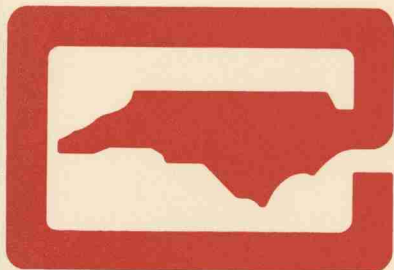


*Mr. Shelton*

Annual Report

October 1, 1983 – September 30, 1984



**north carolina**  
**AGRICULTURAL**  
**EXTENSION**  
**SERVICE**

**a&t and n.c. state universities**

*Chetan D. Black*

Associate Dean and Director

*Daniel D. Gaffey*

Associate Dean & Administrator

NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

1984 ANNUAL REPORT

CONTENTS

STATE OVERVIEW

COVER SHEET - AGRICULTURE AND NATURAL RESOURCES

MAJOR PROGRAM ACCOMPLISHMENT INFORMATION REPORTS (55)

COVER SHEET - HOME ECONOMICS

MAJOR PROGRAM ACCOMPLISHMENT INFORMATION REPORTS (35)

COVER SHEET - 4-H & YOUTH DEVELOPMENT

MAJOR PROGRAM ACCOMPLISHMENT INFORMATION REPORTS (13)

IMPACT STUDY REVISIONS - FORM B (2)

CIVIL RIGHTS/EEO ANNUAL COMPLIANCE REPORTS - FORM C (3)

TABLES

TABLE III - EXPENDED FTE, 1862

TABLE III - EXPENDED FTE, 1890

TABLE IV - PEST MANAGEMENT PROGRAM

TABLE V - PESTICIDE APPLICATOR TRAINING

TABLE VI - PESTICIDE IMPACT ASSESSMENT

TABLE VII - CLIENTELE CONTACTS BY RACIAL-ETHNIC GROUPS BY PROGRAM AREA,  
PROFESSIONALS, 1862

TABLE VII - CLIENTELE CONTACTS BY RACIAL-ETHNIC GROUPS BY PROGRAM AREA,  
PARAPROFESSIONALS, 1862

TABLE VII - CLIENTELE CONTACTS BY RACIAL-ETHNIC GROUPS BY PROGRAM AREA,  
PROFESSIONALS, 1890

TABLE VII - CLIENTELE CONTACTS BY RACIAL-ETHNIC GROUPS BY PROGRAM AREA,  
PARAPROFESSIONALS, 1890

NOTE: ES 237 (4-H ENROLLMENT REPORT) IS BEING SENT ELECTRONICALLY.

ONE COPY OF ES 255 AND 256 (EFNEP REPORTS) IS INCLUDED WITH THIS REPORT,  
TO BE FORWARDED TO THE PROGRAM ANALYST.



## Overview "People's Plan 87"

The North Carolina Agricultural Extension Service including the effort at North Carolina State University and A & T State University, has made a significant contribution to the citizens of the State through the implementation of the first year of the plan of work. Progress toward program objectives and the participation of volunteers in teaching roles substantiate the pragmatic involvement of the Advisory Leadership System in the development and priority setting of the educational plan.

Extension volunteer leaders made a significant contribution to the conduct of educational programs. Extensive training was undertaken to provide volunteers the expertise and confidence to fulfill these important roles within the community. Master Volunteer programs were undertaken in agriculture and home economics with outstanding success in gardening, beekeeping and food preservation. Two hundred and twelve Master Beekeepers were trained by Extension specialists and agents. They in return taught over 4,200 people with educational programs totaling over 1,600 hours of service. Extension Home Economics specialists have completed Master Volunteer Training programs in Money Management, Grandparenting and Yarn Skills for implementation in 1984-85. Over 8,000 volunteer 4-H leaders and 420 additional volunteers working with 6-8 year old pre-4-H'ers participated in training to help youth develop life skills in leadership. Twenty counties focused on 4-H youth leadership with over twenty three hundred youth receiving training.

The themes of Extension programs in agriculture were management and marketing. Fourteen man years of program were specifically redirected towards management education. A statewide emphasis of Managing for Profit in '84 was adopted and highlighted by area conferences across the State. Extension also featured the use of management information in commodity production meetings held by agents and specialists. Seventy of North Carolina's one hundred county Extension offices have micro-computer capability with management programs available for producer use or demonstrations. Commodity budgeting has been a popular program. A new computer program, Investments in Poultry Facilities is helping guide a major North Carolina industry expansion program. Extension agents and specialists were instrumental in training personnel in the Farmers Home Administration and Federal Crop Insurance Corporation in management and record keeping techniques.

Marketing of agricultural products was a featured educational program. Extension was instrumental in the establishment of a livestock marketing cooperative serving three counties; farmers markets were established in four additional counties with fruit and vegetable revenues of \$400,000 on a benefit-cost ratio of 5.3 to 1.; the first certified USDA graded Christmas trees were marketed out of state by a farmer marketing cooperative formed by twenty five producers; and agricultural option seminars were conducted across the state for over 600 producers and lenders.

The small farm program known as the Farm Opportunities Program (FOP), helped more than 600 limited-resource farmers increase their farm incomes by helping them make better use of their resources, develop farm plans, keep better financial records, and adopt recommended agricultural practices and marketing strategies. FOP farmers saved an estimated \$250,000 in 1983-84 -- an annual mean savings of \$4,166 per program participant. The average increase in gross income for the FOP farmers was \$4,899.

Home Economic programs contributed substantially to the quality of life of North Carolina citizens. Increasing family economic stability and security was one major program objective. The results are impressive. Over 55,000 persons reported increased financial consumer and home improvement skills and consequently an increased buying power in the marketplace. This extended income was valued at over two million dollars. Through marketable crafts and home production, over 41,000 persons increased income by three million dollars. Forty three percent of 2,075 people attended estate planning workshops reported reviewing and revising estate documents, 33% reviewed their wills and 25% changed method of handling joint bank accounts.

Food production programs continued to be important to families and to achieve success. Participants in meat buying programs reported savings of near \$250,000; over 11,000 persons maximized food dollars with nutrient dense foods; and 27% of participants reported decreased grocery bills. EFNEP reported a 12% increase in homemakers consuming the recommended servings in each food group.

At least one energy-and-cost efficient design feature was incorporated into 1,726 newly constructed family homes. One county reported twenty two homes built using the Extension Energy Efficient Plan series. Energy conservation was also featured for home owners. Another county reported 300 limited resource homes were weatherized with \$10,500 in reduced energy costs. The small farmstead energy project helped 140 small tobacco and swine farmers in North Carolina become more energy conscious, make energy conservation improvements in their agricultural practices and facilities, and save money on their fuel costs. The year-long project resulted in savings of \$95,823 for the farmers -- savings that will continue to multiply with each passing year.

Extension educational programs concentrated on water as a natural and community resource. A special task force developed educational materials on water conservation use and management. Educational programs and demonstration farms were established to demonstrate "best management practices" to reduce nutrient pollution to the state's major streams and impoundments. The Landownership Information Project (LIP) which was created in 1980, continued to help limited-resource landowners maintain possession of their farmland. With the help of a special USDA grant, LIP expanded its education assistance to all of the states with 1890 land-grant institutions. The regional effort is helping to create a general awareness of the land loss problem for Blacks throughout the South and will assist other 1890 land-grant institutions in organizing programs that can effectively deal with the problem in each state.

The 4-H educational program made rapid strides in its objective of developing life skills with North Carolina youth. Approximately 130,000 were involved in educational project work to enhance competency skills. A pilot program tested in twelve counties with 6,000 youth featured positive change in self esteem and the coping skill. Almost 50% of this group reported on sophisticated measuring scales that their self esteem had improved.

The plan of work was an ambitious undertaking for the North Carolina Agricultural Extension Service. The fact that no other major issue has surfaced is a testimonial to the process utilized and the degree of people and leadership involvement. There are three issues or concerns which must be faced within the next fiscal year.

The first is a need for more and increasingly accurate baseline data to provide a reference point for progress with the educational program. Committees and individual specialists are attempting to secure and refine this data to provide greater accuracy in measurement. In some cases, specialists and agents need training in the type of data needed and appropriate sources.

The second issue concerns the large number of major programs that North Carolina must report on each year. In 1985 serious study will be undertaken to review programs and provide amendments which will improve the educational and accountability processes.

The third item is a deep concern for sufficient resources to complete the aggressive and dynamic program. The disparity between federal budget increases and those of state government widened significantly in 1984. Approximately twenty positions have been closed to provide funding to meet state salary commitments on the federal portion of the program. A continuation of this trend will seriously undermine the capability of the Extension Service to meet its planned commitments.

Overall the administration is pleased with the progress under People's Plan 87. There remains a strong and enthusiastic commitment to the plan in the advisory system, the field staff and the faculty of both campuses. The development of priority needs and a concerted effort to solve problems is a positive direction for a time of scarce and valuable resources.



Daniel D. Godfrey  
Associate Dean and Administrator



Chester D. Black  
Associate Dean and Director

AGRICULTURE AND NATURAL RESOURCES ACCOMPLISHMENT REPORTS - 1984

No. Title of Major Program for which Accomplishment Report is attached

1862

NC01	Improvement in the Flue-Cured Tobacco Quality and Demand in North Carolina
NC05	Peanut Production in North Carolina
NC06	Soybean Production in North Carolina
NC07	Cotton Production and Management in North Carolina
NC08	Cotton Integrated Pest Management in North Carolina
NC10	Weed Management Systems for Agronomic Crops and Turf in North Carolina
NC13	Integrated Pest Management for Field Crops, Horticultural Crops and Livestock in North Carolina
NC14	Prudent Use and Management of North Carolina Soils for Agriculture, Forestry and Urban Development
NC20	North Carolina Plant Pest Survey and Detection System
NC21	North Carolina Pesticide Information Retrieval System
NC22	The North Carolina Master Beekeeper Program: a System to Upgrade the Skills of N.C. Beekeepers and Increase Public Awareness of Beekeeping
NC23	Reproductive Management of Swine in North Carolina
NC25	Nutrition of Swine in North Carolina
NC26	A Herd Health Program for Swine Raised in North Carolina
NC27	Improved Feeding Management on North Carolina Dairy Farms
NC29	North Carolina Cooperative Dairy Herd Improvement Program
NC30	North Carolina Program for Dairy Cattle Reproduction and Herd Replacements
NC32	Production and Marketing of North Carolina Beef Cattle
NC37	Breeding, Management and Marketing of Equine in North Carolina



<u>No.</u>	<u>Title of Major Program for which Accomplishment Report is attached</u>
NC38	Market and Breeder Turkeys in North Carolina
NC39	Broiler Chick Production in North Carolina
NC40	Residue Avoidance in North Carolina Poultry Products
NC41	Commercial Eggs and Pullets in North Carolina
NC44	Agribusiness and Cooperative Education in North Carolina
NC45	Legal Economics in North Carolina
NC46	Income Tax Management for North Carolina Families
NC47	North Carolina Agricultural Leadership Program
NC48	Economics of Clearing and Draining Poorly Drained North Carolina Soils
NC49	Economics of Forage Systems in North Carolina
NC50	Post-Harvest Handling of Grain in North Carolina
NC51	Tobacco Policy, Farm Management and Marketing in North Carolina
NC53	North Carolina Farmers' Markets
NC55	Agricultural Transportation in North Carolina
NC56	Introducing New Processing Technology to North Carolina Food Industry
NC57	Quality Assurance Techniques for North Carolina's Food Industry
NC58	To Assure a Continuing Supply of High Quality Raw Materials to Meet the Needs of the North Carolina Food Processing Industry
NC59	Improving Forest Products Markets and Utilization in North Carolina
NC60	Improving North Carolina Nonindustrial Private Forest Land Management and Income Generation
NC61	Business Management for North Carolina Fruit, Ornamental, and Christmas Tree Growers
NC62	Marketing North Carolina Fruits, Ornamentals, and Christmas Trees
NC64	North Carolina Christmas Tree Marketing and Production
NC65	Pond Management and Aquaculture in North Carolina
NC66	Wildlife Management in North Carolina
NC67	Computer Development in the North Carolina Agricultural Extension Service

No.	Title of Major Program for which Accomplishment Report is attached
NC68	North Carolina Grain Drying and Storage
NC70	Energy Conservation and On-Farm Energy Audits for North Carolina Agriculture
NC71	Energy Conservation and Biomass Utilization for On-Farm Energy Production and Petroleum Fuel Substitution in North Carolina Agriculture
NC72	National Water Quality Evaluation Project Conducted in North Carolina
NC73	Energy Efficient/Environmental Quality Demonstration Farm Project in North Carolina
NC75	Farm Safety in North Carolina
NC75a	Pesticide Education in North Carolina

1890

NC75c	Farm Opportunities Program - Farm Management
NC75d	Farm Opportunities Program - County Organizations for Small/Limited Resource Farmers
NC75e	Farm Opportunities Program - On the Farm Assistance
NC75f	Farm Opportunities Program - Home Gardening



\*TITLE

NC01 Improvement in Flue-Cured Tobacco Quality and Demand in  
North Carolina

\*TEXT

SITUATION DESCRIPTION

U. S. flue-cured tobacco has failed to keep its share of export and domestic markets in recent years partly because of the lack of quality (maturity of cured leaf) and price being higher than in competitor countries. About 49% of the 1982 crop was graded immature with high maleic hydrazide (MH) residues averaging 138 ppm which far exceeds the 80 ppm desired by important foreign buyers. MH is a chemical used to control sucker growth. Buyers failed to purchase 26% of the 1983 crop. Quota reductions and loss of additional markets are likely unless quality (maturity and MH residues) and price become more competitive. Excess nitrogen from fertilizers is a major contributor to immature and unripe cured leaf and sucker growth for which excess MH is applied to control.

PROGRAM OBJECTIVES

- 1) To reduce amount of immature and unripe grades of tobacco from 49% of crop in 1982 to 25% of crop by 1983.
- 2) To reduce MH residue levels from 140 ppm to 80 ppm.
- 3) To increase buyer demand.
- 4) To reduce nitrogen fertilizer applications from 100 lbs/A to 70 lbs/A by 1987.
- 5) To reduce tobacco under loan from 26% of crop in 1983 to 15% in 1984.

RESOURCES INVOLVED

County extension personnel worked with cooperators in 67 on-farm tests, and with agribusiness personnel as well as producers. Funding included grants from agribusiness and the Tobacco Foundation.

ACCOMPLISHMENTS

	1982	1983	1984
% of tobacco crop immature	49%	55%	No data yet
% of acreage with excess N use	56%	27%	No data yet
MH residues	140ppm	102 ppm	No data yet
% of crop purchased		74%	84% (\$ .10/lb more than 1983)

EVALUATION

Percentage of immature grades from USDA market reports; MH residue figures from ASCS reports; excess nitrogen use estimated by agents; tobacco sales figures from NCDA.

FUTURE IMPLICATIONS

The increase in percentage of immature grades was mainly the effect of a prolonged and widespread drought, not excess nitrogen. Increased buyer demand and decreased MH residues, and decreased excessive use of nitrogen are encouraging. Continued emphasis should maintain flue-cured tobacco quality, with increased buyer demand and increased quotas as U. S. tobacco becomes more competitive in world trade.

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**\*KEYWORDS**

NC01  
 North Carolina  
 1984  
 Agriculture  
 Nitrogen and Maleic Hydrazide Reduction  
 Flue-Cured Tobacco Quality  
 Producers and Related Agribusiness  
 Meetings, Newspapers, Publications, Radio, Television, Tours,  
 On-Farm Tests-Demonstrations

**\*QUANTIFIED IMPACTS**

Nitrogen fertilizer reduced 29% reduction in acreage with excess N  
 Increased profitability 10% more leaf sold  
 \$.10/lb increase from '83 to '84 resulted in \$82.5 million increased sale price

Year	1983	1984
% of tobacco crop marketed	92%	92%
% of acreage with excess N	32%	37%
MM residues	140ppm	103 ppm
% of crop purchased	75%	84%

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Year	Prof	Para	Vol	Pers	Dollar	Co	In St	100
1984	31.4	2	3.0	1984			In Rept	

Religion, N.C. 27695-7630  
 Box 7610, NCSU  
 Crop Science Extension Specialist (Tobacco)  
 W. K. Collins

\*TITLE

NC05 Peanut Production in North Carolina

\*TEXT  
SITUATION

There are approximately 9000 commercial peanut growers in North Carolina producing 155,000 acres of peanuts in 1984. Average yields for the past five years are 2600 pounds per acre. These yield levels are just over break-even production levels. Many growers with lower average yield levels lack the management skills needed to execute a timely and efficient peanut production program. Approximately 3,000 growers need to improve their skills in pest control practices, tillage practices and marketing.

OBJECTIVES

Overall objectives for 1984 were to provide educational opportunities for peanut producers to improve: (a) general knowledge of peanut production principles; (b) peanut production management skills; (c) pest management program for peanuts; and (d) marketing skills to improve net profit.

RESOURCES INVOLVED

Approximately 60 farmer cooperators conducted field tests and demonstrations. Approximately 30 agribusiness representatives supported the peanut program with materials and funds for specific projects.

ACCOMPLISHMENTS

Agents estimate that 10 percent of the peanut producers have improved their skills in pest management. Approximately 30 percent of North Carolina growers are now scouting peanut fields and taking pest control measures based on need rather than following a preventative approach. This has resulted in a \$20 savings per acre in chemical costs and increased yields by an average of 50 pounds/acre. Overall production management has improved resulting in a 30 lb/acre increase in yield.

EVALUATION

These increases have been determined by observation and personal contact with growers. Official ASCS yield reports provide information on yield increases. Informal surveys with peanut growers help determine depth of farmer knowledge and current levels of management skills. Impacts of practice changes are estimated on the basis of past experience.

FUTURE IMPLICATIONS

Programs will be expanded to reach additional peanut producers and agribusiness representatives. Additional field tours will be planned especially for new chemical company salesmen and field development representatives to help them understand peanut production principles.

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\*TITLE\*

**\*KEYWORDS**

NC05  
North Carolina  
1984  
Agriculture and Natural Resources

Food Production, Crop Management, Resource Conservation  
Integrated Pest Management  
Peanuts

Agribusiness, Farmers, Professionals

Computer assisted program, demonstrations, group  
presentations, field tours, slides/tapes, mass media

**\*QUANTIFIED IMPACTS**

Production Management Improved

Increase yields 30 lb/a  
155,000 x 30 lbs = 4,500,000  
x \$ .28/lb = \$1,260,000

Pest Management Improved

Reduce costs \$20/acre on 30%  
of acreage 155,000 x .30 =  
46,500 acres x \$20 = \$930,000

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	6.6	.5	1	1984 75	15,000	In Rept	

\*CONTACT\*

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\*TITLE

NC06 Soybean Production in North Carolina

\*TEXT

SITUATION DESCRIPTION

Developments in new technology and understanding of soybean growth have raised potential soybean profits well above the level that most growers achieve. Profits from soybeans are currently low enough that many growers feel compelled to base their management decisions on short-term returns at the expense of long-term profits. Nematodes, especially the soybean cyst, are important pests of soybeans.

PROGRAM OBJECTIVES

- 1) To increase the number of soybean varieties grown on 1% of more of the state's acreage, to decrease the percentage of the acreage planted to varieties which have been on the market 10 years or more, and to decrease the reliance on resistant varieties as a sole nematode control practice
- 2) To increase percentage of soybeans in rows narrower than 36 inches
- 3) To increase percentage of soybeans grown as part of a planned rotation, to decrease erosion from soybean acres, and to decrease acres of soybeans grown on unproductive soils
- 4) To increase understanding of soybean productivity and interactions among management decisions
- 5) To refine computer models that will be useful to growers and agents

RESOURCES INVOLVED

County Agricultural Extension Agents in 85 counties, with support from 15-20 Specialists and a limited number of special project technicians and part-time IPM scouts, represent the major manpower resource. No special funds are involved except as this program interfaces with IPM and pesticide education activities.

ACCOMPLISHMENTS

Benefits and impacts on the 1984 crop have not been systematically determined to date. The varieties included in a computer program being used in the counties have been updated twice. Example: Single county results included 3 dealers who increased the number of varieties offered for sale, 20 growers tried one or more new varieties, 50% increase in no-till soybean acreage, and 24% of growers surveyed indicated increased awareness of soybean technology in the past year.

EVALUATION

Use Crop Reporting Service data on varieties grown, row widths used; SCS data on erosion; and annual surveys of growers who participate in meetings and of agents for remaining data. Evaluation forms will be sent to a sample population in counties that have microcomputers. Baseline data (on 1983 crop) has been collected, and plans are in place for systematic collection of corresponding data for 1984 and succeeding crops.

FUTURE IMPLICATIONS

No immediate changes from original Plan of Work are planned.

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\*KEYWORDS

NC06  
North Carolina  
1984

Agriculture and Natural Resources

Variety selection, cultural practices, pest management, soil erosion, farm management  
Soybeans

Farmers, Young Farmers, Small Farmers, Agribusiness

On-farm tests, demonstrations, computer assisted program, meetings, slides, television, newspaper, radio, publications, individual conferences.

\*QUANTIFIED IMPACTS

Data to document and quantify changes

generated during the first fiscal year of this program are being collected, and will

be available about November, 1984.

\*Expended FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	13.1	1.8	2.0	1984 193	15,152.80	In Rept	85

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\*TITLE

NC07 Cotton Production and Management in North Carolina

\*TEXT

SITUATION DESCRIPTION

Cotton growers' production and management problems include variety selection, soil fertility and plant nutrition, weed, insect and disease management, defoliation, and fiber quality in the state, particularly in the northeast. With expansion of cotton acreage comes the challenge of adapting current production strategies to this new area. The primary concern of the northeastern cotton farmers, as well as those in the rest of the state, is promoting early maturing cotton.

PROGRAM OBJECTIVES

Cotton producers will learn and adopt agronomic and pest control practices to enhance early fruiting and boll opening including efficient use of pesticides, with minimum crop stress; wise selection and use of defoliants and growth regulators; and narrow row planting configurations (where appropriate); and will become more aware of the importance of maintaining fiber quality.

RESOURCES INVOLVED

Cooperators worked with specialists in 50 on-farm tests in 1984.

ACCOMPLISHMENTS

Regional cotton insect schools for summer scouts, consultants and producers were conducted in 7 counties in 1984; 245 persons attended, a 36% increase over 1983. Newsletters kept producers informed about expected insect conditions, recommendations, IPM practices, and how boll weevil eradication impacted insect management decisions. Benefits are reflected in a 10-20% decrease in insecticide usage; more timely herbicide applications resulting in less crop stress, and improved defoliation and harvest preparations that have improved fiber quality. Adoption of extension recommendations increased net returns to growers \$20/acre x 94,000 acres = \$1.88 million.

	1983	1984
Acres planted	59,000	94,000
Yield/acre	350 lbs	536 lbs
Value/lb (approx)	70¢	60¢
Gross receipts	\$14,455,000	\$30,230,400

EVALUATION

Grower and agent conversations and available county, state and federal statistics on cotton production.

FUTURE IMPLICATIONS

Program will continue to expand as more counties expand their cotton acreage. New and inexperienced cotton producers will continue to expand the cotton acreage in the state. These growers will require a greater proportion of the program's time and efforts. Research must continue to develop a unified cotton management scheme that incorporates environmental, biological, and economic considerations

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**\*KEYWORDS**

NC07  
 North Carolina  
 1984  
 Agriculture

Yield and quality, fertility, pest management, production systems.

Cotton, improved stands, fertilizer use and placement, growth regulators, variety selection, weed management  
 Farmers, agribusiness, professionals, cooperatives

Demonstrations, meetings, publications, newsletters, tours, radio, television.

**\*QUANTIFIED IMPACTS**

1984 compared to 1983

Productivity improved/acre 25%  
 Cost/pound reduced 5%  
 Pest losses reduced At least 10% of crop

Year	Acres planted	Yield/acre	Value/lb (approx)	Gross receipts
1984	84,000	150 lbs	70¢	\$30,120,400
1983	82,000	150 lbs	70¢	\$31,452,000

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Year	Prof	Para	Vol	Pers	Dollar	Co in St 100
1984	3.4	1.5				

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\*TITLE

NC08 Cotton Integrated Pest Management in North Carolina

\*TEXT

SITUATION DESCRIPTION

Cotton grown in North Carolina is extremely susceptible to yield reducing insect damage. Cotton is probably North Carolina's most sophisticated crop from an insect management standpoint, requiring carefully weighed agronomic inputs, reliable insect monitoring and precise pesticide application decisions. Various analyses of the economics of an IPM approach show a range of \$63 to \$200/acre profit to participating producers in southeastern states. North Carolina's Extension Cotton IPM project receives approximately 85% of its total support from Smith-Lever 3d cotton pest management funds.

PROGRAM OBJECTIVES

Primary objectives include increasing producer profits through:

- 1) development, refinement and implementation of sound insect scouting systems
- 2) greater adoption of a set of maturity-enhancing production practices which lessen the crop's attractiveness and susceptibility to insects
- 3) refinement and wider adoption of established economic thresholds
- 4) formulation and adoption of management systems for pests such as the European corn borer
- 5) continued use of insect monitoring aids such as light and pheromone traps
- 6) evaluation of chemical and biological insecticides and new pesticide delivery systems

ACCOMPLISHMENTS

- 1) 17 black light traps were incorporated into the scouting system and provided information on bollworm moth flight intensity to producers.
- 2) 43% increase in cotton producers and scouts trained as part of the implementation of the insect scouting system. The number trained in 1984 equals 245.
- 3) Pesticide reduction saved producers an average of \$18 per acre.
- 4) Insect damage reductions saved producers \$15-\$19 per acre.

EVALUATION

Attendance records were kept on scouting schools. Boll damage surveys and experiment station results gave evidence on insect damage. USDA boll weevil eradication personnel provided data on pesticide use patterns.

FUTURE IMPLICATIONS

The cotton IPM program in North Carolina is reducing costs of production and crop damage losses to help keep cotton producers competitive.

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\*TITLE

\*KEYWORDS

NC08  
North Carolina  
1984  
Agriculture

Crop protection, IPM

Cotton

Producers, Extension professionals, consultants

Scouting schools, demonstrations, newsletters,  
management guides, trap monitoring, agent training

\*QUANTIFIED IMPACTS

Scouts and producers trained 245

Pesticide reduction \$18/acre

Insect damage reduction \$15-\$19/acre

Producers reached All (to a degree)

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	2.5	1	1984		In Rept	

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\*TITLE

NC10 Weed Management Systems for Agronomic Crops and Turf in North Carolina

\*TEXT

SITUATION DESCRIPTION

Weeds currently cause an estimated 10 to 25% yield and quality reduction in crops. This is in addition to control costs of \$25-\$50 per acre. Thus, successful weed management programs are one of the necessary components for profitable production.

PROGRAM OBJECTIVES

- 1) Develop and implement integrated weed management programs. Emphases on scouting weed maps, and management based on weeds present, soil properties, rotations, thresholds, and cultural practices. This will help growers reduce yield and quality losses and maximize practices.
- 2) Develop and implement weed management strategies for conservation tillage. This will reduce yield losses, reduce erosion, increase water use efficiency, and save energy.
- 3) Evaluate herbicide application equipment and techniques. This will improve herbicide efficacy, reduce injury, and increase profits.
- 4) Conduct educational programs for dealers and agents. This will indirectly benefit growers by helping to promote sound management programs.

RESOURCES INVOLVED

Assistance was provided by growers, N.C. Office of Water Resources and U.S. Army Corps of Engineers. Supporting funding was obtained from commodity organizations and agricultural chemical industries.

ACCOMPLISHMENTS

Compared to the most commonly used peanut herbicide program, the best program for broadleaf signalgrass cost \$11 per acre less and increased yields by 400 pounds per acre or \$110. After NCAES educational programs, grower surveys indicated that 50% of the affected growers switched to the recommended program. The net result was an increase in profits to growers of \$1.5 million.

The most effective control of johnsongrass in no-till soybeans, which utilized post-emergence grass herbicides, increased soybean yield 28 bushels per acre. The increased per-acre value over herbicide cost was \$160 at a market price of \$7/bushel for soybeans. This program was adopted on 5000 acres, 4000 of which were no-tilled. The net benefit to growers was \$0.8 million.

EVALUATION

Grower and county agent surveys.

FUTURE IMPLICATIONS

We will continue to demonstrate and promote greater adoption of these programs.

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**\*KEYWORDS**

NC10  
 North Carolina  
 1984  
 Agriculture

Weed management

Peanuts, soybeans, aquatics

Farmers, landowners

On-farm tests, meetings, newsletters, weed management guides

**\*QUANTIFIED IMPACTS**

Peanut growers with knowledge gained	200
Soybean growers with knowledge gained	500
Peanut yield losses reduced	2500 tons
Soybean yield losses reduced	112,000 bushels
Peanut profits increased	\$1.5 million
Soybean profits increased	\$.8 million

**\*EXPENDED FTE**

	Prof	Para	Vol
1984	13	2	0.5

**\*VOLUNTEER**

	Pers	Dollar
1985	45	\$10,000

**\*SCOPE**

	Co	In St	100
	In Rept		

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\*TITLE

NC13 Integrated Pest Management (IPM) for Field Crops, Horticultural Crops, Poultry and Livestock in North Carolina

\*TEXT

SITUATION DESCRIPTION

IPM programs include alfalfa, apples, blueberries, corn, cotton, Irish potatoes, small grains, soybeans, tobacco, tomatoes and poultry. Crops account for 5 million acres with a value of \$3.5 billion. Poultry is second to tobacco in farm receipts valued at \$750 million. Pest management is important in managing pests and ensuring profitable production. Smith-Lever 3(d) funds are used to support this project.

PROGRAM OBJECTIVES

To help the producer systematically confront his pest problems and lessen their impact by:

- 1) making production decisions which discourage pests
- 2) regular monitoring of pests
- 3) using pesticides only when necessary
- 4) selecting pesticide and rate based upon monitoring reports
- 5) using pest information gathered as part of next year's crop plans.

To lessen pest problems, lower pesticide use, lessen complaints and problems with pesticide efficacy, lengthen effective life of pesticides, increase yields due to better pest protection, and lower production costs.

RESOURCES INVOLVED

Approximately 35% of the funding support from this program is from grower contributions.

ACCOMPLISHMENTS

- 1) 326 farmers in 30 counties involving a total of 34,000 acres are systematically confronting pest problems and making production decisions to discourage pests, regularly monitoring pests, using pesticides only when necessary and at rates based upon monitoring reports.
- 2) 25 field men were trained in the poultry IPM program.
- 3) 100 agents, 60 scouts, and 1,000 growers were trained in the IPM program.
- 4) Pesticide applications on alfalfa for participating growers were reduced by an average of one.
- 5) Data from one peanut producing county indicated that \$230,000 was saved by the IPM program.
- 6) For growers participating in the IPM program, average costs were reduced 5-10%. Profitability was increased 3-8% and yields were increased 0-10%.

EVALUATIONS

Grower surveys.

FUTURE IMPLICATIONS

An impact study for tobacco will be conducted this year. Studies of corn, cotton, peanuts and soybeans will be conducted in the following years to assess the level of acceptance of IPM.

\*CONTACT

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\*KEYWORDS

NC13  
North Carolina  
1984  
Agriculture

Integrated Pest Management, Pest Control

Field crops, horticultural crops, poultry, livestock, pesticides

Extension agents, farmers, poultry producers and fieldmen, livestock producers

Publications, in-service training, slide sets, videotapes, demonstrations

\*QUANTIFIED IMPACTS

Cost reduced 5-10%

Profitability increased 3-8%

Yields increased 0-10%

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
------	------	-----	------	--------	----------	-----

1984	13	18	1984		In Rept	
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\*TITLE

NC14 Prudent Use and Management of North Carolina Soils for Agriculture, Forestry and Urban Development

\*TEXT

SITUATION DESCRIPTION

Because N.C. soils in their natural uncropped state are infertile, large amounts of lime and fertilizer nutrients have been applied to produce profitable crops. Some fields will continue to need selected nutrients and lime; most fields need to be evaluated to establish modifications in fertilization programs for several years.

PROGRAM OBJECTIVES

The primary objective of the Soil Science Extension program is to assist farmers, foresters, landowners and other publics with implementation and continuation of wise land use practices. Specifically, farmers will be strongly encouraged to complete wise fertilization and liming practices for maximum net income and production efficiency and preservation of a high level of environmental quality. It is also expected that income from crops and livestock will be increased.

RESOURCES INVOLVED

Cooperation of the N. C. Department of Agriculture and fertilizer industry representatives.

ACCOMPLISHMENTS

- 1) The number of soil samples taken increased from 210,000 in 1982-83 to 230,000 in 1983-84.
- 2) The use of agricultural limestone increased from 460,000 tons in 1982-83 to 640,000 tons in 1983-84.
- 3) The total cost of crop production was reduced from 5-20%; fertilizer use was reduced 10-30%; profitability increased 5-25%; yields per acre increased 5-10%.

EVALUATIONS

Records provided by the N. C. Department of Agriculture and crop income figures from agent reports of farm product sales.

FUTURE IMPLICATIONS

Renewed emphasis will need to be placed upon the increased use of limestone for the problem of soil acidity. Educational efforts by county Extension staff and specialists must address the matter of prudent use and management of soils for wiser use of both lime and fertilizer.

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**\*KEYWORDS**

NC14  
 North Carolina  
 1984  
 Agriculture and Natural Resources

**Integrated Pest Management**

Field Crops, Horticultural Crops, Poultry, Pesticides  
 Farmers, Agribusiness  
 Computer assisted program, demonstrations, pilot  
 projects, slides/tapes, home learning packet, home  
 learning visits

**\*QUANTIFIED IMPACTS**

Cost reduced 5-20%  
 Fertilizer use reduced 10-30%  
 Profitability increased 5-25%  
 Yields per acre increased 5-10%

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	5	1.5		1984		In Rept	

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\*TITLE

NC20 North Carolina Plant Pest Survey and Detection System

\*TEXT

SITUATION DESCRIPTION

Although technological advances have improved production, increased efficiency and reduced costs, pests remain the major source of loss in agricultural systems. A major weapon against crop plant pests is a system for predicting the occurrence of pests so that appropriate preventive measures can be initiated. Also, there must be some means for evaluating both the efficacy of preventive and remedial treatments and the changing distribution of the crop plant pests. In order to develop such a system, the N. C. Agricultural Extension Service is participating in the pilot program of the National Cooperative Plant Pest Survey and Detection Program.

PROGRAM OBJECTIVES

- 1) Provide interface between county, state and federal level personnel involved in pest survey and detection activities.
- 2) Provide computer facilities and programming expertise to assist in development of a crop pest monitoring and prediction system.
- 3) Provide assistance in developing models which attempt to predict outbreaks of pests prior to their occurrence.
- 4) Develop computer communications network for collection of pest survey data and distribution of summary reports of pest survey activities to and from county offices.

RESOURCES INVOLVED

Support for the program is provided by private agricultural consultants, agricultural chemical industry representatives and individual growers. Cooperating agencies include the N.C. Department of Agriculture, the N. C. Department of Human Resources, the N. C. Division of Forest Resources, and USDA.

ACCOMPLISHMENTS

- 1) Assistance was provided to 130 growers through 15,000 field visits to 1,450 fields.
- 2) 17 agents were trained in the use of the system in 17 counties.

EVALUATION

Records were kept on grower use of the system and agent training records were maintained.

FUTURE IMPLICATIONS

This system is proving its potential as a major weapon against crop loss because of pests. It is providing accurate, up to date information on current pest conditions at the local, state, regional and national levels. In addition, weather information will be provided for appropriate evaluations of pest survey results. Appropriate pesticide recommendations will be tied to levels of pest conditions.

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**\*KEYWORDS**

NC20  
North Carolina  
1984  
Agriculture

Computer use, crop protection, crop production  
Pest management, forest management, weed control, plant  
disease control, horticulture, insect control  
Individual producers; local, county, state and federal  
personnel  
Newsletters, demonstrations, presentations, television,  
workshops, trade shows

**\*QUANTIFIED IMPACTS**

Field visits	15,000
Number of fields	1,450
Number of growers	130
Number of counties (agents trained)	17

**\*EXPENDED FTE**

Prof	Para	Vol
1984	4.5	0.5

**\*VOLUNTEER**

1984

**\*SCOPE**

In Rept

Pers	Dollar	Co	In	St	100

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\*TITLE

NC21 North Carolina Pesticide Information Retrieval System

\*TEXT

SITUATION DESCRIPTION

The number of registered pesticides is increasing, and proportionally the effort required to update and distribute accurate registration information is increasing. In order to handle this vast volume of information, efforts were undertaken to computerize national chemical registration status information. The service which was developed as a result of these efforts has been designated as the National Pesticide Information Retrieval System (NPIRS). The service is housed at the Laboratory for Applications of Remote Sensing (LARS) at Purdue University. The N.C. Pesticide Information Retrieval System (NCPIRS) was established in 1982 to provide an interface between personnel within N.C. and the NPIRS.

PROGRAM OBJECTIVES

- 1) Provide access for state level personnel to the NPIRS.
- 2) Provide computer programming and electronic data processing expertise to assist in accessing the NPIRS.
- 3) Provide feedback to the NPIRS administration regarding the accuracy of the data base.
- 4) Provide suggestions for improving NPIRS services.
- 5) Assist in evaluating the private vendor selected for providing NPIRS services.

RESOURCES INVOLVED

Cooperating in the program were researchers both at the University and USDA based, pesticide industry representatives, and pest control operators.

ACCOMPLISHMENTS

- 1) A total of 83 computer searches were conducted with computer search time ranging from 2 to 73 minutes.
- 2) The system was used in support of Rebuttable Presumption Against Registration (RPAR) process and for the preparation of the NORTH CAROLINA AGRICULTURAL CHEMICALS MANUAL.
- 3) Facilities and services of the system were improved as response time was reduced by a factor of 10.

EVALUATION

Records of system utilization were maintained.

FUTURE IMPLICATIONS

The system will be maintained as it offers potential for reducing the time and cost associated with the production of various publications such as the AGRICULTURAL CHEMICALS MANUAL and for providing accurate information for Extension specialists within a reduced time period.

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\*KEYWORDS

NC21  
North Carolina  
1984  
Agriculture

Pesticide use

Computer use, crop protection, pesticide training

Individual producers; local, county, state and federal  
personnel, paraprofessionals, teachers, distributors  
Newsletters, demonstrations, presentations, television,  
workshops, trade shows

\*QUANTIFIED IMPACTS

Multiagency cooperation 1 state, 1 federal, 1 regulatory

Pest control recommendations enhanced 100 counties, 5%

Facilities and services improved Response time reduced by a  
factor of 10

Productivity and decision making improved Search time reduced by a factor  
of 10

\*EXPENDED FTE

Prof Para Vol  
1984 1.0

\*VOLUNTEER

Pers Dollar  
1984

\*SCOPE

Co in St 100  
In Rept

\*CONTACT  
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\*TITLE

The North Carolina Master Beekeeper Program: A System to Upgrade Skills of N.C. Beekeepers and Increase Public Awareness of Beekeeping

NC22

\*TEXT

SITUATION DESCRIPTION

N.C. has the 4th largest number of beehives (185,000) and probably the most beekeepers (20,000) in the U.S. The annual value of honey and beeswax is \$5.5-\$6 million, and the value of pollination services to crops is over \$30 million. The Master Beekeeper Program began in 1938 as an umbrella for all NCAES programs in apiculture and to maximize the effectiveness of available resources. It is a 4-step program giving beekeepers classroom and hands-on experience in a progressive sequence that allows each to progress at his own rate to his own level of expertise. Individuals must pass standardized written and practical exams at each level of the program before advancing to the next step. Also, higher-level participants are required to perform public service work under the guidance of the NCAES before they may advance in the program.

PROGRAM OBJECTIVES

- 1) 250 leaders to become certified volunteers to provide educational information and assistance to beekeepers and the general public concerning beekeeping (apiculture).
- 2) 250 certified beekeeping leaders to teach 10 persons on an annual basis by providing information on bees and beekeeping.

RESOURCES INVOLVED

47 volunteers, N.C. State Beekeepers Assn., N.C. Dept. of Agri.

ACCOMPLISHMENTS

- 1) 165 beekeepers have reached the first (Certified) level of the program. The majority of those individuals (100+) have opted to continue the program and become volunteers.
- 2) 47 beekeepers have completed the second (Journeyman) level of the program and have volunteered their time and knowledge to other beekeepers and the general public.
- 3) Certified level beekeepers have performed 350 units of public service work involving 1600 hours of volunteer service and reached an audience of over 4200 people.

EVALUATION

Standardized tests developed by the NCAES apicultural program are used at all levels of the Master Beekeeper Program to measure the knowledge of the program participants. These tests insure that only well-qualified individuals advance to the higher levels of the program and work as volunteers performing public service work. Participation and volunteer service records are kept by the Extension Specialists.

FUTURE IMPLICATIONS

The program is effectively multiplying the efforts of professionals through highly trained volunteers.

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\*TITLE

\*KEYWORDS

NC22  
North Carolina  
1984  
Agriculture & Natural Resources, 4-H Youth

Entomology

Beekeeping (Apiculture)

Beekeepers, associations, non-extension professionals,  
volunteers, adults, youth  
Classroom instruction, large group presentations, workshops,  
newsletters, leader training

\*QUANTIFIED IMPACTS

Volunteers trained	47
Knowledge gained	255
Programs presented	350
Skills learned	255

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	2.1	0.8	1984	147	In Rept	100

\*CONTACT  
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\*TITLE

NC23 Reproductive Management of Swine in North Carolina

\*TEXT

SITUATION DESCRIPTION

In swine production, reproductive efficiency of the breeding herd relates directly to gross income. Reproduction is often the most limiting constraint. It is a complex process, composed of many components which form a sequence of events, and each of these components must be dealt with individually. Likewise, many external factors, such as environment, nutrition, health status, etc., directly and indirectly influence reproductive efficiency and potential. North Carolina had 290,000 breeding hogs which produced 432,000 litters and 3,321,000 pigs in 1982. This translates into 7.69 pigs per litter, 1.5 litters per sow and 11.5 pigs per sow per year. These statistics need to be compared to goals of 9.5 pigs per litter, 2.3 litters per sow and 21.5 pigs per sow per year. Several producers in North Carolina have achieved these goals. Many others can.

PROGRAM OBJECTIVES

For 50% of swine producers who are grossing over \$10,000 annually to increase use of recommended reproductive management techniques, achieving an average 10% increase in pigs per litter to 8.46 pigs per litter and 1.65 litters per sow for 2.5 additional pigs per sow per year.

RESOURCES INVOLVED

The program was tested on five cooperating swine farms before being introduced statewide.

ACCOMPLISHMENT

No data available at this time on the exact number of producers using this recommended system; however, there is at least one innovative swine producer using these records in each of the counties in eastern North Carolina.

EVALUATION

Agent and specialist observations on use of the system. During the coming year, an attempt will be made to quantify the number of producers using the record system by surveying extension agents. The impact will be assessed by surveying swine producers and monitoring agricultural statistics.

FUTURE IMPLICATIONS

Extension Swine Husbandry plans to produce a publication on records. This, along with presentations by specialists at production meetings and regional conferences, will be used to disseminate this information to all swine producers in North Carolina.

\*CONTACT

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\*TITLE

NC25 Nutrition of Swine in North Carolina

\*TEXT

SITUATION DESCRIPTION

The estimated rate of feed conversion in all farrow-to-finish hog enterprises is 430 lb. of feed per 100 lb. of live weight of pork produced, which involves the entire enterprise including the breeding herd. A comparable figure for all feeder pig finishing enterprises is 380 lb.

PROGRAM OBJECTIVES

For 20% of swine producers who are grossing over \$10,000 annually to increase their use of recommended principles and practices regarding a sound nutrition program, with emphasis on balanced rations, resulting in an average efficiency ratio of 400 lb. of feed per 100 lb. of live weight gain in farrow-to-finish operations and 350 lb. of feed per 100 lb. of live weight gain for feeder pig finishing enterprises.

RESOURCES INVOLVED

Support for the program was provided by the N.C. Forage Analysis Laboratory and the N. C. Animal Diagnostic Laboratory as well as 2,000 producers.

ACCOMPLISHMENT

Practices known to improve feed efficiency were adopted by 40% of all swine producers grossing over \$10,000 annually. Approximately 1200 feed samples were analyzed through the Forage Analysis Laboratory to check formulations and to monitor aflatoxins and several cases were referred to the Diagnostic Laboratory. Most important of all practices to improve feed efficiency was the proper adjustment of feeders to reduce feed waste. Surveys and observations have led to an estimated improvement from 430 lb. of feed required down to 420 lb. of feed per 100 lb. of gain. The comparable figure for all feeder pig finishing enterprises was 370 lb.

EVALUATION

Surveys, observations and a sampling of farms bolstered ultimately by agricultural statistics of feed utilization versus pork produced.

FUTURE IMPLICATIONS

As long as feed costs represent 60-75% of pork production costs, immense pressure will continue to be exerted to improve feed efficiency and thereby reduce production costs.

\*CONTACT

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**\*KEYWORDS**

NC25  
North Carolina  
1984  
Agriculture

Nutrition of Swine

Swine

Swine Producers

Meetings, Slides/Tapes, Publications, On-farm Tests,  
Newsletters, Workshops

**\*QUANTIFIED IMPACTS**

Practices adopted by 40% of all swine producers grossing over 10,000 annually, including 1200 feed samples 2,000 producers

Productivity improved to an average ratio of 420 lb. of feed per 100 lb. of live weight of hogs produced and 370 lb. of feed per 100 lb. of live weight of hogs for all feeder pig finishing enterprises \$256,000

**\*EXPENDED FTE**

Prof      Para      Vol

1984    5.0

**\*VOLUNTEER**

Pers      Dollar

1984

**\*SCOPE**

Co in St 100

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\*TITLE

NC26 A Herd Health Program for Swine Raised in North Carolina

\*TEXT

SITUATION DESCRIPTION

Swine producers in North Carolina lose millions of dollars each year from diseases and parasites. Diseases and parasites manifest themselves in subtle ways: infertility, poor growth rates, depressed feed conversion and increased susceptibility to more diseases. The rapid adoption of confinement has brought about intensive hog production. Although this has conserved facilities, labor and management, it has put animals into close proximity predisposing them to outbreaks of contagious diseases and transfer of parasites.

PROGRAM OBJECTIVES

To encourage producers to implement a total herd health program, as well as to identify several areas which deserve special attention.

RESOURCES INVOLVED

Cooperating veterinarians, the N.C. Animal Diagnostic Laboratories, School of Veterinary Medicine personnel and producers.

ACCOMPLISHMENT

Parasite control practices have been adopted by 60% of swine producers who are grossing over \$10,000 annually. Results include a decrease in the number of litter condemnations, a decrease in the mummie problem and a decrease in atrophic rhinitis.

EVALUATION

Surveys, observations and sampling are used along with diagnostic lab reports.

FUTURE IMPLICATIONS

Publications and meetings will continue to promote and reinforce our parasite control and animal health programs.

\*CONTACT

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TITLE

WIDE

STATE

SITUATION DESCRIPTION

\*KEYWORDS

NC26  
North Carolina  
1984  
Agriculture  
Herd Health Program for Swine  
Swine  
Swine Producers

Meetings, Publications, Newsletters

\*QUANTIFIED IMPACTS

Practice of parasite control has been adopted by 60% of swine producers. 10,000 producers

Decrease in liver condemnations and loin trim in packing plants. 10,000 producers

Vaccination for Parvovirus has practically eliminated mummies on farms vaccinating. 10,000 producers

Vaccinate for Atrophic Rhinitis - Increased growth rate and feed efficiency in the presence of low levels of this disease. 5,000 producers

\*EXPENDED FTE

\*VOLUNTEERS

\*SCOPE

*EXPENDED FTE		*VOLUNTEERS		*SCOPE
Prof	Para	Vol	Pers	Dollar
1984	4.0		1984	Co in St 100

CONTACT

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\*TITLE

NC27 Improved Feeding Management on North Carolina Dairy Farms

\*TEXT

SITUATION DESCRIPTION

Feed costs represent over 50 percent of the total operating expense of dairy farms in North Carolina. Feed costs are large because of 1) ingredient costs, 2) overfeeding and using unneeded ingredients, 3) underfeeding, 4) feeding an unbalanced ration, 5) use of low quality ingredients and/or 6) other factors.

PROGRAM OBJECTIVES

The objective of Extension is to change the dairymen's feeding practices to reduce feed costs and to encourage high production and good animal health for increased profits. The primary means of accomplishment should be through 1) increased use of least-cost computer ration balancing programs, 2) increased use of feed testing programs, 3) greater use of byproduct feeds, 4) improvement in forage quality, 5) use of yearly feeding plans, 6) prudent feed purchasing, 7) efficient use of feeding equipment and methods and 8) increased knowledge of nutrition.

RESOURCES INVOLVED

North Carolina Department of Agriculture

ACCOMPLISHMENTS

Increased feed sample volume through the feed testing program indicates progress. Sample numbers in 1984 are projected at 5800 up from 5221 in 1983 and 596 in 1979. It is estimated that over 1000 rations were balanced which is a two-fold increase from 1983. Number estimates are totals from the state and local Extension offices.

EVALUATION

Current evaluation is by numbers of feed samples and rations balanced coupled with expected results derived from previous research. Future evaluation will include survey data.

FUTURE IMPLICATIONS

As feed companies and other nutritional consultants offer these services, Extension will provide less of them. Future work will be directed more toward working with consultants and developing other programs. More research is needed to refine ration balancing criteria.

\*CONTACT

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**\*KEYWORDS**

NC27  
North Carolina  
1984  
Agriculture and Natural Resources

Animal Nutrition

Dairy Cattle

Dairymen, Feed Industry

Conferences, Demonstrations, Meetings, Newsletters,  
Publications and Computer

**\*QUANTIFIED IMPACTS**

Feeds analyzed

5800 total in 1984--a 600 increase from 1983 and tenfold the average during the years 1960-1980

Rations formulated

Approximately 1000/year--a twofold increase from 1983

Increased income to dairymen

A per-cow \$50-\$100 extra income to regular users of the program for a total of \$1.2 million estimated total to the dairy industry.

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	4.5	.2		1984		In Rept	

CONTACT  
Dr. W. Whittle, Extension Dairy Specialist  
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\*TITLE

NC29 North Carolina Cooperative Dairy Herd Improvement Program

\*TEXT

SITUATION DESCRIPTION

More than 40% of the dairy farmers in North Carolina have no organized herd management or production record system. Inadequate records result in erroneous decisions, inefficient herd management, inefficient production and reduced profitability.

PROGRAM OBJECTIVES

The objectives of the Extension Dairy Herd Improvement (DHI) Program are to make more dairymen aware of the value of records as a basis for herd management decisions and to teach dairymen how to interpret and utilize herd management records in making decisions.

RESOURCES INVOLVED

N. C. Dairy Herd Improvement Association. Local DHIAs.

ACCOMPLISHMENTS

No impacts measured at this time.

EVALUATION

DHIA records will be analyzed to determine the number and quality of records being kept by dairy farmers. Attention will also be given to the management practices being followed by dairy farmers.

FUTURE IMPLICATIONS

Because of strengthening the staff of the NCDHIA, more emphasis can be given to the management practices of dairy farmers.

\*CONTACT

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\*TITLE

\*KEYWORDS

NC29  
 North Carolina  
 1984  
 Agriculture

Farm Management

Dairy Cattle

Dairy Farmers, Agribusiness Leaders, Financial Institutions,  
 Producers' Associations

Newsletters, meetings, conferences, demonstrations,  
 publications, tours

\*QUANTIFIED IMPACTS

\*EXPENDED FTE

Prof	Para	Vol
1984 .3	0.5	

1984

.3

0.5

\*VOLUNTEERS

Pers	Dollar
1984	

1984

\*SCOPE

Co	In St	100
In Rept		

In Rept

\*CONTACT

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\*TITLE

NC30 North Carolina Program for Dairy Cattle Reproduction and Herd Replacement

\*TEXT

SITUATION DESCRIPTION

Poor reproduction performance limits profitability and increases expenditures. Days open is the test measure of reproductive performance of a dairy herd. The 646 DHI dairy herds in North Carolina averaged 133 days open. Days open is determined by important reproductive management components (heat detection efficiency, conception rate and herd health) which each in their own right are complex management components. Dairymen must have a basic knowledge of reproductive management and the ability to identify problem areas to increase reproductive efficiency.

PROGRAM OBJECTIVES

- 1) Reduce average days open by 10 (from 136 to 126).
- 2) Reduce calf losses from 12% to 10%.
- 3) Reduce age at first calving by one month (from 27 to 26).

RESOURCES INVOLVED

Practicing large animal veterinarians (approximately 20) and all major artificial insemination organizations active in North Carolina cooperated with the development and presentation of six two-day reproductive workshops given this year.

ACCOMPLISHMENTS

	1983	1984
Average days open	136 days	133 days

(This represents a savings of \$818 per dairy, or approximately \$528,000 for the N. C. Dairy Industry.)

EVALUATION

Impacts were measured by monitoring DHI reproductive summaries and surveys of reproductive practices.

FUTURE IMPLICATIONS

The reproductive workshop concept will be expanded to serve a greater majority of the clientele. Additionally, follow-up workshops have been planned to monitor and evaluate progress. Field research in this area has begun and needs to be greatly expanded.

\*CONTACT

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**\*KEYWORDS**

NC30  
North Carolina  
1984  
Agriculture and Natural Resources

Dairy Cattle Reproduction

Dairy

Farmers

Newsletters, meetings and demonstrations

**\*QUANTIFIED IMPACTS**

Reproductive performance

The 646 DHIA dairies averaged 133 days open, 3 days less than the 136 days reported last year. According to research findings, this would mean a savings of \$818/dairy or about \$528,000 for the N.C. dairy industry.

Calves saved

Survey of dairymen to determine calf losses has not been taken. Average age at first calving has not changed in past year.

Heifers calved earlier

**\*EXPENDED FTE**

Prof      Para      Vol

1984      4      .2

**\*VOLUNTEER**

Pers      Dollar

1984

**\*SCOPE**

Co in St 100

In Rept

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\*TITLE

NC32 Production and Marketing of North Carolina Beef Cattle

\*TEXT

SITUATION DESCRIPTION

Most N.C. farms producing beef cattle own herds which are small. Investment in beef production technology and alternative marketing activities are low because per animal costs of search and acquisition are high. Decision procedures and information on costs and returns are needed by beef cattle producers to make choices with respect to 1) form of market (weekly auctions vs. special graded sales), 2) optimum buying and selling weights for given feed regimes, 3) season to buy and sell, 4) genotype and grade to produce and sell. North Carolina beef producers lose \$7.5 million annually by failure to market optimally.

PROGRAM OBJECTIVES

For 10,000 beef cattle producers to increase use of optimum marketing strategies.

RESOURCES INVOLVED

N. C. Cattlemen's Association, N. C. Association of Market Operators. \$500 provided by NCCA for publication of sales summaries.

ACCOMPLISHMENTS

No impacts measured at this time. NCCA provided funds for sales summaries.

EVALUATION

Survey of random samples of beef cattle producers. Use of historical data from sales locations to determine costs and benefits of guaranteed open heifer sales.

FUTURE IMPLICATIONS

More work is needed on cost of production alternatives. More producers need to receive this information.

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\*TITLE

\*KEYWORDS

NC32  
North Carolina  
1983-84  
Agriculture

Marketing and Production

Beef

Beef producers, county agents, market operators

Publications

\*QUANTIFIED IMPACTS

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	4.4			1984		In Rept	

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\*TITLE

NC37 Breeding, Management and Marketing of Equine in North Carolina

\*TEXT

SITUATION DESCRIPTION

The N. C. horse industry is a major agricultural enterprise consisting of a diversified breed population in excess of 200,000 head on over 53,000 farms. A large percentage of business-oriented and hobby horse owners have limited management skills which have contributed to nutritional, health and reproductive problems. Management problems affect productivity, size and number of horse operations and the well-being of recreational owners.

PROGRAM OBJECTIVES

To increase level of production and business management of horse owners by 15% by educating 6,000 horsemen from 1984-1987.

RESOURCES INVOLVED

Equine owners, breeders, trainers, farm managers, professional horsemen, veterinarians, tack shop owners, equipment manufacturers.

ACCOMPLISHMENTS

- 1) 91% of horsemen in N. C. requested assistance
- 2) 9,901 contact hours logged by horsemen
- 3) Percentage of horsemen adopting recommended practices - 40%
- 4) Percentage of horsemen learning new skills - 65%
- 5) Productivity improved - 50%

EVALUATION

Evaluation forms were used at each conference to obtain feedback from participants. Future evaluation forms will be designed to provide monetary values for respective economic impacts.

FUTURE IMPLICATIONS

Provide more educational information and update on management techniques through educational meetings and conferences.

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**\*KEYWORDS**

NC37  
 North Carolina  
 1984  
 Agriculture, 4-H, youth, adults  
 Equine production, management, marketing  
 Equine production and management  
 Adult and youth horsemen, agribusinesses, 4-H volunteer  
 leaders and members  
 Conferences, demonstrations, large group presentations,  
 meetings, visuals, publications

**\*QUANTIFIED IMPACTS**

Practice adopted	40 percent
Skills learned	65 percent
Productivity improved	50 percent
Income increased	70 percent
Youth and adult horsemen	3,813
Participation increased	1 percent
Knowledge gained	80 percent

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	1.0		1984		In Rept	23

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\*TITLE

NC38 Market and Breeder Turkeys in North Carolina

\*TEXT

SITUATION DESCRIPTION

Reproductive efficiency, total eggs, fertility, and hatchability of breeder turkeys are quite poor when compared to other meat-producing birds. For example, broiler chicken breeders produce 160 eggs with 88-90% of fertility, hatch 130 chicks; breeder turkeys produce 80 eggs with 80-85% fertility, hatch 55-57 poults.

Genetic changes in turkey stocks have emphasized rate of growth and feed efficiency. As a result, turkeys are marketed at a younger age today (males 24-25 lbs. at 18 weeks as compared to the same weight at 21-22 weeks in 1970). This suggests that nutrient and dietary requirements of market turkeys change constantly.

PROGRAM OBJECTIVES

Program objectives include: (1) improved reproductive performance of breeder turkeys; (2) improved hatchery sanitation and egg handling in order to increase hatchability; (3) reduced feed cost/pound of turkey meat.

RESOURCES INVOLVED

Poultry Breeders, Feed Companies, Banking Communities, Allied Industries.

ACCOMPLISHMENTS

Four out of five breeders improved female housing through addition of fans, foggers and insulation. Two of five breeders improved male breeder housing by constructing environmental control buildings with evaporative cooling systems. Two breeders reported increases of 1-2 eggs and 1-2% in fertility and hatchability due to the combination of improved housing and breeder nutrition. This improved performance resulted in production of nearly 250,000 poults hatched in North Carolina during the last 6 months.

Additionally, several companies are reporting reduced feed cost/lb. of live weight for market turkeys. This resulted partially from better growing conditions, improved pellet quality and more uniform turkey rations.

EVALUATION

Data were obtained through observations, farm records, and data provided by turkey farmers.

FUTURE IMPLICATIONS

The program emphasis will continue so that a larger segment of the industry will utilize this new technology. Promising on-going work on demonstrating the value of low nutrient profile ration in conjunction with growth-promoting compounds will be evaluated in the field. It would be desirable to include objectives in disease management that would amend this major plan of work.

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\*KEYWORDS

NC38  
 North Carolina  
 1984  
 Agriculture and Natural Resources  
 Animal nutrition, cultural practices, selection and breeding  
 Poultry, turkeys  
 Agribusiness, farmers  
 Demonstrations, newsletters, small group sessions

\*QUANTIFIED IMPACTS

Practices improved 250,000 poults @ 95¢ = \$237,500  
 Productivity improved \$340,000 annually

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	2		1984		In Rept	

CONTACT  
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\*TITLE

NC39 Broiler Chick Production in North Carolina

\*TEXT

SITUATION DESCRIPTION

Broiler breeders have demonstrated decreased reproductive efficiency with increased genetic selection emphasis on growth rate and feed conversion of the broiler. Broiler health can be maintained by a better knowledge of parental antibody titers and better use of hatching egg sanitation practices. North Carolina produces in excess of 20% of the U. S. broiler hatching eggs and better than 10% of all broilers.

PROGRAM OBJECTIVES

1) Have 45% of N. C. broiler breeder flocks fed to specific nutrient need. 2) Have 45% of broiler breeder flocks use improved lighting program to maximize reproductive stimulation. 3) Establish alternative hatchery sanitation program. 4) Integrate vaccine programs and their application into a low stress, high titer immunization program. 5) Assist with and provide information exchange for field-testing egg handling practices that minimize labor and contamination. 6) Reduce quality variation in feeds fed.

RESOURCES INVOLVED

Broiler Industry, Agribusiness Firms, Veterinarians

ACCOMPLISHMENTS

Forty-five percent of breeder flocks utilize the black out program which has advantages in feed savings of approximately 5.1 pounds and an increase in egg production of approximately six eggs per hen grown under this management system. There has been increased use of parental antibody monitoring which has benefits in increased chick quality. Use of correct plane of nutrition in broilers can result in \$0.0042 per pound savings by cooperating organizations. Three hatcheries are starting to improve egg handling and hatchery sanitation practices which would increase productivity by approximately 1%.

EVALUATIONS

Conducted survey of the number of organizations and individuals adopting practices and the economic benefit attributed to the adoption of these practices.

FUTURE IMPLICATIONS

Continued emphasis on recommended practices will increase net income of broiler producers.

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\*KEYWORDS

NC39  
North Carolina  
1984  
Agriculture and Natural Resources

Animal Nutrition, Cultural Practices, Buildings and  
Equipment, Farm Management  
Poultry, Broiler Breeders

Farmers, Agribusiness

Computer-assisted Programs, Meetings, Newsletters,  
Publications, Demonstrations

\*QUANTIFIED IMPACTS

Costs reduced	No data
Productivity improved	\$3,928,000
Practices adopted	3 hatcheries - total of 8,500 chicks/week

*EXPENDED FTE			*VOLUNTEER			*SCOPE	
Prof	Para	Vol	Pers	Dollar	Co	in St	100
1984	2.8	.35	1984	2	400	In Rept	

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\*TITLE

NC40            Residue Avoidance in North Carolina Poultry Products

\*TEXT

SITUATION DESCRIPTION

Although neither pesticide nor drug residues are currently a problem in poultry products, occurrence of these residues has been documented in the past. Residues can appear in poultry products with discouraging rapidity when management of control systems is lax; therefore, continued educational work in the area of residue avoidance is essential.

PROGRAM OBJECTIVES

The residue avoidance program has two primary aims: 1) remind poultry producers of the importance of continuing to avoid residues in poultry products; and 2) to improve and update existing residue avoidance programs.

RESOURCES INVOLVED

Major turkey and broiler producing companies.

ACCOMPLISHMENTS

80% of poultry producers adopted Residue Avoidance Program.

EVALUATION

Residue Avoidance survey of poultry producers.

FUTURE IMPLICATIONS

As the average poultry company becomes larger and larger, more comprehensive residue avoidance procedures will tend to be employed. However, large companies carry with them a large risk with respect to residues. Therefore, it will continue to be important to remind poultry companies of the importance of residue avoidance.

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\*TITLE\*

\*KEYWORDS

NC40  
North Carolina  
1984  
Agriculture

Food, Nutrition and Health

Poultry

Agribusiness

Individual conferences, Publications

\*QUANTIFIED IMPACTS

Practices adopted

80% Residue Avoidance Program

\*EXPENDED FTE

Prof      Para      Vol

1984    0.7

\*VOLUNTEER

Pers      Dollar

1984

\*SCOPE

Co in St 100

In Rept

\*CONTACT

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\*TITLE

NC41 Commercial Eggs and Pullets in North Carolina

\*TEXT

SITUATION DESCRIPTION

Genetic changes in commercial strains of leghorns have resulted in earlier maturing pullets. These changes have not been compensated for by changing nutrition and/or management.

When multi-age layer flocks are exposed to Mycoplasma gallisepticum (MG), it is difficult to eradicate without clean up, vaccination and isolation. A few MG positive multi-age layer flocks exist in North Carolina and are reservoirs of MG to potentially spread to other poultry flocks.

Production and processing of table eggs is highly capital intensive; consequently, there is considerable potential impact of Extension programs in investment analysis, business management, flock replacement schedules, and housing and equipment management.

PROGRAM OBJECTIVES

Objectives in the commercial egg and pullet plan include: 1) increase growth uniformity and egg quality of layers; 2) reduce the incidence of MG in commercial pullets and layers from 5% to 1%; 3) industry will make improvements in performance, product quality and profitability profile of layer strains in different house type, equipment, management, and market combinations so that profit is optimized. This should be accomplished within scientifically proven animal welfare parameters.

ACCOMPLISHMENTS

- 1) Improved nutrition practices resulted in savings of 1¢ per hen (4,000,000 hens = \$40,000).
- 2) 100% of commercial layers were at risk.
- 3) 8% of companies adopted computer programs.
- 4) Layer nutrition programs have been improved that include 4 million hens.

EVALUATION

Survey of producers and industry.

FUTURE IMPLICATIONS

Increased emphasis will be given to the promotion of practices to improve the productivity of commercial egg and pullet producers.

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**\*KEYWORDS**

NC41  
 North Carolina  
 1984  
 Agriculture and Natural Resources  
 Poultry Management, Nutrition, Health  
 Pullets, Layers, Poultry  
 Farmers, Producers, Poultry Integrators, Financial  
 Institutions, and Agribusiness Firms  
 Field Tests, Conferences, Publications, Computer Programs,  
 and Individual Conferences

**\*QUANTIFIED IMPACTS**

Improved Nutrition 1¢/hen improved return \$40,000  
 Improved Health 100% of commercial layers were  
 at risk  
 Computer Programs: Practice Adopted 8% of companies adopted  
 practice

	EXPENDED FTE			*VOLUNTEER		*SCOPE		
	Prof	Para	Vol	Pers	Dollar	Co	in St	100
1984	1.45			1	600	In	Rept	

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\*TITLE

NC44            Agribusiness and Cooperative Education in North Carolina

\*TEXT

SITUATION DESCRIPTION

Production agriculture depends upon the complex and interrelated services of the agribusiness sector. Many agribusinesses are not of sufficient size to provide internal education for their managers and employees. The agribusiness sector is vital to the efficient functioning of agricultural production and to rural communities. Cooperatives form a specialized and highly organized subsector in agribusiness and have educational objectives which are similar to those of extension.

PROGRAM OBJECTIVES

1) To provide educational programs on business management, finance, personnel and strategic decision making. 2) To provide educational programs for the general public and members of cooperatives to aid them in understanding business structure and operation. 3) To develop and communicate educational materials for county staff, vocational teachers and lay teaching personnel which will improve the understanding of business functioning and interrelationships.

RESOURCES INVOLVED

N. C. Cooperative Council, Agribusiness Firms, Local Cooperatives.

ACCOMPLISHMENTS

- 1) Productivity improvements \$500,000
- 2) Application of feasibility study findings netted a savings of \$3.8 million.
- 3) Crafts (increased expendable income \$200,000).
- 4) Vo-Ag Teacher Training \$5,000

EVALUATION

Records and data provided by clients

FUTURE IMPLICATIONS

Continuing emphasis on management practices will be given to emerging clientele groups such as fertilizer vendors, local development groups, and crafts persons.

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\*TITLE

\*KEYWORDS

NC44  
 North Carolina  
 1984  
 Agriculture, Small Business, Cooperatives  
 Management, Financial Management, Feasibility, Cooperatives  
 N/A  
 Agribusiness, Cooperatives, General Public, Shareholders  
 Publications, Workshops, Conferences, Meetings, Mass Media

\*QUANTIFIED IMPACTS

Productivity Improvements \$500,000  
 Savings \$3.8 million  
 Expendable Income Increase \$200,000  
 Vo-Ag Teacher Training \$5,000

\*Expended FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St 100
1984	.7			125	125,000	In Rept

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\*TITLE

NC45 North Carolina Legal Economics

\*TEXT

SITUATION DESCRIPTION

The law affecting agriculture is constantly changing. Each new law with its accompanying regulations has new economic implications for the farmer. Traditionally, the area of legal economics has dealt with tax planning (including income, estate and gift, and property) and estate and business (corporation, partnership, and tenancy) planning. However, our clientele has indicated an interest in other legal areas including but not limited to agricultural labor, acquiring and disposing of real property, rights and limitations in the use and ownership of agricultural property (including water rights), agricultural credit and finance, and sale and transportation of agricultural products and machinery.

PROGRAM OBJECTIVE

To increase the awareness of legal rights and responsibilities in our clientele (all areas mentioned in Situation Description).

ACCOMPLISHMENTS

Twenty counties evaluated their programs, with 10 counties using state developed forms; 270 of the 612 county workshop participants who were sampled with the state form responded. Of these, 53% had, as a result of the programs, discussed estate plan with family members, 43% had reviewed estate documents such as deeds and insurance policies, and 25% had changed the way they handled joint bank accounts. Thirty-three percent had revised their will. Questionnaires compiled by 12 agents not using the state form indicated similar results.

EVALUATION

Ten counties, of the 26 who held estate planning workshops, sampled 612 participants using a standard form. Two hundred seventy responded. Simple questionnaires were completed by 12 counties not using state forms.

IMPLICATIONS

- 1) Despite strong interest shown by clientele in estate planning, they are slow to act on information presented. Follow-up and expansion to other counties needed.

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**\*KEYWORDS**

NC45  
 North Carolina  
 1983-84  
 Agriculture, Home Economics, Community and  
 Rural Development

Legal Economics

Law, Economics

Farmers, Small Businessmen, Families, Legislature,  
 Land Owners

County, regional and state meetings; printed materials

**\*QUANTIFIED IMPACTS**

Estate planning review 43%

Wills revised 33%

**\*EXPENDED FTE**

	Prof	Para	Vol
1984	7.4		

**\*VOLUNTEER**

	Pers	Dollar
1984	15	\$5,000

**\*SCOPE**

	Co in St	100
	In Rept	

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\*TITLE

NC46 Income Tax Management for North Carolina Taxpayers

\*TEXT

SITUATION DESCRIPTION

Continually changing and increasingly complex federal and state income tax laws have resulted in misunderstanding and confusion among taxpayers of current tax law. The Economic Recovery Tax Act of 1981, the Tax Equity and Fiscal Responsibility Act of 1982, and the Social Security Act of 1983 significantly changed preceding tax law and in many cases increased the law's complexity. These changes have resulted in misinterpretation of the law by taxpayers and tax practitioners, increased errors in filing, and increased antagonism by some taxpayers toward the voluntary compliance taxing system. Pending changes in tax law at the federal and state level will only create further confusion among taxpayers. A better understanding of tax law by farmers, small businesses, tax practitioners, the elderly, and young families can result in increased after-tax income. This increase can be accomplished by informed taxpayers and tax practitioners by filing accurate and timely returns.

PROGRAM OBJECTIVES

- 1) To increase by 200 the number of tax practitioners enrolled in educational seminars by 1987.
- 2) To increase the number of trained agents in tax management by 10% each year.
- 3) To train 10% of N.C. farmers to practice tax management.

RESOURCES INVOLVED

These continuing education programs are developed with the cooperation of the N.C. Society of Accountants, the Internal Revenue Service, the N. C. Department of Revenue, Certified Public Accountants, Extension agents, and other tax practitioners.

ACCOMPLISHMENTS

- 1) Over 1200 tax practitioners were trained in income tax law. The N.C. district director of the IRS reported in June, 1984, that the accuracy rate of tax practitioners in filing individual returns was 95.6 percent.
- 2) Five county Extension agents received in-depth training in tax management.
- 3) Approximately 500 farmers were trained in tax management.

EVALUATION

- 1) Enrollment in tax practitioner programs.
- 2) Training school enrollment.
- 3) Training school enrollment.

FUTURE IMPLICATIONS

Continuing education programs will be expanded by involving more tax practitioners and county agents as resource persons.

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\*KEYWORDS

NC46  
North Carolina  
1984-87

Agriculture & Natural Resources

Farm and Business Management

Income Tax Management

Farmers, elderly, young families, agribusiness,  
tax practitioners

Workshops, local and multi-county programs,  
newsletters, radio

\*QUANTIFIED IMPACTS

Awareness increased

Non-measurable

Tax practitioners

1200 trained

Extension agents

5 trained

Farmers

500 trained

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof

Para

Vol

Pers

Dollar

Co in St

100

1984

1.9

1984

In Rept

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\*TITLE

NC47 North Carolina Agricultural Leadership Program

\*TEXT

SITUATION DESCRIPTION

There is need for improved leadership among our farm population, particularly in the areas of leadership for farm policy development and for general community improvement. This two-year program is developed to improve the leadership of a small, select group of southeastern United States flue-cured tobacco farmers.

PROGRAM OBJECTIVES

Improve participants' knowledge of and abilities in community leadership and national farm policy development.

RESOURCES INVOLVED

About 40 different faculty and interested nonfaculty people have contributed. A large grant from Philip Morris helps defray costs.

ACCOMPLISHMENTS

Based on feedback at the end of sessions, 25 farmers have gained knowledge of and ability to analyze public issues, including agricultural policy and development and use of agricultural technologies. They exhibited increasing self-assurance in their interaction with public officials and policy experts invited to address the sessions.

EVALUATION

Participant feedback and observation of the project director have been used to date to assess progress. A follow-up is planned in three or four years to determine participants' involvement in community activities and national agricultural policy formulation.

FUTURE IMPLICATIONS

Follow-up will be needed, and tentative plans have been made for a second group of participants.

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**\*KEYWORDS**

NC47  
 North Carolina  
 1984-1985

Agriculture & Natural Resources, Community and Rural  
 Development

Leadership development, policy education

Community leadership, agricultural policy

25 farmers

Meetings, small group sessions, tours

**\*QUANTIFIED IMPACTS**

Leaders trained

25

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	1	0	0	1984	0		

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\*TITLE

NC48 Economics of Clearing and Draining Poorly Drained North Carolina Soils

\*TEXT

SITUATION DESCRIPTION

Land in coastal North Carolina often requires draining to grow trees or agricultural crops or to improve yields. However, drainage may not be economical in some cases and situations. To avoid drainage that is not economical, producers require information about net returns to clearing and draining poorly drained soils. Further, there may be unmeasured environmental costs associated with the removal of excess fresh water. Thus, policymakers also need information about drainage, especially 1) the amount of land that is potentially drainable in the future (from an economic standpoint, 2) the opportunity cost to landowners of foregoing drainage because of environmental regulations and 3) the potential for environmental problems.

PROGRAM OBJECTIVES

- 1) To estimate net returns to clearing and draining poorly drained coastal soils.
- 2) To provide producers and policymakers with information concerning the economics of clearing and draining.
- 3) To estimate the amount of land that could economically be drained in coastal North Carolina under various cost-and-return situations.

RESOURCES INVOLVED

Specialists, agents.

ACCOMPLISHMENT

None to report at this time.

FUTURE IMPLICATIONS

Continue as planned.

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\*TITLE

\*KEYWORDS

NC48  
North Carolina  
1984

Agriculture, Natural Resources  
Watershed management, crop production, land reclamation  
Wetlands, blacklands, water management, land use  
State government, crop producers, forest landowners,  
private landowners, county agents, farmers  
Individual conferences, meetings, publications, data

\*QUANTIFIED IMPACTS

None to date

\*EXPENDED FTE

Prof      Para      Vol

1984    1.0

\*VOLUNTEER

Pers      Dollar

1984

\*SCOPE

Co in St 100

In Rept 40

\*CONTACT

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\*TITLE

NC49 Economics of Forage Systems in North Carolina

\*TEXT

SITUATION DESCRIPTION

Beef cattle producers who use grading for a large portion of their nutrient requirements experience a high proportion of their feed costs in midsummer and winter. Systems which reduce feed costs per unit of animal gain in these periods will improve net returns to producers. The introduction of legumes or warm season grasses into a cool season based forage system, or the introduction of labor or capital saving technology into a forage handling system are examples of technological investments about which decisions are difficult to make and of which profit conscious producers should be informed. Needed are decision making tools that can be used to make choices which beneficially affect returns from forage systems.

PROGRAM OBJECTIVES

- 1) For one-half of the beef cattle forage producers to demonstrate the use of recommended economic decision making procedures in selection of forage type, timing of harvest, grazing, harvest form and machinery selection.
- 2) For one-half of the beef cattle forage producers to use decision making tools such as cash flow planning and financial management when planning investments related to forages.

RESOURCES INVOLVED

Farmer cooperators

ACCOMPLISHMENT

No impacts measured at this time

EVALUATION

No impacts measured at this time

FUTURE IMPLICATIONS

Cattle producers will have more detailed information with which to make management decisions regarding improved forage enterprise selection and usage.

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\*TITLE

\*KEYWORDS

NC49  
NC  
1983-84  
Agriculture

TEXT  
SITUATION DESCRIPTION

Economics of practices

Forages

County agents, beef producers, sheep producers,  
horse producers  
Publications, meeting

\*QUANTIFIED IMPACTS

None measurable to date

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollars	Co in St	100
1984	2.5			1984			

\*CONTACT

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\*TITLE

NC50 Post-Harvest Handling of Grain in North Carolina

\*TEXT

SITUATION DESCRIPTION

Preserving and maintaining grain quality from the field to market is important to all producers, handlers and the livestock feeders. Improper drying and storage can result in large losses to the producer through moisture, foreign material and other market discounts. Where grain is properly dried but improperly managed during storage, losses can result from moisture condensation and insect damage. Lack of proper aeration can cause heating, mold growth and aflatoxin and other mycotoxin contamination. Losses from mycotoxins occur at all levels in production, marketing and utilization. Contaminated grain causes serious marketing problems for producers, grain handlers and feeders and is costing millions of dollars each year.

PROGRAM OBJECTIVES

- 1) Farmers to improve on-farm drying, storage and post-harvest management practices.
- 2) Elevators to discontinue blending grain with widely varying moisture levels.
- 3) Industry to reduce moisture level of No. 2 corn from 15.5% to 14%.

RESOURCES INVOLVED

Elevator managers, feed manufacturers.

ACCOMPLISHMENTS

- 1) Informal survey at educational meetings of elevator managers and feed manufacturers indicate that farmers paid more attention to the handling of their grain last year as a result of the meetings conducted and information distributed. Extension agents informally reported that one-fourth of farmers followed recommended management practices in storing grain. Finally, a check with the state veterinarian showed the death loss in animals from aflatoxin and other mycotoxins was down from previous years.
- 2) No action on Objective 2.
- 3) No action on Objective 3.

FUTURE IMPLICATIONS

Preventing grain losses in storage not only contributes to the profitability of production but also insures against mycotoxin contamination and the consequent potential losses in livestock either through mycotoxin induced health problems or condemnation from excessive residue. This program is essential to both.

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**\*KEYWORDS**

NC50  
North Carolina  
1984  
Agriculture

Marketing

Corn

Farmers, agribusiness

Publications, county meetings

**\*QUANTIFIED IMPACTS**

Increased understanding	2,000 copies publications
	300 farmers & feeders
Practices adopted	One-fourth of clientele

**\*EXPENDED FTE**

Prof  
1984 2.0

**\*VOLUNTEER**

Pers

**\*SCOPE**

Dollar Co in St 100

\*TITLE

NC51 Education in Tobacco Policy in North Carolina

\*TEXT

SITUATION DESCRIPTION

The tobacco program is in the process of being changed after only one year of the No Net Cost Program of 1982. Some change is expected prior to the opening of the 1983 flue-cured market and further changes are anticipated before the end of 1983. Whatever the changes, they will have a significant impact upon the N.C. tobacco industry. Analysis of these changes will be needed, and explanations of effects of the new provisions on the industry will be expected.

OBJECTIVES

- 1) Analyze effects of the new tobacco program on farmers and other sectors of the industry and disseminate the results of these analyses to the various sectors.
- 2) Analyze the effects of the new provisions on allotment values and disseminate these results throughout North Carolina.

RESOURCES INVOLVED

No non-Extension resources were involved.

ACCOMPLISHMENTS

(Because of a change in personnel assigned to this project and the associated disruption of the program, no reportable accomplishments or calculated impacts are available.)

EVALUATION

No evaluation plans developed yet.

FUTURE IMPLICATIONS

Major policy issues remain, and a continuing effort to explain issues and alternatives will be carried on.

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**\*KEYWORDS**

NC51  
North Carolina  
1984

Agriculture

Farm Management and Policy

Tobacco

Farmers, public officials

Publications, meetings

**\*QUANTIFIED IMPACTS**

(No reportable impacts)

**\*EXPENDED FTE**

	Prof	Para	Vol
1984	4.0		

**\*VOLUNTEER**

	Pers
1984	

**\*SCOPE**

	Co	in St	100

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\*TITLE

NC52 North Carolina Agricultural Policy Education

\*TEXT

SITUATION DESCRIPTION

The mid 1980s promise to be years of significant agricultural policy changes. Federal tobacco and peanut programs are under heavy fire. The federal dairy support program is currently under review, and program changes seem likely. With large and increasing federal budget deficits nearly certain in the mid 1980s, agricultural policies that call for increased federal treasury outlays will come under close scrutiny. Federal outlays for farm programs in 1982 totaled about \$12 billion. Projections for fiscal 1983 top \$20 billion. The 1985 Farm Bill is likely to introduce changes in farm policy that will have important impacts on N.C. farmers.

OBJECTIVES

- 1) To provide information about current and proposed agricultural policy and programs.
- 2) To provide economic analyses of agricultural commodity programs and policy alternatives.
- 3) To educate interested North Carolinians about the costs and benefits of various commodity programs and agricultural policies.

RESOURCES

Extension specialists, commodity associations.

ACCOMPLISHMENTS

No quantified impacts were measured this year.

FUTURE IMPLICATIONS

Educational meetings and fact sheet distribution will be important for the upcoming discussions of the 1985 Farm Bill.

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**\*KEYWORDS**

NC52  
 North Carolina  
 1984  
 Agriculture

Policy

Policy

Agribusiness, farmers, agricultural association leaders

Meetings, fact sheets

**\*QUANTIFIED IMPACTS**

None measured this year

**\*EXPENDED FTE**

	Prof	Para	Vol
1984	0.5		

**\*VOLUNTEER**

	Pers	Dollar
1984		

**\*SCOPE**

	Co	In	St	100
		Rept		100

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\*TITLE

NC53 North Carolina Farmers' Markets

\*TEXT

SITUATION DESCRIPTION

Community farmers' markets offer local producers an opportunity to increase net income and offer consumers fresh quality produce at prices generally below supermarket prices. There are about 60 farmers' markets organized in North Carolina cities and numerous smaller tailgate markets operating on an irregular, seasonal basis in less populated areas. Development of a community market must be planned cooperatively by growers, business community leaders, and local government representatives. These individuals seek advice on rules and regulations for operating the market, methods of organizing market participants, collection of fees, and sales merchandising and display techniques for local farmers.

PROGRAM OBJECTIVES

- 1) N.C. farmers to increase the number of local farmer marketing units by 8% in 1987.
- 2) 40% of N.C. farmers growing vegetables to learn recommended practices and skills in organizing and operating local farmer marketing units.
- 3) N.C. vegetable farmers to increase by 10% the volume of produce marketed through farmer marketing units.

RESOURCES INVOLVED

N. C. Department of Agriculture

ACCOMPLISHMENTS

- 1) Four new markets (6.6% increase from 1983) established. The four new markets resulted in approximately \$400,000 in fruit and vegetable revenues in the impacted communities. State and community assistance funds totaling approximately \$75,000 were utilized, suggesting an approximate benefit-cost ratio of 5.3 to 1. Since the Charlotte Regional Market is not fully operational, benefits and costs are uncertain at this time.
- 2) 40% of N.C. farmers growing vegetables to learn recommended practices and skills in organizing and operating local farmer marketing units.
- 3) N.C. vegetable farmers to increase by 10% the volume of produce marketed through farmer marketing units.

EVALUATION

- 1) Use of 1981 study result which suggests that mature community markets realize sales of approximately \$135,000 per year.
- 2) Monitoring of workshops and meetings.

FUTURE IMPLICATIONS

Local produce markets will continue to expand to provide small and part-time farmers an outlet for farm products. Extension must continue to play an important role to assure adequate quantity and quality to the consumer and a profitable enterprise for the producer.

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**\*KEYWORDS**

NC53  
 North Carolina  
 1984  
 Community and Rural Development, Agriculture Direct Marketing  
 Economic Development, Marketing  
 Vegetables  
 Farmers, Civic leaders, Businessmen  
 Government meetings, Slides

**\*QUANTIFIED IMPACTS**

Facilities established 4  
 Sales increased \$400,000  
 Skills learned 100 growers

**\*EXPENDED FTE**

**\*VOLUNTEERS**

**\*SCOPE**

	Prof	Para	Vol	Pers	Doll	Co in St
1984	1+8=9			0		In Rept

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\*TITLE

NC55 Agricultural Transportation in North Carolina

\*TEXT

SITUATION DESCRIPTION

Transportation has been deregulated to a large extent providing many more options than previously for farmers and agribusinessmen to use products of this input industry. Transportation is vital for moving inputs to farms and farm products to consumers. Rail abandonments are accelerating on the newly-organized CSX and NS railroads.

OBJECTIVES

- 1) To provide farmers and agribusinessmen knowledge of new transport options, options for collective action in transportation usage and describe the effects of transport deregulation on N.C. agriculture.
- 2) To provide individuals and community leaders information on rail abandonment actions, options for response to abandonment actions and options for adjustments where abandonments occur.

RESOURCES INVOLVED

Grant on resource allocation in rural transportation from USDA Extension; grant on shipper associations from USDOT and USDA Extension; USDA - Office of Transportation; ECOP Transportation Task Force.

ACCOMPLISHMENTS

No quantified impacts measured this year.

FUTURE IMPLICATIONS

A national transportation education workshop will train specialists to use educational materials developed on grant projects.

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**\*KEYWORDS**

NC55  
 North Carolina  
 1984  
 Agriculture, CRD

Marketing

Transportation

Agribusiness, community leaders

Meetings, leaflets

**\*QUANTIFIED IMPACTS**

None measured this year

NA

**\*EXPENDED FTE**

Prof            Para            Vol

1984    0.2

**\*VOLUNTEER**

Pers            Doll

1984

**\*SCOPE**

Co in St    100

In Rept    100

\*TITLE

NC56            Introducing New Processing Technology into the North Carolina Food Industry

\*TEXT

SITUATION DESCRIPTION

The consumer demands for processed food products are increasing with the improving economic conditions. Many processors have been "making do" with old equipment and processing systems during the current depressed state of the economy. New processing technologies have been developed that could increase the efficiency of many food processing operations. For example, the use of microprocessors may have application for improved process controls and minimize the labor cost per unit of finished product. New processing equipment and modifications to existing equipment have been introduced to the industry that result in improved product quality and/or productivity. Research findings with application to food processing are continually being reported that can improve the profitability of the industry.

PROGRAM OBJECTIVE

To maintain a high quality and economical food supply and to decrease the number of man-hours required to produce each unit of finished product.

RESOURCES INVOLVED

Morton Salt Company; Agricultural Foundations

ACCOMPLISHMENT

Major economic impacts have been made in the N.C. food industry by introducing new technology. The red meat industry was introduced to new pork sausage processing technologies by a workshop and demonstrations. This has resulted in increased shelf life and improved sales of \$100,000. The introduction of new fermentation technology increased gross sales of \$52,000. Capital investment of \$3,500,000 has been made in five new or expanded seafood plants. A new seafood industry with a \$4,000,000 capital investment has broken ground in North Carolina, due to the new technology available at NCSU. These capital investments have resulted in 325 new jobs. Twelve crab processing workshops have improved profitability by \$130,000. An Ultra High Temperature workshop and refrigeration workshops have introduced 114 people to new dairy processing technology. The refrigeration workshops have resulted in estimated savings of \$50,000 due to less downtime.

EVALUATION

The increase in consumer acceptance as reflected by increased sales and the increased saving was used to evaluate the impact by introducing new technology. Capital investments and new jobs were used to evaluate the impact of new technology, particularly in the seafood industry. Most of these assessments were by personal confidential documentation.

FUTURE IMPLICATIONS

Continued emphasis will be placed on transferring new food processing technological advances to all clients in North Carolina.

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TITLE

\*KEYWORDS

NC56  
North Carolina  
1984-1987  
Agriculture and Natural Resources

Food Processing

Processing of livestock, fish, poultry, fruits,  
vegetables and milk products  
Packers and processors

Newsletters, publications, workshops and demonstrations

\*QUANTIFIED IMPACTS

Increase profitability of meat processing	\$152,000
	Train 63 people
New seafood processing facilities	\$7,000,000 capital investment
	325 new jobs
Training in crab processing	130,000 improve profit
Training in dairy processing	114 people trained
	Estimated saving \$50,000

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	0.7	0.1		1984		In Rept	100

Contract  
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\*TITLE

NC57            Quality Assurance Techniques for North Carolina's Food Industry

\*TEXT

SITUATION DESCRIPTION

Of the more than 23,500 food firms in North Carolina, the numerous small ones require technical assistance through NCSU's Extension personnel. Even though the larger companies maintain technical staffs, they also depend on assistance in specialized program areas. Formal quality assurance programs are lacking with many firms. In these companies Food Science Extension Specialists develop and nurture appreciation and understanding for the needs and requirements of quality assurance programs.

PROGRAM OBJECTIVES

- 1) Provide technical assistance for the maintenance of product quality and enhancement of product shelf life.
- 2) Formulate information for improving product yields, process efficiencies and employee performance.
- 3) Keep food processors abreast of rules and regulations important to operations and product quality. ,

ACCOMPLISHMENT

Through workshop programs, 165 food plant personnel received certificates of participation or were certified. Finished product yields were increased by an average of 0.5%. Product quality was improved by 5%. These improvements generated a savings to the food industry of at least \$3 million. Approximately 2000 pieces of mail as "Timely Tips" were sent to management and supervisory personnel.

EVALUATION

Finished product yields determined from USDA Inspection Reports of yields that reflect processing changes over time. Product quality determinations came from NCDA figures on improved yields of eggs, poultry, meat and seafood. Savings were reflected in added value figures from U.S. Government Commerce and Industry Report.

FUTURE IMPLICATIONS

The food industry will need continued technological assistance to protect product quality and public safety while remaining competitive with other production areas. A basic commitment by Extension to assist in application of the University-generated technology is imperative.

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**\*KEYWORDS**

NC57  
North Carolina  
1984  
Agriculture and Natural Resources

Food Science, Food Processing

Processed Foods

Food processing personnel, limited resource audience

Conferences, demonstrations, meetings, newsletters,  
publications, workshops, surveys

**\*QUANTIFIED IMPACTS**

Yields improved	0.5% estimated
Quality maintained	5% estimated
Food industry savings	\$3 million
Food plant personnel trained	165 people

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	1.0			1984		In Rept	100

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\*TITLE

NC58

To Assure a Continuing Supply of High Quality Raw Materials to Meet the Needs of the North Carolina Food Processing Industry

\*TEXT

SITUATION DESCRIPTION

Production scheduling in food processing plants requires a uniform flow of high quality raw products to assure maximum output with minimal production "down time." This is a very critical problem in some facets of food processing such as fruits, vegetables and seafoods, both from a quality and a quantity point of view. In other areas, such as dairy manufacturing and poultry and red meat processing, quantity is controlled by the processors, but quality sometimes varies widely. In all cases smaller processors have the most critical problems.

PROGRAM OBJECTIVES

To implement orderly marketing of raw materials through food processors to obtain a maximum return to both grower and processors of the consumers dollars. Other objectives include reduction of processor's "down time" due to inadequate raw materials and upgrading finished product through better quality raw materials.

RESOURCES INVOLVED

Agricultural Foundations

ACCOMPLISHMENTS

- 1) 150 persons trained at the plant level to maintain quality of raw materials after arrival at the plant.
- 2) About 15% less grievance complaints compared to last year.
- 3) Approximately 10% less "down time" with corresponding cost reduction.
- 4) A 2% increase in crop utilization.
- 5) Close to 5% reduction in "carryover" stocks.

EVALUATION

Evaluation is based on subjective and objective analyses. The subjective includes such things as "attitude changes" and is based on conversations with growers and processors. For instance sweet potato growers are generally satisfied with the processor relationships. Apple growers are apprehensive about the effects of imported concentrate on local buyers of juice apples and grape growers are normally dissatisfied since the price paid for grapes at the wineries is about half of what it was 20 years ago. Dairy farmers are generally satisfied as their product is highly regulated and livestock growers are also generally satisfied. Objective measurements include such things as measurement of "down time" due to lack of raw materials, increased income either due to more crops being grown or better utilization of existing supplies and reduction of either shortages or surpluses of raw material and/or finished product. These figures are somewhat confidential with each company but through conversations, available NCDA, USDA, and Commerce and Industry statistics and general observations, definite trends can be established.

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\*KEYWORDS

NC58  
North Carolina  
1984  
Agriculture

Grower, processor relations, adequate supply of raw product of high quality  
Seafood, fruits, vegetables, dairy, poultry, red meats specialty products  
Agribusiness, cooperatives, farmers and ranchers, processors, producers  
Conferences, large group presentations, newsletters, small group sessions

\*QUANTIFIED IMPACTS

Attitudes changes	15% less grievances
Costs reduced	10% less "down time"
Income increased	2% increase in crop utilization
Marketing improved	5% reduction in "carryover"
Food plant personnel	150 people trained

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	2	3				100

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\*TITLE

NC59            Improving Forest Products Markets and Utilization in North Carolina

\*TEXT

SITUATION DESCRIPTION

North Carolina's forest products industry continues to rank second in value of shipments and the number of industrial employees in the state. The utilization of small, low quality hardwoods and pine continues to present problems to both landowners and forest products firms. Increased markets for this material and better utilization of all timber and forest products is needed to improve and increase the forest products contribution to the economy of the state. Increased implementation of new technology by timber harvesting firms, sawmills and furniture plants will contribute to this effort.

PROGRAM OBJECTIVES

1. Adoption of improved utilization, management, and production techniques by individual firms.
2. Assess current lumber losses at sawmills and furniture plants.
3. Develop new or expanded markets including low-quality hardwoods for energy, yellow poplar for house construction, lumber for export, and standardized lumber blanks for the furniture industry.

RESOURCES INVOLVED

Over 40 sawmill firms support a sawmill specialist. The US Forest Service, the Tennessee Valley Authority and Extension have been involved in introducing yellow poplar as a framing material. A financial grant has been received from TVA to investigate the potential of delivering forest biomass to dispersed users. Extension is also heavily involved with other agencies (State Energy Division, State Department of Commerce and State Forest Service) in conducting workshops and solving individual firm problems.

ACCOMPLISHMENTS

North Carolina sawmill firms have experimented with the production of yellow poplar framing and at least 15 builders have used it in various building projects. Initial demonstrations of new drying systems for refractory woods have been successful. One demonstration has shown a potential savings of \$75,000 with the cooperators taking immediate action to initiate the utilization of this drying system. 150 loggers viewed demonstration of the logging cost analysis computer program and 10 firms began using it.

EVALUATION

Evaluation is based on contacts with potential technology users and its adoption and use. Those projects included in this program are in their initial stages with most work in the demonstration area. The results reported in accomplishments are very encouraging.

FUTURE IMPLICATIONS

Each project should continue to be pursued based on initial demonstration success.

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\*KEYWORDS

NC59  
North Carolina  
1984

Agriculture and Natural Resources

Forest Products Utilization and Marketing

Timber harvesting, marketing development, quality control, drying, yield.  
Forest products industry, timber harvesting firms, consumers, non-forest products industry  
Case studies, demonstrations, meeting, tours, newsletters, trade shows, publications.

\*QUANTIFIED IMPACTS

Seasoning losses (estimated based on demo)	Greater than 10% with one cooperators estimating a savings greater than \$75,000
Computerized harvesting methods	10 firms adopted
Yellow poplar framing	7 sawmill production units 15 building demonstrations

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	5	1				



\*TITLE

NC60 Improving North Carolina Nonindustrial Private Forest Land Management and Income Generation

\*TEXT

SITUATION DESCRIPTION

North Carolina's 20 million acres of commercial forest land are under increasing pressure to provide recreation, wildlife, and quality water while also providing raw material for forest products production. Only a small portion of the 16 million private woodlot acres is soundly managed. Although income from managed forests exceed returns from many other long-term investments, ignorance of management options and poor utilization remain problems. Private woodlot owners need assistance in business management and marketing if higher incomes are to be realized.

PROGRAM OBJECTIVES

- 1) Increase and upgrade the State's forest resource by effective regeneration, management, and forest protection, all tailored to the owner's objectives and constraints.
- 2) Maximize income of private woodlot owners from multiple-use management.

RESOURCES INVOLVED

Renewable Resources Extension Act

ACCOMPLISHMENTS

Forestry specialists and agents conducted over 100 programs, tours, workshops to an estimated 5000 landowners. Survey figures show an average ownership of 218 acres resulting in direct Extension program impact on over 1 million acres. Surveys conducted in several counties indicate that program participants saved money on income and property taxes, received higher stumpage prices, and increased income \$10.2 million by improving forest productivity. Landowners associations are now formed in 60 of N.C.'s 100 counties and these groups are being integrated into the N.C. Forestry Association via private woodlot owners being appointed to the board of directors and also through multi-county meetings sponsored by the state group. 485 women, absentee landowners, CPA's, tax lawyers, and forestry professionals were trained in taxes, marketing, wildlife, economics and micro-computer applications in forestry. More thorough surveys of the impact of Extension forestry programs are planned.

EVALUATION

Multi-county survey of workshop participants to determine tax savings, product sales, forest productivity and forestry income.

FUTURE IMPLICATIONS

Program has greater long-term than short-run potential but benefits all segments of society by improving the environment, generating revenue and providing raw material for construction and industry.

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\*TITLE

\*KEYWORDS

NC60  
North Carolina  
1984

Agriculture and Natural Resources, Community and Rural  
Development

Forest Management

Timber production, timber management, regeneration,  
protection, economics, taxation, marketing  
Forest landowners, non-extension professionals, limited  
resource landowners, financial institutions, associations  
Meetings, landowner associations, demonstrations, mass  
media, tours, newsletters, computer assisted programs,  
publications, interagency committees

\*QUANTIFIED IMPACTS

Acres impacted	1.09 million
Decision making improved	5000 landowners
Professionals trained	485
Income increased	\$10.2 millions

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St 100
1984	14	2	0			

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\*TITLE

NC61 Business Management for North Carolina Fruit, Ornamental and Christmas Tree Growers

\*TEXT

SITUATION DESCRIPTION

Many horticultural growers lack the basic skills required to effectively manage a business. Records are typically maintained only for tax purposes and seldom used to analyze the performance of the business, to assist managers in making production, operation and investment decisions, or to plan for the firm's future growth.

PROGRAM OBJECTIVES

For horticultural growers to increase farm income through the use of recommended business management practices, with emphasis on record keeping for analysis of business performance.

MAJOR ACCOMPLISHMENTS

- 1) Over 700 growers were trained through state and county meetings on how to estimate costs of production, develop record keeping systems, labor management and cash flow planning.
- 2) Christmas tree and ornamental cost-of-production budgets were developed and distributed. Over 1,000 Christmas tree budgets and 500 Canadian hemlock budgets have been distributed to growers and county agents.

EVALUATION

Primary cost data is being collected through applied research projects with cooperating growers. This data will be used to develop new cost-of-production budgets and to train growers and agents on how to analyze individual business operations and to evaluate alternative production and investment decisions.

FUTURE IMPLICATIONS

The adoption of sound business management practices will assure a better chance of success, a positive balance sheet and the ability to meet competition in a rapidly expanding industry.

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**\*KEYWORDS**

NC61  
 North Carolina  
 1984, 1985, 1986, 1987  
 Agriculture and natural resources  
 Business/farm management  
 Fruits, ornamentals, Christmas trees  
 Nurserymen, farmers, producer groups  
 Workshops, seminars, meetings, publications, handouts

**\*QUANTIFIED IMPACTS**

Growers trained 700  
 Budgets developed 1500 distributed

**\*EXPENDED FTE**

	Prof	Para	Vol
1984	.6		

**\*VOLUNTEER**

	Pers	Dollar
1984		

**\*SCOPE**

	Co	in	St	100
	In	Rept		100

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\*TITLE

NC62 Marketing North Carolina Fruits, Ornamentals and Christmas Trees

\*TEXT

SITUATION DESCRIPTION

Production of fruits, ornamentals and Christmas trees in the United States and North Carolina has increased in recent years. This trend is expected to continue during the next decade. Although many N.C. growers possess the necessary production skills, few have the background to successfully market these commodities, especially when faced with increased competition from other major production regions. Growers need to be more aware of the marketing alternatives available to them, how they can gain entry into these channels and the standards required to maintain their market shares.

PROGRAM OBJECTIVES

Growers will learn recommended concepts and techniques of marketing fruits, ornamentals and Christmas trees.

Growers will be able to evaluate the feasibility of various marketing alternatives and select the alternative that maximizes profits.

MAJOR ACCOMPLISHMENTS

250 fruit, 110 ornamental and 60 Christmas tree growers received training in marketing each commodity and how to evaluate potential marketing alternatives and how to improve marketing efficiency. A marketing information service was implemented for the N.C. Apple Growers Association.

EVALUATION

Short course attendance and informal feedback from individuals.

FUTURE IMPLICATIONS

Improve marketing efficiency and reduce cost of searching for information. Growers to develop individual marketing plans that would permit them to be more competitive.

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**\*KEYWORDS**

NC62  
North Carolina  
1984, 1985, 1986, 1987  
Agriculture and natural resources

**Marketing**

Fruits, ornamentals, Christmas trees

Farmers, nurserymen, associations, county agents

Meetings and seminars

**\*QUANTIFIED IMPACTS**

Growers trained

420

Marketing information service

1 network established

**\*EXPENDED FTE**

Prof      Para      Vol

1984      .75

**\*VOLUNTEER**

Pers      Dollar

1984

**\*SCOPE**

Co in St 100

In Rept 100

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\*TITLE

NC64 North Carolina Christmas Tree Marketing and Production

\*TEXT

SITUATION DESCRIPTION

Strong demand for N.C. Christmas trees has developed a Christmas tree industry of 2,000 growers in 60 counties. During the past six years Christmas tree production has had phenomenal growth. Twice the number of growers are planting five times the number of trees presently being harvested. Annual harvest is currently 2 million trees. Growers across the nation have expanded their plantings so that three trees are planted for each being harvested. North Carolina's increased production must compete in the national market. To develop "new" markets, growers must be able to communicate with retailers, determine competitive quality and price relationships and assure buyers of long-term stable supply. To do this, growers must use best available technology to produce quality trees in a cost-effective manner.

PROGRAM OBJECTIVES

- 1) Develop an adequate supply of quality seed, seedlings and transplants.
- 2) Develop a stable supply of quality Christmas trees.
- 3) Reduce the time it takes to produce marketable trees.
- 4) Penetrate new regional markets.

RESOURCES INVOLVED

Personnel from N.C. Forest Service; N.C. Dept. Agricultural Agronomic Div.; demonstration insecticides, herbicides, and fertilize chemicals supplied by the chemical industry and the cooperative efforts of select growers; N.C. Christmas Tree Association (\$2000).

ACCOMPLISHMENTS

- 1) All saleable quality trees were marketed (approximately 2 million), at 6% increased prices and increased returns of 15%.
- 2) Over 600 growers attended NCCTA meetings. 900 growers attended summer cultural practice meetings held in 25 counties.
- 3) Soil testing has doubled in the last 2 years and increased 22% this past year. Two companies now blend special Christmas tree fertilizer. On site demonstrations indicate improved fertilizer practices can improve quality and shorten the rotation.
- 4) First certified USDA graded Christmas trees from N.C. were shipped this year to out of state markets. These shipments were 80% #1 and better and were marketed through a newly organized co-op (25 growers).

EVALUATION

Attendance at meetings, survey information on sales, statistical records of soil tests, reports of agents and buyers of N.C. trees.

FUTURE IMPLICATIONS

Continued efforts required to market increased plantings in a cost-effective manner.

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\*KEYWORDS

NC64  
North Carolina  
1984  
Agricultural and Natural Resources

Christmas Trees

Fraser Fir; White and Virginia Pine; Red Cedar; Production Practices, Marketing; Grades; Fertilization, weed, insect and disease control.

Farmers, production associations, retailers, consumers. Meetings, Demonstrations, Tours, Publications, Surveys, Mass Media.

\*QUANTIFIED IMPACTS

Improved sales of harvested trees. 15%  
Improved quality (fertilization) thru soil 1982-2839; 1983-4584; 1984-5609; up 98% in 2 years, up 22% last year.

Grade quality of trees marketed. 15% USDA #1 & BTR

\*Expended FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	7	1	.7		5000	In Rpt	100

\*TITLE

NC65 Pond Management and Aquaculture in North Carolina

\*TEXT

SITUATION DESCRIPTION

Fisheries play an important role in the N.C. economy. Ponds are often the sole source of water for livestock and irrigation, but they also provide food, recreation, and aesthetic values for rural families. A significant commercial trout industry in western N.C. is continuing to expand, while warm water aquaculture (catfish, baitfish, ornamentals, etc.) is an embryonic industry. Pond problems such as fish population imbalances, fish kills and especially serious aquatic weed infestations can have significant negative impact upon farm operations and rural property values. It is possible that discharges from aquaculture production units may cause unacceptable enrichment of receiving waters.

PROGRAM OBJECTIVES

Education of Extension agents and landowners in the essentials of sound pond management and the potential adverse effects of aquaculture is critical. There is a strong need for improved statistics on the status of the aquaculture industry to provide a yardstick for measuring future growth and the need for and impact of Extension programs in aquaculture.

ACCOMPLISHMENTS

- 1) 700 young people (10-19) were trained in natural resource conservation and preservation.
- 2) 100 4-H demonstrations and projects in Marine Awareness/Aquatic Adventure.
- 3) Biological control of aquatic weeds demonstrated.
- 4) Systems demonstrated in Piedmont to show feasibility and economy of summer catfish/winter trout production. Income increased in demonstration trials by \$200 per cage per year.

EVALUATION

By actual enrollment and participation count of 4-H'ers in 1 and 2. Accomplishments 3 and 4 are self-evaluating with actual result data from project.

FUTURE IMPLICATIONS

Long-term conservation and preservation of our natural resources depend on today's youth and their knowledge and attitudes of the environment. To make aquaculture more efficient and profitable will ensure additional farm income and a greater variety in our local food supply.

\*CONTACT

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KEYWORDS

NC65  
 North Carolina  
 1984  
 Agriculture, Natural Resources, Community and Rural  
 Development  
 Pond management  
 Water management problem reduction, maintenance cost  
 reduction, supplemental income  
 Extension Agents, landowners, youth  
 Field days, workshops, camp, 4-H projects,  
 demonstration projects

\*QUANTIFIED IMPACTS

Youth participation increased to 700 participants  
 Aquatic weeds reduced to zero in demonstration ponds  
 Supplemental income increased + \$200/cage/year

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	1.0			1984		In Rept	

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\*TITLE

NC66 Wildlife Management in North Carolina

\*TEXT

SITUATION DESCRIPTION

Wildlife habitat continues to be lost to development and other land use changes. Conflicts between wildlife and human interests continue to increase as habitat dwindles. Landowners are posting their land, thus reducing hunting and fishing opportunities and losing the potential income from hunting and fishing rights. These problems exist because most private landowners do not manage wildlife habitat or hunting and fishing, nor do they have a knowledge of animal damage control techniques.

PROGRAM OBJECTIVES

Educate private landowners about wildlife habitat management and control of hunting and fishing, thereby increasing wildlife habitat and improving opportunities for use of the wildlife resources.

RESOURCES INVOLVED

State wildlife agency personnel, private organizations such as wildlife clubs and county forest landowner associations.

ACCOMPLISHMENTS

- 1) 103 state forest service foresters and state wildlife biologists trained.
- 2) 150 landowners informed on beaver management.
- 3) 250 people in county forest landowner groups trained in wildlife management.

EVALUATION

Numbers of people attending workshops and meetings, requests for information.

FUTURE IMPLICATIONS

Program to be expanded to additional counties and groups, research needed on impact of program in terms of follow-up action by landowners.

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\*KEYWORDS

NC66  
North Carolina  
1984

Agriculture and Natural Resources

Wildlife/Fisheries Management, Natural Resources  
Management  
Wildlife Management

Private landowners, non-Extension professionals

Meetings, demonstrations, publications, media releases,  
workshops

\*QUANTIFIED IMPACTS

Professionals trained	103
Landowners informed	500

\*EXPENDED FTE

Prof	Para	Vol
1984	3	

\*VOLUNTEERS

Pers	Dollar
------	--------

\*SCOPE

Co	In St	100
In Rept		100

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 Raleigh, NC 27692

\*TITLE

NC67 Computer Development in the North Carolina Agricultural Extension Service

\*TEXT

SITUATION DESCRIPTION

The N. C. Agricultural Extension Service can enhance its basic function by utilizing the computer as an information delivery mechanism and by providing expertise and leadership to clientele as they adopt computer technology on the farm. Extension had by 1983 placed computers in about half of its county Extension offices. Effective use of this hardware requires an extensive training program for both county and campus staff.

PROGRAM OBJECTIVES

- 1) Development of software for Extension educational programs.
- 2) Development, selection, implementation and maintenance of hardware systems.
- 3) Coordination of training on computers and Extension uses of computers for specialists and other campus staff.

RESOURCES INVOLVED

Non-Extension support for this program has been provided by R. J. Reynolds Tobacco Company, N. C. Tobacco Foundation, N. C. Agricultural Foundation, N. C. Alternative Energy Corporation and local governments.

ACCOMPLISHMENTS

- 1) 27 additional county units.
- 2) 10 new software programs and spreadsheet files.
- 3) 500 clientele were trained in computer use.
- 4) 300 county agents and secretaries trained in computer use.

EVALUATION

- 1) Requests from clientele for assistance.
- 2) County governments funding computer peripherals.
- 3) Documented software released.

FUTURE IMPLICATIONS

- 1) Clientele interest in microcomputers continued during 1984.
- 2) Increased Extension and clientele use of microcomputers will continue for several years.
- 3) Clientele will look to Extension to provide leadership in this area.
- 4) More microcomputer hardware and additional computer programmer and analyst resources will be required.

\*CONTACT

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TITLE

\*KEYWORDS

NC67  
 North Carolina  
 1984  
 Agriculture, Community & Rural Development,  
 4-H Youth, Home Economics  
 All  
 All  
 All

Computer assisted program, demonstration, home learning  
 packet, pilot projects, teleconference, workshops

\*QUANTIFIED IMPACTS

Knowledge gained 500 clientele  
 Persons trained 300 county Extension personnel  
 Software developed 10 new programs  
 Hardware purchased 27 new county units

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984 5.0		1.0	1984 15	\$15,000	In Rept	

CONTACT  
 Robert E. Bowers, Extension Agent, Engineering Specialist  
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\*TITLE

NC68 North Carolina Grain Drying and Storage

\*TEXT

SITUATION DESCRIPTION

There has been a rapid increase in grain storage capacity in North Carolina in recent years. Much of the on-farm grain drying is done in the storage bin, placing a strain on the capacity of the dryer. If the grain, especially corn, is not dried in a reasonable time, it may mold and develop aflatoxin in the bin. High aflatoxin levels are detrimental to livestock, especially swine and poultry. The cost of energy for drying farm corn, soybeans, peanuts and small grain is a significant portion of the total harvest and marketing cost.

PROGRAM OBJECTIVES

- 1) Teach farmers the proper selection of drying and storage equipment and the correct use of this equipment.
- 2) Study ways of reducing the energy requirements for crop drying.
- 3) Conduct training workshops for county Extension agents in proper drying and storage methods for grain.

RESOURCES INVOLVED

- 1) A cooperative project with the Agricultural Research Station is being conducted.
- 2) An on-farm test of drying and storage of corn in three grain bins in Duplin County.

ACCOMPLISHMENTS

- 1) After three years of on-farm testing, the N. C. Extension recommendations for corn in-bin drying and storage have proven to be sound.
- 2) More farmers are now following recommendations and reducing storage losses by 5%.
- 3) A redesign of peanut curing facilities which allows recirculation of a portion of the curing air makes possible an energy reduction of 25%.
- 4) 1,000,000 bushels of grain storage has been improved.

EVALUATION

Quality of grain in storage on farms is being monitored through contacts with farmers and Extension agents.

FUTURE IMPLICATIONS

The feasibility of redesigned peanut curing facilities must be determined.

\*CONTACT

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**\*KEYWORDS**

NC68  
 North Carolina  
 1984  
 Agriculture

Crop drying, crop storage, peanut curing  
 Corn, soybeans, small grain, peanuts  
 Farmers, Extension agents, agribusiness  
 Radio, demonstrations, publications, meetings

**\*QUANTIFIED IMPACTS**

Facilities improved 1,000,000 bushels  
 Losses reduced 5%  
 Recommendations proven 3 years of on-farm tests  
 Energy savings 25%

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	1.0	.1		1984		In Rept	

CONTACT  
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\*TITLE

NC70 Energy Conservation and On-Farm Energy Audits for North Carolina Agriculture

\*TEXT

SITUATION DESCRIPTION

New energy saving strategies in agricultural operations are not always obvious to farmers. Many farmers waste thousands of dollars on energy costs by following traditional farming habits. On-farm energy audits enable trained Extension personnel to help the farmer evaluate his or her situation and make plans for improvements. County agents will ultimately be trained to handle this energy component.

PROGRAM OBJECTIVES

- 1) Conduct on-farm energy audits to document energy savings for paired tobacco and swine farms.
- 2) Reduce energy costs by \$150 per year per bulk tobacco barn and \$300 per year for each swine farrowing and/or nursery house.

RESOURCES INVOLVED

Funded by N.C. Soil and Water Conservation Commission.

ACCOMPLISHMENTS

- 1) Fuel savings of 200 gallons L.P. gas/barn/year.
- 2) Fuel savings of 425 gallons L.P. gas/hog house/year.
- 3) Dollar savings of \$150/bulk barn/year - \$300/year/swine farrowing or nursery house.
- 4) One tobacco farmer applied one-half inch of spray foam insulation to his barn at a cost of \$420. The fuel savings amounted to \$200 per season. At a 12% interest rate, the estimated payback period for his total \$535 investment is four curing seasons.

EVALUATION

The energy savings expected as a result of following the energy audit's recommendations are currently being documented through the use of on-farm tests.

FUTURE IMPLICATIONS

Specialists' and agents' recommendations will serve to update programs as new needs or opportunities arise.

\*CONTACT

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**\*KEYWORDS**

NC70  
North Carolina  
1984  
Agriculture and Natural Resources, Community and Rural  
Development  
Energy Conservation in Agriculture  
Energy Audits (Tobacco, Swine), Best Management  
Practices  
Farmers, Extension Paraprofessionals, Soil  
Conservationists  
Computer, Demonstrations, Consultants, Energy Audits,  
Publications

**\*QUANTIFIED IMPACTS**

Fuel savings 200 gal. LP gas equivalent/  
bulk barn/year  
425 gal. LP gas equivalent/  
hog house/year  
Dollar savings \$150/yr/bulk barn; \$300/yr/  
swine farrowing or nursery  
house  
Farmer payback \$200/yr savings on \$420  
investment

**\*EXPENDED FTE**

	Prof	Para	Vol
1984	2		

**\*VOLUNTEER**

	Pers	Dollar
1984		

**\*SCOPE**

	Co	in St	100
		In Rept	

\*TITLE

Energy Conservation and Biomass Utilization for On-Farm Energy  
Production and Petroleum Fuel Substitution in North Carolina  
Agriculture

NC71

\*TEXT

SITUATION DESCRIPTION

Since 1973 cost of curing fuel has risen from \$45/acre to \$345/acre, an annual expenditure of \$100 million. Animal agriculture requiring fossil fuels faces similar cost increases. Energy efficient curing demonstrations have shown a potential for reducing N.C. tobacco curing fuel use by nearly one half. A practical biomass substitution for fossil fuels in wood-fired hot water systems has been demonstrated in tobacco curing, poultry and swine buildings, greenhouses and residences. This system can reduce poultry brooding costs by 50% while maintaining drier litter conditions. North Carolina produces up to 75 million tons of biomass annually with a heat equivalent of 7.5 billion gallons of fuel oil worth \$9 billion. Seventy-eight percent of forest land is owned by farmers or private landowners, with great potential for providing process heat and electrical production.

PROGRAM OBJECTIVES

- 1) Identify the best existing technologies for biomass utilization and securing adoption of them on farming enterprises in the state.
- 2) Achieve the substitution of farm derived energy for purchased energy, and off-farm marketing of supplemental power.

RESOURCES INVOLVED

Program funded by the N.C. Alternative Energy Corporation.

ACCOMPLISHMENTS

- 1) A 100 KW wood gasification-electrical co-generation system has been built and is in the process of being tested.
- 2) Preliminary economic analysis suggests the system is economically viable for farmers and others.

EVALUATION

As this program continues, energy production will be easily measured.

FUTURE IMPLICATIONS

- 1) Findings from this study must be transferred to the general public.

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**\*KEYWORDS**

NC71  
North Carolina  
1984  
Agriculture

Energy, electrical generation, co-generation, biomass utilization, agricultural commodity processing Tobacco curing, grain and peanut drying, wood burning, water & structure heating, electrical demand Farmers, professionals, woodland owners, agribusiness, home owners, agricultural product processors Demonstrations, large group presentations, leader training, newspaper, publications, radio, small group sessions, TV, tours, workshops

**\*QUANTIFIED IMPACTS**

System built 100 KW system under test

**\*EXPENDED FTE**

Prof Para Vol

1984 3.0

**\*VOLUNTEER**

Pers Dollar

1984

**\*SCOPE**

Co in St 100

In Rept

**\*CONTACT**

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\*TITLE

NC72 National Water Quality Evaluation Project Conducted in North Carolina

\*TEXT

SITUATION DESCRIPTION

Better control and evaluation of agricultural nonpoint sources (NPS) are necessary to achieve water quality goals and to improve the cost effectiveness of agricultural production. Almost a billion tons of cropland soil above tolerable limits are lost yearly. The value of this topsoil and associated nutrients ranges from \$300 million to \$2 billion a year. The cost of impact upon receiving waters and associated activities is virtually impossible to measure. More effective farm management practices would protect environmental quality and result in most cost effective production because if the estimated 5 million lbs. of excessive phosphate applied annually in North Carolina were eliminated, potential savings of \$1 million a year would result.

PROGRAM OBJECTIVES

Agreement objectives call for a national evaluation of agricultural NPS control programs, with specific emphasis on the federally funded Model Implementation Projects and Rural Clean Water Program; technical assistance; evaluation of water quality benefits; and preparation of educational materials. Results from this project will provide the basis for evaluating and recommending practices to reduce the impact of agricultural runoff on receiving water quality and to make production agriculture more efficient.

RESOURCES INVOLVED

Funding through a cooperative USDA-EPA agreement. Twenty Rural Clean Water Program (RCWP) projects submitted progress reports for summary and evaluation. State, national, and international water quality agency personnel attended workshops in Raleigh and Chicago.

ACCOMPLISHMENTS

- 1) A State of the Art report was prepared on PEST MANAGEMENT PRACTICES FOR CONTROL OF NONPOINT SOURCE POLLUTION FROM AGRICULTURE: PESTICIDES.
- 2) A data management system was developed to store and analyze information from agricultural NPS projects.
- 3) A report was developed to present guidelines for selection of critical areas for targeting land treatment for control of NPS pollution from agriculture.

EVALUATION

Project reports reviewed by sponsoring agencies.

FUTURE IMPLICATIONS

Continuation of the project as planned.

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\*TITLE

\*KEYWORDS

NC72  
North Carolina  
1984  
Agriculture, CRD

Environmental Quality, Production Agriculture  
Water Quality, Agricultural Nonpoint Source Control  
Farmers, Non-Extension professionals  
Water quality data collection and evaluation, pilot  
project evaluation, program recommendations, technical  
assistance, educational materials.

\*QUANTIFIED IMPACTS

Best recommended practices                      Pesticide practices evaluated

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St 100
1984	3.7	.5				

CONTACT  
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\*TITLE

NC73 Energy Efficient/Environmental Quality Demonstration Farm  
Project in North Carolina

\*TEXT

SITUATION DESCRIPTION

Optimal farm energy and resource management are important considerations for N.C. producers. In 1981, on-farm operating costs for fuel, fertilizer, pesticides and irrigation amounted to approximately 10 to 20% of the state's total production expenses. Inadequate soil and water conservation, improper animal waste management and over-use of fertilizer and pesticides can decrease on-farm energy and resource efficiency and also result in nonpoint source (NPS) losses, causing serious water quality problems. Additional emphasis on farm resource management is needed to increase production efficiency and protect water quality.

PROGRAM OBJECTIVES

To quantify production and water quality benefits of optimal farm management, two paired demonstration farms will be studied during 1984 and 1985. These will include a tobacco demonstration and a swine/row crop demonstration consisting of a control farm which uses minimal resource and energy management practices and a demonstration farm which incorporates these practices into the production operation. These include soil and water conservation practices, fertilizer and pesticide management, animal waste management and energy conservation practices.

RESOURCES INVOLVED

This project is conducted under a grant from the Energy Division, N.C. Department of Commerce, through the N.C. Soil and Water Conservation Commission in cooperation with the N.C. Agricultural Task Force Program. Four farms cooperate as the paired demonstration farms.

ACCOMPLISHMENTS

The two tobacco farms are now operational, and the swine farms are being set up. Data from the tobacco farms are not yet available for analysis.

EVALUATION

Detailed records on energy and chemical use on each farm will be maintained and storm runoff collected to determine in-field efficiency of conservation and management practices. This will quantify the amount of energy, fertilizer and pesticide saved, the reduction of NPS losses, and overall management cost effectiveness.

FUTURE IMPLICATIONS

The project will be continued as planned, with a proposal for an extension of the project for at least one more year.

\*CONTACT

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**\*KEYWORDS**

NC73  
North Carolina  
1984

Energy/Environment Demonstration Project  
Energy Conservation

Farm production energy demands and field runoff losses

Tobacco, swine, and row crops for swine feeding

Producers of stated commodities.

Extension and research

**\*QUANTIFIED IMPACTS**

Multi-agency cooperation

Agricultural task force formed

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St I00
1984	2	2				In Report 4

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\*TITLE

NC75 Farm Safety in North Carolina

\*TEXT

SITUATION DESCRIPTION

Farming has surpassed mining as the most dangerous occupation in recent years. Educational programs emphasizing safe operation and handling procedures with agricultural equipment are needed to help emergency medical personnel, rescue squad volunteers and farm workers to develop safe extrication and operation skills.

PROGRAM OBJECTIVES

Farm families, emergency medical personnel, and rescue squad volunteers will learn skills and techniques to use when working with farm machinery accidents.

RESOURCES INVOLVED

One hundred emergency medical personnel and rescue squad volunteers were trained as trainers, and 300 additional volunteers received training on farm machinery victim extrication. Statewide Electricity and New Technology Camp offered safety-related projects to 157 campers.

ACCOMPLISHMENTS

1983-1984

Trainers trained	100 trainers in 14 counties
Skills shared by trainers	500 participants (300 emergency medical, 200 farm workers)
Skills learned (on-hands practice)	100 trainers 500 participants

EVALUATION

Records kept of attendance at trainer sessions, and at follow-up sessions conducted by volunteer trainers. Observation by specialist checked skill learning.

FUTURE IMPLICATIONS

Training sessions in response to requests are still being scheduled for this type of program. In addition, follow-up programs are being requested for farm family meetings to help further expose families to the severity of farm machinery accidents. Resource materials need to be distributed to counties that are large agricultural producers and to suppliers of agricultural machinery.

\*CONTACT

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\*TITLE

\*KEYWORDS

NC75  
 North Carolina  
 1984  
 Agriculture, 4-H, CRD, Home Economics

Safety

Safety

Farmers, homemakers, youth, volunteer organizations

Leader training, demonstrations, workshops, newsletters, meetings

\*QUANTIFIED IMPACTS

Trainers trained 100 trainers

Skills shared (participants trained by trainers) 500 participants (300 emergency medical, 100 farm workers)

Skills learned 500 participants, 100 trainers

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	1.5					In Rept	14

\*CONTACT

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\*TITLE

NC75a Pesticide Education in North Carolina

\*TEXT

SITUATION DESCRIPTION

Pesticides are essential in the production of most agricultural crops and necessary to protect human and animal health. A continuing educational program in safe and proper use is needed to protect human health and the environment. Comprehensive federal and state laws enacted in the early 1970's insure safe and proper use of pesticides. Dealers selling restricted use pesticides and commercial pesticide applicators, public operators and consultants applying or giving advice on any pesticide must be licensed.

PROGRAM OBJECTIVES

- 1) Conduct 18-25 two-day schools annually to train 800-1,000 new dealers and commercial applicators.
- 2) Recertify all dealers and commercial applicators on a five-year basis.
- 3) Conduct classes on county level for new farmers who use restricted use pesticides.

RESOURCES INVOLVED

No non-Extension resources involved.

ACCOMPLISHMENTS

- 1) 921 new applicators and dealers were trained during 12 2-day schools.
- 2) Recertification classes were held in 75 counties for commercial applicators.
- 3) 552 private applicators were trained in 89 counties.
- 4) 700 licensed pest control operators and certified pesticide applicators received continuing certification credits from in-service training programs.
- 5) 42 aerial pesticide applicators were trained in a 4-hour school.
- 6) Pesticide incidents (fatalities) in N.C. are as follows: 1974-112 (11 fatalities), 1978-93 (8 fatalities), 1982-64 (3 fatalities). Of the 3 fatalities in 1982, two were suicides. More recent data are not available but since this program's inception there has been significant reductions in both pesticide accidents and fatalities.

EVALUATION

Records are kept and monitored of licensees.

FUTURE IMPLICATIONS

Program will continue as planned. Next step will be recertification of farmers.

\*CONTACT

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\*TITLE

\*KEYWORDS

NC75a  
North Carolina  
1984

Agriculture

Pesticide Education

Pesticide Applicators/Dealers

Classroom Teaching/Demonstrations

\*QUANTIFIED IMPACTS

Applicators trained 1663 commercial, 552 private

Pesticide incidents (deaths) 1974-112 (11); 1982-64 (3)

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	5.2	.6				In Rept	100

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\*TITLE

NC75c Farm Opportunities Program - Farm Management (North Carolina)

\*TEXT

SITUATION DESCRIPTION

Small/limited resource farmers are affected by managerial problems perpetuated by their failure to develop and implement a farm record/budget system.

This problem causes budgeting, tax, labor and accounting difficulties as well as preventing small farmers from being able to secure sufficient operating capital.

PROBLEM OBJECTIVES

- 1) Acquaint small/limited resource farmer with various kinds of farm record/budget system.
- 2) Reduce farmers expenditure by 20%.
- 3) Encourage 95% of the program participants to establish, implement and maintain farm record/budget systems.

RESOURCES INVOLVED

Over 700 cooperators in 20 counties were involved in Farm Opportunities Program. All these programs have a farm management focus. Many of the farmers (number unknown) use record books distributed by R. J. Reynolds or the North West Bank. Six counties reported using 68 volunteers in farm management activities for a total of 173 person days.

ACCOMPLISHMENTS

Accomplishment reports for 15 of the counties were available to this specialist. (Five of the counties were not part of the program nor contacted by him. They were not analyzed.) Ten counties reported a total of 218 farmers have adopted better farm management practices. Five counties reported recordkeeping practices improved by 79 participants total. One county reported marketing improved by 10% and accumulated indebtedness reduced by 11%. FOP participant income increases of approximately 12% were reported in four counties. The bases for these figures were not given.

EVALUATION

Data were collected with the Benchmark Form and by personal survey. Data were also collected in the Energy Audit Program (1983) which was relevant for farm management questions.

FUTURE IMPLICATIONS

Opportunities for future activities remain very high. One on one assistance and participation in the FOP appear to be effective means of teaching farm management to limited resource farmers.

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\*TITLE

\*KEYWORDS

NC75c  
North Carolina  
1984  
Agriculture

Farm Management

Record/Budget System

Small limited resource farmers

Illustrations, meetings, seminars, demonstrations, radio and television programs.

\*QUANTIFIED IMPACTS

Expenditures reduced	Not reported
Management improved	218 farmers in 10 FOP counties
Record/budget system implemented	35 farmers in 4 FOP counties

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	.25	.20		68		In Rept	20

\*CONTACT  
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\*TITLE

NC75d Farm Opportunities Program - County Organizations for Small/Limited Resource Farmers (North Carolina)

\*TEXT

SITUATION DESCRIPTION

Economic conditions demand that many small/limited resource farmers seek off-farm employment to supplement their farm income. Although off-farm employment has proven to be economically advantageous for most small/limited resource farmers, their diverse hours of employment have made it hard for them to maintain a viable communication link with other farmers and community leaders. This critical void has made it difficult for small/limited resource farmers to obtain information about equipment maintenance, new agricultural practices and technology, and general agricultural policies that could assist them in solving their home, farm and community problems.

PROGRAM OBJECTIVES

The small/limited resource farmers' organization will:

- 1) Provide a group setting where 90% of small farmers can share ideas on agricultural practices and technology;
- 2) Acquaint 75% of its members with local agriculture, business, civic, and community leaders;
- 3) Encourage 90% of limited resource/small farmers to participate in local social, business, and political activities;
- 4) Increase by 25% the small/limited resource farmer's input in planning and conducting workshops and other extension educational programs.

RESOURCES INVOLVED

County agricultural personnel utilized the services of community persons and local businesses. Local businesses co-sponsored meals for the various association meetings.

ACCOMPLISHMENTS

Four small/limited resource organizations were organized in 1983-84. Each of the associations met at least twice during the year. Attendance at each of the meetings ranged from 8-20 cooperators. Each cooperator had an opportunity to identify possible activities, speakers and resources. Speakers discussed (1) farm management techniques, (2) advantages of farm records, (3) agricultural chemicals and (4) cooperatives and their advantages.

EVALUATION

Data collected from meeting records. After more associations are organized, participants will be surveyed to ascertain perceived benefits.

FUTURE IMPLICATIONS

It appears that the word "association" will be more appealing to the cooperator than "organization." Effective this year the name will be changed to "County Associations for Small/Limited Resource Farmers." The coordinator of agriculture and natural resources is in the process of identifying some major research concerns.

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\*TITLE

\*KEYWORDS

NC75d  
North Carolina  
1984  
Agriculture

Leadership Development

Community Leadership Development

Small/Limited Resource Farmers

Meetings, tours, radio, TV, newspapers, workshops, seminars, classes

\*QUANTIFIED IMPACTS

Increase in program planning

64 small/limited resource farmers

Leadership development

64 small/limited resource farmers

Skill's developed

Data not available

Increase in community development

Data not available

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	3	23				In Rept	19

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\*TITLE

NC75e Farm Opportunities Program - On the Farm Assistance (North Carolina)

\*TEXT

SITUATION DESCRIPTION

Latest Census data reveal that 2/3 of N.C. farms may be classified as small farms. General data on farm operators indicate that they possess minimum education, limited capital, have been farmers all of their lives, prefer to follow traditional rather than proven practices, and are not familiar with services available from public agricultural agencies. These characteristics, plus other numerous variables, contribute to problems of management, marketing and production which drastically affect yield, efficiency and income. Past experiences indicate that one-on-one farm assistance has been effective in reaching small/limited resource farmers.

PROGRAM OBJECTIVES

- 1) Increase farmers' income by 50%.
- 2) Acquaint participants with major public agricultural agencies.
- 3) Encourage 95% of participants to establish and maintain a budget and record system.
- 4) Acquaint participants with practices and technologies that will increase their annual yield by 12%.
- 5) Acquaint 25% of participants with feasibility of producing non-traditional commodities.

RESOURCES INVOLVED

Nearly 700 cooperators received one-on-one on the farm assistance, using resources of local agribusinesses, private organizations and public agricultural agencies. 114 cooperated in a Small Farmstead Energy Project funded by the N.C. Alternative Energy Corporation.

ACCOMPLISHMENTS

- 1) Estimated savings of 114 cooperators in Small Farmstead Energy Project amounted to \$95,823.
- 2) 107 farmers have adopted and are maintaining a farm record system.
- 3) An estimated 30% of enrollees are following recommended agricultural practices that have the potential of increasing their agricultural income.
- 4) Several cooperators were introduced to the services of private and public agricultural agencies.
- 5) At least 25 cooperators were introduced to and/or produced non-traditional commodities.

EVALUATION

Data collected for evaluation purposes were obtained from Benchmark data forms. Cooperators were interviewed by the technicians.

FUTURE IMPLICATIONS

One-on-one assistance appears to be one of the best methods to reach limited resource individuals. The demand for this kind of service exceeds technicians' capacity to serve prospective cooperators. Opportunities for future programming look great. Agricultural technicians in each county report having a waiting list of participants.

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**\*KEYWORDS**

NC75e  
North Carolina  
1984-87  
Agriculture

Farm management, crop production, cultural practices, marketing  
Agriculture  
Small/limited resource farmers, urban gardeners  
One-on-one contact, demonstrations, tours, mass media, meetings, newsletters, publications

**\*QUANTIFIED IMPACTS**

Farm facility energy conservation	\$95,823
Improved farm management	107 farmers developed and implemented a record system
Practices and technologies adopted	30% of the cooperators
Production of non-traditional commodities	25 cooperators
Increased yield	Data not available
Increased income	12%

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984 1.9	23		1984		In Rept	19

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\*TITLE

NC75f Farm Opportunities Program - Home Gardening (North Carolina)

\*TEXT

SITUATION DESCRIPTION

Current data indicate that limited-resource families use nearly a third of their total income to purchase food. This percentage is expected to increase as retail prices of food increase. These factors, combined with high unemployment, limited budgets, reduced food stamps, and general inflation have severely restricted limited-resource families' abilities to purchase high quality food and wholesome vegetables.

PROGRAM OBJECTIVES

The objectives of this program are to:

- 1) Increase the dollar value of vegetables grown
- 2) Encourage and assist rural and urban families in producing and conserving vegetables
- 3) Acquaint new home gardeners with basic vegetable production

RESOURCES INVOLVED

- 1) Some vegetable seeds provided by Asgrow Seed Company and Rogers Brothers Seed Company
- 2) Community garden sites provided by Burlington Housing Authority and the Alamance County Mental Health Center

ACCOMPLISHMENTS

- 1) 25 senior citizens planted container gardens in workshop on that topic
- 2) Community gardeners grew 36 dozen bedding plants in cold frames
- 3) 35 families shared 4 community garden sites
- 4) 127 family units grew vegetables in individual garden sites
- 5) Home gardeners grew 8 new varieties of vegetables

(Note: Records of 1984 production, consumption, and preservation not yet analyzed.)

EVALUATION

Annual survey conducted and records kept to determine the number of participants in the gardening programs and dollar value of foods consumed and preserved for later consumption. FY84 data are not available at this time.

FUTURE IMPLICATIONS

Interest and participation in vegetable gardening will be maintained as the target audiences realize monies saved, increased quality of foods consumed from gardens and personal satisfaction of self accomplishment.

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**\*KEYWORDS**

NC75f  
 North Carolina  
 1984-1987  
 Agriculture

Horticulture

Vegetable Production/Home Gardens

Limited Resource

Demonstrations, meetings, workshops, seminars, TV and radio programs, tours, publications

**\*QUANTIFIED IMPACTS**

Gardening skills developed/improved 175 limited-resource families  
 Dollar value of vegetables grown Not available at this time

**\*EXPENDED FTE**

**\*VOLUNTEERS**

**\*SCOPE**

	Prof	Para	Vol		Pers	Dollar	Co in St	100
1984	.2	1	.1	1984	25	\$728	In Rept	

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HOME ECONOMICS ACCOMPLISHMENT REPORTS

<u>No.</u>	<u>Title of Major Program for which Accomplishment Report is attached</u>
NC93	Family Economic Stability & Security in North Carolina - Summary
NC94	Financial Management (1862)
NC95	Financial Management (1890)
NC96	Marketplace Strategies (1862)
NC97	Marketplace Strategies (1890)
NC98	Home Production & Renovation (1862)
NC100	Management of Resources (1862)
NC101	Management of Resources (1890)
NC102	Legal Concerns (1862)
NC103	Legal Concerns (1890)
NC104	Foods, Nutrition and Health in North Carolina - Summary
NC105	Eating Right for Life (1862)
NC106	Eating Right for Life (1890)
NC107	Food Buying & Food Management (1862)
NC108	Food Buying & Food Management (1890)
NC109	Food Preservation & Safety (1862)
NC110	Food Preservation & Safety (1890)
NC111	EFNEP
NC112	Energy and the Living Environment in North Carolina - Summary
NC113	Lifestyles & Energy Management (1862)
NC114	Energy Retrofits (1862)
NC115	Energy Efficient Designs (1862)
NC116	Physiological Environment (1862)
NC117	Psychological Environment (1862)

<u>No.</u>	<u>Title of Major Program for which Accomplishment Report is attached</u>
NC118	Family Strengths and Social Environment in North Carolina - Summary
NC119	Family Interpersonal Relationships (1862)
NC120	Stress (1862)
NC122	Self-Esteem (1862)
NC123	Parenting Education (1862)
NC124	Parenting Education (1890)
NC125	Adult Growth and Development (1862)
NC127	Volunteerism/Leadership Development in North Carolina - Summary
NC128	Volunteer Visibility & Recognition (1862)
NC129	Volunteer Leadership Development & Expertise (1862)
NC130	North Carolina Extension Homemakers Association (1862)

\*TITLE

NC93 Family Economic Stability and Security in North Carolina -  
Summary

\*TEXT

SITUATION DESCRIPTION

Securing and maintaining adequate family income and resources were identified as major problems for North Carolina families including the limited-resource audience. Specific problems cited were: The families' concerns with meeting daily expenses; providing for a financially secure future; how to be effective buyers and/or sellers of consumer goods and services; and how to stretch economic resources through personal resources (time, human energy, creativity). The impact of law on North Carolina families was identified as a concern as it relates to family law, property ownership, estate planning, bankruptcy, consumer law and small business law.

PROGRAM SEGMENTS

a) Financial Management, b) Marketplace Strategies, c) Home Production and Renovation, d) Management of Resources, and e) Legal Concerns.

PROGRAM OBJECTIVES

1) Families and individuals adopt financial management practices to provide for current needs and future financial security. 2) Families and individuals develop skills to become more effective consumers. 3) Families and individuals supplement their income by developing profitable home enterprises based on sound business management principles. 4) Individuals extend their income and resources in production and renovation to provide for family needs. 5) Families practice appropriate skills and knowledge to extend personal and economic resources. 6) Families and individuals develop an understanding of their legal rights and responsibilities as family members, property owners or renters, consumers, or home business owners.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS - 9,266 families improved one or more financial practices, 12,688 families improved their financial status and 578 youth improved money management skills. 23,213 individuals/families improved shopping skills, increasing their buying power by \$266,506. 7,274 persons increased income by \$481,368.83 from selling their handmade crafts. 23,338 adult/youth developed home production and renovation skills in clothing and home furnishings; 10,241 adults adopted safety practices in food preservation to extend income by \$2,602,382.68. 1,912 individuals/families improved their management of resources by adopted practices recommended in Extension programs. 8,028 adults completed home improvement/remodeling and do-it-yourself decorating projects, extending the family income by \$1,737,312 with an added savings of \$48,000. 2,075 adults planned for estate distribution with 202 adults reducing taxes. 3,252 adults increased legal knowledge.

EVALUATION - Mailed questionnaires, county accomplishment reports, interviews and site observations were used as the data base.

FUTURE IMPLICATIONS - Accomplishments show Extension programs are beneficial to clientele. The first year indicates a need to accelerate efforts to help families with financial management, consumer buying information, home production/renovation and management of resource skills and the use of legal information to promote family economic stability/security.

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**\*KEYWORDS**

NC93  
 North Carolina  
 1984  
 Home Economics  
 Family Economic Stability and Security - Financial Management,  
 Marketplace Strategies, Home Production/Renovation, Management  
 of Resources, Legal Concerns

Families (young, mid-aged, limited-resources, two paycheck),  
 elderly, individuals, youth, volunteer leaders

Workshops, meetings, video, slide/tape, publication, home study  
 packets, computer assisted programs.

**\*QUANTIFIED IMPACTS**

Improved Skills 55,685 persons/families increased  
 financial, consumer, resource, home  
 improvements, skills.

Extended Income \$2,051,827 dollar value through  
 increased buying power, home  
 improvements/savings.

Increased Income 41,212 persons increased income by  
 3,120,866 from crafts and home  
 production/renovation.

Increased Knowledge 3,252 persons increased legal  
 knowledge.

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	61.0					In Report	

\*TITLE

Family Economic Stability and Security - Financial Management  
in North Carolina

NC94

\*TEXT

SITUATION DESCRIPTION

Recent years of inflation with slower growth in income and increasing unemployment have reduced families' financial reserves and increased financial problems. Nationally, North Carolina ranks 40th in household income. Meeting daily expenses and providing for a financially secure future are major concerns of both adults and teenagers. Research and citizen groups have identified financial management as a major educational need.

PROGRAM OBJECTIVES

Individuals/families will optimize returns from financial resources for goal attainment and enhancement of financial security. Results expected include: 100,000 families budget financial resources; 50,000 children learn skills in managing money; 50,000 teenagers apply management skills to everyday activities; and 20,000 adults build financial security.

RESOURCES INVOLVED - Professionals in financial services and volunteer leaders.  
ACCOMPLISHMENTS AND EVALUATION

Agents in 59 counties reported: 1) 9,266 families improved financial management practices such as: managerial skills (7368), reduction of debt (644), recordkeeping (591), increase in income (563), and retirement planning (100); and 2) 578 youth improved money management skills, and 3) 12,688 improved monthly financial situation. The impact of the educational efforts is indicated by 61 responses to a questionnaire mailed to 417 participants in 9 counties. Data revealed that: 70% received answers to questions and help in decision-making; 69% received new ideas; 66% planned and shopped to get money's worth; 66% reduced financial worries; 56% set immediate and long range goals; 53% improved planning and management; 49% made and followed a regular spending and savings plan; 43% kept records of expenses; and 30% or more improved decision-making, thinking ability, skills in managing money as a family, eliminated wasteful habits, increased savings and investments and increased funds for retirement. Respondents evaluated an average dollar value of \$208 per month for the practices adopted as a result of the programs.

FUTURE IMPLICATIONS

The need and demand for financial management education is a continuing one. Program objectives and results expected are for a six year program. Accomplishments represent the beginning year and indicate the programs are beneficial to clients and that Extension's educational efforts need expanding. Clientele demands indicate an increasing desire for short-courses and individual and group consultations. Plans have been initiated to provide these techniques, increase opportunities for computer use in analyzing and solving financial problems or decision-making, and to train Master Money Manager Volunteers to expand the Extension Agents' efforts.

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\*KEYWORDS

NC94  
North Carolina  
1984  
Home Economics

Family Economic Stability and Security

Financial Management

Family members of all ages, teenagers and children

Home Study Courses, Computer programs, classes, seminars  
and news media

\*QUANTIFIED IMPACTS

- Improved financial management skills 9,266 families
- Monthly improvement of financial status 12,688
- Improved money management skills 578 youth

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	10.3				In Report	

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\*TITLE

NC95 Family Economic Stability and Security in North Carolina -  
Financial Management - 1890

\*TEXT

SITUATIONAL STATEMENT:

Financial management remains a crucial area of importance for the limited-resource family in North Carolina. Since 1975, the number of people living in poverty increased by 157,000 persons. The number of poor and near poor population in the state reached 1,172,000 people or one out of five persons. Minorities accounted for nearly half of the poverty households in North Carolina during 1981. The annual income for 333,000 persons within the state was not more than 25 percent above the federal poverty level for a family of four.

PROGRAM OBJECTIVES:

Limited-resource families and individuals will apply and utilize financial management skills and knowledge to meet family goals. Expected results include: (1) 5,500 families and individuals acquire skills and experience in budgeting income and maintaining financial records, (2) 5,500 families and individuals improve their skills to manage financial resources to meet current and future living costs, (3) 2,500 families and individuals develop their credit management skills to reduce debts and protect their credit rights, (4) 2,000 families and individuals educate their children in basic money management principles.

ACCOMPLISHMENTS/EVALUATION:

Due to personnel changes and limited progress in this area, the first accomplishment report will be made next year (FY '85).

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\*KEYWORDS

NC95  
North Carolina  
1984  
Home Economics

Family Economic Stability and Security

Financial Management

Limited-resource families and individuals

Seminars, workshops, demonstrations, special interest meetings,  
bulletins, classes

\*QUANTIFIED IMPACTS

Practices adopted

No data for 1984

Knowledge gained

Skills developed

Behavior changed

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

100

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\*TITLE

NC96 Family Economic Stability and Security - Marketplace Strategies  
in North Carolina

\*TEXT SITUATION DESCRIPTION

North Carolina families and individuals are concerned with how to be effective buyers and/or sellers in today's marketplace. Recent studies forecast continued fluctuations in consumer prices. Families also face quality variation in goods and services. To extend family incomes, more individuals/families are requesting help on home enterprises and the marketing of products. Consumers need to know how to better use their economic resources to provide for current needs.

PROGRAM OBJECTIVES

North Carolina families and individuals learn to cope with market place strategies to enhance their economic status and security. Results expected include: 150,000 individuals realize more for money spent through improved shopping skills, 60,000 families become more proficient in food buying, 50,000 families increase awareness of housing options and selection criteria, 50,000 families utilize decisionmaking skills to maximize housing dollars, 7,500 young consumers recognize quality construction in furniture and 90% increase their confidence level when buying furniture, 15,000 young families become more aware of the value and adaptability of furniture, 80,000 family members practice appropriate wardrobe planning and selection skills to extend clothing allowance by \$50,000; 64,000 adults/youth develop craft marketing and business management skills to help supplement family income by \$5 million, and 1,500 home sewers develop sufficient business management knowledge/skills to begin/maintain home sewing enterprises to contribute to their families' incomes.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS

Twenty counties stated 3,534 families increased their buying power and reduced living costs as a result of improved shopping skills. Using meat buying information resulted in 513 surveyed participants saving \$252,396. Twenty-seven percent of 1,395 respondents participating in the "Eat Right for Life" program reported decreased grocery bills. Sixty-five counties reported 7,237 persons improved decisionmaking abilities to extend housing dollars with a \$12,510 dollar value achieved from the use of Extension house plans. 1,992 young consumers in 24 counties gained knowledge in recognizing quality construction furniture. 4,376 families increased awareness of the value and adaptability of furniture in decorating and furnishing small spaces. Twenty-four counties reported 5,168 persons developed skills in wardrobe planning with one county reporting 16 persons attributed a dollar value of \$1,600 as result of practices adopted. 7,633 persons in 32 counties gained skills in making crafts with 143 leaders trained. Income was increased by \$518,483.94 as a result of Extension sponsored craft shows and sales.

EVALUATION

EV-2 on meat buying, county accomplishment reports, interviews, site observations and telephone surveys were used as the data base.

FUTURE IMPLICATIONS

Families will need help in making consumer decisions to control dollars spent. Home safety and security are becoming more important. More young families need to be reached in how to select quality goods/services.

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\*KEYWORDS

NC96  
North Carolina  
1984  
Home Economics

Family Economic Stability and Security

Marketplace Strategies

Adults, Youth, Families, Individuals, Young Families,  
Limited-Resource Families, Volunteer Leaders  
Special interest meeting/classes, workshops, seminars,  
videocassettes, TV, newsletter, slide/tape, leader/agent  
training, publications.

\*QUANTIFIED IMPACTS

Improved Buying Practice	3,534 persons, overall buying skills 890 adults, food saving \$252,396; 16 adults, clothing, sav. \$1,600 7,237 adults, hous., sav. \$12,510 6,368 adults, quality furniture/ utilization; 5,168 adults wardrobe planning.
Knowledge Gained	7,633 learned crafts increasing income by \$518,483.94.
Increased Skills/Income Increased	

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	20.2						In Report

Executive Director, Family Economic Stability and Security, Inc., 1000 North Carolina  
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\*TITLE

NC97 Family Economic Stability and Security in North Carolina - 1890  
Marketplace Strategies - 1890

\*TEXT

SITUATION DESCRIPTION:

For many limited-resource persons, cultural and educational barriers impede their abilities to operate as competent and responsible consumers. Nearly 80% of households at the poverty threshold and below are headed by persons with less than a high school education. Other factors play a major role in denying this audience access to knowledge of the marketplace. A few are: unwillingness to change traditional shopping habits, avoidance of new experiences which could produce embarrassing or risk situations, inexperience with marketplace terminology and operation, poor reading and math skills, and a means of transportation to get to market areas.

PROGRAM OBJECTIVES:

Limited-resource families and individuals develop buying skills to be confident consumers in the marketplace. Expected results are: (1) 3,500 families improve their consumer knowledge or marketplace terminology and operation, (2) 3,500 families maximize the value of their consumer dollar by exercising sound buying skills in the marketplace, and (3) 3,500 families demonstrate abilities to function as confident consumers by utilizing shopping skills and knowledge.

ACCOMPLISHMENTS/EVALUATION:

Due to personnel changes and limited progress in this area, the first accomplishment report will be made next year (FY '85).

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\*KEYWORDS

NC97  
North Carolina  
1984  
Home Economics

Family Economic Stability and Security

Marketplace Strategies

Limited-Resource audiences, adults, homemakers,  
young families, youth  
Home teaching visits, meetings, in-service training, workshops,  
publications

\*QUANTIFIED IMPACTS

Cost reduced

No data for 1984

Income extended

Knowledge gained

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

100

Ellen F. Stock, Training Specialist - 1980  
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\*TITLE

Family Economic Stability and Security - Home Production  
and Renovation in North Carolina

NC98

\*TEXT

SITUATION DESCRIPTION

With the cost of goods and services continuing to rise, North Carolina families are finding it increasingly difficult to substitute and stretch resources to meet their needs. Without proper knowledge and skills of such home production techniques as construction, refurbishing and renovation, food preservation, and home repairs families are unable to extend their incomes by do-it-yourself money-saving projects.

PROGRAM OBJECTIVES

North Carolina families and individuals extend income and resources in home production and/or renovation to provide for family needs. Results expected include: 1) 1,230,680 improve home sewing skills, saving approximately \$1,230,000, 2) 826,128 garments repaired, saving \$413,064, 3) 1,125,000 people are utilizing safe food preservation procedures, 4) 75,000 families are making home repairs, 5) 16,000 families are refinishing old and/or unfinished furniture, saving \$4,000,000, 6) 20,000 young families complete one or more do-it-yourself decorating projects, saving \$2,000,000, and 7) 132,000 people are producing crafts.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS

4,327 persons in 46 counties constructed garments, saving \$85,762.18; Sixty-nine percent of these improved sewing skills. 146 persons in ten counties constructed tailored garment, saving \$11,961; eighty-two percent cited improved skills and 50 percent better decision-making abilities. Twelve counties reported 554 garments were renovated, extending income by \$13,705. 10,241 persons utilized safe and approved food preservation methods resulting in \$1,577,144 worth of food preserved by recommended methods. Forty counties reported 14,462 persons completed home repairs, extending family income by \$51,561. 876 persons in 17 counties refurbished 1,156 pieces of furniture for a total dollar value of \$289,000. 409 persons in 15 counties refinished 733 pieces of furniture for a total dollar value of \$146,600. 3,118 persons in 26 counties completed do-it-yourself projects, extending family income by \$426,649.50.

EVALUATION

Mailed questionnaires (EV-2 for housing and home furnishings and clothing) to 1,893 persons with an average return rate 61.7 percent was used as bases for data. Other data collection techniques included county accomplishment reports, telephone surveys, interviews and site observations.

FUTURE IMPLICATIONS

Extension home production/renovation programs continue to be needed by low and medium income families who have difficulty in extending the family income. A Master Volunteer program on home repairs and pattern alterations are planned.

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**\*KEYWORDS**

NC98  
 North Carolina  
 1984  
 Home Economics

Family Economics Stability and Security  
 Home Production and Renovation

Adults, elderly, families, homemakers, volunteer leaders,  
 young families, youth  
 Leader training, workshops, seminars, in-service training,  
 video-cassettes, meetings, TV

**\*QUANTIFIED IMPACTS**

Income Extended	\$2,602,382.68
Practices Adopted	10,241 adults practiced safety in food preservation.
Skills Learned	23,338 adults/youth developed skls. in construction, household repairs, furniture refurbishing, do-it-yourself projects.

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	23					In Report	

\*TITLE

NC100 Family Economic Stability and Security - Management of  
Resources in North Carolina

\*TEXT

SITUATION DESCRIPTION

North Carolinians are facing critical decisions on how to best manage their personal and economic resources. With 51 percent of the state's labor force being women with children under 6 years of age, the factors of time and work efficiency become important issues. With limited discretionary income, appropriate care, maintenance, and improvement practices for extending family resources to meet basic needs are crucial.

PROGRAM OBJECTIVES

Families and individuals develop and improve their management skills to fully utilize and extend their personal and economic resources. Expected results include: (1) 48,000 families practice care and maintenance skills to extend their apparel and footwear life, (2) 5,000 families save \$500,000 on home improvements through knowledge and skills development, (3) 25,000 consumers utilize quick-change decorating ideas to save money in redecorating their homes, and (4) 25,000 two pay check families practice time management and work simplification procedures to lessen pressures of family, home and job responsibilities.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS

Three counties reported 239 persons adopted practices to better care for apparel and footwear. 2,233 persons in 21 counties developed skills in home improvements resulting in a savings of \$660,038. Twenty-five counties involving 2,326 persons showed that 925 housing changes had been made, showing a dollar value of \$792,538. Sixty-eight percent of the 2,326 persons stated housing renovations were in progress. 1831 consumers used quick-change decorating ideas, realizing a saving of \$284,736. One county emphasized quick-change renovations for window treatments, estimating 56 families who adopted the suggested practices saved \$48,000 by not replacing window treatments. Nine counties indicated 1,673 families enhanced their quality of life through practices such as setting goals, allocating resources, and improved management of time as a result of adopting practices recommend in Extension seminars and literature.

EVALUATION

Mailed questionnaires (EV-2 for remodeling and budget decorating), county accomplishment reports, and surveys were used as the data base.

FUTURE IMPLICATIONS

The first year indicates a need for accelerated efforts to educate individuals and families on better management practices. A redirection of program emphasis needs to be made to assist families with the care and maintenance of apparel and footwear. More effort should be made to reach young families. New program materials being developed for 1984 November In-service training should stimulate county programs in management of resources.

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**\*KEYWORDS**

NC100  
 North Carolina  
 1984  
 Home Economics

Family Economic Stability and Security  
 Management of Resources

Families, two pay-check families, individuals, consumers  
 Seminars, workshops, demonstrations, special interest  
 meetings, bulletins, classes

**\*QUANTIFIED IMPACTS**

Practices Adopted	1,673 families improved resource management, 239 persons developed clothing care skills.
Skills Developed	8,028 adults developed home improvement/remodeling and do-it-yourself decorating skills.
Income Extended	\$1,737,312.00 through resources
Dollars Saved	\$48,000.00

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	4.5					In Report	

FOOTNOTES

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 Extension Specialist, Clothing & Textiles  
 For 1984, NC State University, Raleigh, NC 27607-1000  
 (919) 737-1230

\*TITLE

NC101 Family Economic Stability & Security in North Carolina -  
Management of Resources (1890)

\*TEXT

SITUATIONAL STATEMENT:

Limited-resource families and individuals in North Carolina are faced with critical decisions and challenges on how best to manage their scarce personal and financial resources. Seventy-seven percent of the households below poverty are headed by a person with less than a high school education. Nearly one-third of this audience lives in substandard housing. Most of these persons lack the income, skills, and confidence to successfully manage their available resources in an efficient manner. It becomes crucial that they develop and improve practices that maintain and extend these resources to meet basic family needs.

PROGRAM OBJECTIVES:

Limited-resource families and individuals develop and improve their management abilities to fully utilize and extend personal and economic resources. Results should include: (1) 2,500 families and individuals practice proper laundry care techniques of their garments extending garment life by two years, (2) 3,500 families and individuals utilize information and skills to save \$50,000 on home improvements.

ACCOMPLISHMENTS/EVALUATION:

Due to personnel changes and limited progress in this area, the first accomplishment report will be made next year (FY '85).

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\*KEYWORDS

NC101  
North Carolina  
1984  
Home Economics

Family Economics Stability and Security

Management of Resources

Limited-resource families and individuals

Seminars, workshops, demonstrations, special interest, meetings, bulletins

\*QUANTIFIED IMPACTS

Practices adopted

No data for 1984

Skills developed

Knowledge gained

\* EXPENDED FTE

\*VOLUNTEER

\*SCOPE

CONTACT  
Ellen T. Jones, Clothing Specialist - 1984  
P. O. Box 1929  
Greensboro, NC 27402-1929  
(919) 733-1929

\*TITLE

Family Economic Stability and Security - Legal Concerns  
in North Carolina

NC102

\*TEXT

SITUATION DESCRIPTION

The rising rate of lawsuits and the impact of law on North Carolinians have stimulated a demand for information on family law, property ownership, estate planning, bankruptcy, consumer law, and small business law. Such information is needed to enable individuals to recognize and prevent potential legal problems, and to ascertain when to seek legal advice.

PROGRAM OBJECTIVES

Individuals/families to understand their legal rights and responsibilities as family members, property owners or renters, consumers, or home business owners. Results expected include: a) 20,000 adults plan for their estate distribution. b) 12,000 adults gain knowledge about divorce, property division and child support laws. c) 8,000 adults make informed decisions about bankruptcy and other legal debtor/creditor concerns. d) 12,000 adults gain knowledge about consumer law. e) 4,000 small business owners avoid legal problems of managing home enterprises.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS

In 1983-84 26 counties enrolled 2,075 people in estate planning workshops. 10 counties reported as a result of the workshop that of the 612 people who participated, 324 (53%) had discussed estate with family members, 263 (43%) had reviewed their own estate documents such as deeds and insurance policies and 153 (25%) had changed the way they handled joint bank accounts. Approximately 202 (33%) had revised their will. Twelve other counties reported similar results.

EVALUATION

Mailed surveys (EV2, M-5 Estate Planning) were sent to 612 participants in 10 counties with a 44% return rate. Twelve counties who developed their own questionnaire obtained similar results to the EV2, M-5 data.

FUTURE IMPLICATIONS

Despite strong interest shown by clientele in estate planning, they are slow to act on information presented. Follow-up and expansion to other counties needed. Increased requests for legal information about home-based enterprises indicate expansion and follow-up is needed.

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**\*KEYWORDS**

NC102  
 North Carolina  
 1984  
 Home Economics

Family Economic Stability and Security

Legal Concern

Families, elderly, individuals

Workshops, programs, literature

**\*QUANTIFIED IMPACTS**

Practices Adopted 2075 adults planned for estate distribution.

Taxes Reduced 202 adults

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	3					In Report	

Family Economic Stability and Security  
 Extension Specialist, Family Economics Department  
 Box 1603, WCU  
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\*TITLE

NC103  
\*TEXT

Family Economic Stability and Security in North Carolina -  
Legal Concerns - 1890

SITUATIONAL STATEMENT:

Limited-resource people are not receiving the legal help they need. Insufficient income, poor education, reduced federally funded legal service programs offering low cost assistance, and unfamiliarity with the legal process are some of the contributing factors. Also resentment and dissatisfaction from past injustices with the legal system has produced an attitude of apathy and suspicion. Information concerning tenant-landlord relationships, contract agreements, divorce, child custody rights, as well as property and inheritance laws are important issues for the limited-resource family.

PROGRAM OBJECTIVES:

Limited-resource families and individuals are using the legal process and system to protect and extend their rights and resources. Results expected are: (1) 5,500 families and individuals prepare wills to preserve and distribute their incomes and properties, (2) 3,500 families and individuals are knowledgeable of the North Carolina tenant law, (3) 4,500 families and individuals understand the responsibilities and consequences of entering into a contractual agreement.

ACCOMPLISHMENTS/EVALUATION:

Due to personnel changes and limited progress in this area, the first accomplishment report will be made next year (FY '85).

\*CONTACT

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\*TITLE

\*KEYWORDS

Family Economic Stability and Security in North Carolina  
NC103  
North Carolina  
1984  
Home Economics

Legal Concerns - 1980

NC103  
NEXT

STUDY STATEMENT

Limited-resource people are not receiving the legal help they need. Institutional  
income, poor education, and unemployment with the legal process are some of the contributing  
factors. Also, research and dissemination from the legal system  
has provided an attitude of apathy and suspicion. However, an increasing number of  
relationships, conditions, and important issues for the limited-resource family.  
and important issues for the limited-resource family.  
Seminars, workshops, demonstrations, special interest meetings,  
bulletins

Limited-resource families and individuals are using the legal process and system to  
protect and expand their rights and resources. Specific targeted areas of the continuing  
family and individual progress with an intensive and directed legal process and  
properties. (1) 1,000 families and individuals are knowledgeable of the North Carolina  
reform law. (2) A 100 families and individuals understand the responsibilities and  
consequences of entering into a contractual agreement.

\*QUANTIFIED IMPACTS

Practices adopted

NO DATA FOR 1984

Knowledge gained

Behavior changed

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

\*CONTACT  
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\*TITLE

NC104 Foods, Nutrition and Health in North Carolina -  
Summary

\*TEXT

SITUATION DESCRIPTION - The incidence of many diet-related diseases in North Carolina is higher than the national average. Infant mortality rate is high. One out of five poverty households shows inadequate nutrition. Children, teens, and the elderly present unique nutritional needs. Nutritional problems are increasingly associated with substance abuse. Food buying and management are major problems. Changing food and equipment technology and shifting household roles are impacting on food management. There is renewed interest in home food preservation. Consumers have concerns about food safety.

PROGRAM SEGMENTS

- . Eating Right for Life .Food Preservation and Safety
- . Food Buying & Food Management .EFNEP

PROGRAM OBJECTIVES - . The incidence of diet-related diseases will decline and the health status of North Carolinians will improve through diet modification and physical fitness. .The nutritional and health status of individuals will improve during critical stages of their life cycle including pregnancy, infancy, childhood, adolescence and the later years. .Teens and adults will increase their awareness of substance abuse practices that contribute to nutritional imbalances such as misuse of dietary supplements, vitamins, alcohol, drugs, and caffeine. .N. C. families will maximize dollars and/or other available resources for the procurement of food and its preparation to meet nutritional needs. .The incidence of food-borne disease in N. C. will decrease. .Family members will shift their concern from perceived to real food safety problems. .EFNEP families improve their dietary level and become more efficient and effective users of available resources.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS AND EVALUATION - Data from county accomplishment reports and other sources show: 1) 27,490 participants better able to make food choices for themselves and family members. 2) 24,502 individuals changed eating habits consistent with USDA Dietary Guidelines, and 3,956 adults and youth are aware of relationship between substance abuse and nutrition. In Food Buying, reports show 11,077 individuals participated in food buying programs to maximize food dollars, yielding a net yearly savings of \$252,396; 6,906 individuals improved management skills in selection, preparation and food storage. 50% of 11,077 individuals employed outside the home improved food preparation and shopping practices. County reports indicated 10,241 individuals/families utilized safe and appropriate food preservation methods. The average value of food preserved was \$154 totalling \$1,577,144 worth of food preserved by safe and appropriate methods. Thirteen counties trained 98 Master Food Preserver volunteers. The EFNEP program enrolled 8,921 families, with a 12% of homemakers who met minimum requirement for servings in the four food groups.

FUTURE IMPLICATIONS - Dietary habits appear to be changing; however, there is a need for more intensive efforts in preventive nutrition education, especially related to diet and drug interactions, substance abuse and popular weight control regimens. Shifting household roles, changing dietary habits, and new food technology suggests more intensive efforts in helping consumers meet their dietary needs with minimum money.

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**\*KEYWORDS**

NC104  
North Carolina  
1984  
Home Economics

Foods, Nutrition and Health  
Foods, Nutrition and Health

Families, adult volunteers, elderly, 4-H youth, youth, limited-resource audiences, paraprofessionals, professionals, EFNEP, working women, young families with children

Teletip, classes, seminars, point of purchase programs, food expo, kits, packaged programs, videocassettes, computer programs, newspaper, radio, television, and Master Volunteer program.

**\*QUANTIFIED IMPACTS**

Volunteers trained	419 trained volunteers
Improved buying practices	6,868 individuals changed 2 or more food buying practices (62%). 6,309 individuals changed 1 or more purchase decisions (57%)
Decision-making improved	
Dietary practices improved as a result of Eating Right for Life programs	75% (N=31,011) use less salt in food preparation - 56% limiting sweets & candies, 66% are eating more fiber, 41% are eating a variety of food. 25% (N=31,011) report decreased blood pressure, 31% lost weight and 44% increased physical fitness - 61% (N=3,465) in Motion for Life or Weight Reduction prog., rept. weight loss & 56% increased physical fitns.
Nutritional status improved	

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St 100
1984	67.4	105				In Report

\*TITLE

NC105 Foods, Nutrition and Health - Eating Right for Life in  
North Carolina

\*TEXT

SITUATION DESCRIPTION

The incidence of diet-related diseases remains higher than the national average for heart disease, atherosclerosis, diabetes and hypertension. Obesity and dental disease are major health problems. One out of five poverty households in N. C. shows inadequate nutrition. Infant mortality rate remains one of the highest in the country. With more than 50% of N. C. mothers in the labor force, children and teens have increased responsibility for food choices. The growing elderly population presents unique nutritional needs, including diet and drug interactions. Nutritional problems are increasingly associated with substance abuse. As the science of nutrition expands, so does the market for nutritional abuse.

PROGRAM OBJECTIVES

(1) 150,000 individuals make food choices that comply with the 1980 RDA's for their age/sex group. (2) 150,000 individuals modify their food consumption habits to comply with USDA's Dietary Guidelines. (3) 50,000 youth and adults become knowledgeable of the relationship between substance abuse and nutrition. (4) 50,000 individuals become evaluators of nutrition information.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS AND EVALUATION

A nutrition education campaign aimed at preventive nutrition was initiated in 1983 entitled "Eat Right for Life". Mailed questionnaires (EV-2's) and county accomplishment reports were used to evaluate various "Eat Right for Life" programs. Of the 1395 individuals who participated in "Eat Right for Life" programs, 75% now use less salt in food preparation, 56% now limit their intake of sugar, 66% now use less fat in seasoning vegetables, 56% now select leaner cuts of meat and 61% now rely less on frying as a method of food preparation. Data indicates nutritional status improved as well -- 31% lost weight and 25% decreased their blood pressure. Of 261 participants in "Motion for Life" (youth physical fitness program), 61% lost weight and 56% increased their level of physical fitness. Results indicated that 69% of 104 pregnant women enrolled in maternal and infant programs felt their dietary habits improved during pregnancy. 1) As a result of participating in nutrition sessions, computer dietary analyses, maternal, infant and preschool nutrition education programs, 27,490 participants are better able to make food choices for themselves and family members that meet the 1980 RDA's; 2) 24,502 individuals have modified their eating habits consistent with USDA's Dietary Guidelines as a result of programs such as Motion for Life, Cooking Light, Microwave and Eat Right for Life; and 3) 956 adults and youth have become aware of the relationship between substance abuse and nutrition.

FUTURE IMPLICATIONS

Dietary habits appear to be changing; however, there is a need for more intensive efforts in preventive nutrition education, especially related to diet and drug interactions, substance abuse and popular weight control regimens.

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\*KEYWORDS

NC105  
North Carolina  
1984  
Home Economics

Foods, Nutrition and Health

Nutrition and Health

Young families with children, working women, EFNEP families, elderly, adolescents, families, low-income persons.  
Computer assisted program, demonstrations, leader training, workshops, radio, television, publications, small group sessions.

\*QUANTIFIED IMPACTS Attitude changes based on Maternal and Infant Programs

69% (N=705) expectant women had improved feeling of satisfaction - ate a good diet during pregnancy

Dietary practices improved as a result of Eating Right for Life Programs

75% (N=31,011) use less salt in food preparation - 56% are limiting sweets & candies, 66% are eating more fiber, 41% are eating a variety of food

Nutritional status improved

25% (N=31,011) report decreased bd. pressure, 31% lost weight and 44% increased physical fitness.  
61% (N=3,465) in Motion for Life or Weight Reduction programs rept. weight loss & 56% inc. phys. fitsn.

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Par	Vol	Pers	Dollar	Co in St	100
1984	25				In Report	

CONTACT  
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\*TITLE

NC106 Foods, Nutrition and Health in North Carolina  
Eating Right for Life - 1890

\*TEXT

SITUATION DESCRIPTION

The nutritional status of the limited-resource audience is generally bleaker than those of higher incomes. Twenty-two percent of poverty households report inadequate diets with nonwhites having a higher incidence of nutritional problems, as do households in rural areas. Hypertension affects 1 out of every 4 blacks and 1 out of 6 for other Americans. Obesity is very common among the females. Inactivity and poor diets are contributors. Hypertension, obesity and coronary heart disease are interrelated. The incidence of dental cavities and periodontal diseases is high. Many older persons have medical problems that are diet-related.

PROGRAM OBJECTIVES

1. 5,000 limited-resource families modify their food habits to comply with the USDA's Dietary Guidelines within their cultural food pattern.
2. 2,500 increase their routine for physical activity.
3. 2,500 increase their knowledge and skills in weight control and modify their food habits accordingly.
4. 5,000 limited-resource families/individuals adopt sound preventive nutrition and health maintenance measures to reduce medical costs.

RESOURCES INVOLVED

Head Start personnel participated in training, and will use the information with Head Start families.

ACCOMPLISHMENTS/EVALUATION

Foods & nutrition specialist conducted staff development training for 80 professional and paraprofessional Head Start personnel on the dietary goals. Evaluation results indicated a knowledge gain from 75% of the participants. On a "It's Your Choice" test, with a scale of 0-100, the group average was 70, indicating the need for more persons to make at least 3 choices to correct their present food habits. Each person selected one choice (dietary habits) to improve upon.

Conducted 1890 staff development training for 22 professionals and paraprofessionals on "Life is a Risky Business." Results indicated that each person had at least one or more risk factors (nutritional). Participants were made aware that they were able to reduce their future risk factors themselves through their own decision-making process.

FUTURE IMPLICATIONS

Work with staff members who in turn will influence others has been an important and revealing beginning. Nutrition education is obviously very important to the target audience. Continued emphasis will be given to this program.

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\*KEYWORDS

NC106  
North Carolina  
1984  
Home Economics

Foods, Nutrition and Health

Foods, Nutrition and Health

Adults, Blacks, Elderly, Families, Homemakers, Limited-Resource Audience, Paraprofessionals, Nonextension Professionals

Workshops, home-learning packet, home-teaching visits, training worksite, meetings

\*QUANTIFIED IMPACTS

Improved dietary practice 102 professional & paraprofessional staff persons

Decrease medical costs No data available to date

Increase Weight Loss No data available to date

\*EXPENDED FTE

1.0

\*VOLUNTEER

\*SCOPE

100

4

White Lake Foods & Nutrition Center  
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\*TITLE

NC107 Foods, Nutrition and Health -  
Food Buying and Food Management in North Carolina

\*TEXT

SITUATION DESCRIPTION

A major problem of North Carolina families as identified by county Extension Advisory Committees was food buying and food management. Problems cited were "increased numbers of women in the labor force," "17% of families with annual incomes less than \$8,500 and 8.5% unemployment," "shifting household responsibilities and roles," "changing food technology in the food marketplace" and "consumers' need for help with meeting dietary changes."

PROGRAM OBJECTIVES

1) 60,000 families will manage and maximize food dollars through selection of nutrient dense foods. 2) 20,000 elderly individuals and 30,000 employed homemakers will utilize management skills in food selection, preparation and storage. 3) 10,000 individuals will distinguish between conventional foods and new food products in the marketplace in making selections that meet their individual needs.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS AND EVALUATION

Food buying programs were evaluated by mailed meat buying questionnaires (EV2F4), county accomplishment reports and interviews with teletip callers. Results from the mailed questionnaires indicated 66% of 513 participants in Meat Buying programs purchase large pieces of meats and cut their own meal-size servings to save money and 59% use label information. The 513 participants reported 62% improved planning, 33% improved management, and 38% have greater skills. The participants of the meat buying programs saved an average of \$41 per month, yielding a net yearly savings of \$252,396. Twenty-seven percent of 1,395 respondents of mailed questionnaire "Eat Right for Life" (EV2F2) reported decreased grocery bills. Data from county accomplishment reports show 11,077 individuals participated in food buying programs to maximize food dollars through selection of nutrient dense foods. 6,906 individuals have learned improved management skills, changed selection, preparation, and storage practices. 50% of 11,077 individuals are employed outside the home and have used information to change food preparation and shopping practices.

For a two-week period, interviews with a sample of Best Food Buys teletip callers indicated 35% of the 40 callers used the message to select the best buys and 13% used the information for preparing a shopping list. 17% of the callers used the information for the news media.

FUTURE IMPLICATIONS

Shifting household roles, changing dietary habits, and new food technology suggests more intensive efforts in helping consumers meet their dietary needs with minimum dollars.

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**\*KEYWORDS**

NC107  
North Carolina  
1984  
Home Economics

Foods, Nutrition and Health  
Food Buying, Food Management

Families, adult volunteers, elderly, 4-H youth, youth,  
limited-resource audiences, paraprofessionals, professionals.  
Teletip, computed assisted program, conferences, demonstrations,  
newsletter, Lunch & Learn, workshops, special interest groups,  
pilot projects, video

**\*QUANTIFIED IMPACTS**

Improved buying practices	6,868 individuals changed 2 or more food buying practices. (62%)
Volunteers trained	321 trained volunteers.
Decision-making improved	6,309 individuals changed 1 or more purchase decisions. (57%)

**\*EXPENDED FTE**

**\* VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	5				In Report	

**\*CONTACT**  
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\*TITLE

NC108 Foods, Nutrition and Health in North Carolina  
Food Buying & Food Management - 1890

\*TEXT

SITUATION DESCRIPTION

The families in poverty in this state have an annual income of \$8450 for a non-farm family of four. Approximately 17% of the citizens of this state have income below this figure. Many families do not have adequate food resources even though 10.3% receive Food Stamps and 3.4% receive Aid to Dependent Children. Many families have a low education level with limited reading skills. These families need help in meal management to manage their food resources more efficiently and to maximize their nutrient return in cost/serving.

PROGRAM OBJECTIVES

1. 2,500 limited-resource families and individuals manage their food resources efficiently.
2. 2,500 limited-resource families and individuals prepare low-cost, attractive, nutritious meals with variety.
3. 2,500 limited-resource families and individuals serve at least the minimum amounts of the Basic Four Food Plan.

RESOURCES INVOLVED

None other than Extension resources.

ACCOMPLISHMENTS/EVALUATION

Four hundred twenty-nine limited-resource senior citizens, youth, and adults participated in a series of 14 workshops and received educational information on food buying and food management through a monthly newsletter and individual consultations. The participants completed an evaluation immediately after the sessions, which indicated they gained skills in grocery shopping, reducing preparation time, and ways to stretch food dollars.

FUTURE IMPLICATIONS

There are many limited-resource families and individuals who gained knowledge on food management and food buying; however, there are many others who need to improve food buying skills and eating habits. Continuation of programs will be implemented in these areas.

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**\*KEYWORDS**

NC108  
North Carolina  
1984  
Home Economics

Foods, Nutrition and Health  
Food Buying, Food Management  
Families, limited-resources, elderly, youth, homemaker, Black, American,  
Indian, paraprofessionals, professionals  
Workshops, demonstrations, newsletter, radio, newspaper

**\*QUANTIFIED IMPACTS**

Money management practices adopted

50% adopted money management practices

Nutritional status improved

35% improve nutritional status

Volunteers trained

10 trained

**\*EXPENDED FTE**

0.5

**\*VOLUNTEER**

X

**\*SCOPE**

100

4

With Help, Foods & Nutrition Consultants/Specialist  
P. O. Box 51812  
Charlotte, NC 28251-1812

\*TITLE

NC109 Foods, Nutrition and Health -  
Food Preservation and Safety in North Carolina

\*TEXT

SITUATION DESCRIPTION

The Agricultural Extension Service is an identified reliable source of home food preservation information. With renewed interest in home food preservation due to inflation and energy constraints, the need for updated and reliable information is critical. Also, concerns regarding additives, processing procedures, naturally occurring toxicants, sanitation and safe energy conservation are being voiced by consumers. Increased efforts by Extension educators to aid clientele in interpreting this information and applying it to daily living will help consumers to obtain benefits from science and technology.

PROGRAM OBJECTIVES

5,000 families preserving food at home follow correct procedures. 40,000 individuals follow safe food handling procedures in home and at group meal preparation sites.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS AND EVALUATION

Education in food preservation and safety focused on proper use of food preservation equipment, use of safe food preservation procedures, and selection of preservation preparations for reduced calorie and sodium dietary needs. Accomplishment data were collected in three ways: 1) A questionnaire (EV2F3) was mailed to 337 participants of selected food preservation education events. 52 percent (176) returned usable questionnaires. 72% gained answers to questions, 55% received help in decision making, 55% reported greater skills and 43% reported increased confidence as benefits of the experience. 46% continued to use proper procedures for processing meats/vegetables, while 42% indicated a change to the proper technique. 51% reported continued use of proper processing of pickles/relishes with an additional 38% indicating a change to the recommended procedure. 38% reported prior use of processing for jelly and jam with 35% planning to adopt the procedure. 65% used proper processing times/procedures for tomatoes. 2) Individual County Accomplishment reports contained data that at least 10,241 individuals/families utilized safe and approved food preservation methods. This data, with the EV2F3 data, were the average dollar value of preserved food per respondent was \$154, gave a calculation of \$1,577,144 of food preserved by safe and approved methods.

FUTURE IMPLICATIONS

Unsafe and nonrecommended food preservation practices are still being followed by some clientele. Fifteen percent of the respondents to the EV2F3 evaluation continued to use unsafe practices for meat/vegetables, and 21% were using outdated tomato processing times. Continued emphasis on changing these practices will be addressed in the food preservation area.

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**\*KEYWORDS**

NC109  
North Carolina  
1984  
Home Economics

Foods, Nutrition and Health

Food Preservation and Safety, Foods and Nutrition

Families, adult volunteers, elderly, 4-H youth, youth, limited resource audience, paraprofessionals, professionals  
Teletips, workshops, conferences, demonstrations, newsletters, Lunch & Learn and special interest workshops, television, slide tape, radio

**\*QUANTIFIED IMPACTS**

Food Safely Preserved	\$1,577,144.00
Practices Adopted	86% of EV2F3 respondents processing meats/vegetables properly
Volunteers trained, Master Food Preservers	98

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	18				In Report	

Carolyn J. Lindsey, Extension Food & Nutrition Specialist  
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\*TITLE

NC110 Foods, Nutrition and Health in North Carolina  
Food Preservation & Safety - 1890

\*TEXT

SITUATION DESCRIPTION

Many limited-resource families and individuals do not have the necessary resources and skills needed to conserve food for later consumption. They also need information on food safety techniques. These are major problems identified by Specialized Committees in the counties.

PROGRAM OBJECTIVES

1. 2,000 limited-resource families/individuals conserve food correctly and extend their food supply.
2. 2,000 limited-resource families/individuals practice food safety techniques to prevent food spoilage and reduce food-borne illness.

RESOURCES INVOLVED

None other than Extension staff and materials

ACCOMPLISHMENTS/EVALUATION

One hundred forty-two limited-resource families/individuals received educational information on food preservation and safety through a series of three workshops, 4,000 newsletters and 15 individual consultations (with 21 participants). Many limited-resource homemakers had a fear of using the pressure canner to preserve food safely; however, after participating in the workshops, six families purchased pressure canners and preserved food by accepted methods.

Twenty-one workshop participants reported having changed their methods of preserving food: 13 canned green beans, 6 canned tomatoes, 2 froze corn. Upon completing workshops an evaluation was conducted with participants which indicated they had learned to use correct methods of preserving food for future use.

FUTURE IMPLICATIONS

While food prices continue to rise and families increase in size, there is a need for limited-resource families and individuals to acquire knowledge and skills in this area.

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\*KEYWORDS

NC110  
North Carolina  
1984  
Home Economics

Foods, Nutrition and Health

Food Preservation and Safety

Limited-resource, black, elderly, adults, volunteers families, para-  
professionals, leader training  
Demonstrations, training workshops, home learning packet

\*QUANTIFIED IMPACTS

Food Preserved

21 individuals preserved food  
safely

Practices adopted

50% or more of safety techniques  
taught

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

100

.5

\*TITLE

Foods, Nutrition and Health  
NC111 North Carolina Expanded Food and Nutrition Education Program

\*TEXT

SITUATION DESCRIPTION

The 1980 Census data indicate 15 percent of persons and 12 percent of families in North Carolina have incomes below poverty guidelines. Four out of poverty households have children present and over half of these households have a single-female parent. Twenty-two percent of households below the poverty level have indicated inadequate nutrition. Meager resources and low-income lifestyles carry the potential for poor dietary habits and related health problems. Milk and fruits and vegetables are most often lacking in their diets.

PROGRAM OBJECTIVES

The program objectives are: (1) 40,000 enrolled EFNEP families with young children manage available money, food stamps or other resources to consume diets that meet the minimum number of recommended servings from the four food groups; (2) 40,000 youth ages 6-19 improve dietary habits as the result of participation in a series of 4-H EFNEP group activities; (3) 6,000 volunteers develop leadership skills to recruit, organize, lead and/or teach EFNEP youth and/or adults; and (4) All EFNEP units (a) increase parity of EFNEP participation in relationship to eligibility by race, (b) utilize EFNEP users in advisory capacities, and (c) develop communication and maintain cooperative relationships with other health agencies, especially Food Stamps and WIC.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS AND EVALUATION

Based on 1983-84 annual EFNEP reports, 8,921 families enrolled to improve their nutritional status. A 25% sampling of food recalls of families enrolled during the fiscal year indicated a 27% increase in consumption of one or more servings in each of the four food groups and 12% increase of homemakers consuming the recommended servings in each food group. County Accomplishment Reports accounted for 3,920 homemakers using their resources to improve dietary practices. 9,395 youth 6 to 19, participated in learning experiences designed to improve dietary habits. The EFNEP program was supported by 2,952 volunteers who received training and contributed their time and resources to the development of youth and adult groups.

FUTURE IMPLICATIONS

Reorganization based on criteria recommended by a state EFNEP study committee has reduced the number of EFNEP units in an effort to increase the effectiveness and efficiency of the program. This effort and recommendations to units resulting from county EFNEP reviews should encourage increased parity of EFNEP participants, utilization of users in advisory capacities and strengthen communications and cooperation with related agencies.

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**\*KEYWORDS**

NC111  
 North Carolina  
 1984  
 Home Economics

Foods, Nutrition and Health

Expanded Food and Nutrition Education Program

EFNEP Families, Volunteers, 4-H EFNEP Youth, Professionals,  
 Paraprofessionals  
 Video, Workshops, District, Area and Multicounty Meetings,  
 Conference, Computer Assisted Program, Home Teaching Visits

**\*QUANTIFIED IMPACTS**

Participants

8,921 homemakers

9,395 youth

Dietary practices improved

27% increase of one or more serving  
 of recommended food group servings,  
 12% increase of homemakers consuming  
 recommended food group servings.

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	19.4	105				In Report	

\*TITLE

Energy and the Living Environment in North Carolina -  
NC112 Summary

\*TEXT SITUATION DESCRIPTION

County Advisory Committees have identified several problems which affect how North Carolina families manage the environment in which they live. These include: high energy costs and increasing energy demand, using energy conservation strategies that are compatible with lifestyles, using available resources for energy retrofits and home designs, utilization of space to meet the needs of family members, and limited understanding of the value and appreciation of a well-designed home.

MAJOR PROGRAM SEGMENTS

(a) Lifestyles and Energy Management, (b) Energy Retrofits, (c) Energy Efficient Design, (d) Physiological Environment, and (e) Psychological Environment.  
PROGRAM OBJECTIVES

1. North Carolina families will use energy conservation strategies that are compatible with family lifestyles. 2. North Carolina families will plan and use energy-efficient and cost-effective conservation measures for existing homes. 3. North Carolina families will plan and select energy-efficient and cost-effective conservation measures for new homes. 4. North Carolina families select materials, styles, designs and plan arrangements for more efficient use of space in the home. 5. North Carolina families develop an understanding and appreciation for the value of a well-designed home to the psychological well being of all family members.

RESOURCES INVOLVED - Volunteers, NCSU Solar Research & Demonstration House, N. C. Dept. of Energy, Utility companies, local government weatherization agencies and Councils on Aging.

ACCOMPLISHMENTS

32,259 families used energy conservation strategies such as installing auxiliary heating devices and energy-saving window treatments, improved energy habits and management skills, and reduced water consumption. 25,438 families and youth implemented conservation measures in existing homes, used energy audits to increase knowledge, and gained knowledge of passive solar retrofit options resulting in dollar values of \$32,743 and a 10% reduction in consumption. 34,260 families and youth built or bought new homes with at least one energy/cost efficient feature and increased their knowledge of passive solar designs and other alternative energy applications resulting in dollar values of \$31,640. 3,084 families planned space(s) for children's needs and completed do-it-yourself decorating projects such as painting, rearranging furniture, making pillows and wallpapering resulting in an 81% improvement as reported by program respondents. 6,645 families, youth or elderly used space stretching techniques, multi-function furniture, and improved storage to make their homes look and live larger.

EVALUATION - County accomplishment reports, site observations, interviews, Extension Plan Service records, mailed surveys, telephone surveys, face-to-face contacts, and end-of-program surveys.

FUTURE IMPLICATIONS - More program emphasis on limited-resource families and elderly families. Families need additional help with decision-making in energy management; solar retrofits, applications and interiors; and small space living.

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\*KEYWORDS

NC112  
North Carolina  
1984  
Home Economics

Energy and the Living Environment

Lifestyles & Energy Management, Energy Retrofits, Energy Efficient Design, Physiological Environment, Psychological Environment  
Families, Elderly, Limited-Resource Families, 4-H and other Youth, Young Families  
Conferences, Special-Interest Series Workshops, Demonstrations, Lunch-Learn Series, Computer Assisted Programs, Area Meetings, Multi-County Meetings, Video Cassettes

\*QUANTIFIED IMPACTS

Knowledge Gained	26,806 families; 2,175						
Attitudes/Behavior Changed	8,882 families, elderly						
Decision-making Improved	29,438 families						
Practices Adopted	26,966 families, limited-resource or elderly						
Habitat Improved	6,481 families, 612 youth						
*EXPENDED FTE	*VOLUNTEER	*SCOPE					
Prof	Para	Vol	Pers	Dollar	Co	In St	100
1984	31.1					In Report	

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Barbara T. Henson, Judith Holt  
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\*TITLE

NC113 Energy and The Living Environment -- Lifestyles and  
Energy Management in North Carolina

\*TEXT SITUATION DESCRIPTION

Recent surveys indicate that many families would like to reduce home energy use through measures that don't compromise family lifestyles or well-being. The elderly and limited-resource families are especially concerned that reduced energy use will jeopardize their basic standard of living. With any energy conservation measure or alternative energy choice, the family is faced with compromises based on economics, safety and quality of the home environment.

PROGRAM OBJECTIVES

Families will become more proficient in investigating, evaluating and implementing energy management strategies that are compatible with family lifestyles. Expected results include: 1) 50,000 families will increase their knowledge about selection, use, and energy efficiency of auxiliary heating devices. 2) 85,000 families will implement one or more energy conservation measures to improve the thermal characteristics of windows in the home. 3) 30,000 elderly and limited resource families will select energy conservation measures and use energy management practices appropriate to maintain family well-being. 4) 40,000 families will increase their knowledge of the thermal properties of textiles to better select thermally comfortable clothing suited to their environmental conditions. 5) 60,000 households will practice energy saving laundry methods that result in achieving acceptably clean laundry.

RESOURCES INVOLVED - Councils on Aging, local utilities and volunteers.

ACCOMPLISHMENTS

1) 2,700 families in 30 counties have become more knowledgeable about selection and use of auxiliary heating devices. 2) 10,713 families gained knowledge and added one or more energy conservation measures that improved the thermal characteristics of windows in the home including 300 who incorporated 3 or more practices. 3) Approximately 578 people in 9 counties have participated in energy-saving window treatment workshops. Of those, 36% or 162 consumers have installed window shades, 36% or 208 have improved their habits of opening and closing window treatment for wise energy use, and 15% or 87 people have installed insulated window treatments. 4) 3,300 elderly and limited-resource families selected and used appropriate energy management skills to maintain well-being. 5) 1,076 families reduced water consumption by incorporating one or more water conservation measures as lowering water heater setting. One county reported that 150 families used water management practices for a total dollar value of \$1500 or \$10/family.

EVALUATION - Nine counties sent mailed surveys (EV-2, Window Treatments) to 578 people with a response rate of 44%. Other data was reported using county accomplishment reports, telephone surveys and face-to-face contacts and surveys used at the end of programs. Mail surveys (EV-2, Water Watch) were sent to 221 families in three counties with an 89% response rate.

FUTURE IMPLICATIONS - More programming emphasis needs to be directed toward limited-resource families. Evaluation tools need to be added to aggregate data in this area. Additional window energy management programs are being developed. Increased program efforts in water management could result in additional families saving dollars and water.

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**\*KEYWORDS**

NC113  
North Carolina  
1984  
Home Economics

Energy and the Living Environment

Lifestyles and Energy Management

Families, Elderly, Limited-Resource Families

Conferences, Special-Interest Series, Workshop

**\*QUANTIFIED IMPACTS**

Knowledge gained	13,413 families
Decision-making improved	3,300 families
Practices adopted	15,546 families

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	9.1					In Report	

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\*TITLE

NC114 Energy and The Living Environment - Energy Retrofits  
in North Carolina

\*TEXT

SITUATION DESCRIPTION

The U. S. Bureau of Labor indicated that energy costs increased 288.88% from 1970 to 1982. County problem reports cite increasing energy costs as a major problem for all North Carolina families during the next several years, but especially for young families, the elderly, and those with limited resources. Families need to improve decision-making skills for energy conservation strategies that stabilize or reduce home energy costs or consumption.

PROGRAM OBJECTIVES

Families will become more proficient in investigating, evaluating and implementing energy conserving measures in existing residences. Expected results include: 1) 50,000 families will implement one or more cost-effective energy conservation measures in the home, to reduce energy consumption or increase energy savings. 2) 25,000 elderly and limited-resource families will implement one or more appropriate low-cost or no-cost conservation measures in the home. 3) 20,000 families and 3,500 youth will increase their knowledge of measuring home energy use before and after implementing energy conservation measures. 4) 30,000 families will increase their knowledge of passive solar retrofit applications for the home.

RESOURCES INVOLVED - N. C. Department of Energy, utility companies, local government weatherization agencies, and volunteers.

ACCOMPLISHMENTS

8,882 families in 39 counties implemented one or more conservation measures. Eight demonstration houses were retrofitted, for a dollar value (reduced energy costs) of \$40,000. 12 counties reported 1,074 weatherization projects for a dollar value of \$16,363, and a 10% reduction in consumption. 500 families installed water-saving devices, and 221 families reported 68,283 gallons of water saved, with a dollar value of \$5,880. 3,144 elderly and limited-resource families used at least one low-cost or no-cost conservation measure in their homes. One county reported 300 limited-resource homes were weatherized, with a dollar value of \$10,500 in reduced energy costs. 1,525 families and 2,175 youth increased knowledge of measuring home energy use. 762 energy audits were reported by 11 counties, with 10% total reduction in consumption after conservation measures were used. In one county, cooperative programs with utilities result in 283 families participating in load-management programs. 4,530 families in 22 counties increased knowledge of passive solar retrofit applications for homes. Two counties reported that 11 solar water heaters were added to homes, as a result of Extension do-it-yourself workshops.

EVALUATION - Mailed questionnaire, county accomplishment reports, telephone surveys, interviews, and site observations.

FUTURE IMPLICATIONS - Additional programs are needed on cost-effective weatherization for the elderly and limited-income families. Families need additional assistance with decision-making on solar retrofit projects.

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**\*KEYWORDS**

NC114  
 North Carolina  
 1984  
 Home Economics

Energy and the Living Environment

Energy Retrofits

Families, Elderly, Limited-Resource Families, Youth

Conferences, Demonstrations, Lunch and Learn, Special Interest Series, Workshops, Computer Assisted Program.

**\*QUANTIFIED IMPACTS**

Behavior toward home energy use changes	8,882 families
Low-cost, no-cost or cost-effective conservation practices adopted	3,144 families, limited-resource families, and elderly
Decision-making about conservation or solar retrofits improved	13,412 families

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	8						In Report

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\*TITLE

NC115 Energy and The Living Environment - Energy Efficient  
Design in North Carolina

\*TEXT

SITUATION DESCRIPTION

Space conditioning, water heating, and air infiltration account for at least 80% of North Carolina home energy cost. These costs could be substantially reduced in new homes by the use of energy efficient design and building practices. County reports document that families need to improve decision-making skills to incorporate energy efficient and cost-efficient design strategies in new homes.

PROGRAM OBJECTIVES

Families will become proficient in investigating, evaluating and implementing energy efficient design strategies in new homes. Expected results include: 1) 15,000 families building new homes will include one or more energy-and-cost efficient design features in the home. 2) 30,000 families and 3,500 youth will increase their knowledge of alternative energy applications to new home design. 3) 5,000 families will live successfully with passive solar designs so that the designs function efficiently, are attractive and livable and the furnishings and their arrangements are appropriate. 4) 50,000 families buying new homes will select a home with one or more energy-and-cost efficient design features.

RESOURCES INVOLVED

Volunteers, NCSU Solar Research and Demonstration House, N. C. Department of Energy.

ACCOMPLISHMENTS

1,726 families built new homes that incorporated at least one energy-and-cost efficient design feature. A total dollar value of \$24,200 was realized in one county when 22 homes were built using Extension Plans (Energy Efficient Series). 4,739 families and 2,175 youth increased their knowledge of alternative energy applications to new home design. In one county 45 program participants planned to add solar features to home they were building.

2,140 families have increased their knowledge of passive solar design, and its functional application in relation to interior design and decorating.

6,550 families who bought new homes selected a home that had one or more energy-and-cost efficient design features. Three counties reported a dollar value of \$7,440 for six energy-efficient houses, based on energy savings estimated by utility companies.

EVALUATION

County accomplishment reports, site observations, interviews, Extension Plan Service records were used.

FUTURE IMPLICATIONS

Programs on passive solar applications and passive solar interiors are being developed. Extension House Plans are being revised for maximum energy efficiency. An evaluation tool needs to be developed in this area.

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**\*KEYWORDS**

NC115  
 North Carolina  
 1984  
 Home Economics

Energy and the Living Environment

Energy Efficient Design Applications

Families, Youth

Conferences, Special Interest Series, Area Meetings, Multi-County Meetings, Workshops, Computer Assisted Programs.

**\*QUANTIFIED IMPACTS**

Increased knowledge of energy-efficient design features	13,393 families 2,175 youth
Decision-making on conservation and solar applications improved	10,416 families
Conservation and solar practices used	8,276 families

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	7				In Report	

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 William S. Hamrick, Extension Director, Specialist  
 Sandra A. Bellinger, Extension Housing Specialist

\*TITLE

NC116 Energy and The Living Environment - Physiological Environment:  
North Carolina Homes

\*TEXT

SITUATION DESCRIPTION

Housing decreased in size 9% between 1978 and 1980. By the mid-80's the average size house will be 1,400 - 1,500 sq. ft. This downsizing increases the importance of functional, efficient, and attractive interiors. Many families who move into downsized housing especially older adults find adapting to the reduced space physiologically difficult.

PROGRAM OBJECTIVES

1) 60,000 families use one or more techniques to make the space in their home appear larger and/or become more efficient through the selection and arrangement of furnishings, through decorating techniques and through improved management or addition of storage. 2) 25,000 elderly adults adapt physically to the reduced living space in downsized housing. 3) When buying furniture for their home, 20,000 families choose furniture that is multi-functional and adapts well to their changing needs.

RESOURCES INVOLVED

NCSU Solar Research and Demonstration House, N. C. Department of Energy and Volunteers.

ACCOMPLISHMENTS

2,583 families in 20 counties used one or more techniques to make the space in their home appear larger and function more efficiently. 326 elderly adults in three counties gained knowledge of decorating techniques that make small spaces look and live larger. 2,310 families in ten counties chose furniture that is multi-functional, and adapts well to their changing needs. 612 4-H youth who participated in the home environment project and demonstration used space in their room more efficiently. 814 families in 8 counties improved their storage through remodeling of bathrooms and kitchens for an estimated total dollar value of \$21,200 or \$200/family.

EVALUATION

Telephone surveys, interviews and county accomplishment reports were used to compile the data.

FUTURE IMPLICATIONS

A program on small space living for the elderly is in the development stage. More emphasis on this audience and multi-functional furniture use will occur in 1985-87. Improved data collection methods need to be incorporated.

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\*KEYWORDS

NC116  
North Carolina  
1984  
Home Economics

Energy and the Living Environment

Living Environment, Storage, Decorating Small Spaces

Families, older adults, 4-H youth

Special interest meetings, series of classes

\*QUANTIFIED IMPACTS

Space expanded through decorating and improved storage techniques 3,397 families; 612 4-H youth

Better furniture decision-making 2,310 families

\*EXPENDED FTE

\*VOLUNTEER

\*SCOPE

Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	4				In Report	

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\*TITLE

NC117 Energy and The Living Environment - Psychological Environment:  
North Carolina Homes

\*TEXT

SITUATION DESCRIPTION

Technological advances in the 80's will make it possible to live, work, play and shop at home. Thus, the home is emerging as the main arena, yet its size is decreasing. Creating a functional, yet aesthetically pleasing and comfortable environment will be a challenge. Primary concerns will include the quality of the interior environment, space for privacy, space to encourage growth and development of children and the psychological adjustments of older adults to smaller spaces.

PROGRAM OBJECTIVES

- 1) 40,000 young families with children develop space(s) in the home to accommodate the personal needs and growth of both parent(s) and children.
- 2) 80,000 families make decorating changes in the interior of their home and recognize the importance of an attractive and comfortable environment to their own well-being.
- 3) 25,000 older adults adapt psychologically to the reduced living space in downsized housing.

RESOURCES INVOLVED

Volunteers

ACCOMPLISHMENTS

2,523 families with children developed space(s) in the home to accommodate the personal needs of children in the home. 693 families in nine counties who completed do-it-yourself decorating projects indicated that painting and changing the color (22%), rearranging furniture (13%), making and using pillows (12%), and wallpapering (9%), made the most noticeable changes in their rooms. 81% or 561 indicated that their families liked the rooms better after the change, while 3% liked the room less and 5% had not noticed a change.

EVALUATION

Surveys (EV-2, H-6 Budget Decorating) were mailed to 693 families in 9 counties with a return rate of 44%. County accomplishment reports, county developed surveys and telephone surveys were also used for evaluation.

FUTURE IMPLICATIONS

A program in the developmental stages with an evaluation tool will be used to obtain Objective 3, which to this date has no data.

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**\*KEYWORDS**

NC117  
 North Carolina  
 1984  
 Home Economics

Energy and the Living Environment

Interior Decorating, Psychological interior environment, Space for Privacy, Child Space  
 Young families with children, older adults, 4-H and other youth

Video cassettes, special interest programs and series

**\*QUANTIFIED IMPACTS**

Spaces for children improved 2,523 families  
 Decorating changes more aesthetically pleasing 561

**\*EXPENDED FTE**

Prof 3  
 1984

Para

Vol

**\*VOLUNTEER**

Pers

Dollar

**\*SCOPE**

Co in St 100  
 In Report

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**\*KEYWORDS**

NC118  
 North Carolina  
 1984  
 Home Economics

Family Strengths and Social Environment

Family Interpersonal Relationships, Stress, Self-esteem,  
 Parenting Education, Adult Growth and Development  
 Adults, parents, elderly, youth, families, child care workers

Workshops, camps, computer programs, packaged programs, home  
 study courses, retreats, newsletters, meetings, mass media

<b>*QUANTIFIED IMPACTS</b>	Skills learned	4,200
	Skills practiced (Communication/interpersonal)	2,651
	Skills practiced (coping/stress)	2,980
Skills learned (self-esteem)	61 youth	1,324 adults
Knowledge gained (parenting education)	1,448 youth, 6449 parents, 4500 child care workers, 1196 working women, 149 community leaders	
Skills acquired (parenting education)	2689 youth, 925 parents	
Information used (preparing for retirement)	1,898 adults	
Skills practiced (independent living)	1262 older adults	
Alternatives promoted (independent living)	30 counties	

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	22.4					In Report	

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\*TITLE

NC119           Family Strengths and Social Environment  
                  Family Interpersonal Relationships: North Carolina

\*TEXT

SITUATION DESCRIPTION

The need for educational programs related to skills in interpersonal relationships is made clear by a few indicators. For more than 20 years the trend has been upward for both marriage and divorce for every 100 marriages in North Carolina. Comparing marriages and divorces, North Carolina had 60 divorces for every 100 marriages in 1980, an increase of 114% since 1970. Poor relationships between parents and children is a factor in more than 700,000 youth under 18 years of age who leave home each year. Add those who return the same day and the figure is over a million. Another indicator is the fact that most American men go through young adulthood and midlife without developing intimate relationships with family members or friends. They deny feelings, keep their distance from children and often let their marriages grow stale. Family and household members can enhance strengths they already have by participation in educational programs related to interpersonal relationships.

PROGRAM OBJECTIVES

10,000 persons learned and 7,000 individual family members utilize recommended skills related to communication and interpersonal relationships within households and families.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS

Twenty-eight counties reported teaching interpersonal relationships through a wide variety of groups and classes, including organized clubs, adult singles groups, family conferences and retreats, marriage enrichment groups, and older adult groups. Of a total audience of 7,047, there were 4,200 reported to have learned communication or interpersonal skills, and 2,652 reported to have used such skills.

EVALUATION

Questionnaires were mailed to participants two to four months after the meeting or class. Other counties used telephone surveys and reports given at meetings.

FUTURE IMPLICATIONS

The variety of educational programs related to interpersonal relationships needs to be evaluated more systematically on the local level.

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**\*KEYWORDS**

NC119  
 North Carolina  
 1984  
 Home Economics  
 Family Strengths and Social Environment  
 Interpersonal Relationships, Communication, Human Development  
 Homemakers, families, elderly adults, single adult groups, couples, adolescents, women  
 Newlywed packet, classes and retreats aimed at specific groups, area meetings, seminars

**\*QUANTIFIED IMPACTS**

Communication skills learned 4,200  
 Interpersonal skills practiced 2,652

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	3.4					In Report	28

Extension Specialist, Human Development  
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\*TITLE

NC120            Family Strengths and Social Environment  
                 Stress: North Carolina

\*TEXT

SITUATION DESCRIPTION

Evidence of the pressures faced by North Carolina family members are abundant. Unemployment in North Carolina averaged over 9% during the early 1980's. Further economic stress is shown by the fact that farm income, after inflation, fell by one-third from 1979-82.

More than one of every two North Carolina couples were in the labor force and single-parent families increased 80% between 1970-1979. Confirmed cases of child abuse and neglect were averaging over 11,000 in the early 1980's, including 12 deaths. Admissions to public mental health programs more than doubled during the 1970's partly due to moving many patients to or near home from big institutions. Adolescent suicide and suicide in general has continued to rise since 1965.

Substance abuse in North Carolina is another evidence of stress. During one recent year there were nearly 50,000 arrests for driving under the influence of alcohol, and alcohol contributed to approximately 50% of all highway deaths in the state. As for drug abuse, 17% of North Carolina youth, aged 12-17, were current users in 1981. For age 18-25, four out of ten were current users. In the rural areas three out of ten young adults, aged 18-25, smoked marijuana in 1981.

These evidences strongly suggest that North Carolina family members can profit by developing habits and skills that deal effectively with stress upon individuals and households.

PROGRAM OBJECTIVES

10,000 family and household members use coping skills to reduce or deal with the personal and social stresses of life.

RESOURCES INVOLVED

In addition to support from Extension Homemakers clubs, the stress programs involved volunteer teachers and cooperation from private counselors, public school counselors, single adult organizations, departments of health and social services, senior citizens' groups, civic clubs, church groups, and agents who worked across county lines.

ACCOMPLISHMENTS

Among 5,862 participants in a variety of programs on stress, 2980 reported using coping skills. A followup mailed questionnaire revealed that respondents (146 of 543) used these means to reduce stress in household or family; made an important decision as a group (77%); changed expectations (75%); increased family communication (66%); and have a quiet time each day, resulting in 73% lowering stress level.

EVALUATION - Questionnaires were distributed at meetings (EV-1), administered by telephone, or mailed 2 to 4 months following classes (EV2-D3).

FUTURE IMPLICATIONS - Continued requests for training in coping with stress indicates a need to take a variety of different approaches in teaching the same essentials of stress management.

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**\*KEYWORDS**

NC120  
 North Carolina  
 1984  
 Home Economics

Family Strengths and Social Environment  
 Stress, Family Stress, Farm Family Stress  
 Adults, working women, families, farmers, homemakers  
 Seminars, area meetings, special interest meetings, computer assisted program

**\*QUANTIFIED IMPACTS**

Total participants 5,862  
 Stress coping skills practiced 2,980 individuals

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	5					In Report	51

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\*TITLE

NC122 Family Strengths and Social Environment  
Self-Esteem: North Carolina

\*TEXT

SITUATION DESCRIPTION

Lack of self-esteem is related to teen pregnancy, human and substance abuse and failure to grow and develop throughout life. Many parents lack understanding of their role in the development of the self-esteem in their children and may be lacking in self-esteem themselves, making it hard to foster self-esteem. Children and youth with poor self-esteem may find it difficult to grow into mature adults. Unemployment and underemployment and high expectations of society reduce self-esteem. Older adults may lack self-esteem due to poor acceptance of aging.

PROGRAM OBJECTIVES

3,000 family and household members practice specific techniques designed to enhance the self-esteem of themselves and others.

RESOURCES INVOLVED

Volunteer leaders

ACCOMPLISHMENTS

County accomplishment reports indicated that 61 youth and 1324 adults gained skills in self-esteem as a result of Extension programs.

Through follow-up mailed questionnaires (169 of 649) in 7 counties, it was documented that of the participants attending programs on self-esteem:

- . 71% improved their own self-esteem by working on a developmental task;
- . 64% learned how to enhance their own self-esteem and gained new ideas;
- . 60% improved their outlook on the future;
- . 58% increased their self-confidence;
- . 57% helped someone to be a successful person;
- . 68% showed appreciation to an older adult and
- . 53% showed appreciation to a child to enhance their self-esteem.

EVALUATION

Participant response (EV-1) and mailed questionnaires (EV2, D-3) were used.

FUTURE IMPLICATIONS

More children and youth should be reached with educational programs on self-esteem.

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**\*KEYWORDS**

NC122  
 North Carolina  
 1984  
 Home Economics, 4-H

Family Strengths and Social Environment

Self-esteem

Family and household members

Meetings, leader training

**\*QUANTIFIED IMPACTS**

Skills learned 1324 adults and 61 youth

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	6					In Report	

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\*TITLE

NC123            Family Strengths and Social Environment  
                 Parenting Education: North Carolina

\*TEXT           SITUATION DESCRIPTION

Parenting education can improve skills and parenting satisfaction and reduce such problems as educational failure, stress and child abuse. Following are evidences of an increased need for parenting education. The number and rate of births in the state rose during 1982. Of all babies born that year, 20% were born out of wedlock. During 1981, of babies born to mothers under age 20, 49.9% were out of wedlock. The infant mortality rate remained at 13.4 in 1982, still among the highest in the nation. For the year beginning July 1, 1981, there were 10,961 confirmed cases of child abuse and 13 deaths. Among North Carolina families with own children under 18 years of age, 19.2 percent were single-parent families in 1980. The percent of children living in stepfamilies may equal the national incidence of 12.5% or one of every eight. During 1981, 55% of all North Carolina women were in the labor force; over 58% of those working had children under six. Less than half of the 270,300 children of working mothers were in child care arrangements that were licensed or certified.

PROGRAM OBJECTIVES

15,000 youth, expectant parents, parents with children of all ages, parents rearing children in limited-resource or non-nuclear families and volunteer leaders acquire skills and gain knowledge in child care, growth, and development. 2,000 working parents, child care workers and community leaders implement techniques to deal effectively with family-work related problems.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS - Through the use of follow-up mailed questionnaires, it was demonstrated that: of youth (39 of 79) evaluating babysitting training in four counties, 74% acquired skills, 77% gained knowledge and 59% changed attitudes; of respondents (17 of 56) in three counties following classes for expectant parents and parents of infants, 94% reported they gained knowledge, 88% received new ideas, 65% improved planning skills, 71% increased satisfaction in their child, 76% changed expectations of children's abilities, 100% developed more confidence in themselves as parents, 65% developed more patience with their child, 71% provided more stimulation for the child and removed potential safety hazards, and 65% have considered changes in child rearing practices needed to accommodate a child in the next developmental stage. According to 51 county accomplishment reports, Extension efforts regarding child care, growth and development resulted in: 2689 youth acquiring skills through 4-H projects, 1448 youth gaining knowledge through workshops/classes, 749 parents of young children acquiring skills by attending classes, 6449 parents gaining knowledge through newsletters, 4500 child care workers gaining knowledge through newsletters, 1196 working women gaining knowledge through newsletters, 176 single parents and stepparents acquiring skills through classes/workshops, and 149 leaders gaining knowledge.

EVALUATION - County input data and follow-up mailed questionnaires (EV2, D-1 and a pilot form) were used.

FUTURE IMPLICATIONS - More parents should be reached in the prenatal and infancy stages of children.

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**\*KEYWORDS**

NC123  
 North Carolina  
 1984  
 Home Economics, 4-H

**Family Strengths and Social Environment**

**Parenting Education**

Youth, expectant parents, parents in non-nuclear families, working parents, child care workers, community leaders  
 Classes, computer assisted programs, workshops, Teletip, radio, newspapers, newsletters, independent study, projects, volunteer education

**\*QUANTIFIED IMPACTS**

Skills acquired 2689 youth and 925 parents  
 Knowledge gained 1448 youth, 6449 parents, 4500 child care workers, 1196 working women and 149 community leaders

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	7						In Report

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\*TITLE

NC124

Family Strengths and Social Environment in North Carolina  
Parenting Education - 1890

\*TEXT  
SITUATION

The Extension advisory committees ranked lack of effective parenting skills among the top 10 problems of limited-resource families in North Carolina. Research has shown that a basic knowledge of child care, growth and development helps parents understand their children better, that parents can learn more constructive methods and techniques for handling child rearing concerns and problems, and that parenting education reduces problems such as educational failure and child abuse. Limited-resource parents, especially those with young children, need information on child care, growth and development, and successful parenting practices.

OBJECTIVE

Four-thousand five-hundred parents, grandparents, youth and adolescent parents increase knowledge in child care and child growth and development and practice skills in effective parenting.

RESOURCES INVOLVED

Advisory leadership committee, Health and Social Services Department personnel, and volunteer leaders.

ACCOMPLISHMENTS/EVALUATION

Eight-hundred fifty-nine individuals (81% or 694 limited-resource persons) participated in a variety of learning experiences on child care and child growth and development.

A total of 353 persons (including 78% or 273 individuals who were limited-resource parents and grandparents) participated in a series of sessions on child growth and development. Through a survey which was mailed to participants four to six months after the sessions, 82% or 268 of the participants reported that they had increased their knowledge and understanding of the developmental task and stages of child growth and development. Sixty-seven percent or 235 participants noted that they were more observant of their children and indicated that they have attempted to use information received to interact with their children. Of the 257 (139 participants were from limited-resource families) youths who participated in babysitting workshops 75% or 192 increased knowledge (evaluated by pre and post tests) of the characteristics and responsibilities of a successful babysitter. A telephone survey of a random sample revealed that 13% of the participants had used the information received in the workshops. Through feed-back immediately following sessions on winning ways to communicate with and discipline children 74% of the 259 participants indicated that they had learned something new and that they planned to practice some of the techniques learned in the sessions.

FUTURE IMPLICATIONS

While several hundred parents, grandparents and youths are more knowledgeable about child growth and development, there is a crucial need to continue efforts in this area. Also the increasing number of child abuse cases suggests that parents and significant others need to improve knowledge and skills in dealing with children.

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**\*KEYWORDS**

NC124

North Carolina

1984

Home Economics

Family Strengths and Social Environment

Parenting education, child care, child growth and development

Young families with children, elderly, limited-resource families, youth, adolescent parents

Home teaching visits, small group sessions, radio broadcasts, newsletters

**\*QUANTIFIED IMPACTS**

Increased knowledge 460 parents and grandparents

Practices changed 426 parents and grandparents

Practice change and knowledge gain 192 youth

**\*EXPENDED FTE**

3 2.5%

**\*VOLUNTEER**

7

**\*SCOPE**

100

5

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\*TITLE

Family Strengths and Social Environment  
Adult Growth and Development: North Carolina

NC125

\*TEXT

SITUATION DESCRIPTION

North Carolina is changing from a youth population to one of middle-aged and older people. By 1980 there were 1,234,043 people between the ages of 40 and 60, or 22.5 percent of our state population. These people need financial, social and emotional preparation for retirement. The over 60 group in North Carolina numbered 792,420 in 1980 with three-fourths of these in the "young-old" age group of 61-75 years of age. Training in skills for independent living can help these mature citizens adjust to many emotional, physical, and economic changes they have to make. The over 75 age group in North Carolina increased 111 percent in the past 20 years and is predicted to increase 121 percent in the next 20. The 80 and over age group will be the fastest growing segment of the population in the next 20 years. The over 75 age group will increase the demand for health care services, alternatives to institutional care, and meaningful social interaction and involvement.

PROGRAM OBJECTIVES

7,000 adults use information about financial, social and emotional preparation for retirement. 8,000 older adults use management, health and relationship skills to prolong independent living. 40 county groups cooperate to promote alternatives to institutional care.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS

Out of a total audience of over 7,546, 1898 were reported to have used information about financial, social, or emotional preparation for retirement. In addition, 1,262 older adults used management, health and relationship skills to prolong independent living. Special groups or regularly organized groups in 30 different counties cooperated with other groups to promote alternatives to institutional care.

EVALUATION

Questionnaires and telephone survey of senior citizens groups, retreats, camps, and organized club meetings were utilized. Returns varied from 15 to 51 percent.

FUTURE IMPLICATIONS

During the next three years the work in adult growth and development will be broadened to include development of young adults and adults during the midlife period.

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**\*KEYWORDS**

NC125 Family Strengthening and Social Environment  
 North Carolina North Growth and Development  
 1984  
 Home Economics

Family Strengths and Social Environment

Adult growth, midlife, retirement, skills for independent living

Adults, midlife adults, elderly

Workshops, small group sessions, leader training

**\*QUANTIFIED IMPACTS**

Retirement information used

1898

Independent living skills practiced

1262

Alternatives to institutional care promoted

Separate groups in 40 counties

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	1						In Report

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\*TITLE

NC127 Volunteerism/Leadership Development in North Carolina -  
Summary

\*TEXT

SITUATION DESCRIPTION

North Carolina has developed a strong Extension Home Economics volunteer leadership program through North Carolina Extension Homemakers, Advisory Leadership systems, Master Volunteer Programs, 4-H youth leaders, EFNEP, CVU, VEEP programs, etc. However, 1) Volunteers need to be made more visible and contributions made by volunteers to improve the quality of life need to be recognized. 2) Volunteers do not receive adequate training to carry out specific jobs and/or responsibilities, and there is no method of matching volunteers with their specific interests and skills. 3) Volunteers may not recognize personal growth that takes place through volunteer efforts and often fail to understand the role and relationship between the volunteer and the professional staff members. 4) The present Extension Homemaker structure is not designed to encourage membership of the young, middle-aged and working homemaker groups.

PROGRAM SEGMENTS

1) Volunteer Visibility and Recognition, 2) Volunteer Leadership Development and Expertise, and 3) North Carolina Extension Homemakers Association.

PROGRAM OBJECTIVES - 1) Citizens in North Carolina will increase awareness of the leadership opportunity, outreach efforts and educational information provided through Home Economics Extension volunteer programs and recognition of volunteer contributions will be expanded. 2) Extension Home Economics volunteers will have a high level of expertise in dissemination of educational information toward improving the quality of life of North Carolina citizens. 3) The Extension Homemakers Association will build flexibility in the present organizational structure to encourage involvement of new leadership and full participation of present members.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS - Citizenry (4,872,368 persons) in North Carolina has been made aware of the Extension Home Economics Volunteer Program through mass media. Special emphasis has been placed on recognition of the volunteer and 5,718 volunteers have been recognized publicly. 71,875 volunteers were involved in home economics program planning, implementation and/or evaluation. 8,503 volunteers completed and used group leadership skills. 19,716 volunteers improved skills and demonstrated expertise at local EH meetings. The North Carolina Extension Homemakers Association has progressed toward building flexibility into the existing structure by participation and support of Extension Homemakers/Extension Service Task Force recommendations.

EVALUATION - Home Economics survey reports (EV-3), agents' accomplishment reports, a mailed questionnaire, telephone interviews, group discussions and input and an open forum.

FUTURE IMPLICATIONS - Continue to support and emphasize highly visible Extension Home Economics Volunteer Program with emphasis on recognition, Master Volunteer and leader training concept, and Extension Homemaker Programs that will meet need of homemakers of all ages.

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**\*KEYWORDS**

NC127  
 North Carolina  
 1984  
 Home Economics

Volunteerism/Leadership Development

Volunteer Visibility and Recognition

General public, Extension Homemakers Association volunteers, key leadership

Set up task force, mass media campaign, Master Volunteer program, seminars, etc.

**\*QUANTIFIED IMPACTS**

Volunteers completing program	71,875 persons
Citizen Awareness	4,872,368 persons
Volunteers recognized	5,718 persons
Volunteer expertise improved	28,219 persons
Involvement of new EH Leadership	76 persons

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	20.4			1984 34,253	1,918,920.00	In Report	

\*TITLE

NC128

Volunteerism/Leadership Development in North Carolina  
Volunteer Visibility and Recognition

\*TEXT

SITUATION DESCRIPTION

Volunteerism has been identified nationally as a major program emphasis. In North Carolina there is a lack of statewide working documentation of volunteerism and leadership development. Volunteers need to be made more visible in Extension Home Economics programs and contributions made by volunteers to improve the quality of life need to be recognized. Volunteers need to be more actively involved in program planning, program implementation and evaluation in home economics.

PROGRAM OBJECTIVES

1) 1,000,000 North Carolina citizens will become aware of Home Economics volunteer programs, 2) 260,000 Home Economics volunteers will be recognized and participate in opportunities involved with the Extension Home Economics Programs.

RESOURCES INVOLVED - Mass media/public service - newspaper articles, radio programs /spots, TV programs/spots, volunteer time, etc.

ACCOMPLISHMENTS

Awareness of the Extension Home Economics Volunteer Program was to 4,872,368 citizens in North Carolina through mass media/public service efforts. Over seventy thousand (71,875) volunteers were involved and participated in home economics program planning, implementation and/or evaluation through Advisory Leadership Systems, Master Volunteer programs, lay leaders, Extension Homemakers, EFNEP, etc. 4,187 volunteers were recognized through special recognition activities and events for one or more achievements in the area of leadership development, membership, volunteer hours expended, outreach efforts and other individual special achievements. In addition, 13 counties in North Carolina have implemented a Master Food Preserver Program with 73 volunteers completing the requirements of the program while 25 volunteers (100% of 1983 graduates) returned for update training as designed in program. These 25 Master Volunteers currently reported outreach hours in excess of 2,000 hours of individual and group instruction and interaction (3 times that required by program design). Eight (8) volunteers received CVU credits (1188 volunteers currently involved in pilot program). From 19 counties, home economics agents reported recognizing volunteers through publicized volunteer resource profiles featuring 1,425 volunteers with special expertise in various area of home economics.

EVALUATION - Home Economics Evaluation survey reports (EV-3) with agent reported data (78% responding) and agent accomplishment reports (93% reported Volunteerism /Leadership Development as a major program) were utilized to obtain data for evaluation purposes.

FUTURE IMPLICATIONS - Continue to support and work toward a highly visible Extension Home Economics Volunteer Program with emphasis on increasing recognition of individual volunteers.

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**\*KEYWORDS**

NC128  
 North Carolina  
 1984  
 Home Economics  
 Volunteerism/Leadership Development  
 Volunteer Visibility and Recognition  
 General public, volunteers, lay public  
 Mass media, resource profiles, informed key leadership

**\*QUANTIFIED IMPACTS**

Volunteers completing programs 71,875 persons  
 Citizen awareness 4,872,368 persons  
 Volunteers recognized 5,718 persons

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St
1984	1.5			11,160	\$446,400	In Report

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\*TITLE

NC129 Volunteerism/Leadership Development in North Carolina  
Volunteer Leadership Development and Expertise

\*TEXT

SITUATION DESCRIPTION

North Carolina has established a mechanism for volunteer leadership involvement through such systems as the Advisory Leadership System, Master Volunteer programs, 4-H youth leaders, Extension Homemakers and EFNEP, as well as many volunteers who serve as resource people to the programs. Each of these systems provide opportunity to develop leadership skills. However, volunteers do not receive adequate training to carry out specific jobs and/or responsibilities and there is no method for matching volunteers with their specific interests and skills.

PROGRAM OBJECTIVES

1) 10,000 Volunteers complete Master Volunteer program in specific home economics subjects; 2) 24,000 Leaders trained in group leadership skills; and 3) 48,000 Leaders improve their skills in home economics subject matter.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS

Four Extension Home Economics Master Volunteer Programs are in different stages of progress in North Carolina. The Master Food Preserver was piloted in 1983 with 25 volunteers completing the requirements for graduation. 100% of these Master Volunteers returned for update training in 1984 reporting in excess of 2,000 contact hours with individuals and groups utilizing a variety of learning strategies and situations. Thirteen counties have implemented a Master Food Preserver Program with 73 volunteers completing the requirements of the programs. One-third of counties have expressed interest in participation in this program by 1985.

The Master Money Manager Program is written and will be piloted in January 1985 in four counties. The Master Volunteer in Grandparenting is completed and will be introduced in November 1984, while the Master Volunteer in Yarn Skills is being piloted in 6 counties across the state.

8,503 volunteers have completed group leadership skills training including effective group interaction, group dynamics, parliamentary procedure, motivation techniques, etc., and practice one or more of these concepts in Extension Homemaker, EFNEP, public and community service organizations, city and county government, etc. The program will be offered on a broader statewide basis in 1985-87. 19,716 volunteer leaders improved their skills in home economics subject matter areas through leader training efforts and demonstration expertise at local and county Extension Homemaker meetings.

EVALUATION - Home Economics survey reports (EV-3) with agents reported data (78% responding) and agent accomplishment reports (93% reported volunteerism and leadership development as a major program) were utilized to obtain data for evaluation purposes.

FUTURE IMPLICATIONS - Emphasis to be placed on implementation of Master Volunteer Programs in three program areas being piloted in 1985; group leadership training seminars and Extension Homemaker leader training efforts.

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**\*KEYWORDS**

NC129  
 North Carolina  
 1984  
 Home Economics

Volunteerism/Leadership Development

Volunteer Leadership Development and Expertise

Home Economics Volunteer Leaders

Training in Leadership Development

**\*QUANTIFIED IMPACTS**

Leadership skills improved	8,503 leaders
Volunteers completing "Master" program	98 persons
Subject-matter skills improved	19,716 persons

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	7.5			19,663	\$786,520.00	In Report	

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\*TITLE

NC130 Volunteerism/Leadership Development in North Carolina  
North Carolina Extension Homemakers Association

\*TEXT

SITUATION DESCRIPTION

The North Carolina Extension Home Economics program has developed strong volunteer leadership through the Extension Homemakers Association. The Extension Service recognizes this organization as an important vehicle for the delivery of home economics information to North Carolina families. However, volunteers may not recognize personal growth that takes place through volunteer efforts and often fail to understand the role and relationship between the volunteer and the professional staff members. Almost 75% of Extension Homemakers are 50 years old or older. Implications from the 1982 research report conducted in North Carolina indicated that there is a need toward increasing membership of the young, middle-aged, and working homemaker groups. The present Extension Homemakers Association structure does not promote leadership by these groups.

PROGRAM OBJECTIVES

1) 1,600 Key Extension Homemaker leaders recognize the need for increased flexibility in the present Extension Homemakers organizational structure. 2) 400 Different and younger (less than 50 years of age) Extension Homemakers will hold key leadership roles at the county, district and state levels.

RESOURCES INVOLVED - Volunteer leaders

ACCOMPLISHMENTS

An Extension Home Economics Task Force has been created to address concerns and chart future for the partnership of the North Carolina Extension Homemakers Association and Extension Home Economics. Six issues have been identified with input from 101 county liaison agents and 590 Extension Homemakers. Recommendations are in the process of being made to Extension Administration and Extension Homemakers Board of Directors. A liaison agents notebook has been compiled and distributed to aid in transition and increase flexibility into present structure. 755 different Extension Homemakers have joined the Extension Homemakers Association, with 76 members less than 50 years of age and in leadership roles in the organization. A slide tape presentation and membership brochure have been developed with special emphasis toward the young, middle-aged and working homemakers.

EVALUATION

A mailed questionnaire, telephone interviews, group discussion and input and an open forum at Extension Homemakers State Council Meeting have been utilized. The success of objective will be measured in 1985 by the acceptance level of each group.

FUTURE IMPLICATIONS

Identify potential new and younger Extension Homemakers by meeting their needs as well as continuing to meet the needs and interests of the mature homemaker. Encourage support of recommendations from Extension Homemaker/Extension Service Task Force.

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**\*KEYWORDS**

NC130  
 North Carolina  
 1984  
 Home Economics

Volunteerism/Leadership Development

North Carolina Extension Homemakers Association

North Carolina Extension Homemakers

Developing a memorandum of understanding, defining of agents roles and expanding leadership and involvement

**\*QUANTIFIED IMPACTS**

Involvement of different and younger EH members 76 Extension Homemakers

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	Pers	Dollar	Co in St	100
1984	11.4			1984 3,430	686,000.00	In Report	

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4-H & YOUTH DEVELOPMENT ACCOMPLISHMENT REPORTS

<u>No.</u>	<u>Title of Major Program for which Accomplishment Report is attached</u>
NC131	Developing Life Skills Through 4-H in North Carolina
NC132	Building Self-Concept Through 4-H in North Carolina
NC133	Developing Adult 4-H Volunteers in North Carolina
NC134	Developing 4-H Youth Volunteers in North Carolina
NC135	Networking 4-H and Community in North Carolina
NC136	Managing 4-H EFNEP in North Carolina
NC137	Programming 4-H in Standard Metropolitan Statistical Areas in North Carolina
NC138	Involving Families in 4-H in North Carolina
NC139	Delivering 4-H to 6 to 8 Year Old Youth in North Carolina -1890 & 1862
NC140	Programming 4-H for Latch Key Youth in North Carolina
NC141	Organizing 4-H in Public Housing in North Carolina -1890
NC142	Creating Awareness of 4-H among Youth in North Carolina
NC143	Developing Awareness of 4-H among Public in North Carolina

\*TITLE

NC131 Developing Life Skills through 4-H in North Carolina

\*TEXT

SITUATION DESCRIPTION

Development of life skills is the goal of 4-H. The life skills that research indicates are most critical could be classified as (1) competency - developing skills and knowledge; (2) coping - dealing with stress; (3) contributory - increasing sharing skills. Experts agree that secondary schools are not meeting the challenge of providing transitional skills for adolescents in our post-industrial society. Life skills are learning through participation in one or more of the delivery modes used in North Carolina. These include community clubs, project clubs, special interest groups, camping and retreats. The special interest mode is used primarily for outreach and recruitment of new members. Emphasis must continually be placed on organizing new community and project units and maintaining existing units to have a quality program statewide.

PROGRAM OBJECTIVES

1. All (100%) of 4-H club members to participate in life skills programs by 1987
2. At least 50% of the state's 4-H club members to learn the three basic life skills (competency, coping, contributory) by 1987.
3. One-third of 4-H members to learn a more complex level of skill category as tenure in 4-H increases.

RESOURCES

More than 30 volunteers forming 4-H expansion committees in eight counties were involved to strategically map an increase in the number of 4-H club units.

ACCOMPLISHMENTS

Through participation in project work related to agricultural and home economics subject matter areas, youth gained in overall life skill development. For 1983-84, almost 99,000 4-H youth enrolled in over 150,000 4-H projects and 2,100 participated in demonstrations at district and state levels. Over 70,000 youth participated in special interest programs related to areas such as fire safety, first aid and health gaining competencies in various coping skills, while 3,221 youth developed contributory skills by serving as 4-H youth leaders and 737 received specialized training in leadership.

EVALUATION

Primary data has been acquired through ES-237 reports. A more detailed survey of life skill development is in process.

IMPLICATIONS

Renewed emphasis on project enrollment and greater involvement of youth as leaders is strongly indicated.

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**\*KEYWORDS**

NC131  
 North Carolina  
 1984  
 4-H and Youth

Youth development

Life skills

4-H youth

Publications, workshops, clubs, special interest

**\*QUANTIFIED IMPACTS**

Youth participating in relevant programs 98,901  
 Youth develop skills in leadership 3,221  
 Youth develop positive self-concept Not available

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol	Co in St
1984 20.4	1.3	20.0	8,000 200,000.00 In Report 101

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\*TITLE

NC132 Building Self-Concept through 4-H in North Carolina

\*TEXT

SITUATION DESCRIPTION

Needs assessment activities conducted with a cross-section of youth professionals, 4-H volunteers and teams charted the lack of self-esteem as a top priority problem of young people. Indicators that support their beliefs include the high incidence of substance abuse and teenage pregnancy. Social science research supports that self-concept is acquired through relationships with others. This affirms that social learning-experiences are programming factors that contribute to the development of self-esteem. Forty-three counties indicate a need to address the problem of self-esteem. Many 4-H curricula have an element of self-esteem already designed into the program. However, it was felt that a special curriculum designed specifically to enhance self-esteem would have the potential to bring about more sustained change in levels of self-esteem.

PROGRAM OBJECTIVES

1. For 75 percent of 4-H youth participating in the "I've Gotta Be Me" self-concept program to change self-esteem in a positive direction.
2. For 100 percent of adults who give leadership to the self-concept program to change their self-esteem in a positive direction.
3. For 10,000 youth to participate in the "I've Gotta Be Me" special interest program and 30,000 to complete the self-concept project by 1987.

RESOURCES INVOLVED

1. The Center of Early Adolescent Development, Carrboro, NC
2. County Interagency Task Forces

ACCOMPLISHMENTS

Over 6,000 youth were involved in a self-esteem building special interest program entitled "I've Gotta Be Me" in 12 pilot counties. Of those participating, 2,683 youth or 45 percent indicated they had improved their self-esteem. Additionally, 522 participants (including 58 adults) reported other positive changes such as increased leadership skills. No data is yet available for improvement of self-esteem in participants of the self-concept project.

EVALUATION

A self anchoring scale, leadership scale, and the Rosenberg scale were used to measure self-concept for the "I've Gotta Be Me" program. Tests were administered in pre/post test. A six month follow-up will be administered.

FUTURE IMPLICATIONS

The "I've Gotta Be Me" program is being packaged for fall 1984 distribution and will be available to all 100 counties. It is expected that the program will be used for different audiences including adult and youth volunteers, adolescents, low-income and at-risk youth.

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**\*KEYWORDS**

NC132  
 North Carolina  
 1983-84  
 4-H and Youth

Youth Development  
 Self-concept, self-esteem  
 4-H youth, 4-H volunteers  
 Special interest groups, retreats, leader training

**\*QUANTIFIED IMPACTS**

Increase self-esteem in special interest youth 2,683  
 Increase self-esteem in 4-H youth participating data unavailable  
 Increase self-esteem in adult volunteers data unavailable  
 Positive change will occur in program participants 522

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol	Co in St	101
1984 6.3	.3	5.1	51,230.00 In Report	101

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\*TITLE

NC133 Developing Adult 4-H Volunteers in North Carolina

\*TEXT

SITUATION DESCRIPTION

There are approximately 20,000 adult volunteers in North Carolina who function in direct support to 4-H members or indirect service to the 4-H program. County listings of problems suggest that many volunteers lack self-confidence and commitment to operate in their job independent of the 4-H professional. This reflects a continued need for volunteer leadership development. A survey of counties indicates that 68 percent of the leaders who perform direct service to members receive formal training and are given recognition for their efforts.

PROGRAM OBJECTIVES

1. The leader/member ratio would remain constant at a one to five level over a four-year period.
2. One-hundred percent of the direct service 4-H volunteers will have the opportunity each year to receive basic competency training necessary to perform their role.

RESOURCES INVOLVED

Three statewide task forces of volunteers have been developed around three major sub-programs: (a) VOLUNCHEERS: Celebrating 4-H volunteer accomplishments; (b) 4-H LIFE: Leadership is for Everyone and (c) 4-H VOLUNTEERS: Youth Volunteers in 4-H. Additionally, 17 volunteers have received specific training to become county/district trainers to "profile" the program statewide.

ACCOMPLISHMENTS

1. The leader/member ratio remains at one to five.
2. From 89 reporting counties the following can be stated: (a) number of new volunteer trained 2,582 or 95 percent; (b) established volunteers trained 4,183 or 20 percent; and (c) volunteers experiencing leadership life skill development 8,209 or 41 percent.

EVALUATION

Data was obtained through annual ES-237 accounting and yearly county accomplishment reports.

FUTURE IMPLICATIONS

The future of adult 4-H volunteer development depends on the continued nurturing of "Life Skills for 4-H Leadership Development: Helping People Grow" as a program-wide leadership/volunteer development system.

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**\*KEYWORDS**

NC133  
 North Carolina  
 1983-84  
 4-H and Youth

Adult 4-H Volunteer Development

4-H/related subject matter

Adult 4-H volunteers

Training, visits, resource materials

**\*QUANTIFIED IMPACT**

Leadership skills improved	8,209 adults
Increased leadership	4,183 adults

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof	Para	Vol		Co in St	101
1984	20	10	80	8,000	600,000.00 In Report 101

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\*TITLE

NC134 Developing 4-H Youth Volunteers in North Carolina

\*TEXT

SITUATION DESCRIPTION

Involvement of youth volunteers in the county 4-H program continues to be a major problem. Youth leadership numbers have remained fairly constant in North Carolina at 2,500. This represents 12 percent of the total volunteer involvement in North Carolina. At present, youth volunteers assume visible leadership roles through the county, district and state 4-H councils. Their involvement in leadership development activities beyond the club and county programs are primarily at teen retreats and 4-H Congress. 4-H programs need more youth leadership and youth have a need for experiences in volunteer leadership.

PROGRAM OBJECTIVES

1. By 1987 the number of youth leaders will represent 25 percent of the total leadership system.
2. One-hundred percent of direct service youth volunteers will have the opportunity each year to receive training necessary to perform their job.
3. There will be job descriptions for 100 percent of youth volunteers.

RESOURCES INVOLVED

Four major initiatives served as the core of action to hold: (1) a volunteer led district teen leader retreat which involved 75 key youth volunteers and (2) statewide utilization of the Salute to Excellence Volunteer in youth volunteer development. The four initiatives are: (1) a pilot program involving approximately 400 volunteers; (2) leader led specialized training for 350 volunteers; (3) establishing a state 4-H council task force of 10 youth volunteer trainers; and (4) an adult volunteer coordinated task force.

ACCOMPLISHMENTS

Total number of 4-H volunteers	24,007
Number of youth volunteers	2,317*
Percent of total volunteers	10
Number of youth leaders participating in training	1,919*

\*From reports of only 11 units out of 101  
Job descriptions ready for all youth volunteers.

EVALUATION

Data acquired from county accomplishment reports.

FUTURE IMPLICATIONS

With full reporting, it is anticipated that the number and percentage of youth volunteers will be much larger. Increased use of the "Life Skills for 4-H Leadership Development: Helping People Grow" program will increase participation and leadership development.

\*

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**\*KEYWORDS**

NC134  
North Carolina  
1983-84  
4-H and Youth

4-H Youth Volunteer Development

Leadership life skills, career attitude change, youth volunteer, teen leader

4-H Agents, Adult/Youth Volunteers

Resource materials, retreats

**\*QUANTIFIED IMPACTS**

Increased number youth leaders	2,317
Improved leadership skills	1,919

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol	1984	1984	1984	Co in St
	4	1	6	1984	400	60,600	In Report 11

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\*TITLE

NC135            Networking 4-H and Community in North Carolina

\*TEXT

SITUATION DESCRIPTION

Communication linkages exist between each level of each 4-H organization in North Carolina (ie. club, county council, district council, state council). The purpose of the three different county level program development groups is to represent the needs and interests of 4-H'ers and volunteer leaders as well as youth in general in community based groups. Sound communication linkage is essential to make this system of representation work. Therefore, it is essential that officers and representatives understand their role in program planning.

PROGRAM OBJECTIVES

1. For officers and members of program development groups in 4-H to understand their respective roles and the communication linkages that are necessary to perform their role to plan better educational programs.

RESOURCES INVOLVED

Four-Hundred and eighty youth in local councils and 500 adult volunteers comprising adult programming committees. Volunteers in 10 counties agreed to pilot test a club needs assessment tool.

ACCOMPLISHMENTS

1. One-hundred and eighty youth representing all counties of North Carolina received state level training on understanding and utilizing newly developed job descriptions for officers and representatives of the three county level program development groups and one district level group. An estimated 300 youth received similar training in county council functions in 15 counties.
2. Forty district officers of the leaders' association were trained on utilizing their newly developed job descriptions.
3. One-hundred leaders of community clubs in 10 pilot counties determined the quality of their program planning efforts with a newly developed club needs assessment tool.
4. Chairmen of the 100 county 4-H and youth committees were provided training on how to involve people in decision making with regards to implementing the four-year plan of work.

EVALUATION

Agents and leaders rated effectiveness of groups based on new job descriptions and quality club assessment tools. Participation data in training provided evidence of learning to date.

FUTURE IMPLICATIONS

Effective program development groups are seen as a precursor to good Extension programs. New evaluation tools are needed and the current ones need greater and more extensive use.

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**\*KEYWORDS**

NC135  
 North Carolina  
 1983-84  
 4-H and Youth

Leadership Development

Networking

Volunteers, Extension professionals, volunteer groups

Program development process, newsletters, workshops, leader forums

**\*QUANTIFIED IMPACTS**

Improved communications	480 youth/240 adults
Greater involvement in planning	480 youth/240 adults
Program judged to be more effective	Data not yet available
Judged greater cooperation	Data not yet available

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol			Co in St	101
1984	5.0	.7	5.1	1984	5,000	50,580.00	In Report 101

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\*TITLE

NC136                    Managing 4-H EFNEP in North Carolina

\*TEXT

SITUATION DESCRIPTION

In North Carolina 219,846 young people ages 1517 are members of households whose income is at or below poverty standards. A large percentage of these households are existing on less than desired minimum diets. Opportunities to learn and apply good nutritional practices and skills through 4-H EFNEP may provide an incentive to improve dietary habits and participate in additional learning experiences.

PROGRAM OBJECTIVES

1) Involve 40,000 low-income youth in 4-H EFNEP group activities by 1987; (2) develop 20 percent of 4-H EFNEP groups into renewable units each year.

RESOURCES INVOLVED

4-H EFNEP activities were supported and led by 2,670 volunteers giving 27,518 hours of their time. 4-H members, Extension Homemakers, local community organizations, county health and school personnel joined with neighborhood and community persons to compose the 4-H EFNEP volunteer staff. Funds for program expenses and actual supplies were contributed by local and community organizations and concerned citizens.

ACCOMPLISHMENTS

Youth participation 9,395  
Youth groups 610  
Renewable groups 32 or 5 percent

EVALUATION

Data was obtained from the Federal EFNEP Report ES-237 and the federal 4-H Report ES-237.

FUTURE IMPLICATIONS

Involve and train more 4-H EFNEP volunteers, youth and adult, to become more responsible participants and leaders to support a renewable 4-H unit.

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**\*KEYWORDS**

NC136  
 North Carolina  
 1983-84  
 4-H and Youth, Human Nutrition  
 Youth Development  
 Personal Development, Mainstreaming  
 4-H EFNEP, paraprofessionals, volunteers  
 4-H EFNEP groups, volunteer training, evaluation

**\*QUANTIFIED IMPACTS**

Youth involvement in 4-H EFNEP	9,395
Progressed 4-H EFNEP units	32 or 5 percent

**\*Expended FTE**

**\*VOLUNTEER**

**\*SCOPE 51**

Prof	Para	Vol	Co in St
7	26	13	101
		2,670	92,185.30
			In Report 51

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 919/737-3143



\*TITLE

NC137      Programming 4-H in SMSA's (Standard Metropolitan Statistical Areas) in N.C.

\*TEXT

SITUATION DESCRIPTION

There are 10 Standard Metropolitan Statistical Areas in North Carolina. They are: Asheville; Burlington; Charlotte-Gastonia; Fayetteville; Greensboro-Winston-Salem-High Point; Hickory; Jacksonville; Raleigh-Durham; Salisbury-Concord; and Wilmington. Currently, 34,141 youth from within SMSAs are involved in the 4-H program. These SMSAs are projected to have a 9-19 year old population of 435,000 in 1987, an increase of 21% over 1980. Because 52% of the youth population of North Carolina is located within SMSAs and because this population is increasing, 4-H enrollment in SMSAs should increase at a greater percentage than in the rest of the state. Thus, 4-H enrollments in SMSAs are projected to increase about 25% by 1987.

PROGRAM OBJECTIVES

1. By 1987, 48,000 youth from counties designated as SMSA will be involved in 4-H.
2. Each year, 50% of 4-H units in SMSA counties will be organized and maintained to be renewable.

RESOURCES INVOLVED

In the three pilot counties, cooperators included; Onslow County-Camp Lejeune Marine Base used for summer program and transportation, Nautilus Fitness and Swim Club, Junior Womens Club, craft stores, sailing school, newspaper, TV, public library, bicycle shop, Tony's Pizzas, police department. Orange County-UNC-CH School of Education, IBM, Community Schools Program in latch key. Mecklenburg County-Housing Authority with urban gardening; 4 TV, 3 Radio stations and 4 newspapers with 4-H public awareness efforts.

ACCOMPLISHMENT	youth involved	units	volunteers
Onslow County	768	64	206
Orange County	1471	37	438
Charlotte-Mecklenburg	5228	152	720
21 other SMSA counties	25024	1041	6030

Because the SMSA program was a pilot, no significant increases were expected from the 21 counties that did not participate. Mecklenburg increased in both clubs and special interest groups by 78%. Orange County's emphasis in networking resulted in a 52% increase in volunteer staff.

EVALUATION

Records were maintained by professional staffs in each of the counties. Quarterly reports were written by pilot counties for accountability purposes.

FUTURE IMPLICATIONS

Successes of the pilot counties must be transferred to other SMSA counties. Ten of the remaining 21 will be involved in 1985.

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**\*KEYWORDS**

NC137  
 North Carolina  
 1984-87  
 4-H and Youth

4-H Urban Program  
 Expansion

SMSA youth, volunteers

Clubs, special interest, transient populations, latch key youth,  
 committee action, networking

**\*QUANTIFIED IMPACTS**

Youth participation		32,194
Units renewed		643
Volunteer involvement		7,394
Units total	Community Club	607
	Special Interest	686

*EXPENDED FTE		*VOLUNTEER		*SCOPE	
Prof	Para	Vol		Co in St	101
1984	23	10	3.7	1984	7394 37,000 In Rept 24

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\*TITLE

NC138 Involving Families in 4-H in North Carolina

\*TEXT

SITUATION DESCRIPTION

Youth professionals across North Carolina rated the lack of strong parental support and family guidance as the number one problem that impacts on youth. In addition, two youth forums rated this as a top priority. One factor identified as contributing to the problem is the lack of time for parent-child interaction. In North Carolina, 58 percent of the women with children under six and 70 percent of women with children 6 to 17 work. In addition, 22 percent of all households are headed by single parents. A survey of counties indicates that an average of one activity per county is designed to achieve parent-child interaction.

OBJECTIVES

1. To increase the average number of county, district and state activities designed to enhance family involvement by five per county by 1987.
2. Fifty percent of 4-H clubs will be structured for family involvement by 1987.

RESOURCES INVOLVED

4-H adult leaders' associations, county and state recreation departments, substance abuse agencies, local and state safety councils, highway patrol, police and fire departments, civic clubs, social services, housing authority representatives, local broadcasters and representatives of news media.

ACCOMPLISHMENTS

In 23 counties reporting for 1983, 9,500 different families were involved in planned family activities. Included in this number were 3,500 who completed planned family projects, 4,600 participated in skill improvement workshops, seminars and special training series, 6,100 participated in activities and events such as tours, retreats, family outings, sport and recreational events. Approximately 38,000 persons were involved. More than 2,500 volunteers and paraprofessionals were involved, as well as 475 significant others (leaders, trainers, etc.) in workshops, seminars and special skills training sessions. The number of families participating in planned activities indicate increased interest.

EVALUATION

Twenty-five counties were surveyed to ascertain the extent of family involvement in 4-H. Twenty-three counties reported accomplishments varying from five to more than one thousand families involved in 4-H program/activities.

FUTURE IMPLICATIONS

All responding counties indicated plans for continuing and/or expanding their efforts to involve families in 4-H. Efforts will be made to have all counties plan to involve families in planned 4-H activities.

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**\*KEYWORDS**

NC138  
 North Carolina  
 1983-84  
 4-H and Youth

Communication, awareness, skills development, human relations

Families and 4-H

Extension professionals and volunteers

Visits, workshops, supply resource materials

**\*QUANTIFIED IMPACTS**

Increase family involvement	9,500 families involved
Increase volunteer work with family projects	3,500 families, 1,500 volunteers and paraprofessionals
Plans for continued and/or expanded involvement of families in 4-H	45 counties

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol				Co in St 101
1984	2.9	1.3	3.3	1984	2,104	33,335.00	In Report 45

\*TITLE

NC139 Delivering 4-H to 6 to 8 year old youth in North Carolina

\*TEXT

SITUATION DESCRIPTION

Research indicates that the 6-8 year old needs more interaction with adults, more direction in programs, and a minimum of competition. The North Carolina Partners-In-Learning program was designed with these objectives as the foundation. There are 245,000 youth between the ages of 6-8 years old in North Carolina. Total youth involved in the 6-8 year old audience in 1983 was approximately 8,000 youth or 3.2% of the potential. The percentage of working women in North Carolina is the highest in the nation. This fact compiled with the stress on families is indicative of the need for programs for youth 6-8 years of age.

PROGRAM OBJECTIVES

(1) For 100% of 6-8 year old youth in the "Partners-In-Learning" Program to learn about 4-H while learning simple subject matter skills, social skills, and developing an attitude of independence; (2) for 50% of the parents involved in the "Partners-In-Learning" Program to increase by 30% the amount of time spent relating to their child.

RESOURCES INVOLVED

-425 volunteers or parents participated in workshops highlighting developmental needs of the 6-8 year old youth during state, district, or specialized county training  
-262 parents helped with program development and organization of the Partners-In-Learning program

ACCOMPLISHMENT

-9,197 6-8 year olds were involved in 4-H for an increase of 1,197 or 14.9%.  
-6,200 4-H'ers completed mini projects developed for each age level in the 6-8 year old program.  
-Evidence collection for increased parental involvement for first year in process.

EVALUATION

Evaluation was very informal and consisted mostly of verbal communications. New counties now programming for the 6-8 year old youth served as another indicator of impact. Data needed for the supplement for ES237 was developed.

FUTURE IMPLICATIONS

More intense evaluation techniques will be used during the next three years to assess changes in social skills, simple subject matter skills being taught and overall accomplishments of selected program participants.

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**\*KEYWORDS**

NC139  
 North Carolina  
 1984-87  
 4-H & Youth

Youth Development

Expansion

6-8 year olds, volunteers

Clubs, leader training, committee action

**\*QUANTIFIED IMPACTS**

Youth participation in "Partners-In-Learning" 9197  
 Participation of parents in "Partners-in-Learning" Data not available yet  
 Increase of parent/child understanding Data not available yet  
 Youth learn how to be 4-H members 9197  
 Youth learn simple subject matter, social science 9197  
 and independence skills

**\*EXPENDED**

FTE

**\*VOLUNTEERS**

**\*SCOPE**

	Prof	Para	Vol				Co	In	St	101
1984	5	2	60	1984	3000	42,000	In	Rept		101

(919) 737-2144  
 (919) 737-2145  
 (919) 737-2146  
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 (919) 737-2148  
 (919) 737-2149  
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 (919) 737-2197  
 (919) 737-2198  
 (919) 737-2199  
 (919) 737-2200

\*TITLE

NC140 Programming 4-H for Latch-Key Youth in North Carolina

\*TEXT

SITUATION DESCRIPTION

The national estimate of the number of youth spending after school hours alone or unsupervised in the 6-13 year age group is estimated to be as high as six million. An accurate number of youth considered to be latch-key children is not available in North Carolina. However, 58 percent of women with children are in the work force which is the highest in the nation. A recent survey indicates that only 11 county 4-H programs have been designed specifically to meet the needs of this audience and their families.

PROGRAM OBJECTIVES

1. To involve 10,622 youth in 4-H programming between the hours of 3 to 6 p.m. on weekdays by 1987.
2. Organize 60 percent of latch-key programs so they will be renewable.

RESOURCES AVAILABLE

Over 800 volunteers from schools, businesses and libraries have joined in working with latch-key type 4-H programs. Eighteen committees for programming have been formed by volunteers in the past year.

ACCOMPLISHMENTS

Nearly 3,000 (2,884) new youth have become part of the 4-H program and over 81 after-school/latch-key type programs were started last year. These youth through the training of 822 new volunteers developed greater competencies in self-care/survival (safety, first-aid, nutrition, self-esteem), babysitting, bicycle, archery, electricity, wildlife, economics, sewing, computers and learn to earn. No data on whether these units will be re-established is currently available.

EVALUATION

Data is being obtained through an annual survey and through the established ES-237 format.

FUTURE IMPLICATIONS

Interest and participation this first year would seem to indicate that a majority of the counties will respond to the needs of latch-key youth and to implement after-school programming. Utilizing the local resources and this time/method of delivery provides the vehicle to greatly expand our 4-H program.

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**\*KEYWORDS**

NC140  
 North Carolina  
 1983-84  
 4-H and Youth

Latch-key youth, 3-6 p.m. project

Expansion

Youth (latch-key), volunteers

After-school meetings, committee action, newsletters

**\*QUANTIFIED IMPACTS**

Youth Participation

2,884

Groups formed and/or renewed

81

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

Prof		Para	Vol			Co	In St	101
1984	1.97	1.52	3.20	994	24,413	In Report	101	

\*TITLE

NC141 4-H in Public Housing in North Carolina

\*TEXT

SITUATION DESCRIPTION

Youth in public housing have special needs due to their relative income status and their general feeling of alienation from society as a whole. This audience was identified by the 4-H program committee as being in need of the 4-H program. Currently, there are 7,025 youth or 4.7 percent of the potential who are actually involved in the 4-H program. Participation is primarily in the special interest delivery mode with 25 percent being involved in community club programs.

PROGRAM OBJECTIVES

1. By 1987, 15,000 youth in public housing will be involved in the 4-H program (40 percent in community clubs and 60 percent in special interest).
2. Each year 60 percent of the new 4-H units organized to be renewable so that by 1987, the total 4-H program will expand by 17 percent.

RESOURCES INVOLVED

Over 1,000 adult and youth volunteers in 35 counties have been involved in program development to reach limited-resource audiences in urban public housing and targeted low-income areas. Funds from CBA have also been utilized.

ACCOMPLISHMENTS

- 5,124 youth have been involved with 4-H public housing clubs (936) and 4-H public housing special interest programs (4,188). This data indicates a 20 percent to 80 percent club/special interest ratio.
- Over 4,500 youth volunteers have been involved in leadership development training
- 16,000 public housing youth have been made aware through 4-H activities of 4-H opportunities and 116 new units established
- data not yet available on units renewed for 1984.

EVALUATION

Evaluation and accountability formats to supplement the ES-237 reporting is being developed. Additional expansion will utilize impact data for reporting accomplishments.

FUTURE IMPLICATIONS

The overall reporting will be developed to create access data of accomplishments in the areas of (a) staff development for volunteers; (b) total enrollment in clubs and special interest groups; (c) curriculum development--learning experience project enrollment workshop--of a random sample of clientele involvement.

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**\*KEYWORDS**

NC141  
 North Carolina  
 1983-84  
 4-H and Youth

Youth Development

Expansion

Youth in public housing

Committee action, volunteers, leader training

**\*QUANTIFIED IMPACTS**

Youth participation 5,124  
 New 4-H clubs 116

**\*EXPANDED FTE**

Prof 1984 5

Para 10

Vol .6

**\*VOLUNTEER**

1984 1,200

**\*SCOPE**

Co in St 101  
 In Report 8

210713-1984  
 Washington, DC 20520  
 U.S. Department of Agriculture  
 4-H Program Coordinator  
 Harry Howell, Jr.



\*TITLE

NC142            Creating Awareness of 4-H Among Youth in North Carolina

\*TEXT

SITUATION DESCRIPTION

Approximately 20 percent of the counties in North Carolina have some form of in-school 4-H awareness program. Some of the subject matter includes embryology, natural resources, agricultural awareness and science. There is a need for expanding these programs to heighten 4-H awareness of youth under the age of 9 so that they will want to participate in 4-H. 4-H advisory groups are also interested in: (1) enhancing the image of agriculture as a science among school youth; (2) raising the visibility of the School of Agriculture and Life Sciences; (3) enriching school programs; and (4) recruiting youth into 4-H.

PROGRAM OBJECTIVES

1. By 1987, 30,000 youth will have participated in 4-H awareness programs through the schools.
2. Fifty percent of the youth by age nine will be aware of 4-H and how to participate.

RESOURCES INVOLVED

4-H adult volunteers, school officials, business leaders, other agency volunteers and media representatives.

ACCOMPLISHMENTS

1. Two-hundred and seventy four volunteers and 5,008 youth participated in 4-H agriculture and life science pilot program.
2. Six thousand people were a part of 6 4-H Performing Arts Troupe productions statewide.
3. Four-hundred and eighty high school students, 123 volunteers and 98 private businesses participated in 13 Economics in Action Programs.
4. Five-thousand, eight-hundred and twenty school youth received greater agricultural awareness through participation in 15 county 4-H Environmental Field Days.
5. Twenty-one thousand and six hundred youth from 14 counties participated in 4-H awareness programs utilizing a variety of methods and subject matter areas.
6. Data on awareness programs for 6 to 8 year old youth are not yet available.

EVALUATION

Collection of ES-237 data will begin in 1984 on participation in school enrichment programs.

FUTURE IMPLICATIONS

There is a need to evaluate the pilot program to determine its effectiveness in terms of awareness and progression into 4-H. Also target additional counties for expansion.

\*CONTACT

James P. West  
Extension 4-H Specialist  
Box 7606, NCSU  
Raleigh, NC 27695-7606  
919/737-3242

**\*KEYWORDS**

NC142  
 North Carolina  
 1983-84  
 4-H and Youth  
 Program support  
 Youth awareness  
 Youth nine and under  
 School recruitment, subject matter projects

**\*QUANTIFIED IMPACTS**

Youth participation/school	6,574
Youth awareness	27,600

**\*EXPENDED FTE**

**\*VOLUNTEER**

**\*SCOPE**

*EXPENDED FTE		*VOLUNTEER		*SCOPE	
Prof	Para	Vol	1984	1,610	Co in St 101
1984 4.8	2.8	4.6	52,668.00	In Report	101

CONTACT  
 James P. West  
 Extension 4-8 Specialist  
 Box 1808 WETS  
 Raleigh, NC 27602-1808  
 919/733-2342

\*TITLE

NC143      Developing Awareness of 4-H Among Public in North Carolina

\*TEXT

SITUATION DESCRIPTION

According to a study, 4-H publics generally view 4-H as positive. On the otherhand, it is believed that the general public is not as knowledgeable about the benefits of 4-H. A survey found that 77 percent of the population is aware of 4-H as a program for rural youth. Thirty-four percent of North Carolina counties identify public awareness as a major problem in 1983.

PROGRAM OBJECTIVES

1. By 1987, 90 percent of sample 4-H publics (parents and volunteers) view 4-H as personally and socially beneficial.
2. By 1987, 75 percent of 4-H paid and volunteer staff see the 4-H program as large, dynamic and prestigious.
3. Thirty percent of the general publics to be aware of the nature of 4-H as stated in the mission (ie. out of school, volunteer led and educational).

RESOURCES INVOLVED

Advisory leadership specialized committees, United Fund, 4-H Foundations, 4-H public awareness teams, statewide 4-H public awareness task forces, interagency displays, multi-county carousel of 4-H 4-H Performing Arts Troupe, county 4-H entrance signs and 4-H alumni identification campaign.

ACCOMPLISHMENTS

At this point, accomplishments cannot be enumerated. Accomplishments will be provided when data is collected.

EVALUATION

Surveys are being developed to collect the data necessary to determine program accomplishments--20 percent of counties will be surveyed utilizing the ES-237 supplement in 1985 and 1987 to determine 4-H public and 4-H staff's image of 4-H; a representative sample of public officials for knowledge regarding the nature of 4-H.

FUTURE IMPLICATIONS

Training for 4-H agents is scheduled for 1985, a 4-H agent based task force and working through 4-H agents association plans are to expand the area of 4-H awareness among various publics.

\*CONTACT

William M. Garmon  
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**\*KEYWORDS**

NC143  
 North Carolina  
 1983-84  
 4-H and Youth  
 Program Support  
 Public Awareness  
 Parents, volunteers, public officials  
 Advisory leadership system, television, newspapers, newsletters

**\*QUANTIFIED IMPACTS**

Increased public awareness Not yet available

**\*Expended FTE**

**\* VOLUNTEER**

**\*SCOPE**

	Prof	Para	Vol			Co in St 101
1984	8.6	1.4	5.9	1,439	59,015.00	In report 101

WILLIAM M. GARDNER  
 Extension 4-H Specialist  
 Box 7800, RENO  
 757-1525

FORM B  
SUMMARY SHEET FOR IMPACT STUDY

STATE North Carolina INSTITUTION NCAES FY 1984

<input checked="" type="checkbox"/> PLANNED	ESTIMATED DATES	
	Start	Completion
	10-1-83	6-30-86

COMPLETED

IMPACT STUDY TITLE (Include State Name in Title):

Volunteerism in the People's Plan of North Carolina

**NARRATIVE ABSTRACT**

**JUSTIFICATION:** The use of volunteer delivery systems has been a key factor in the uniqueness and effectiveness of the Cooperative Extension Service. While in the past Extension professionals had many opportunities for direct contact with clientele, today without expanding the number of professionals, it is often the Extension audiences. The focal point of this project is the individual who, by volunteering in a program activity, has accepted the mission of the Extension Service. It is imperative that we examine the multiplier effect of volunteerism on both programs and clientele.

**OBJECTIVES:** 1) ascertain the extent of volunteerism in North Carolina, 2) develop a profile of characteristics and service areas of volunteers in North Carolina, 3) to ascertain recruitment, training and management practices as perceived by random, stratified sample of North Carolina volunteers, 4) describe reasons for volunteering and motivation of North Carolina volunteers, 5) describe volunteer's perception of their contributions to programs and 6) to estimate the programmatic and economic impacts of volunteers on North Carolina Agricultural Extension Service programs.

**RESOURCES INVOLVED:** A study advisory committee--12 persons, 12 month staff time; project leaders, 4 months staff time; research associate, 12 months staff time; county agents, 24 months staff time, and clerical staff, 4 months staff time: estimated cost \$130,000.

**PROCEDURAL METHODS:** The basic procedure is a survey design with information to be collected from CES professionals, volunteers, and clients of programs. Self-administered questionnaires and available data sets are major data sources. Analytical techniques include summary descriptive statistics and inferential techniques to assess relationships. A form of network analysis is envisioned to explore interpersonal relationships.

<p><b>Name and Title</b></p> <p><b>Address</b></p> <p><b>Telephone</b></p>	<p><b>CONTACT PERSON</b></p> <p>R. David Mustian, State Leader of Evaluation Box 7607 120 Ricks Hall North Carolina State University Raleigh, North Carolina 27695-7607</p> <p>(919)737-2819</p>
--	--

**KEYWORDS:**



FORM B  
SUMMARY SHEET FOR IMPACT STUDY

STATE North Carolina

INSTITUTION NCAES

FY 84-87

<input checked="" type="checkbox"/> PLANNED	ESTIMATED DATES	
	Start 1984	Completion 1987

COMPLETED

IMPACT STUDY TITLE (Include State Name in Title)

Life Skill Development Through 4-H Project Learning Experiences in North Carolina

NARRATIVE ABSTRACT

This impact study plan is withdrawn. North Carolina will participate in the Southern Region 4-H Project and utilize that participation as an impact study. A new Form B will be submitted as soon as plans are finalized.

<p>Name and Title</p> <p>Address</p> <p>Telephone</p>	<p><b>CONTACT PERSON</b></p> <p>Dr. David Weatherford, Jr. North Carolina State University Box 7606 Raleigh, North Carolina 27695 (919)737-3242</p>
<p>KEYWORDS:</p>	

**Form-C****Civil Rights/Equal Opportunity  
Plan of Work/Report**State North CarolinaInstitution N.C. State University Plan  
 Report**Civil Rights Narrative for**

(Check appropriate box(s))

- Program Planning and Participation  
 Administrative Civil Rights Requirements  
 Equal Opportunity Employment

**Program Area**

(Check appropriate box (s))

- ANR  4-H  
 HE  CRD  
 Combined report, all  
program areas

**Title** Program Planning and Participation

**Text:** Because of civil rights litigation, currently in appeal status, the North Carolina Agricultural Extension Service is not required to provide data on Civil Rights Programs as set forth by Title VI. However, the following information is provided on the basis of commitment to these principles. Sex discrimination is being addressed in an effort to comply with Civil Rights Legislation.

**Situation Description:** The North Carolina Agricultural Extension Service continues to enhance program access and opportunity for all socio-economic, racial-ethnic, gender and handicapped groups. The four-year program, "People's Plan '87", was developed by a 23,000 lay member Advisory Leadership System, representative of the citizens of North Carolina.

**Progress:** An Affirmative Action Task Force is continuing to review and evaluate the organization's procedures in employment opportunity and program delivery at the county level. Affirmative Action training is being provided for all professional county staff members over the four-year period. The training focuses on the expansion of:

- (1) Procedures for staff involvement in all aspects of program development, implementation and evaluation
- (2) Procedures to be used by staff to assure representativeness in the selection of Advisory Leadership System members
- (3) Procedures to eliminate discrimination: informing minorities of program opportunities; developing leadership among minorities; adjustments of programs, meeting schedules and locations; removal of economic barriers; adjustments of individual consultations.

**Contact Person:**

**Name and Title** Elizabeth U. Meldau  
District Extension Chairman  
**Address** Box 7604, NCSU  
Raleigh, NC 27695-7604  
**Telephone** 919/737-2789

# Form-C

## Civil Rights/Equal Opportunity Plan of Work/Report

State North Carolina

Institution N.C. State University

Plan  
 Report

### Civil Rights Narrative for

(Check appropriate box(s))

- Program Planning and Participation  
 Administrative Civil Rights Requirements  
 Equal Opportunity Employment

### Program Area

(Check appropriate box (s))

- ANR  
 HE  
 Combined report, all program areas
- 4-H  
 CRD

**Title** Administrative Civil Rights Requirements

**Text:** Because of Civil Rights litigation, currently in appeal status, the North Carolina Agricultural Extension Service is not required to provide data on Civil Rights Programs as set forth by Title VI. However, the following information is provided on the basis of commitment to these principles. Sex discrimination is being addressed in an effort to comply with Civil Rights laws.

Situation Description: The North Carolina Agricultural Extension Service remains committed to the principles, as well as the laws, regulations and guidelines of our nation regarding affirmative action.

Progress: An Affirmative Action Task Force is continuing to review and evaluate the organization's procedures in employment opportunity and program delivery at the county level. The task force is addressing current issues as well as developing strategies to reinforce Extension's commitment to Affirmative Action. A major strategy, in process, is Affirmative Action Training for all professional county staff members. To date:

- (1) 226 county staff members from 26 units have completed Affirmative Action Training.
- (2) Approximately 170 county staff members in 31 county units will complete Affirmative Action Training by December, 1984.
- (3) 101 county units identified and notified local groups, organizations and agencies of Extension's policy on nondiscrimination.
- (4) Following Affirmative Action Training, county Affirmative Action data is being reviewed as part of performance appraisal and/or biennial program review process with the entire professional staff.

### Contact Person:

**Name and Title** Elizabeth U. Meldau  
District Extension Chairman

**Address** Box 7604, NCSU  
Raleigh, NC 27695-7604

**Telephone** (919)737-2789

# Form-C

## Civil Rights/Equal Opportunity Plan of Work/Report

State North Carolina

Institution N. C. State University

Plan  
 Report

### Civil Rights Narrative for

(Check appropriate box(s))

- Program Planning and Participation  
 Administrative Civil Rights Requirements  
 Equal Opportunity Employment

### Program Area

(Check appropriate box (s))

- ANR  
 HE  
 Combined report, all program areas
- 4-H  
 CRD

Title Equal Employment Opportunity in North Carolina

**Text:** Because of civil rights litigation currently in appeals status, the North Carolina Agricultural Extension Service is not required to provide data on civil rights programs as set forth by Title VI. The following information is provided on the basis of the organization's commitment to the principles of equal employment opportunity as set forth by Titles VI and IX.

Employment goals for all position groups--professional, paraprofessional, secretarial--have been for all employment-related decisions to reflect a commitment to racially and sexually representative human resource management within the Extension organization. Within the non-professional positions this has been achieved through the public notification plan and adherence to affirmative action guidelines of the state and counties in hiring, training, and promoting. For all county professional positions, the NCAES has conducted recruitment at the following colleges and universities in North Carolina and surrounding states--South Carolina, Virginia, Tennessee, Kentucky, and Georgia--which have degree programs in agriculture or home economics and traditionally have a large number of black students: Fort Valley State College, Tennessee State University, Virginia State University, Hampton Institute, N. C. Central University, A & T State University, Bennett College, S. C. State University, and Savannah State College. These predominately minority institutions represent more than one-third of all campus recruitment conducted by NCAES.

During the past year a total of 481 applications has been received for professional agent positions. Applications have been received from 65 blacks. This represents an applicant pool of 14% blacks; of these, 49 met minimum grade-point-average requirements. Ten percent of newly hired agents were black; one-third of all newly hired agents were female.

(continued)

### Contact Person:

Name and Title Michael A. Davis, Extension Personnel Development Specialist

Address N. C. Agricultural Extension Service, Box 7602, N. C. State University, Raleigh, N. C. 27695-7602

Telephone (919) 737-2814

All applicants received equal access to employment opportunities since employment notices were mailed to all applicants on a monthly basis as an experimental method to improve the recruitment/selection process.

Regarding training to provide job skill enhancement and preparation for upward job mobility, all training was offered on a free choice basis at Annual Extension Conference. All professional staff attended the training.

Twelve percent of participants in the Executive Development Institute conducted in FY 83-84 were black, and 39% were female.

Equal Employment Opportunity in North Carolina

First because of civil rights litigation currently in progress, the North Carolina Agricultural Extension Service is not permitted to provide data on civil rights program as set forth by Title VI. The following information is provided on the basis of the organization's commitment to the principles of equal employment opportunity as set forth by Title VI and VII.

Employment goals for all positions groups—professional, paraprofessional, secretarial—have been set for all positions groups—employment, recruitment, and promotion. The goal is to have a representative number of persons employed within the organization. Within the non-professional positions this has been achieved through the public notification plan and adherence to affirmative action guidelines of the state and counties in hiring, training, and promotion. In all county professional positions, the NCSEA has completed recruitment at the following colleges and universities in North Carolina and surrounding states—North Carolina, Virginia, Tennessee, Kentucky, and Georgia—both two and four year colleges and universities. The NCSEA has a large number of black students from various colleges, Tennessee State University, Virginia State University, Hampton University, E. C. Green University, E. C. Green University, Bennett College, E. C. Green University, and Bennett State College. These predominantly minority institutions represent more than one-third of all county recruitment conducted by NCSEA.

During the past year a total of 481 applications has been received for professional agent positions. Applicants have been received from 65 states. This represents an applicant pool of 100 states of which 10 are foreign. The percentage of minority applicants is 12 percent of newly hired agents and 12 percent of all newly hired agents were female.

Contact Person: James and Jane Davis, Extension Personnel Specialist  
Address: N. C. Agricultural Extension Service, Box 1603, N. C. State University, Raleigh, N. C. 27695-7693  
Telephone: (919) 737-2841



TABLE III  
 EXPENDED PROFESSIONAL/PARAPROFESSIONAL STAFF YEARS  
 BY PROGRAM AREA

Fiscal Year 1984

State North Carolina Institution N. C. State University  
 (1862, 1890, Tuskegee)

Program Area	Professional	Paraprofessional
AG	314.4	42.2
NR	45.9	8.0
CRD	36.8	.5
HE	202.3	105.0
4-H	141.5	24.9
Total	740.9	180.6

TABLE III  
 EXPENDED PROFESSIONAL/PARAPROFESSIONAL STAFF YEARS  
 BY PROGRAM AREA

Fiscal Year 1984

State North Carolina Institution 1890  
 (1862, 1890, Tuskegee)

Program Area	Professional	Paraprofessional
AG	10.2	25.0
NR	.2	--
CRD	1.2	--
HE	12.2	3.7
4-H	10.0	10.0
Total	33.8	38.7

**Table IV**  
**Pest Management Programs—Annual Report**  
**FY 84**

**State** NORTH CAROLINA

Program Costs (\$):	Commodities or Other Project Designations					Total
	1.	2.	3.	4.	5.	
1. Smith-Lever 3(d)	\$ 78,865	12,865	90,000	49,910		\$231,640
2. Other CES Funds						
3. Grower Payments to						
a. Extension Programs	100,420	13,134		41,105		154,659
b. Private Consultants/firms	450,000	15,000		170,000		635,000
c. Grower Organizations/co-ops						
4. Others						
<b>Acres or Units Handled by:</b>						(500,000 Chx
1. Extension Sponsored Programs	27,485A	1,237A	500,000	6,774 A		( 35,496 A
2. Private Consultants/firms	70,000A	1,000A	chickens	24,000 A		95,000 A
3. Growers Organizations/co-ops						
4. Industry Fieldmen	10,000A	1,000A	2,000,000	2,000 A		( 13,000 A
5. Others Influenced by Extension			Chickens			(2,000,000 Chx
<b>CES Staff-Years:</b>						
1. State Specialists	5	2	2	1		10
2. Multi-County Staff	1			3		4
3. County Staff	5	1.5		.5		7
<b>Number of Scouts Trained</b>	125	4	22*	90		241
<b>Number of Producers Trained</b>	1,500	20		155		1,675
<b>Number Providing IPM Service:</b>						
1. Extension Sponsored Programs	20	5		3		28
2. Private Consultants/firms	14	1		9		24
3. Grower Organizations/co-ops				2		2
4. Industry Fieldmen	10	5		2		17
5. Others Influenced by Extension						
<b>Number of Clientele Served:</b>						
1. Extension Sponsored Programs	350	25	650	80		1,105
2. Private Consultants/firms	100	15		240		355
3. Growers Organizations/co-ops				75		75
4. Industry Fieldman	200	10	900	20		1,130
5. Others Influenced by Extension						
<b>State Advisory Committee: **</b>						
No. People on Committee						11
No. Agencies and Departments						
Represented						6
No. Times Committee Met						4

\* Industry Fieldmen

\*\* State advisory committee represents all commodities  
**Note:** An accomplishment information report is to be submitted with Table IV.

**Table V**  
**Pesticide Applicator Training Program—Annual Report**  
 FY 84

State North Carolina

Applicators Trained	Numbers to be Trained	
	For Intital Certification	For Recertification <sup>1</sup> (Applicable * Yes ___ No)
Private Applicators	<u>552</u>	<u>8,000</u>
Commercial Applicators	<u>921</u>	<u>2,485</u>

**Expenditures for FY 81**

Source	Total Available for Fiscal Year	Expended	Balance Remaining
State Fund	<u>\$ 106,000</u>	<u>\$ 106,000</u> <sup>2</sup>	<u>--</u>
EPA Funds	<u>45,110.96</u>	<u>28,168.38</u>	<u>\$ 16,942.58</u> <sup>3</sup>

See Science and Education/Extension Service Administrative Handbook

<sup>1</sup>If recertification through training is not systematically required, check the box "no". Estimate the number of applicators expected to take enroll.

<sup>2</sup>States must provide 50 percent or more of the cost of the Pesticide Applicator Training Program provided from non-EPA sources in order to receive EPA pass through funds.

<sup>3</sup>For FY 82 up to 100 percent of the EPA available funds from FY 82 can be carried over into FY 83. Carryover funds in excess of 100 percent will be charged against the FY 81 allocation.

**NOTE:** A narrative accomplishment report is to be submitted with Table V.

\* Recertification through training required for commercial applicators, not private

See Form D, NC75a

**Table VI**  
**Pesticide Impact Assessment Program—Annual Report**

**FY** 1984

As of 10/9/84

	<b>Budget</b>	<b>Expended</b>	<b>Balance</b>
<b>Federal Funds</b>	<u>\$58,260.66</u>	<u>\$39,948.90</u>	<u>\$18,311.76</u>
<b>State Funds</b>	<u>                    </u>		
<b>Other</b>	<u>                    </u>		
	<u>                    </u>		
<b>Total</b>		<u>\$39,948.90</u>	

<b>Expenses</b>	<b>Staff Year Equivalents</b>	<b>Amount</b>
<b>Personnel</b>		
Professional	<u>1.05</u>	<u>\$21,934.95</u>
Clerical and Secretarial	<u>.50</u>	<u>                    </u>
Technicians	<u>.00</u>	<u>                    </u>
Others (Specify)	<u>.00</u>	<u>                    </u>
Fringe Benefits	<u>                    </u>	<u>861.72</u>
		<u>568.70</u>
<b>Travel</b>		<u>116.64</u>
<b>Supplies</b>		<u>6,367.70</u>
<b>Equipment</b>		<u>                    </u>
<b>Printing</b>		<u>                    </u>
<b>Other (Specify)</b>		<u>530.26</u>
Contracted Services		<u>672.60</u>
Current Services		<u>8,896.33</u>
Fixed Charges		<u>                    </u>
<b>Total</b>	<u>1.0</u>	<u>\$ 39,948.90</u>



**Table VII**  
**Total Clientele Contacts by Racial-Ethnic Groups by Program Area<sup>1</sup>**

State NORTH CAROLINA

Check One:  Professional  
 Paraprofessional

Institution 1862  
**(1862, 1890, Tuskegee)**

FY 1983-84 2

Program Area		Racial-Ethnic Composition							
		White Not of Hispanic Origin	Black Not of Hispanic Origin	American Indian or Alaskan Native	Hispanic	Asian or Pacific Islander	Total	Total Data by Sex	
								M	F
ANR	No.	582,510	62,493	4,046	281	185	649,515	500,127	149,388
	%	90	10	0	0	0	100.0	77	23
CRD	No.	94,500	22,251	1,451	0	15	118,217	63,837	54,380
	%	80	19	1	0	0	100.0	54	46
HE	No.	474,462	112,818	3,128	79	297	590,784	90,615	500,169
	%	80	19	1	0	0	100.0	15	85
4-H	No.	311,401	117,613	23,072	1,168	2,320	455,574	189,019	266,555
	%	68	26	5	0	1	100.0	42	58

<sup>1</sup>The number of face to face contacts made in conduct of programs including consultations, workshops, conferences and seminars. The intent is to identify people whose race is discernible who have personal contact with Extension programs.

<sup>2</sup>To be submitted annually.

**Table VII**  
**Total Clientele Contacts by Racial-Ethnic Groups by Program Area<sup>1</sup>**

State NORTH CAROLINA

Check One:  Professional  
 Paraprofessional

Institution 1862  
(1862, 1890, Tuskegee)

FY 1983-84<sup>2</sup>

Program Area		Racial-Ethnic Composition							
		White Not of Hispanic Origin	Black Not of Hispanic Origin	American Indian or Alaskan Native	Hispanic	Asian or Pacific Islander	Total	Total Data by Sex	
								M	F
ANR	No.	1,603	408	0	2	0	2,013	1,553	460
	%	80	20	0	0	0	100.0	77	23
CRD	No.	278	350	0	0	0	628	440	188
	%	44	56	0	0	0	100.0	70	30
HE	No.	34,361	70,396	3,355	108	200	108,420	8,627	99,793
	%	32	65	3	0	0	100.0	8	92
4-H	No.	61,918	56,034	846	226	436	119,460	48,979	70,481
	%	52	47	1	0	0	100.0	41	59

<sup>1</sup>The number of face to face contacts made in conduct of programs including consultations, workshops, conferences and seminars. The intent is to identify people whose race is discernible who have personal contact with Extension programs.

<sup>2</sup>To be submitted annually.

**Table VII**  
**Total Clientele Contacts by Racial-Ethnic Groups by Program Area<sup>1</sup>**

State North Carolina

Check One:  Professional

Institution 1890

Paraprofessional

(1862, 1890, Tuskegee)

FY 1984 <sup>2</sup>

Program Area		Racial-Ethnic Composition							
		White Not of Hispanic Origin	Black Not of Hispanic Origin	American Indian or Alaskan Native	Hispanic	Asian or Pacific Islander	Total	Total Data by Sex	
								M	F
ANR	No.	3,495	1,642	52	0	75	5,264	3,547	1,717
	%	66*	31*	1*	0	1*	100.0	67	33
CRD	No.	544	568	142	0	0	1,254	603	651
	%	43*	45*	11*	0	0	100.0	48	52
HE	No.	29,243	27,513	238	0	0	56,994	24,566	32,428
	%	51*	48*	0	0	0	100.0	43	57
4-H	No.	13,719	12,663	12	0	0	26,394	10,294	16,100
	%	52	48	0	0	0	100.0	39	61

<sup>1</sup>The number of face to face contacts made in conduct of programs including consultations, workshops, conferences and seminars. The intent is to identify people whose race is discernible who have personal contact with Extension programs.

<sup>2</sup>To be submitted annually.

\* = Percentages do not equal 100 due to rounding off

**Table VII**  
**Total Clientele Contacts by Racial-Ethnic Groups by Program Area<sup>1</sup>**

State North Carolina

Check One:  Professional  
 Paraprofessional

Institution 1890  
(1862, 1890, Tuskegee)

FY 1984<sup>2</sup>

Program Area		Racial-Ethnic Composition							
		White Not of Hispanic Origin	Black Not of Hispanic Origin	American Indian or Alaskan Native	Hispanic	Asian or Pacific Islander	Total	Total Data by Sex	
								M	F
ANR	No.	11,638	10,474	1,105	7	95	23,319	19,562	3,757
	%	50	45	5	0	0	100.0	84	16
CRD	No.	23	26	0	0	0	49	11	38
	%	47	53	0	0	0	100.0	22	78
HE	No.	716	2,223	1,314	0	2	4,255	382	3,873
	%	17	52	31	0	0	100.0	9	91
4-H	No.	5,837	7,127	0	14	25	13,003	5,046	7,957
	%	45	55	0	0	0	100.0	39	61

<sup>1</sup>The number of face to face contacts made in conduct of programs including consultations, workshops, conferences and seminars. The intent is to identify people whose race is discernible who have personal contact with Extension programs.

<sup>2</sup>To be submitted annually.