 1989: A Survey of Pesticide Use and Other Pest Management Practices by North Carolina Potato Producers. AG-497. North Carolina Cooperative Extension Service, Raleigh. 20 pp.

c. Toth, S. J., Jr., Bailey, J. E., Brandenburg, R. L., Sullivan, G. A., York, A. C., and Linker, H. M. 1994. Peanut Pest Management 1998: A Survey of Pesticide Use by North Carolina Peanut Producers. AG-498. North Carolina Cooperative Extension Service, Raleigh. 20 pp.

d. Toth, S. J., Jr., Averre, C. W., Monks, D. W., Schultheis, J. R., and Sorensen, K. A. 1994. Cucumber Pest Management 1990: A Survey of Pesticide Use and Other Pest Management Practices by North Carolina Cucumber Producers. AG-499. North Carolina Cooperative Extension Service, Raleigh. 20 pp.

e. Toth, S. J., Jr., Wilson, J. H., Sheets, T. J., Bromley, P. T., James, P., Linker, H. M., Mock, J. E., Southern, P. S., and St. Clair, M. B. 1992. Pesticides: Extension and Research Programs in North Carolina. ENT/pia 1. Department of Entomology, North Carolina State University, Raleigh. 4 pp.

f. Toth, S. J., Jr. and Bacheler, J. S. 1995. Insecticide Use by North Carolina Cotton Growers in 1992. ENT/pia 2. Department of Entomology, North Carolina State University, Raleigh. 5 pp.

g. Toth, S. J., Jr. and Linker, H. M. 1995. Pest Management in the Production of Agricultural Crops in North Carolina. ENT/pia 3. Department of Entomology, North Carolina State University, Raleigh. 6 pp.

h. Toth, S. J., Jr. 1995. The National Agricultural Pesticide Impact Assessment Program. ENT/pia 4. Department of Entomology, North Carolina State University, Raleigh. 2 pp.

i. Toth, S. J., Jr. and Stringham, S. M. 1996. Insect Management by North Carolina Poultry Producers in 1993. ENT/pia 5. Department of Entomology, North Carolina State University, Raleigh. 4 pp.

j. Toth, S. J., Jr. and Sorensen, K. A. 1996. Insect Management by North Carolina Potato Growers in 1994. ENT/pia 6. Department of Entomology, North Carolina State University, Raleigh. 4 pp.

k. Toth, S. J., Jr. 1996. Federal Pesticide Laws and Regulations. Southern Extension and Research Activity - Information Exchange Group 1 (Southern Region Pesticide Impact Assessment Program). 4 pp.

l. Toth, S. J., Jr. 1996. Apple Pest Management 1990: A Survey of Pesticide Use and Other Pest Management Practices by North Carolina Apple Growers. AG-544. North Carolina Cooperative Extension Service, Raleigh. 20 pp.

m. Toth, S. J., Jr. 1996. Sweetpotato Pest Management 1991: A Survey of Pesticide Use and Other Pest Management Practices by North Carolina Sweetpotato Growers. AG-547. North Carolina Extension Service, Raleigh. 20 pp.

2. The following educational displays were presented at professional meetings and national, state and county grower meetings:

a. Toth, S. J., Jr. and Walgenbach, J. F. Insecticide Use by North Carolina Apple Growers in 1990.

b. Toth, S. J., Jr. and Sorensen, K. A. Insecticide Use by North Carolina Cucumber Growers in 1990.

c. Toth, S. J., Jr. and Sorensen, K. A. Insecticide Use by North Carolina Sweetpotato Growers in 1991.

d. Toth, S. J., Jr. and Bacheler, J. S. Insecticide Use by North Carolina Cotton Growers in 1992.

e. Toth, S. J. and Linker, H. M. Pest Management in the Production of Agricultural Crops: Mail Surveys of North Carolina Growers.

f. Toth, S. J., Jr. and Stringham, S. M. Insect Management by North Carolina Poultry Producers in 1993.

g. Toth, S. J., Jr. and Sorensen, K. A. Insect Management by North Carolina Potato Growers in 1994.

h. Toth, S. J., Jr. "North Carolina Pest News": Insect-Management Information on the World Wide Web.

i. Toth, S. J., Jr. and J. S. Bacheler. "North Carolina Pest News": Cotton Insect Management Information on the World Wide Web.

j. Toth, S. J., Jr. and R. L. Brandenburg. Insect Management by North Carolina Peanut Growers in 1995.

3. The following educational seminars reporting pesticide use data generated by the North Carolina Pesticide Impact Assessment Program were presented:

a. Toth, S. J., Jr. Pesticides: Federal Laws, Impact Assessment and Agricultural Usage in North Carolina. Department of Entomology, Clemson University, Clemson, South Carolina. January 23, 1995.

b. Toth, S. J., Jr. The North Carolina Pesticide Impact Assessment Program. Department of Entomology, North Carolina State University, Raleigh. February 13, 1995.

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NORTH CAROLINA 1997 ANNUAL REPORT:
RENEWABLE RESOURCE EXTENSION ACT(12)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
The numbers below represent a cumulative six year narrative (1992 to 1997).

Production
Increased earnings of approximately $29,395,345 resulted through better applications of timber products marketing techniques and increased hunting and fishing leases as a direct result of extension programs.

Utilization
Increased savings and earnings of approximately $6,199,340 resulted through renewable resources being more efficiently utilized.

Environmental Quality
Public policy educational programs enhanced approximately 3,773,113 acres of timberland.

Continuing Education
Approximately 25,681 contact hours of continuing education for renewable resource professionals were provided.

Environmental Education
Approximately 322,701 people increased their understanding of environmentally appropriate practices after using extension materials or after participating in extension programs.

SUCCESS STORIES
A two-day short course and tour entitled "Quality Control for Increased Profits" was held on hardwood plywood manufacturing. The participant's average rating of this short course as to how helpful it was in providing useful information was 4.71 (1=not helpful; 5=very helpful). One participant's evaluation summed it up best by stating, "Well done, well organized, and very informed speakers." Total attendance was 22 with 12 individuals from North Carolina.

North Carolina State University has long been recognized as the place lumber and furniture personnel go to learn about lumber drying. A Renewable Resources Extension Act grant was used to develop the teaching materials for an advanced dry kiln workshop. Using the newly developed teaching materials, a two-day course was held at Catawba Valley Community College for experienced dry kiln operators. Subjects ranged from computer controls to developing specialized kiln schedules. Total attendance was 25 with 20 individuals from North Carolina. This course will be offered on an annual basis.

With the high value of timber, there is increased interest to produce more wood per acre per year. Herbicides can be utilized as a successful tool to meet this objective. Two workshops, "Forest Herbicides for the Private Landowner" and "Increasing Tree Growth and Profitability," were held for 79 landowners. The workshops focused on three topics at various sites. The topics were forest herbicides: a safe and effective tool; selecting and applying the right herbicide; and the cost and impacts of herbicide usage. At the conclusion of the workshops, surveys indicated 97 percent of the participants had gained new knowledge about herbicide usage. Ninety percent said they could utilize this new knowledge in their timber management plans. When asked if they could save money by attending these workshops 70 percent said yes.

A pilot Local Environmental Awareness Program (LEAP) provided a successful

educational opportunity for 130 middle school youth. Pre-tests and post-tests have shown 94 percent of the participants increased their knowledge of and appreciation for the environment. Classroom incorporation of supplied lessons was excellent and well received. Plans are to expand the program to additional schools this year.

Extension received a telephone call from a couple who had inherited the family farm. They had been encouraged to call extension and seek educational advice in the marketing of their timber. The couple was in the process of selling timber from the farm and had been offered $13,000 for their timber. After meeting with extension they decided to hire a consultant and sell their timber using sealed bids. Using this method of sale, they received $34,000 for their timber, an increase of $21,000.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

Renewable resource producing enterprises will enhance their economic viability. (Same as RREA Objective A, "Production")

INDICATOR 1

Enter dollars save or earned as a direct result of Extension FORESTLAND programs to enhance economic viability. (Press F2 for definitions of "Actual" and "Other".)

6yr Proj	156000000	0

	Actual Dollars Earned/Saved	Other Dollars Earned/Saved
1992	1386000	0
1993	3719700	0
1994	5258790	0
1995	5037280	0
1996	5053175	0
1997	6000000	0
Total	26454945	0

Data Collection Methodology

Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 3

Enter dollars saved or earned as a direct result of Extension FISH & WILDLIFE programs to enhance economic viability. (Press F2 for definitions of "Actual" and "Other".)

6yr Proj	610000	0

	Actual Dollars Earned/Saved	Other Dollars Earned/Saved
1992	16000	0
1993	102600	0
1994	230800	0
1995	250000	0
1996	250000	0
1997	2079000	0
Total	2928400	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)
INDICATOR 5
Enter dollars saved or earned as a direct result of Extension EVIRONMENT & PUBLIC POLICY programs to enhance economic viability.
(Press F2 for definitions of "Actual" and "Other".)

6yr Proj 8000 0

	Actual Dollars Earned/Saved	Other Dollars Earned/Saved
1992	2000	0
1993	2000	0
1994	2000	0
1995	2000	0
1996	2000	0
1997	2000	0
Total	12000	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

OBJECTIVE 2
Renewable resource products will be more efficiently utilized.
(Same as RREA Objective C, "Utilization")
INDICATOR 1
Enter dollars saved or earned as a direct result of Extension FORESTLAND programs to utilize resource products more efficiently.
(Press F2 for definitions of "Actual" and "Other".)

6yr Proj 1340000 0

	Actual Dollars Saved/Earned	Other Dollars Saved/Earned
1992	335000	0
1993	845000	0
1994	1000000	0
1995	500000	0
1996	500000	0
1997	2000000	0
Total	5180000	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)
INDICATOR 3
Enter dollars saved or earned as a direct result of Extension FISH & WILDLIFE programs to utilize resource products more efficiently.
(Press F2 for definitions of "Actual" and "Other".)

6yr Proj 62000 0

	Actual Dollars Saved/Earned	Other Dollars Saved/Earned
1992	15500	0
1993	446000	0
1994	143600	0
1995	1455	0
1996	1500	0
1997	100000	0
Total	708055	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 4
Enter dollars saved or earned as a direct result of Extension OUTDOOR RECREATION programs to utilize resource products more efficiently. (Press F2 for definitions of "Actual" and "Other".)

6yr Proj	40000	0

	Actual Dollars Saved/Earned	Other Dollars Saved/Earned
1992	10000	0
1993	153000	0
1994	111785	0
1995	5000	0
1996	500	0
1997	1000	0
Total	281285	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 5
Enter dollars saved or earned as a direct result of Extension programs ENVIRONMENT & PUBLIC POLICY programs to utilize resource products more efficiently. (Press F2 for definitions of "Actual" and "Other".)

6yr Proj	20000	0

	Actual Dollars Saved/Earned	Other Dollars Saved/Earned
1992	5000	0
1993	5000	0
1994	5000	0
1995	5000	0
1996	5000	0
1997	5000	0
Total	30000	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

OBJECTIVE 3

Landowners/decisionmakers will be better able to act to protect and improve the environment on renewable resource lands through better information about the consequences of their actions. (Same as RREA Objective B, "Environmental Quality")

INDICATOR 1

Enter the number of acres protected but not enhanced or protected and also enhanced as a direct result of public policy educational programs concerning FORESTLAND. (Press F2 for definitions of "Actual" and "Other".)

	Actual Acres Protected	Actual Acres Enhanced	Other Acres Protected	Other Acres Enhanced
6yr Proj	0	792000	0	0
1992	0	198000	0	0
1993	0	635000	0	0
1994	0	372511	0	0
1995	0	168800	0	0
1996	0	144000	0	0
1997	0	808000	0	0
Total	0	2326311	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 3

Enter the number of acres protected but not enhanced or protected and also enhanced as a direct result of public policy educational programs concerning FISH & WILDLIFE. (Press F2 for definitions of "Actual" and "Other".)

	Actual Acres Protected	Actual Acres Enhanced	Other Acres Protected	Other Acres Enhanced
6yr Proj	0	20000	0	0
1992	0	5000	0	0
1993	0	65967	0	0
1994	0	168249	0	0
1995	0	1000	0	0
1996	0	1000	0	0
1997	0	870800	0	0
Total	0	1112016	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 4

Enter the number of acres protected but not enhanced or protected and also enhanced as a direct result of public policy educational programs concerning OUTDOOR RECREATION. (Press F2 for definitions

of "Actual" and "Other".)

6yr Proj	0	8000	0	0

	Actual Acres Protected	Actual Acres Enhanced	Other Acres Protected	Other Acres Enhanced
1992	0	2000	0	0
1993	0	2000	0	0
1994	0	906	0	0
1995	0	4130	0	0
1996	0	250	0	0
1997	0	500	0	0
Total	0	9786	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 5
Enter the number of acres protected but not enhanced or protected and also enhanced as a direct result of public policy educational programs concerning ENVIRONMENTAL & PUBLIC POLICY.
(Press F2 for definitions of "Actual" and "Other".)

6yr Proj	0	280000	0	0

	Actual Acres Protected	Actual Acres Enhanced	Other Acres Protected	Other Acres Enhanced
1992	0	70000	0	0
1993	0	100000	0	0
1994	0	133000	0	0
1995	0	5000	0	0
1996	0	12000	0	0
1997	0	5000	0	0
Total	0	325000	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

OBJECTIVE 4
Extension will provide continuing education to renewable resource professionals. (Same as RREA Objective E, "Continuing Education)

INDICATOR 1
Enter the number of contact hours of FORESTLAND training provided.
(For explanation, press F2.)

6yr Proj	4000	0

	Classroom/ Workshop Contact Hours	Indirect Media, etc. Contact Hours
1992	1000	0
1993	1750	0
1994	2500	0

1995	1500	0
1996	2431	0
1997	2000	0
Total	11181	0

Data Collection Methodology
Staff report of continuing education conducted or arranged by Extension. Also count exposure hours of professionals to Extension provided media designed to enhance professional competence.

INDICATOR 3
Enter the number of contact hours of FISH & WILDLIFE training provided. (For explanation, press F2.)

6yr Proj	2000	0

	Classroom/ Workshop Contact Hours	Indirect Media, etc. Contact Hours
1992	500	0
1993	500	0
1994	750	0
1995	500	0
1996	500	0
1997	700	0
Total	3450	0

Data Collection Methodology
Staff report of continuing education conducted or arranged by Extension. Also count exposure hours of professionals to Extension provided media designed to enhance professional competence.

INDICATOR 4
Enter the number of contact hours of OUTDOOR RECREATION training provided. (For explanation, press F2.)

6yr Proj	400	0

	Classroom/ Workshop Contact Hours	Indirect Media, etc. Contact Hours
1992	100	0
1993	125	0
1994	200	0
1995	150	0
1996	100	0
1997	75	0
Total	750	0

Data Collection Methodology
Staff report of continuing education conducted or arranged by Extension. Also count exposure hours of professionals to Extension provided media designed to enhance professional competence.

INDICATOR 5
Enter the number of contact hours of ENVIRONMENT & PUBLIC POLICY training provided. (For explanation, press F2.)

6yr Proj	3600	0

	Classroom/ Workshop Contact Hours	Indirect Media, etc. Contact Hours
1992	900	0
1993	1400	0
1994	2000	0
1995	2000	0
1996	2000	0
1997	2000	0
Total	10300	0

Data Collection Methodology
Staff report of continuing education conducted or arranged by Extension. Also count exposure hours of professionals to Extension provided media designed to enhance professional competence.

OBJECTIVE 5
Public (including youth) will improve understanding of renewable resource issues. (Same as RREA Objective D, "Environmental Education")

INDICATOR 1
Enter the total number of people, including youth, adopting environmentally appropriate practices after participation in Extension FORESTLAND programs and the total number of such practices they adopt. (For questions to ask, press F2.)

6yr Proj	204000	0	0	0

	People Adopting Actual	People Adopting Other	Practices Adopted Actual	Practices Adopted Other
1992	50970	0	0	0
1993	54650	0	0	0
1994	18760	0	0	0
1995	30420	0	0	0
1996	20500	0	0	0
1997	16814	0	0	0
Total	192114	0	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 3
Enter the total number of people, including youth, adopting environmentally appropriate practices after participation in Extension FISH & WILDLIFE programs and the total number of such practices they adopt. (For questions to ask, press F2.)

6yr Proj	42000	0	0	0

	People Adopting Actual	People Adopting Other	Practices Adopted Actual	Practices Adopted Other
1992	10515	0	0	0

1993	9265	0	0	0
1994	5129	0	0	0
1995	2196	0	0	0
1996	3050	0	0	0
1997	3010	0	0	0
Total	33165	0	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 4
Enter the total number of people, including youth, adopting environmentally appropriate practices after participation in Extension OUTDOOR RECREATION programs and the total number of such practices they adopt. (For questions to ask, press F2.)

6yr Proj	6000	0	0	0

	People Adopting Actual	People Adopting Other	Practices Adopted Actual	Practices Adopted Other
1992	1500	0	0	0
1993	900	0	0	0
1994	4688	0	0	0
1995	300	0	0	0
1996	250	0	0	0
1997	2808	0	0	0
Total	10446	0	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

INDICATOR 5
Enter the total number of people, including youth, adopting environmentally appropriate practices after participation in Extension ENVIRONMENT & PUBLIC POLICY programs and the total number of such practices they adopt. (For questions to ask, press F2.)

6yr Proj	20000	0	0	0

	People Adopting Actual	People Adopting Other	Practices Adopted Actual	Practices Adopted Other
1992	5015	0	0	0
1993	11346	0	0	0
1994	13321	0	0	0
1995	14000	0	0	0
1996	11000	0	0	0
1997	32294	0	0	0
Total	86976	0	0	0

Data Collection Methodology
Survey audience reached. (ES will provide questionnaire information later.)

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	2000000
1993	2000000
1994	2000000
1995	2000000
1996	2000000
1997	2000000
Total	12000000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	29.9	0.5	0.0	3.0	1.5	0.0
1993	29.9	0.5	0.0	3.0	1.5	0.0
1994	29.9	0.5	0.0	3.0	1.5	0.0
1995	29.9	0.5	0.0	3.0	1.5	0.0
1996	29.9	0.5	0.0	3.0	1.5	0.0
1997	29.9	0.5	0.0	3.0	1.5	0.0
Total	179.4	3.0	0.0	18.0	9.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	6900
1993	6900
1994	6900
1995	6900
1996	6900
1997	6900
Total	41400

ADDITIONAL COMMENTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
PLIGHT OF YOUNG CHILDREN(19)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
The North Carolina Cooperative Extension Service continues to work to improve the lives of its youngest citizens. With programs such as Expanded Food and Nutrition Program, work with breastfeeding moms and the Out for Lunch program agents are able to reach limited resourse families with invaluable information for the health of their families. Agents are also working with the state initiative Smart Start. Smart Start has the objective of preparing our children for school so that they are mentally and physically ready to learn.

North Carolina Cooperative Extension continues to be a leader in the area of training for child care providers. Agents provide training in feeding children, food safety, nutrition education and how to teach nutrition skills to young people.

SUCCESS STORIES
Immunization of North Carolina's youngest citizens is critical for their health and well being. A community approach to the problem of children not receiving proper immunization is being employed in one of North Carolina's urban counties. An immunization coalition is working at the grass roots level to educate citizens about the importance of proper immunization. The coalition is also working to address barriers to immunization such as transportation, cost, availability and lack of understanding. The coalition has held immunization fairs at promenent spots in the county after five and on Saturday and is working with local private practice physicians to provide free or low cost vaccines to families.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES
OBJECTIVE 2
Extension, limited resource families, agencies (public and private), child ca providers, local organizations,and volunteers will collaborate to (a) identif gaps in programs and services for limited resource families with young children; (b) design and implement collaborative solutions; and (c) assess their impact upon limited resource families and the community at large.

INDICATOR 1
Enter the number of community action groups Extension assisted during the year in designing and implementing a plan to meet the needs of limited res families with young children.

	Community Groups Planning	Community Groups Implementing
6yr Proj	235	155
1992	0	0
1993	0	0
1994	113	74
1995	120	78
1996	128	84
1997	120	79
Total	481	315

Data Collection Methodology
Records kept at the county level on the following:
-community groups planning and implementing Plight of the

Young Child Initiative
-activities carried out as a result of community groups

INDICATOR 2

Enter the number of limited resource parents of young children and the num of young children (prenatal through age five) living in limited resource families that were reached directly by Extension staff and volunteers.

6yr Proj	9300	9800

	Parents Reached	Children In Families Reached
1992	0	0
1993	0	0
1994	4482	4841
1995	4625	4950
1996	5008	5385
1997	4702	5056
Total	18817	20232

Data Collection Methodology

Records kept at the county level on the following:

-number of families with young children reached through Extension programming or programs with Extension involvement
-volunteers trained

INDICATOR 3

Enter the number of trainers reaching limited resource families with young children (e.g., agency personnel, religious leaders, child-care and other service providers) whom Extension instructed.

6yr Proj	5000

	Number Service Providers
1992	0
1993	0
1994	2369
1995	2425
1996	26637
1997	2420
Total	33851

Data Collection Methodology

Records kept at the county level on the following:

-Volunteers trained
-Service providers trained

When appropriate other data collections methods will be employed to evaluate specific programs.

PART B OBJECTIVES AND INDICATORS

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	0
1993	0
1994	0
1995	0
1996	150000
1997	150000
Total	300000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	0.0	0.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	0.0	0.0	0.0
1994	3.0	0.0	0.0	0.0	0.0	0.0
1995	3.0	0.0	0.0	0.0	0.0	0.0
1996	3.0	0.0	0.0	0.0	0.0	0.0
1997	3.0	0.0	0.0	0.0	0.0	0.0
Total	12.0	0.0	0.0	0.0	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	0
1993	0
1994	5
1995	7
1996	7
1997	7
Total	26

ADDITIONAL COMMENTS

PROGRAM CONTACTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
COMMUNITIES IN ECONOMIC TRANSITION(20)

NARRATIVE SUMMARY OF ACCOMPLISHMENT
While local effects vary widely, many rural North Carolina communities continue to be influenced by the social and economic changes taking place at the state and national level. As local citizens experience these changes they sense the need to take stock of what is happening and address their opportunities. Strategic planning is a collaborative method for doing this. Successes in strategic planning underscore the importance of a local citizenery that is capable of analysing the local economic situation and willing to act collaboratively on its findings. It also requires local leaders who are knowledeable of and willing to use open participatory processes to address local concerns. Hence, during these past 6 years the Nortth Carolina Extension Service has not only promoted the strategic planning process, it has also emphasized leadership development programs that help prepare the cadre of participants needed in an open, collaborative process. The ebb and flow of completed strategic plans over the past years is a reflection of the organization's oscillating emphases on these two thrusts.

Entrepreneurial education, the third major thrust of the program, has sought over the years to assist current and potential entrepreneurs to analyse their enterprises, to develop business plans, marketing plans and community analyses, and to make adjustments for profitablity. As a result of Extension's assistance, numerous small and home-based entrepreneurs have developed their own business and/or marketing plans, while more than 200 new start-ups have occurred during the program.

SUCCESS STORIES
Strategic Planning Generates Multiple Projects Over the Years

Planning efforts for a 4-H Rural Life Center involving local citizens and NCSU School of Design have paid high dividends. Funding was secured to allow the development of facilities and grounds. Roswald School was moved to the site and completely renovated. An agricultural museum building also was dedicated on the site this past October. These projects are a direct result of the strategic planning efforts sponsored by Halifax county commissioners and carried out by its citizens. The developed plan is also viewed as integral part of the county Extension programing efforts.

Other projects generated by the strategic plan included a recently funded national peanut museum to be located in the town of Enfield, and a Halawi-Saponi Tribal study of a native American Cultural Center which was conducted by NCSU School of Design and funded by the State Department of Tourism. More than 1000 persons have be involved the planning and evolving projects.

Edgecomb Entrepreneur Organization Achieves Funding From State

Members of the Extension-sponsored Edgecomb Entrepreneur Organization were pleasantly surprised when State Senator Bob Martin, State Representative Linwood Mercer and former State Representative Norris Tolson contacted the organization in January, 1997 to inform them they had secured $25,000 to support the efforts of the organization. The Edgecomb Entrepreneur Organization is a growing organization that supports the development of small businesses in Edgecomb County. The organization's partnership with the Tarboro-Edgecomb Chamber of Commerce and the Small Business Center at Edgecomb Community College provide excellent sources of information and support for its

members. These elected officials have been supporters of organization over the years. They annually attend several activities sponsored by entrepreneur organization.

Owner of Auto Body Shop Benefits from Membership in Entrepreneur Organization

James Brown, owner of Brown's Auto Body Shop, was renting a building from month to month when he joined the Edgecomb Entrepreneur Organization (EEO). His landlord would raise his rent without notice and would not allow him to install a sign even though the building was not very visible from the road. The landlord also insisted his repair work be done first. With support from Extension Mr. Brown contacted a local banker that had presented a program at EEO's monthly meeting on the Community Reinvestment Act. The speaker's bank was putting special emphasis on helping small business owners. Working with the banker, Mr. Brown was able to purchase a 52 x 30 metal building to house his business. He has since been able to add an additional 30 x 30 section for a painting booth. His business has increased tremendously.

Great Smokies Gains URL

In Swaine County the local chamber of commerce is definitely pleased with recent Cooperative Extension assistance in developing a local web site for the internet, which they named www.greatsmokies.com. The site is getting hits every day, and business members are becoming increasingly interested in its use for commercial purposes. Extension also was granted a $29,000 grant to purchase equipment and conduct educational programs for non-profit organizations in the use of and adaption of the internet to their services. An advisory committee, developed to help direct the program, has selected three organizations to initially receive the efforts of Extension personnel. These efforts show great potential to connect small business and not-profits to increased use and understanding of the internet.
Jackson CountyLINE Established

Voice Mail Goes Public in Jackson County

Jackson CountyLINE is a six-line computerized telephone information system established recently through the ideas and fund raising efforts of the Jackson County Cooperative Extension Service. Over $15,000 was secured from grants and donations to purchase the equipment. The service is so useful the county government has agreed to fund the monthly phone line changes.

Jackson CountyLINE is provided free to all no-profit and public agencies and organizations in the county to record their public information. In addition, all school teachers have been allocated space so their student's parents can call the CountyLINE each day for homework assignments or other information. The system has room for 10,000 messages. It received 2500 calls in just 2 days when schools were closing due to snow.

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

Communities will analyze their economic base and implement strategic economic development planning.

INDICATOR 1

Enter the number of strategic community-based economic development plans developed and implemented with extensive Extension support.

6yr Proj 40

	Number Devel. and Implemented
1992	0
1993	0
1994	13
1995	14
1996	5
1997	3
Total	35

Data Collection Methodology
Specialists' reports; county staff reports; surveys, both immediate and follow-up; interviews.

INDICATOR 2
Enter the number of economic analyses conducted with communities.

6yr Proj 20

	Economic Analyses Conducted
1992	0
1993	0
1994	11
1995	0
1996	0
1997	0
Total	11

Data Collection Methodology

INDICATOR 3
Enter the number of business retention and expansion programs implemented communities.

6yr Proj 4

	Business Programs Implemented
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

Data Collection Methodology

INDICATOR 4
Enter the number of community-based targeted industry studies conducted to support strategic economic development.

6yr Proj	2

	Studies Conducted
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

Data Collection Methodology

INDICATOR 6

Enter the number of community-based tourism development plans initiated.

6yr Proj	4

	Tourism Devel. Plans Initiated
1992	0
1993	0
1994	1
1995	0
1996	0
1997	0
Total	1

Data Collection Methodology

OBJECTIVE 2

Communities will enhance ability to support job creation and enterprise development.

INDICATOR 1

Enter the number of entrepreneurial activities undertaken at the community level.

6yr Proj	30

	Entrepren. Activities
1992	0
1993	0
1994	11
1995	0
1996	9
1997	0
Total	20

Data Collection Methodology

INDICATOR 4

Enter the number of new enterprises created as a result of Extension programming.

6yr Proj	30

	New Enterprises Created
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

Data Collection Methodology

INDICATOR 5

Enter the number of new jobs created via new/expanded enterprises.

6yr Proj	1000

	New Jobs Created
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

Data Collection Methodology

OBJECTIVE 3

Existing businesses and small industries will improve competitiveness, profitability, and marketing capabilities.

INDICATOR 2

Enter the number of small firms entering new domestic and/or foreign marke via Extension educational activities.

6yr Proj	20

	Firms Entering New Markets
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
Total	0

Data Collection Methodology

PART B OBJECTIVES AND INDICATORS

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	0
1993	0
1994	0
1995	0
1996	245000
1997	245000
Total	490000

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	0.0	0.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	0.0	0.0	0.0
1994	30.8	0.0	0.0	1.0	1.0	0.0
1995	30.8	0.0	0.0	1.0	1.0	0.0
1996	15.0	1.0	0.0	0.0	0.0	0.0
1997	15.0	1.0	0.0	0.0	0.0	0.0
Total	91.6	2.0	0.0	2.0	2.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	0
1993	0
1994	4000
1995	4000
1996	2000
1997	2000

Total	12000

ADDITIONAL COMMENTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
DECISIONS FOR HEALTH

NARRATIVE SUMMARY OF ACCOMPLISHMENT

In 1997, twenty-one counties reported health and health-related activitives under the NC state major program: Health and Human Safety. An additional four counties reported breast and cervical cancer control activities associated with the Southern Appalachia Leadership Initiative On Cancer (SALIC) Project and fifteen counties participated in the ABILITY Projects for disabled farmers, farmworkers and their families. All 100 counties also disseminated health and health-related information provided specifically for medicare recipents. The pesticide management programs continued to impact North Carolina's agricultural community.

External resources for the support of the NC Extension health programs continues to increase with substantial monies being obtained at the county level. State level externally-funded projects include the $90,000 for the Agromedicine program and the $872,963 in 1997 support of NCCES Rural Health Program activities (ABILITY Project, $226,000 and SALIC, $646,963). Sponsors of the Family and Consumer Science Department's Health Program include the National Cancer Institute, the American Cancer Society, the Kate B. Reynolds Foundation and the North Carolina Department of Human Resources. NCCES also received $180,000 from CSREES-USDA for administration of the National Decisions for Health Network (now the National Network for Health). Total funding for NCCES health programs in 1997 including state supported salaries and operating costs was approximately $2,000,000.

County Extension-led health programs include the ongoing Community Health Advocates Program (CHAP), childhood immunization coalitions, child safety seat campaigns, breast cancer outreach education, health care insurance education programs, home safety and crime prevention programming, farm safety camps for children and youth and agricultural safety and health programs.

NCSU Extension and other College of Agriculture and Life Science Departmental faculty served as both co-editors of and major contributors to the first comprehensive text on agricultural health -- SAFETY AND HEALTH IN AGRICULTURE, FORESTRY AND FISHERIES published by Government Institutes, Rockville, MD 1997.

NCCES faculty and staff continued to serve as conveners of the National Network for Health under the auspices of the National Extension CYFAR Project.

Collectively NCCES efforts in health and safety have had considerable impact on individuals, families and communities in North Carolina.
It is expected that convincing evidence of Extension's capacity to develop and deliver culturally appropriate health and health-related prevention outreach education will be forthcoming next year as the SALIC and ALIC evaluations progress. The Rural Health Program Coordinator/SALIC Principal Investigator is also responsible for oversight of NCI's ALIC Program Evaluation Data Coordinating Center.

SUCCESS STORIES

For Farmers with disabilities, assitive technology is an equalizer. 1. 1. 1. Assistive technology devices are the tools that people with disabilities use for working, learning, living, and playing. Identification, acquisition and sometimes even funding of assistive technology for NC farmers is possible with the help of a project administered by the NC Cooperative Extension Service.

A success story resulting from the NCCES Ability Project involves furnishing assistive technology provided to a turkey famer near Turkey, NC. This farmer sustained brain injury in a brutal attack several years ago. As a result, she experienced difficulty using standard tractor controls, and difficulty carrying feed throughout the brooder house. By working with local suppliers, the NC ABILITY Program arranged for custom hand controls to be installed for her tractor's clutch and brake, and purchased a second-hand golf cart for transportation inside the breeder house. This enabled her to continue her work.

2. A family in Ashe County, NC received an infant car seat through a state sponsored program and attended training in its correct installation and use. The mother related that she had learned for the first time the importance of using an infant car seat. The following day she was in a head-on collision which totaled her car. Both the mother and her children were unharmed. the mother attributed the outcome directly to the information she had received at the training.

3. The Centers for Disease Control and Prevention sponsored NC Breast and Cervical Cancer Control Program has exceeded mammography screening goals by up to 300 percent or three times in SALIC Project counties. If, as estimated, a third of all breast cancer mortality can be prevented through early detection, this is an indication that SALIC prevention outreach education is achieving its aim of lowering breast cancer mortality by motivating low income women to have mammograms.

EXEMPLARY PROGRAMS

The Onslow County Community Health Advocates Program (CHAP) continues to represent a major health program accomplishment as it enters its sixth year of training community volunteers to serve as local health resources.

SALIC has also continued to develop community lay cancer control educators through its community-based cancer control action teams. The SALIC model for Extension-based, coalition-driven, volunteer-delivered health programming is now being readied for dissemination throughout the three state SALIC region

The initial USDA AgrAbility grant has been parlayed into an ongoing outreach program for disabled rural residents including farmers and farm workers through the provision of additional support from a private foundation and the NC Department of Human Resources. The NCCES ABILITY Project has expanded to all 100 NC counties.

SPECIAL FUNDS ABSTRACTS

Since most of the NCCES health related programming is supported by special funding, information on these projects are included in the section on major accomplishments. Special funding supports the Appalachia Leadership Initiative on Cancer (SALIC), $646,963 (NCI), the Ability Project, $226,000 (CREES-USDA, Kate B. Reynolds Foundation, NC Human Resources)), the National Network for Health, $180,000 and the AgroMedicine Program, $90,000 (CREES-USDA).

OBJECTIVES, INDICATORS, DATA COLLECTION METHODOLOGIES

OBJECTIVE 1

People will adopt healthy life styles and reduce risk behaviors by taking responsibility for their health decisions.

INDICATOR 1

Enter the number of people reached directly and indirectly about adopting healthy life styles and reducing risk behaviors. Then of the number of pe reached directly, enter the number who adopted a healthier life style or reduced a specific risk behavior.

6yr Proj	800000	0	0

	Number Reached Directly	Number Reached Indirectly	# Reached Directly Adopting
1992	0	0	0
1993	0	0	0
1994	79141	0	0
1995	160381	0	0
1996	211000	0	0
1997	220000	0	0
Total	670522	0	0

Data Collection Methodology

Extension County Accomplishment Reports, Southern Appalachia Leadership Initiative on Cancer (SALIC) and AgrAbility/FarmAbility monthly reports.

OBJECTIVE 2

Individuals will make informed use of available health-related services and facilities. Extension, agencies (public and private), community groups, heal care providers, and volunteers will partner to improve the availability of existing health-related services and facilities.

INDICATOR 1

Enter the number of people reached directly who have learned (a) about available health related services and facilities and how to use them, and to make informed decisions about health care.

6yr Proj	165000	55000

	(a) Learned About Services	(b) Learned To Make Decisions
1992	0	0
1993	0	0
1994	65000	0
1995	85000	55000
1996	111000	72000
1997	77000	23000
Total	338000	150000

Data Collection Methodology

Extension Annual County Accomplishment Reports, SALIC and AgrAbility/FarmAbility monthly reports.

INDICATOR 2

Enter the number of counties in which Extension participated in an immuniz campaign and the percent of children in these counties who were immunized age two.

6yr Proj	80	0.0

	Counties Partipated	Percent Children Immunized
1992	0	0.0
1993	0	0.0

1994	80	0.0
1995	0	0.0
1996	55	0.0
1997	33	0.0
Total	168	

Data Collection Methodology

INDICATOR 3

Enter the number of counties in which Extension collaborated to improve th availability of existing health-related services and facilities other than those related to immunization of young children.

	Counties Collaborated
6yr Proj	19
1992	0
1993	0
1994	19
1995	0
1996	75
1997	67
Total	161

Data Collection Methodology

OBJECTIVE 3

Communities (counties) will improve their capacity to assess and take action related to health and health-related infrastructure needs not met by existing services and facilities.

INDICATOR 1

Enter the number of community (or county) action groups (e.g., health coun that Extension (a) established or enhanced whose purpose includes identify and closing gaps in health-related needs, (b) assisted in assessing health needs and designing a community health plan to address those needs, and (c number of community (or county) action groups implementing a community hea plan during the past year with Extension assistance.

	Groups Established Or Enhanced	Groups Assisted in Assessing	Groups Implementing Plan
6yr Proj	265	120	70
1992	0	0	0
1993	0	0	0
1994	110	52	20
1995	151	65	46
1996	211	45	79
1997	56	77	66
Total	528	239	211

Data Collection Methodology

Extension annual accomplishment reports, SALIC and AgrAbility/FarmAbility monthly reports.

PART B OBJECTIVES AND INDICATORS

ESTIMATED PROGRAM COST

Year	Est. Cost
1992	0
1993	0
1994	811602
1995	1257319
1996	1572000
1997	1600000
Total	5240921

ESTIMATED FTE COMMITMENT

	Professional			Paraprofessional		
	1862	1890	Other	1862	1890	Other
1992	0.0	0.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	0.0	0.0	0.0
1994	16.0	2.0	0.0	0.0	0.0	0.0
1995	14.0	2.0	0.0	0.0	0.0	0.0
1996	16.0	2.0	0.0	0.0	0.0	0.0
1997	18.0	2.0	0.0	0.0	0.0	0.0
Total	64.0	8.0	0.0	0.0	0.0	0.0

ESTIMATED VOLUNTEER PARTICIPATION

Year	Volunteers
1992	0
1993	0
1994	2095
1995	3830
1996	5040
1997	4500
Total	15465

ADDITIONAL COMMENTS

PROGRAM CONTACTS

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NORTH CAROLINA 1997 ANNUAL REPORT:
CIVIL RIGHTS

NARRATIVE SUMMARY OF ACCOMPLISHMENT

GOALS & PROCEDURES: EQUAL OPPORTUNITY EMPLOYMENT

Annual Civil Rights Report - Calendar Year 1996

CR04 - Equal Employment Opportunity

A. Objectives

1. Increase the number of minorities and females in agriculture and administrative positions.

2. Continue to ensure salaries are unaffected by race/sex.

3. Increase the cultural diversity of employees.

B. Indicators of Success and Accomplishments

1. In enlisting the help of all current employees to locate and recruit minorities, we included recruiting segments on vidoe to encourage employees to help in the recruitment process. A great deal of effort was not made on this objective in 1996.

2. We recruited at traditionally black and female institutions in the southern region or at institutions that have a high percentage of minorities in the student body. In 1996, we recruited five (5) times at such institutions. Of the 181 male applicants in 1996, 16% were minority. Of the 255 female applicants, 18% were minority.

3. Leadership positions data reflect minimal changes. Of the 90 County Director filled positions at the end of 1996, 24.4% were female. This is a percentage point increase over last year's 23%. 13 of the County Directors (14%) were minorities; this was unchanged from 1995. The seven member district director team was composed of 2 black males, 2 white females, and 3 white males.

Of 25 promotions in 1996, 11 (44%) were female and 2 (8%) were minority.

4. Employment procedures were regularly monitored to ensure standardized procedures were followed when filling positions.

EPA EMPLOYEES
RACE BY GENDER

	Sept. 30, 1995			Dec. 31. 1996			Change		
	M	F	Total	M	F	Total	M	F	Total
Black	27	104	131	21	95	116	-6	-9	-15
White	241	271	512	228	251	479	-13	-20	-33

Other	0	12	12	0	8	8	0	-4	-4

Gender Only

Males	268	249	-19
Females	387	354	-33

SPA EMPLOYEES
RACE BY GENDER

	Sept. 30, 1995			Dec. 31, 1996			Change		
	M	F	Total	M	F	Total	M	F	Total
Black	0	33	33	0	30	30	0	-3	-3
White	0	196	196	0	200	200	0	+4	+4
Other	0	2	2	0	1	1	0	-1	-1

Gender Only

Males	0	0	0
Females	231	231	0

GOALS & PROCEDURES: PROGRAM DELIVERY
Annual Civil Rights Report - Calendar Year 1996

CR05 - Program Delivery

A. Objectives

1. Provide the same level of educational service to all people of the state without regard to race, sex, age, disability, color, national origin, or religion.

2. Advisory system members reflect all groups in the state with regard to race, age, sex, disability, color, national origin, or religion.

B. Indicators of Success and Accomplishments

1. Advisory Leadership membership and program delivery efforts were reported as part of the county annual reports. Each county has goals to ensure proportional representation of citizens.

2. Contact Data (exptrapolated from 4 months of actual data).

NCSU Agents

White	Black	A/Akn	A/PI	Hispan	Male	Female
1407495	508605	43653	5394	43539	903660	1105026

NCSU Area Agents

White	Black	A/Akn	A/PI	Hispan	Male	Female
75396	17220	2139	48	579	55428	39954

NCSU Paraprofessionals

White	Black	A/Akn	A/PI	Hispan	Male	Female
59331	56610	3552	333	1887	44226	77487

NC A&T Agents

White	Black	A/Akn	A/PI	Hispan	Male	Female
15594	11364	6168	303	1200	18450	16179

NC A&T Area Agents

White	Black	A/Akn	A/PI	Hispan	Male	Female
519	786	165	0	3	516	957

NC A&T Paraprofessional

White	Black	A/Akn	A/PI	Hispan	Male	Female
14211	7098	1623	0	108	11376	11664

GOALS & PROCEDURES: PUBLIC NOTIFICATION
Annual Civil Rights Report - Calendar Year 1996

CR02 - Public Notification

A. Objectives

Overall:

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

Specific:

1. Every county be accountable for a public notification plan.

2. Make organizations which request Extension assistance aware of Extension position on non-discrimination.

3. Continue to utilize a common non-discrimination statement on all printed material.

B. Indicators of Success and Accomplishments

Counties display the "And Justice for All" posters prominently in their entry areas.

Ninety (90) individual reports from counties list Extension clubs individually and notes specific plans to increase minority participation if and when it's found deficient.

Most counties regularly use a variety of media to broadcast the availability and accessibility of our educational programs. These includes television, radio, and print media.

C. Implications

The implications are that the public is in no way prevented from learning or participating in Extension programming based on status in a protected class.

GOALS & PROCEDURES: CIVIL RIGHTS TRAINING
Annual Civil Rights Report - Calendar Year 1996

CR01 - Civil Rights Training

A. Objectives

Overall:

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

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

Specific:

1. All employees are expected to be knowledgeable of the principles and laws of our nation regarding Civil Rights.

2. All employees are expected to be knowledgeable of Civil Rights policies and sensitive to equity issues.

3. All employees are expected to assess the quantity and quality of educational programs delivered to minority individuals by comparing benefits delivered to non-minority individuals.

B. Indicators of Success and Accomplishments

There were three (3) video training segments that were copied and sent to each county. Each employee has an opportunity to view these segments as part of the monthly staff meeting held in each county.

There were ninety-nine (99) people both on and off campus received face to face training as part of new faculty training requirements

The reporting system used statewide was designed for the world wide web and counties received training to input the various required data into this new system. Ninety (90) counties of the 101 units reported against their individual plan. This initial response rate was seen as a great success of the plan of work training since having a separate county plan is a new process for all of them. The reporting was done as a composite effort of employees in each reporting unit.

C. Implications

Implications are good that all personnel are more aware of Civil Rights issues as we move into the new reporting system that's a part of the Goverment Performance and Reporting Act
(GPRA).

GOALS & PROCEDURES: ON-SITE COMPLIANCE REVIEWS
CR03 - On-Site Civil Rights Compliance Review
1996-1999 Plan of Work

* Situation:

The 1992-1995 Plan of Work was the first for North Carolina following a 19-year Civil Rights lawsuit concerning salary inequity and a 1991 Compliance Review by ES-USDA. The review was predominantly positive and provided feedback and guidance in focusing the 1992-1995 efforts. Several efforts were incorporated to address any noted weaknesses. Also during this time period, the Director and the Affirmative Action Officer retired.

The overall intention of this plan is to continue the efforts outlined in the previous plan of work with few modifications.

* Goals:

Overall:

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

Specific:

1. All counties are expected to determine their baseline level of participation of various groups and set numerical goals for reaching under served/under represented groups.

2. All counties not in compliance are expected to show progress toward compliance within the 4-year period.

* Procedures:

1. Compliance reviews will be conducted as part of the county program reports done biannually. Counties not in compliance will be expected to employ Affirmative Action procedures to reach underserved/under represented groups.

2. Counties will keep records of clientele contacts and make the data available upon request.

REPORTING OPTION SELECTED
Total (100%) Data Collection

ADDITIONAL COMMENTS

CONTACTS

POPULATION AND CLIENTELE PROJECTIONS: 1862 PROFESSIONAL

	White not of Hispanic origin	Black not of Hispanic origin	American Indian/ Alaskan Native	Hispanic	Asian or Pacific Islander	Male	Female
Potential Recipients	3073457 73.0%	2 24.0%	63165 2.0%	45312 1.0%	12123 0.0%	1833180 44.0%	2381212 56.0%
FY93 Participat.	1588864 79.0%	405377 20.0%	21229 1.0%	4585 0.0%	2968 0.0%	676713 34.0%	1346310 66.0%
FY94 Participat.	1662149 78.0%	439578 21.0%	23267 1.0%	4983 0.0%	3645 0.0%	709574 33.0%	1423848 67.0%
FY95 Participat.	1730213 77.0%	478560 21.0%	26496 1.0%	5708 1.0%	3999 0.0%	727902 32.0%	1517074 68.0%
FY96 Participat.	1572000 74.0%	507600 23.9%	28000 1.3%	12000 0.6%	4000 0.2%	1019328 48.0%	1104272 52.0%
FY97 Participat.	1603440 74.0%	517752 23.9%	28560 1.3%	12240 0.6%	4080 0.2%	1039715 48.0%	1126357 52.0%

POPULATION AND CLIENTELE PROJECTIONS: 1862 PARAPROFESSIONAL

	White not of Hispanic origin	Black not of Hispanic origin	American Indian/ Alaskan Native	Hispanic	Asian or Pacific Islander	Male	Female
Potential Recipients	2299277 72.0%	795935 25.0%	52965 2.0%	35112 1.0%	19063 0.0%	1485360 46.0%	1716992 54.0%
FY93 Participat.	124898 50.0%	114601 46.0%	6163 3.0%	1466 1.0%	1098 0.0%	78522 32.0%	169704 68.0%
FY94 Participat.	126698 50.0%	118588 47.0%	6438 3.0%	1948 0.0%	1489 0.0%	83082 33.0%	172079 67.0%
FY95 Participat.	129016 49.0%	122443 46.0%	8832 3.0%	2443 1.0%	1824 1.0%	91208 35.0%	173350 65.0%
FY96 Participat.	130929 49.0%	122913 46.0%	8016 3.0%	2672 1.0%	2672 1.0%	93521 35.0%	173681 65.0%
FY97 Participat.	130929 49.0%	122913 46.0%	8016 3.0%	2672 1.0%	2672 1.0%	93521 35.0%	173681 65.0%

POPULATION AND CLIENTELE PROJECTIONS: 1890 PROFESSIONAL

	White not of Hispanic origin	Black not of Hispanic origin	American Indian/ Alaskan Native	Hispanic	Asian or Pacific Islander	Male	Female
Potential Recipients	433340 51.0%	385732 46.0%	25140 3.0%	0 0.0%	111 0.0%	355003 42.0%	489320 58.0%
FY93 Participat.	17075 58.0%	10070 34.0%	2350 8.0%	0 0.0%	5 0.0%	6971 24.0%	22480 76.0%
FY94 Participat.	18125 57.0%	11175 35.0%	2670 8.0%	0 0.0%	6 0.0%	7850 25.0%	24126 75.0%
FY95 Participat.	20670 56.0%	13120 36.0%	3160 8.0%	0 0.0%	7 0.0%	9117 25.0%	27840 75.0%
FY96 Participat.	20642 55.9%	13150 35.5%	3200 8.6%	0 0.0%	8 0.0%	9200 24.9%	27800 75.1%
FY97 Participat.	20772 55.8%	13200 35.5%	3220 8.9%	0 0.0%	8 0.0%	9200 24.7%	28000 75.3%

POPULATION AND CLIENTELE PROJECTIONS: 1890 PARAPROFESSIONAL

	White not of Hispanic origin	Black not of Hispanic origin	American Indian/ Alaskan Native	Hispanic	Asian or Pacific Islander	Male	Female
Potential Recipients	433340 51.0%	385732 46.0%	25140 3.0%	0 0.0%	111 0.0%	355003 42.0%	489320 58.0%
FY93 Participat.	41275 56.0%	29750 41.0%	2100 3.0%	7 0.0%	10 0.0%	28250 39.0%	44892 61.0%
FY94 Participat.	43630 55.0%	32850 41.0%	3250 4.0%	9 0.0%	12 0.0%	31750 40.0%	48001 60.0%
FY95 Participat.	45116 53.0%	34910 41.0%	4770 6.0%	10 0.0%	13 0.0%	33640 40.0%	51179 60.0%
FY96 Participat.	46196 53.7%	34980 40.7%	4800 5.6%	10 0.0%	14 0.0%	34000 39.5%	52000 60.5%
FY97 Participat.	46326 53.7%	35000 40.7%	4850 5.6%	10 0.0%	14 0.0%	34000 39.5%	52200 60.5%

POPULATION AND CLIENTELE PROJECTIONS: TUSKEGEE PROFESSIONAL

	White not of Hispanic origin	Black not of Hispanic origin	American Indian/ Alaskan Native	Hispanic	Asian or Pacific Islander	Male	Female
Potential Recipients	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY93 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY94 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY95 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY96 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY97 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%

POPULATION AND CLIENTELE PROJECTIONS: TUSKEGEE PARAPROFESSIONAL

	White not of Hispanic origin	Black not of Hispanic origin	American Indian/ Alaskan Native	Hispanic	Asian or Pacific Islander	Male	Female
Potential Recipients	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY93 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY94 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY95 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY96 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
FY97 Participat.	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%