

NORTH CAROLINA COOPERATIVE EXTENSION

AREERA PLAN OF WORK

Agricultural Research, Extension and Education Reform Act of 1998

1999-2004

North Carolina Cooperative Extension

North Carolina State University and North Carolina A & T State University

NORTH CAROLINA COOPERATIVE EXTENSION PLAN OF WORK

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INTRODUCTION

To achieve their shared land-grant missions, the College of Agriculture and Life Sciences at N.C. State University and the School of Agriculture at North Carolina A&T State University work collaboratively to provide educational opportunities that are relevant and responsive to the needs of individuals, communities, counties and the state. At the heart of their partnership is North Carolina Cooperative Extension.

Cooperative Extension's mission is to help people put research-based knowledge to work for economic prosperity, environmental stewardship and an improved quality of life. To address ever-changing needs, the organization operates under a dynamic long-range plan – one that changes as circumstances indicate it should. The plan encompasses 20 major programs that focus on five major areas of concern statewide:

- sustaining agriculture and forestry
- protecting the environment
- maintaining viable communities
- developing responsible youth
- developing strong, healthy, and safe families

To achieve the plan's 75 major objectives, specialists at the state's two land-grant universities work hand-in-hand with field faculty stationed in all 100 counties and on the Cherokee Reservation. These Extension professionals' work is coordinated with the efforts of the North Carolina Agricultural Research Service, the research arm of the College of Agriculture and Life Sciences. In fact, nearly 100 of the 350 extension faculty within the college have joint appointments with the research service.

In addition to this alliance with research faculty, Extension benefits from the input of a well-established statewide system of lay advisers representing the state's diverse population. Also, each county routinely conducts an environmental scan to determine emerging needs and appropriate education responses. These scans give residents, advisers, commodity group representatives, volunteers and other clients the opportunity to ensure that local programs meet local needs and priorities.

In addition, to ensure that underserved and underrepresented audiences are among those included in program development and implementation, Cooperative Extension has

established a new civil rights plan that includes computer monitoring of program participation by gender and race. A permanent Diversity Task Force monitors our programs, suggests policy, develops and conducts training for the organization.

Stakeholder input undergirds all of Extension's efforts, as it does in the following five-year AREERA Plan of Work. This plan is summarized by goals below. It represents an important component in Cooperative Extension's efforts to provide educational opportunities to help North Carolina's people address critical challenges facing them today and in the future.

GOAL 1

AN AGRICULTURAL SYSTEM THAT IS HIGHLY COMPETITIVE IN THE GLOBAL ECONOMY

Farm regulations are changing, markets are becoming increasingly global in nature, expectations for environmental and natural-resource conservation are higher, consumer preferences are evolving, and new genetically engineered crops are emerging. All of these factors are forcing farmers and agribusinesses to make radical changes. Such changes call for equally revolutionary educational responses from Cooperative Extension.

In North Carolina, where agriculture and agribusiness remains the number one industry, it is especially critical that Cooperative Extension develop and deliver educational programs that help ensure a productive agricultural sector that is competitive in the global economy and that can continue to contribute positively to the state's economy and the quality of life of its citizens.

Over the next five years, Cooperative Extension will provide educational programs for farmers representing the diversity of agricultural production in North Carolina, agribusinesses, and the non-farm public. These performance goals are designed to encompass:

- ▶ crops for traditional as well as niche or specialty markets
- ▶ economically and environmentally sound production technology
- ▶ business management and marketing

GOAL 2

A SAFE AND SECURE FOOD AND FIBER SYSTEM

Each year, thousands of Americans die from illnesses caused by food-borne pathogens, and millions more become sick. To reduce health risks, people need access to a safe and secure food supply. The issues associated with food safety and security are broad and complex, making targeted educational programming to food producers, processors, handlers and consumers critical. People also expect a fiber supply for paper and wood products that is affordable and processed in a safe and environmentally sustainable manner.

To reach its goal of helping to ensure a safe and secure food and fiber system, Cooperative Extension will provide programs on these topics:

- ▶ pesticide certification and licensing
- ▶ food quality and safety assurance related to animal agriculture
- ▶ biotechnology in the food supply
- ▶ adopting appropriate technology, hiring and training qualified personnel and developing in-house quality systems in food processing operations
- ▶ forest products manufacturing and the use and maintenance of wood products
- ▶ basic food sanitation and related issues for food service workers and consumers
- ▶ water regulations and other water-quality issues

GOAL 3

A HEALTHY, WELL-NOURISHED POPULATION

Public interest and concern about nutrition and health issues are at an all-time high. While more consumers than ever are aware of the major issues related to eating and living well, fewer persons can actually put the concepts into practice.

Through educational programming, Cooperative Extension will:

- ▶ inform people about proper nutrition
- ▶ help them reduce their risk of chronic diseases
- ▶ inform parents and child-care providers about the proper feeding of infants and children
- ▶ help people with limited resources improve their diets

GOAL 4

AN AGRICULTURAL SYSTEM WHICH PROTECTS NATURAL RESOURCES AND THE ENVIRONMENT

Production of livestock, poultry and agronomic, horticultural and forestry crops is economically important to the people of North Carolina, providing for nearly 22 percent of the gross state product. To ensure the long-term sustainability of this important industry, farmers, agribusinesses and government service agencies need new technologies and educational programs to help them make wise decisions to protect natural resources and the environment.

Goals include:

- ▶ helping crop and livestock producers and other agribusiness professionals adopt economically and environmentally sound practices to protect water and soil quality and manage wastes
- ▶ helping producers and agribusiness professionals understand, plan and comply with environmental regulations
- ▶ helping people not directly involved in agriculture understand and appreciate the complex relationships between agriculture, silviculture and the environment

GOAL 5 ENHANCED ECONOMIC OPPORTUNITY AND QUALITY OF LIFE FOR AMERICANS

In North Carolina, several economic and social issues have emerged to challenge youths, families and communities. To help address these challenges, Cooperative Extension will design, deliver and evaluate educational programs designed to:

- ▶ improve the quality and availability of child care in North Carolina
- ▶ assist community leaders who seek to implement policies promoting sustainable economic development
- ▶ provide guidance for entrepreneurs designing and maintaining businesses
- ▶ help consumers and families understand the principles of sound money management
- ▶ increase parents' skills and awareness of support services
- ▶ help youth, families and communities become more resilient by building skills and collaborating in both intervention and prevention programs
- ▶ provide long-term support systems for youth

AREERA PLAN OF WORK North Carolina Cooperative Extension North Carolina State University and North Carolina A & T State University–1999-2004

PLAN FOR STAKEHOLDER INPUT

An ongoing system of securing stakeholder input in program planning, implementation, and quality assessment has and continues to be a primary commitment of the NCCES. An Advisory Leadership System is functional in each of the 100 counties in North Carolina. The system includes an Advisory Council and many specialized committees. The Advisory Council represents geographic, cultural and economic diversity within communities of the county. Its function is to provide overall programmatic review, conduct environmental scans and needs assessment for program direction, and help market extension. The specialized committees provide specific program input for individual commodities, issues and ongoing program needs. Membership on both the council and the specialized committees represent the diversity of the respective county population to include under-served populations. While the advisory council will meet quarterly, the specialized committees will meet at least annually to discuss accomplishments and needs still to be addressed. This system is monitored administratively to assure that such program input and actions are provided by stakeholders.

On a statewide perspective, an overall Statewide Advisory Council is functional and provides programmatic inputs, review and guidance for the overall program functions of the NCCES. This group meets quarterly as well as for other special meetings to meet organizational review and input needs. This Council is made up of influential individuals who represent a broad scope of the diverse population in North Carolina, and who have

distinguished themselves in their home areas as respected and responsible knowledgeable leaders who can provide local perspectives into a statewide organization. In addition to being an integral part of the overall State Advisory Council, the Extension Program at NC A&T SU is also guided by a cadre of citizens that comprise the Strategic Planning Council. The Strategic Planning Council is made up of community leaders, agribusiness persons, teaching faculty, cooperative extension team members and individuals representing non-governmental organizations.

Networking and collaboration between the State Advisory Council and the Strategic Planning Council is facilitated by two members who serve on both Councils. The Strategic Planning Council meets three times a year as a group. Members of each Council periodically meet jointly.

With these organized groups functioning as a planned emphasis on significant stakeholder input into program direction, a planned and proactive process is operational that assures that programs are reviewed and overall needs assessed on a continuous basis, but no less than once every two years, with greater frequency encouraged. However, with the functioning of the respective advisory groups on a much more frequent basis, stakeholder inputs are producing a continuous process of program review and adjustments as local needs change.

An environmental scan has been implemented in each of the state's 100 counties to assure that sufficient stakeholder input is inclusive and provides the scope of representation needed for effective program priority setting to occur. This environmental scan surveys county residents, the total advisory system, commodity groups, other clientele, and volunteers. Altogether, more than 5,000 of the state's citizens will be involved in this stakeholder review process.

POW MERIT REVIEW PROCESS

The Long Range Plan Steering Committee with members representing NCSU and A&TSU is the primary merit review group for the POW. Additionally, the co-chairs of each of 20 state plan teams are merit reviewers. Additional persons are the state program leaders. The other merit review group is the POW goal chairs. Collectively, these individuals provide a significant internal merit review of programs taking into consideration the needs and expectations expressed in the stakeholder input process.

REACHING UNDER SERVED and UNDER-REPRESENTED AUDIENCES

North Carolina Cooperative Extension has an established process to assure that such audiences are included in the program development and implementation process. A civil rights plan requires that each county unit report its advisory system membership and the racial and gender makeup of these audiences. Additionally, each organized group that each extension county unit has as a part of its program must pass an inclusionary test to assure that all possible efforts are made to be inclusive of under-served and under-represented individuals and groups in each county. A computer reporting system is operational that immediately notifies each unit if a group is not in compliance, and if not, an

explanation of proactive efforts to be undertaken to be inclusionary must be written and reported for each group.

Extension programs emanating from both A & T State University and NC State University are implemented through an integrated county program in each of the state's counties. These programs are developed to reach a broad audience base, and continuous efforts are made to plan and implement programs to include new and hard to reach audiences. These efforts are promoted throughout the system, and personnel evaluations include the resourcefulness and responsiveness of personnel to assuring that under-served audiences are recruited for program participation and that such groups and individuals are proactively sought out to assure greater representation of these audiences. Such efforts are an integral part of the Extension system in North Carolina, and such efforts shall continue to be made in an unrelenting fashion to assure that an expanding audience base is inclusive of under-served persons.

INTEGRATED RESEARCH AND EXTENSION ACTIVITIES

Research and extension activities are integrated within the College of Agriculture and Life Sciences (CALs) at the administrative, programmatic, departmental and faculty levels. The Directors of the NC Agricultural Research Service (NCARS) and the NC Cooperative Extension Service (NCCES) work closely together and coordinate all aspects of administration; including position management, state budget requests, budget allocation, facility management, and space utilization. Currently there is an integrated effort to more closely align administrative structure of the Directors' offices with programmatic areas across research and extension in the college.

Programmatically, research and extension activities are integrated formally in a number of key areas through the efforts of faculty serving in the role of Research and Extension Coordinator or as a Center Director. Examples of programmatic areas where this has been particularly successful are water quality, animal waste management, integrated pest management, sustainable agriculture, air quality, small fruits, and specialty crops. These Coordinator and Center Director positions are funded by both NCARS and NCCES and operating funds are allocated from both offices.

In all CALs departments that have both research and extension faculty, these faculty are housed together and interact on a day-to-day basis in all operational and programmatic aspects of the department. This also promotes close interaction with faculty who teach, most of which have research or extension appointments.

The most complete integration of research and extension occurs at the individual faculty level. Almost 100 of the 350 CALs faculty at NCSU with research appointments also have extension appointments. In fact most of these split-appointment faculty have 50 to 80% extension appointments, so their research programs are specifically designed to support their extension programs. These faculty serve as a strong link between those faculty who have a majority research appointment (usually split with teaching) and the county-based extension field faculty and state's agricultural industries. Working closely with the more basic, discovery-oriented research faculty, these research/extension faculty, in conjunction

with county field faculty, bring new knowledge and technology to the producers and agribusiness through development, field testing and demonstration.

Cooperative Extension has 71 faculty members who have split appointments with the North Carolina Research Service. The large majority of these faculty have a higher percentage of extension appointment than research. Altogether, the extension commitment is slightly less than 44 fte's with the research appointments making up the remainder to equal the 71 total. The extension commitment to the salaries of these 71 faculty with split appointments is slightly over \$3.2 million of their total salary cost of over \$4.7 million. In addition to salary costs, program and operating support far exceeds salary costs alone. With approximately \$10 million received from federal 3 b and c funds, these commitments to an integrated research/extension programmatic approach far exceeds 25% of the federal appropriation.

MULTISTATE ACTIVITIES

NCCES has identified a plethora of multistate activities in which our faculty engage in program development and implementation, These multistate activities will be enumerated in a comprehensive report as needed guidelines are forthcoming. On a multi-institutional context, NCCES has formed partnerships with two other intrastate universities in conducting a unified agromedicine program for the state's citizens.

AREERA PLAN OF WORK

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GOAL 1

AN AGRICULTURAL SYSTEM THAT IS HIGHLY COMPETITIVE IN THE GLOBAL ECONOMY

Statement of Issues

North Carolina is a major producer of agricultural products and ranked seventh in the nation in 1997, with over \$8 billion in cash receipts. When upstream and downstream economic activity related to agriculture is considered, this sector is responsible for 25 to 30 percent of the total gross state product. The diversity and dynamism of North Carolina's agriculture is amazing with an estimated 60 to 70 commercial products. Over the last 20 years North Carolina has changed from primarily row crops to a highly diversified livestock and crop agriculture. The growth of animal agriculture has had an impact on the environment and on rural non-farm residents.

Crop production continues to be an important part of North Carolina agriculture but North Carolina is a marginal producer of many nationally important crops, which means acreages adjust markedly to changing domestic and global economic conditions, foreign trade agreements, and changes in government programs. It is critical that producers understand

the impact of these factors on their particular farm situation.

There are tremendous changes in population demographics in North Carolina, which affect the demand for traditional farm products and create demands for new agricultural products. Population growth and urban spread affect both land use and land values. There are new voices in agricultural policy and regulation arenas who are creating new rules for farmers to live by. There are changes in the structure of the nation's agriculture and a bimodal distribution has emerged. On the one hand we see large farms and agribusiness concerns, high capital investment and vertical integration. The other segment has a much larger number of individuals engaged in smaller-scale, part-time farming. People in this part of the spectrum often produce for niche, local and specialty markets.

As a result of these changes, there is an expanding number of new or inexperienced producers, which creates increased education needs and opportunities for production and marketing information. Also, as producers diversify into horticultural and specialty crops, they must understand non-traditional markets and develop marketing strategies. Programs are needed to educate lenders and the financial community these opportunities and to help farmers and entrepreneurs develop strong business plans.

In summary, the likely reductions in some economically important commodities and expansion in other products, changes in government policies and regulations, expanding global markets, changes in farm structure, the introduction of genetically engineered crops, and changes in demographics are challenges facing all segments of North Carolina's agricultural community. NCCES must be prepared to continue to develop and deliver educational programs to full-time, part-time and limited resource farmers, to agribusiness, and to the non-farm public, to ensure a productive agriculture that is competitive in the global economy and that can continue to contribute to the states economy and the way of life of its citizens.

Performance Goals

Producers and their families will select, adopt and successfully implement enterprises and practices that will achieve individual and family goals related to profitability and quality of life. To this end, producers will investigate and evaluate alternative agricultural opportunities, innovative production practices and marketing options. Part-time and limited resource farmers will increase the viability of their farms through diversification, intensive management practices and expanded markets. Producers, farm organizations, and agribusinesses will become knowledgeable of local and global market factors and develop strategies to cope with or take advantage of these factors to maximize farm profits.

These goals encompass the following North Carolina Major Programs and objectives: CEMP4 – Animal Production and Marketing Systems, Objective 1; CEMP 7 – Crop Production and Marketing Systems, Objectives 1, 2, 3, and 7; and CEMP 14 – Marketing and Production of Alternative Agricultural Opportunities and Enterprises, Objectives 1 and 2.

Output Indicators

Number of volunteers and number of hours donated.

Outcome Indicators

The following indicators will be evaluated to document program impacts:

Number of producers increasing knowledge of best management practices, new and existing production systems, new markets and marketing options.

Number of producers and agribusiness increasing knowledge of global market trends and trade policies.

Number of producers adopting new or improved marketing and production practices, including BMPs, that are profitable either because of added income, reduced costs, or both.

Number of producers applying improved farm financial planning practices and procedures.

Key Program Components

North Carolina's agriculture is diverse. In some situations there are problems and opportunities associated with growth, in others the challenge is to restore or maintain profitability. Demand for educational programs is increasing not only in traditional programming areas but also for multidisciplinary, issue driven problems. Federal and state agencies are pushing for higher adoption of more environmentally sound production practices and are creating more regulations that producers must meet.

Subject matter includes production technology based in many disciplines as well as the business management skills and tools needed to evaluate alternatives. There are three components: 1) Review of production and marketing opportunities based on family resources, talents and location; 2) Identification of alternatives, analysis, selection, and planning production and marketing; 3) The effective implementation of the production and marketing plan. However, this approach must and will give agents and specialists the flexibility to address the many and varied areas of concern based on specific needs and circumstances.

Internal and External Linkages

Existing internal and external partnerships will be continued and strengthened as appropriate to this goal. Internal linkages occur primarily through a well-developed extension planning system that is goal oriented. This system is interdisciplinary and involves personnel from 1890 and 1862 institutions. External linkages are both formal and informal. Formal linkages include participation in Southern Extension and Research Activity–Information Exchange Groups (SERA-IEG), of which there are 16 currently existing that will be functioning during the period covered by this plan. Informal linkages arise through personal relationships developed through contacts made at commodity and specialized meetings, professional associations, regional conferences, etc..

Target Audiences

Because of the importance, complexity and dynamism of North Carolina agriculture, there are many clientele groups to be served. All those involved with, and affected by, production agriculture are our clientele, including farmers and their families, the agribusiness community that supplies the farm inputs and processes the farm products, consumers, youth, rural non-farm residents, and those in leadership roles. Producers span the gamut from the smallest-scale, limited resource farmer to the largest commercial operations, and from the new entrant with little basic knowledge to the most experienced and sophisticated operator. This audience also encompasses the independent farmer and those who are contract producers for large, integrated firms.

Program Duration: 5 Years

FTEs & PROGRAM COST

state FTE's 54	county FTE's 76	Program cost:: \$7,000,000
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GOAL 2

A SAFE AND SECURE FOOD AND FIBER SYSTEM

Issue(s): The safety and security of our food and fibersupply are shared responsibilities. Food producers, processors, handlers, and consumers are all part of the food safety and security continuum from farm-to-table. Consumers want a safe food supply and access to nutritionally adequate and affordable foods. Consumers also want an adequate and affordable fiber supply to provide paper, packaging and other wood product needs.

The 1994 report from the Council on Agriculture Science and Technology estimated 6.5 to 33 million cases of human illness and 6,000 to 9,000 deaths occur annually in the U.S. due to foodborne disease. These statistics are astounding, and provide clear justification to the allocation of land grant resources (teaching, research, extension) to minimize food safety hazards (biological, chemical, and physical) associated with the morbidity and mortality.

Reduction in the incidence of foodborne disease is a feasible goal. However, realization of this goal will require collaboration among all elements of the farm-to-table continuum, including research and education initiatives. The food safety system is in need of change, especially change that builds on the preventive principles embodied in HACCP (Hazard Analysis Critical Control Point) programs. NCSU and NC A&T research efforts focus on innovations throughout the farm-to-table continuum to prevent biological, chemical, and physical hazards from contaminating foods. Additionally, extension education programs address food safety in a number of ways including aiding in the development and implementation of HACCP plans and Good Production and Manufacturing Practices. Extension programs have also targeted food handlers (i.e., consumers and foodservice workers) to teach them safe food handling principles.

Food security is also an important health issue. Food security focuses on concerns related to access to nutritionally adequate and safe foods. Poor nutrition and its relationship to many chronic diseases is well documented, as is the association of unsafe foods with foodborne illness. Both conditions cost the U.S. billions of dollars and impair the quality of life for many Americans. Food insecurity is strongly associated with poverty. NC ranks thirty eighth among states in terms of poverty. More than 12% of the state's population of 6.9 million lives in poverty. In 25 of the 100 counties, more than 20% of the residents live in poverty; in 21 counties 15% live in poverty. Of these 46 counties, 39 are rural. Food recovery is one way to enhance food security. Up to 20% of America's food goes to waste each year, with an estimated 130 pounds per person ending up in landfills. Within the state, six Second Harvest Food Banks, and six prepared and perishable food recovery programs have been operating since 1981.

Food safety and security issues are not isolated to any one scientific discipline or business sector. Consequently, improvements to the safety and security of our food system require multi-disciplinary collaboration between appropriate academic colleges and departments, as well as commitment from all elements of the farm-to-table business sectors. In addition, collaboration with responsible local, state, and federal regulatory agencies is imperative.

Fiber production from agriculture or forest products enterprises are vital parts of North Carolina's economy. Issues associated with these enterprises are safe and efficient processing methods and technologies that minimize environmental and health risks yet provide a quality and affordable product. Efforts are directed at improving the efficiency of wood products manufacturing facilities and operations.

North Carolina is fortunate to have developed strong linkages among these important academic, business, and regulatory groups. The nature of these relationships ranges from funding support to joint participation in research and education programs.

Since the issues associated with food safety and security are broad and complex, so too are the audiences addressed by the North Carolina program. The audiences most likely to be impacted by our programs are: primary producers, food processors, food service operators, and consumers. Efforts will also be directed at reaching out to under-served and under-represented individuals, groups, and/or organizations by first seeking to identify these individuals or organizations through the county Extension network and developing specialized educational programs to suit their specific needs. The methods used to engage these audiences will include formal teaching, workshops, distance learning, conferences and undergraduate and graduate research. Reporting vehicles include professional journals and trade publications, conference proceedings, books, patents, cooperative extension publications, and joint academic/industry reports.

Performance Goal(s):

Performance Goal 1: Agriculture and the Environment

Pesticide Certification and Licensing Program. All commercial pesticide applicators, public operators, consultants, dealers, and private pesticide applicators will be certified

and trained in pesticide best management practices to protect crop safety.

Output Indicators

1. Number of BMPs adopted concerning pesticide use
2. Number of certifications and recertifications

Outcome Indicators

1. Reduction in pounds of pesticides applied per acre of crop
2. Amount of production costs reduced through proper and more efficient use of pesticides
3. Reduction in number of application citations for improper pesticide application or handling practices

Key Program Component(s)

The key teaching components of this objective include: the certification and recertification of private applicators, pesticide labeling, record keeping, pesticide disposal, preventing surface and groundwater contamination, commercial licensing, pesticide alternatives, and IPM programs.

Internal and External Linkages

The opportunities to form networks with other agencies, entities, and/or organizations is unlimited. Such opportunities include but are not limited to: Federal and State Agencies, agri-business, news media, environmental groups, physicians/veterinarians, political stakeholders, educators at all levels, commodity organizations, and crop growers associations.

Target Audiences

1. Private pesticide applicators
2. Commercial pesticide applicators, consultants and dealers
3. Agricultural workers and pesticide handlers

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 2: Animal Production and Marketing Systems

North Carolina citizens (farm and non-farm) will address controversial issues (of mutual concern) that relate to animal agriculture, including food quality and safety assurance. Resolution of these issues will not only sustain the NC animal agriculture industry but provide for the production of safer food products derived from animals.

Output Indicator

1. Number of newspapers and other mass media stories indicating enlightened information and knowledge about animal agriculture

Outcome Indicators

1. Number of farmers demonstrating increased understanding and appreciation of animal

agriculture

2. Number of non-farm citizens demonstrating increased understanding and appreciation of animal agriculture
3. Number of farmers demonstrating increased understanding of food supply facts and quality standards
4. Number of non-farm citizens demonstrating increased understanding of food supply facts and quality standards
5. Number of farmers adopting appropriate standards, practices, and procedures to address industry concerns and issues.

Key Program Component(s)

The key teaching points of this objective include: the contributions of animal production to the economy, waste recycling, environmental concerns (odor, pests, wastes, disease, property value degradation), integration of rural and urban culture (experience, needs, expectations, concerns), and other public policies, issues, and concerns (animal welfare, land stewardship, quality of life, regulation/legislation, biotechnology).

Internal and External Linkages

1. Interagency collaboration on cost share and waste management programs
2. Producer associations
3. National grower's organizations
4. Issue resolution groups that include participants from the animal production sector, county/local governments, environmental groups/agencies, community/business leaders, concerned citizens.
5. Commodity group action committees to promote community awareness and respond to issues
6. Funding sources

Target Audiences

1. Agricultural groups including: contract growers, independent animal producers, integrators, other farm operators, processors, farm organizations, commodity groups, 4-H/FFA groups, agricultural lenders, agricultural contractors and suppliers
2. Government and community including: Federal and state regulators, county commissioners, city council members, civic organizations, building contractors, realtors, other business owners, homeowner/subdivision organizations, schools, church organizations, general public (rural and urban) media, and environment/health organizations.

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 3: Crop Production and Marketing Systems

Citizens will become knowledgeable about biotechnology and the use, benefits, and risks associated with the production of genetically engineered crop plants.

Output Indicators

1. Number of individuals with increasing awareness and knowledge of biotechnology and its application to crop production

2. Number of farmers utilizing biotechnology applications to crop production through the use of genetically engineered varieties
3. Number of acres affected from adopting biotechnology practices
4. Number of citizens with increased understanding of safety, use, and benefits of production of genetically engineered crop plants

Outcome Indicators

1. Number of dollars in optimized profits through the use of practices associated with production of genetically engineered crop plants
2. Number of dollars saved in pesticide use through genetic resistance to plant pests
3. Number of non-farm public demonstrating knowledge and understanding on the use, benefits, and risks associated with food, food products, and fiber crops generated from genetic engineering

Key Program Component(s)

The key teaching points of this objective include: understanding biotechnology (use, benefits, and risks associated with genetically engineered plants on NC farms), food safety and genetically engineered plants and plant products.

Internal and External Linkages

1. Joint projects
2. Demonstrations
3. Grants providers
4. Resource materials generated through cooperative efforts with agencies such as FSA, NRCS, NCAD&CS, USDA, commodity organizations, agribusiness, environmental interest groups, and local and state agencies.

Target Audiences

1. Farmers
2. Agribusiness
3. County decision makers
4. Civic organizations
5. General public

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 4: Food Products Manufacturing

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

Output Indicators

1. Number participating in training
2. Number adopting quality strategies
3. Number of firms adopting new technology

Outcome Indicators

1. Increased value of industry in dollars
2. Increase in industry employment in dollars
3. Increase in construction and purchase of food processing equipment in dollars

Key Program Component(s):

The key teaching points of this objective include: Total Quality Management, ISO 9000 programs, food processing technology, residue avoidance, employee safety, food regulations, and statistical process control.

Internal and External Linkages

1. Regulatory and public health agencies
2. Suppliers of new equipment and technology
3. Commodity organizations
4. Industry cooperators
5. NC Departments of Labor and Commerce
6. Small Business Technology and Development Centers
7. Small Business Administration
8. Trade associations

Target Audiences

1. Food processors and their employees
2. Regulatory and public health personnel at the state and local levels
3. Public leaders
4. Consumers

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 5: Forest Products Manufacturing

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

Output Indicators

1. Number of firms adopting new manufacturing techniques
2. Number of consumers adopting practices related to selection, use and maintenance of wood products
3. Number of consumers increasing their knowledge of the economic importance of the wood products industry
4. Number of consumers increasing their understanding of forest products and their proper use

Outcome Indicators

1. Number of dollars saved through improved utilization or productivity
2. Number of dollars from increased production of value-added products
3. Number of dollars saved through improved yield, efficiency, productivity, and marketing

Key Program Component(s)

The key teaching points of this objective include: new utilization techniques, business management principles, marketing, production efficiency and productivity, product quality, feasibility studies, consumer education, and effective decision making.

Internal and External Linkages

1. Regulatory and public health agencies
2. Suppliers of new equipment and technology
3. Commodity organizations
4. USDA, Forest Service
5. NC Division of Forest Resources
6. Industry cooperators
7. NC Departments of Labor and Commerce
8. Trade associations

Target Audiences

1. Primary manufacturers
2. Secondary manufacturers
3. Managers in the wood products industry
4. Users of wood products

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 6: Food and Forest Products Manufacturing

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

Output Indicators

1. Number of requests for assistance from small business and entrepreneurs
2. Number of county manufacturing/entrepreneurial clubs established
3. Number of new companies in food and forest products manufacturing

Outcome Indicators

1. Number of new small businesses in food and forestry manufacturing.
2. Number of entrepreneurs who will become established, hire new employees, and will improve probability of success.

Key Program Component(s)

The key teaching points of this objective include: food technology, wood products technology, regulations, management techniques such as TQM, statistical process control, HACCP, managing people, crisis management, and evaluation of new technology.

Internal and External Linkages

1. Regulatory and public health agencies
2. Suppliers of new equipment and technology
3. Commodity organizations
4. USDA, Forest Service
5. NC Division of Forest Resources
6. Industry cooperators
7. NC Departments of Labor and Commerce
8. Small Business Technology and Development Centers
9. Small Business Administration
10. Trade associations

Target Audiences

1. Manufacturers of foods and forest products
2. Supervisors in the manufacturing industry
3. Entrepreneurs
4. Consumers
5. Regulators

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 7: Food Safety and Quality

Participants will adopt behaviors to decrease the risk of foodborne illness.

Output Indicators

1. Number of consumers with increased knowledge about safe food handling
2. Number of consumers with improved attitudes about the need to handle food safely
3. Number of food service workers with increased knowledge about safe food handling
4. Number of food service workers with improved attitudes about the need to handle food safely

Outcome Indicators

1. Number of consumers adopting safe food handling practices
2. Number of foodservice workers adopting safe food handling practices

Key Program Component(s)

The key teaching points of this objective include: basic food sanitation, legal issues, laws and regulations governing food, costs of foodborne illness, procedures for reporting unsafe food handling, and home food preservation.

Internal and External Linkages

1. Biotechnology companies
2. NC Biotechnology Association
3. County agencies/programs
4. Extension homemakers
5. Health Department director, Sanitarians

6. JOBS program coordinator
7. Mental Health Group Homes
8. Nursing and Group Home Administrators
9. Senior Meals Program staff
10. Social Services personnel
11. Child Care Directors, providers
12. Community College staff
13. Department of Public Instruction
14. K-12 teachers
15. Media
16. School administrators, Food Service Director
17. Vocational Education Coordinator
18. Commodity organizations
19. Food processors and retailers
20. Producer/Commodity groups
21. Restaurant Association
22. Restaurant owners
23. Retail food managers
24. Government agencies
25. NC Department of Agriculture and Consumer Services

Target Audiences

1. Food producers and processors
2. Food service - public food service (day care providers, restaurant employees, occasional quantity food servers, institutional food service workers, food retailers, jobs staff and participants, sanitarians, caterers)
3. Consumers
4. Home food preservers

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 8: Biotechnology

Target audiences will increase knowledge of and confidence in the safety and acceptability of the use of biotechnology in our food supply. Due to the continuing changes in food technology other areas not yet known will need to be addressed in the future.

Output Indicators

1. Number of consumers with increased knowledge about the application of biotechnology

Outcome Indicators

1. Number of consumers with improved attitudes about the safety and acceptability of the use of biotechnology in the food supply

Key Program Component(s)

The key teaching points of this objective include: definition of biotechnology, importance of biotechnology, historical context of biotechnology, genetic engineering, public policies and interests, major uses of biotechnology, food related benefits and applications, enhanced

knowledge and understanding, economic growth and the state's economy, issues and concerns about biotechnology, and public policies and regulations.

Internal and External Linkages

1. Biotechnology companies
2. NC Biotechnology Association
3. County agencies/programs
4. Extension homemakers
5. Health Department director, Sanitarians
6. JOBS program coordinator
7. Mental Health Group Homes
8. Nursing and Group Home Administrators
9. Senior Meals Program staff
10. Social Services personnel
11. Child Care Directors, providers
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19. Food processors and retailers
20. Producer/Commodity groups
21. Restaurant Association
22. Restaurant owners
23. Retail food managers
24. Government agencies
25. NC Department of Agriculture and Consumer Services

Target Audiences

1. Consumers
2. Public officials
3. Media
4. Educators
5. Food industry

Program Duration: This program will continue for the five year life of this plan.

Performance Goal 9: Residential and Community Water and Waste Management.

Water Quality: Elected officials, community well owners, environmental health specialists and homeowners will understand water regulations and options for remedial actions and improve surface and groundwater quality.

Output Indicators

1. Number of people with increased knowledge and awareness of best management practices to protect and improve drinking water quality.
2. Number of people who adopted one or more best management practices to protect and improve drinking water quality.

Outcome Indicators

1. Costs avoided by not having to replace the contaminated wells or use an alternate water source.
2. Number of wells protected or improved by implementing one or more water quality best management practices

Key Program Component(s)

The key teaching points of this objective include: water basics, water conservation, water pollution, water quality standards, regulations, water testing, water treatment, and protecting private wells and springs.

Internal and External Linkages

1. Formation of an environmental advisory board comprised of representatives from interests groups, governmental agencies, community groups, and private citizens.
2. NC Department of Environment and Natural Resources
3. Local Health or Environmental Departments
4. Public Works Departments
5. Sources of funding: utility companies, businesses, industries, USDA, EPA, Water Quality Incentive Projects, foundations, or local and state governmental agencies

Target Audiences

1. Private well users
2. Public water supply users
3. Media
4. Youth
5. Realtors
6. Community well owners
7. Developers
8. Local officials
9. State officials
10. Environmental health specialists

Program Duration: This program will continue for the five year life of this plan.

FTEs & Program Cost

state FTEs - 31	county FTEs - 45.4	Program cost - \$3,908,400
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GOAL 3

A HEALTHY, WELL-NOURISHED POPULATION

Issue

The importance of promoting nutrition and wellness throughout life has been clearly established. Two recent major scientific reviews, the "Surgeon General's Report on Nutrition and Health" and "Diet and Health" by the National Research Council have documented several diet and chronic disease relationships and have recommended some dietary changes for the public. The Public Health Service "Year 2000 Objectives For the Nation" has also noted the major role that nutrition plays in health promotion and disease prevention.

Behaviors for Optimal Health

Public interest and concern about nutrition and health issues are at an all-time high. While more consumers than ever are aware of the major issues, fewer can put those concepts into everyday practice. At the same time consumers are vulnerable to the myriad of misinformation that targets their concerns and fears.

Scams and misinformation abound and are costing the public billions of dollars. Consumers continue to need help in using the Dietary Guidelines and the Food Guide Pyramid to incorporate balance, moderation and variety in their diets. Research has shown that consumers do not know the food groups, nor the number of servings they and their families should have from each food group. They also do not understand serving sizes and confuse a "serving" with a "helping" of foods. Programs that address these needs continue to be imperative if consumers are to adopt behaviors that optimize their health.

Nutrition and Chronic Disease

Dietary factors are associated with five of the ten leading causes of death in N.C. (and in the U.S.), including coronary heart disease, some types of cancer, stroke, noninsulin-dependent diabetes mellitus, and atherosclerosis. Another three (cirrhosis of the liver, unintentional injuries, and suicides) are associated with excessive alcohol intake. Currently, health professionals are more concerned with excess and imbalance of certain components in the diet than the dietary deficiencies seen in former days. North Carolina has higher age-adjusted mortality rates in comparison to national averages; much of which may be related to what citizens eat. Diets in North Carolina are improving but 1993 and 1994 statewide surveys show that people still consume too much fat, salt and sugar and too little high fiber fruits, vegetables and whole grain foods. Many people have heard and accepted the message that they should reduce the fat, salt and sugar in their diets however, all too often, they don't recognize where these components are in foods or how to lower their intake. As research continues in these areas and as consumers continue to

seek the answers to their questions, programs will continue to be needed that address the risk factors associated with various health problems and appropriate lifestyle changes.

Lifecycle Concerns

One of the best indicators of maternal and child health is the infant mortality rate, or the number of babies per 1000 live births that die before their first birthday. North Carolina has historically had an infant mortality rate well above the national average but over the past few years has improved to 9.9. This rate, however is still high and reflects the need for continued programming in the maternal and child area.

No time is more important than childhood to promote healthy eating and health practices. Children in North Carolina do not consume enough fruits or vegetables and have diets that are low in fiber and higher in fat than recommend. Children in North Carolina need quality nutrition education to help positively influence their food choices. For nutrition education efforts to be effective they must also include parents and care givers. Helping families make informed decisions about their nutrition will help insure that North Carolina's children grow to reach their full mental and physical potential.

Demographic changes in North Carolina's population continue to impact nutrition and health issues. The fastest growing age group in the state is the 65 years-and-over segment. The elderly run disproportionate risks of malnutrition and poverty as well as poor overall health status. In fact, over 85% of older adults suffer from chronic diseases and could benefit from dietary intervention. The general nutrition needs of the well elderly must be addressed, however the needs of the elderly for prevention of malnutrition and chronic disease actually begin much earlier in life. Programs addressed to young adults and the middle-aged consumers will continue to impact the health of the population as it "ages."

Women are employed in greater numbers, many joining the ranks of the working poor. Over 80% of women who had school-aged children were working outside the home; 67% of women with youngest child under six years were in the labor force. For working parents with very limited resources, lack of after-school and summer programs for youth are a major concern.

Performance Goal #1

Participants will adopt behaviors to promote a healthier diet.

Output Indicators

Number of participant's diets that score higher in meeting RDAs for energy nutrients, vitamins and minerals.

Numbers of participants increasing knowledge that will promote a healthier diet.

Numbers of participants increasing skills that will promote a healthier diet.

Numbers of participants changing attitudes that will promote a healthier diet.

Numbers of participants changing aspirations that will promote a healthier diet.

Outcome Indicators

Numbers of participants adopting dietary behaviors that are consistent with behaviors promoted in the dietary guidelines

Key Program Components

The key teaching components of the objective will include Worksite Wellness programs, health fairs, workshops and demonstrations, after-school programs, parent-teacher programs, and face-to-face encounters. Media will be used to effectively disseminate a clear message about healthy eating patterns. Programs such as the Physician's Project, Partners in Wellness and Out For Lunch will help participants adopt healthy dietary behaviors.

Performance Goal #2

Participants at risk for chronic disease/condition will change behavior resulting in reduced risk.

Output Indicators

Numbers of participants who increase knowledge in how to reduce risk for chronic disease
Numbers of participants who increase skills that will promote reducing risk of chronic disease

Numbers of participants who change attitudes that will promote reducing risk of chronic disease

Numbers of participants who increase aspirations that they can reduce chronic disease risks

Outcome Indicators

Number of individuals reducing risk factors for chronic diseases (heart diseases, strokes, cancers, adult-onset diabetes, arthritis, atherosclerosis, and osteoporosis) including:

- Numbers who decrease high blood cholesterol level
- Numbers who decrease high blood pressure
- Numbers who decrease high blood sugar
- Numbers who decrease excess weight (exact amount of wt. lost/person)
- Numbers who increase exercise (exact amount of exercise/person) eg. so many miles/week for so many weeks/person
- Numbers who decrease fat in diet to below 30% of calories
- Numbers who decrease sodium in diet
- Numbers who increase fiber in diet
- Numbers who increase fruits and vegetable consumption
- Numbers who increase calcium in diet
- Numbers who decrease dietary cholesterol to 300 mg/day

Key Program Components

The key teaching components of this objective will include demonstrations/workshops, health fairs, video and audio tapes, home study kits, supermarket/farmer's market tours, and discussion groups and support groups. The mass media will be used to effectively disseminate messages about the relationship between chronic disease and eating patterns. Programs such as Give Your Heart A Healthy Beat and NoonLiting will help participants adopt eating patterns that will decrease their risk of chronic disease.

Performance Goal #3

Participants in nutrition and wellness programs for parents or care-givers and/or children will improve knowledge and adopt behaviors to promote a healthy diet.

Output Indicators

Parents increase awareness and knowledge of importance of good nutrition for children.

Parents increase knowledge about good eating habits for children.

Parents and children participating in food and nutrition activities together

Child care providers increase knowledge about the importance of good nutrition for children and the importance of teaching children about nutrition.

Outcome Indicators

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

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

Child care providers teach children about the importance of a healthy diet based on the Dietary Guidelines and the Food Guide Pyramid.

Key Program Components

The key teaching points for this objective will be training in nutrition for child-care providers, in-home study for parents and children, health fairs for parents and care-givers, one-on-one discussion with parents, and work in the classroom and child-care setting with children. Mass media will be used to effectively disseminate nutrition messages to parents and child-care providers about the importance of helping children to form healthy eating habits early in life. Programs such as HomePlate, Be Active Kids, Out For Lunch and an interactive multimedia CD-ROM for adolescents will help young people adopt healthy eating patterns for a lifetime of good health.

Performance Goal #4

Limited resource audiences will adopt behaviors that improve the nutritional adequacy of their diet.

Output Indicators

Numbers who learn skills and adopt practices (teaching plans, observation, feedback)
Numbers and percent who decrease in percent low birth-weight babies (below 5.5 pounds)
Number increase in pregnant women who receive early prenatal care
Number increase in WIC breastfeeding adoption and duration past 6 weeks post partum

Outcome Indicators

Number who made dietary improvement
Number who had healthy infants living past the first birthday.

Key Program Components

The key teaching components of this objective include neighborhood groups, preformed groups, one-on-one contacts, volunteers and use of the media. Programs such as the Expanded Food and Nutrition Program, Breastfeeding Program, Hey What's Cookin'? (for pregnant teens), Be Active Kids, Out For Lunch, and Partners In Wellness will all help limited resource audiences adopt behaviors that improve the nutrition adequacy of their diet.

Target Audiences for Performance Goals 1-4

General population above 2 years of age
Other food, nutrition, and health professionals
Teachers
Child-care providers
Parents
Business/industry
4-H leaders, volunteers, and youth
Coaches
Working families
Unemployed families
Young families with children who qualify for food assistance (WIC, Food Stamps, reduced price or free school lunch)
Pregnant women
Pregnant and parenting teenagers
4-H aged youth
Elderly
Individuals (above age 2) with increased risk of chronic disease (such as heart disease, cancer, stroke, and diabetes or conditions (allergies, osteoporosis) that require some special dietary need)
Minorities (generally at a higher risk than rest of population)
Limited resource individuals (limited culturally, financially, etc.)
Work-site groups in business and industry Extension Homemakers
Individuals referred by physicians for risk-reduction programs.

Internal and External Linkages (for Performance Goals 1-4)

There is limitless opportunity to network, collaborate and form coalitions with others to provide the public with quality nutrition education. Such opportunities include but are not limited to:

- North Carolina Universities and Colleges
- Federal and State Agencies
- Media
- Faith Community
- Child-care Centers and Family Day Care Homes
- Local and regional hospitals
- Physicians
- Boys and Girls Clubs
- Head Start
- Parent and Teacher Organizations
- Family Resource Centers
- After School Programs
- Public Schools
- 4-H Youth Development
- Corporate Partners

FTEs & PROGRAM COST

state - 5.75	county - 25	program cost - \$1,296,600
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GOAL 4

AN AGRICULTURAL SYSTEM WHICH PROTECTS NATURAL RESOURCES AND THE ENVIRONMENT

Production of livestock, poultry, and agronomic, horticultural, and forestry crops is economically, socially and environmentally important to the citizens of North Carolina. Roughly 30 percent of the states GNP is derived from on farm production or value added to farm products. While agriculture remains the single largest source of income, the active farm population continues to decline; yet, there is constant migration from urban to rural areas resulting in a growing rural population. Increasing livestock and poultry production combined with migration of non-farm population into agricultural production areas has resulted in much conflict between livestock producers and non farm residents. There is much concern about nuisance odor and pollution of surface and ground water from mismanaged manure products. Nearly half of North Carolinas population rely on ground water for water supply with more than 1 million wells currently in use. While groundwater supplies are generally of good quality for drinking, elevated nitrate levels have been detected in some intensive agricultural areas, in particular counties that have experienced rapid livestock growth. Proper management of animal waste by-products is paramount to protecting ground water quality.

The N.C. Division of Water Quality estimates that 28 percent of the 37,657 miles of freshwater streams and rivers are impaired with nonpoint source pollution accounting for

over 75 percent of the impaired mileage. Major causes of impairment are sediment, fecal coliform bacteria, and nutrients. Loss of riparian buffers adjacent to streams is a major factor affecting stream water quality and are an important resource for buffering valuable aquatic resources from the potential negative impacts of nearby agricultural land uses. In order for agricultural producers to comply with environmental regulations and maintain economic productivity, many management and structural practices must be implemented.

Development of new technologies and education is needed for producers, agribusiness, and agricultural service agencies to make sound decisions that protect the environment and maintain productivity through adoption of sound practices that manage water, waste, soil, nutrients and pesticides. Targeted practices include nutrient management, riparian buffer and stream bank restoration, practices to reduce soil erosion and sediment delivery to surface waters, and sustainable production systems that utilize reduced tillage and integrated pest management. Target agricultural audiences include: livestock, poultry, and fish producers; field crops producers; nursery and greenhouse growers, and turf and landscape professionals; agribusiness professionals and commodity organizations; and agricultural services agencies. Key forestry efforts will be coordinated to target and promote sustainable forestry practices to preserve and protect ecosystem integrity and biodiversity; and, protect, sustain and enhance water, soil and air resources. Target audiences will include loggers, landowners and professional forest managers.

Education is also needed for non-agricultural citizens, including lawmakers, on the complex relationships between agriculture, silviculture, and the environment so that effective and reasonable pollution reduction programs can be developed and implemented. Programs will be targeted to public officials, environmental interest groups, the media, consumers, educators, and related industry such as agribusiness and financial institutions to increase their understanding of and appreciation for the complex relationships between production systems, natural resources and the environment.

Performance Goal 1

Livestock and poultry producers will adopt and promote sustainable, economical and environmentally sound practices to manage water and waste materials for the purpose of improving air and water quality protection.

Output Indicators

Number of land application operators trained and certified
Acres of best management practices adopted

Outcome Indicators

Tons of soil erosion reduced on pastures, feedlots, and land application fields
Economic value of livestock organic by-products utilized
Producers utilizing approved waste utilization plans
Number of farmers adopting BMPs

Target Audiences

Poultry producers, Swine producers, Beef producers, Dairy producers, Horse owners,

Goat producers, Sheep producers, Aquacultural producers; Certified operators;

Performance Goal 2

Field crop producers, nursery and greenhouse growers, and turf and landscape professionals, and forestry professionals will adopt and promote economically and environmentally-sound practices to manage water, soil, nutrients, and pesticides for the purpose of improving water quality protection and management of natural resources.

Output Indicators

Number of industry meetings and trade shows promoting environmentally sound agriculture
Number of environmental programs sponsored by agribusiness

Outcome Indicators

Number of professionals completing certification/recertification courses
Reduction in number of pounds of commercial fertilizer applied
Reduction in tons of soil loss
Acres wildlife habitat established
Number of Acres of best management practices adopted
Miles of vegetative buffer or forested riparian areas restored
Number of farms establishing field borders, filter strips, permanent wildlife cover; Forestry BMPs adopted

Target Audiences

Field crop producers, Nursery and greenhouse growers; Turf and landscape professionals; Agribusiness professionals and commodity organizations; Loggers, Landowners and Professional forestry managers; Waste and nutrient management consultants

Performance Goal 3

Producers and agribusiness professionals will become knowledgeable of regulations and environmental constraints on production practices; evaluate the impacts of these constraints on their farms; will gain knowledge, awareness, understanding, and skills to develop plans for overcoming barriers that prevent them from realizing the link between informed decision making and the capacity to sustain natural resources; and will become involved in the process by which agriculture and natural resources issues, legislation, rules and regulations are developed.

Output Indicators

Number of individuals attending environmental policy seminars, workshops, courses
Number of industry meetings and trade shows promoting environmentally sound agriculture
Number of programs delivered by multiagency groups
Number of organized contacts between agricultural community and special interest groups

Outcome Indicators

Participants with increased knowledge of policy making process

Increased participation in policy making

Adoption of local public policies that reflect both the agricultural community's and environmental interest

Landowner and public awareness and knowledge of the link between agriculture and the environment

Target Audiences

Field crop and livestock producers, Agribusiness Council, Environmental groups, 4-H and youth, Local and state lawmakers and decision makers

Key Program Components (Includes all performance goal areas)

Nutrient management training; Effective BMP demonstrations, evaluation and implementation; Animal waste operator certification, Farm*A*Syst; Waste Record Keeping; Forest Stewardship; Ecosystem management; Integrated pest management; Pesticide container recycling and pesticide disposal; Forestry youth programs such as project learning tree, project WILD, Aquatic WILD, Catch Clinics, Wildlife habitat judging; Dairy wise; Farm city week.

Internal and External Linkages

FSA; NRCS; NCDA; DENR; USGS; Agribusiness council; Commodity groups; Local and State governments; Agricultural, forestry and environmental consultants; Environmental groups; Farm Bureau; NC Grange; Agricultural credit and financial institutions; 4-H and youth groups; News Media.

Program Duration: 5 years

FTEs & PROGRAM COST

state FTE's 32	county FTE's 68	Program cost: \$5,180,430
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GOAL 5

ENHANCED ECONOMIC OPPORTUNITY AND QUALITY OF LIFE FOR AMERICANS

Empower people and communities, through research based information and education, to address the economic and social challenges facing youth, families, and communities.

Statement of Issue

North Carolina is a very diverse state in terms of population, industry types, and agricultural commodities produced. The 6.8 million people who live in the state are diverse in terms of racial make-up (Persons with no or very low English speaking skills, African-American, and Native American residents), age (infants, youth, working age, and retirement aged), and financial well being. North Carolina has a wide variety of industries contributing to the general economy ranging from the fisheries on the coast, to the Christmas tree industry in the mountains, to the furniture manufacturing in the Piedmont, to the farming industry that

spans the state. There are large industrial components as well as a rapidly increasing cottage/small business component.

The diverse population described above face many social and economic challenges. Some of these challenges stem from the fact the world now functions in a global economy rather than the local economy that was the situation in the past. Consequently, there is a real need for citizens of North Carolina to understand the interrelationships between what happens in the economies of other countries and how that might affect our economy. Some of the challenges are due to the increased cost of living that has forced the “second spouse” to enter the work place. This puts more stress on the family unit as well as creating a real need for improved child care, and more child care providers. Other challenges occur as a result of North Carolina becoming a prime “retirement state” as well as experiencing an aging population of its own. Some challenges are the result of a society that is three to five generations removed from actual production agriculture, and this has resulted in a society that is less understanding and less appreciative of production agriculture. An impending major change in the tobacco industry is causing a large amount of economic uncertainty and emotional stress for many farm families. Still other challenges are the result of citizens’ growing concern for a quality environment which has led to increased regulatory legislation. These and other social and economic challenges put North Carolina youth, families, and communities at risk.

The youth, families, and communities of North Carolina are at risk of failing to reach their fullest potential because they face the economic and social challenges characterized above. Improved understanding of the economic and social issues that exist today, and the necessary leadership skills to face and meet these challenges is at the foundation of the extension educational program in North Carolina. North Carolina Cooperative Extension has designed and is delivering an inclusive educational program to the diverse audiences outlined above which improve the likelihood that they will reach their full potential. Continual evaluation of existing programs will insure that all facets of the citizenry will be reached with our educational programs, and that the programs meet the needs of the diverse clientele.

Performance Goal 1

The quality of child care will improve, and child care will be more available in North Carolina.

Output Indicators

- 1) Child care providers will increase knowledge and understanding of, and implement quality child care practices.
- 2) Child care in North Carolina will be more available.

Outcome Indicators

- 1) Children in quality child care will improve in social-emotional, cognitive, and physical development as reported by parents, providers, and school personnel.
- 2) New slots and centers will be created.

Key Program Components

Program design, implementation, and evaluation tools are packaged for county unit

program use.

Internal and External Linkages

Extension, community, non-profit and school-based educators in North Carolina. Local, regional, and national child, youth, and family care providers.

Target Audiences

Child, youth, family, and school-age care providers working in community, center, and school-based programs.

Performance Goal 2

Leaders/participants (both traditional and non-traditional) in the community, public decision making process will improve leadership skills to more effectively participate in, and assist communities meet social and economic challenges.

Output Indicators

Citizens/community leaders will increase knowledge and awareness of leadership, collaborative problem solving, and decision making skills.

Outcome Indicators

- 1) Persons participating in community/public policy decision making process.
- 2) Persons demonstrating and adopting proper leadership and problem solving skills.

Key Program Components

Involvement of current and potential community leaders in leadership and collaborative problem solving/facilitation training. Educational opportunities for citizens to learn how to effectively participate in the community decision making process.

Internal and External Linkages

Extension, community organizations, and local governmental officials and agencies.

Target Audiences

County officials, public/private leaders, local civic organizations, community leaders, and others interested in being involved in the community decision making process.

Performance Goal 3

Community leaders will implement policies promoting sustainable economic development, and business persons will design and maintain businesses.

Output Indicators

- 1) Citizens using fact sheets, video tapes, computer models, and curricula
- 2) Citizens hosting and participating in focus groups and attending conferences

Outcome Indicators

- 1) Change in knowledge, attitude, and level of citizen/community action.
- 2) Change in practice.

Key Program Components

Involvement of local, private, and public leaders and business people in systematic educational opportunities to improve practice.

Internal and External Linkages

Universities, community colleges, retired business executives, small business development centers, churches, and non-profit.

Target Audiences

Chambers of commerce, county commissioners, public/private leaders, local business and community leaders.

Performance Goal 4

Consumers and families will make and use money management plans to conserve, extend, and/or increase personal/family income.

Output Indicators

Individual and family consumers will practice basic money management, financial planning, select and maintain affordable housing, use sound conservative decision making and extend/produce income.

Outcome Indicators

- 1) Individuals who develop and use money management plans
- 2) Persons keeping financial records
- 3) Persons improving individual/family savings

Key Program Components

Basic money management/planning and consumer attitudes and skills to impact income and savings for personal/family economic well being.

Internal and External Linkages

Higher education, government and non-profit agencies and organizations.

Target Audiences

Individual and family consumers, youth/students, current/potential entrepreneurs.

Performance Goal 5

Individual and families retirement planning will improve financial security for aging North Carolinians, and improved elder care will be more available in North Carolina.

Output Indicators

Individuals and families will increase awareness and knowledge of financial, retirement, and estate planning techniques and opportunities. Awareness and knowledge of improved self and elder care giving skills will increase.

Outcome Indicators

- 1) Citizens will develop and adopt practices which will improve financial security in their

later years.

- 2) Individuals and elder care givers will develop skills and adopt practices that will improve the quality of available elder care in North Carolina.

Key Program Components

Educational opportunities to improve personal financial planning and management, retirement planning, and estate planning and management are offered. Individual and care giver training will provide skills needed to improve quality of life during retirement.

Internal and External Linkages

Extension, community colleges, individual and licensed elder care givers, churches, non-profits, and community centers.

Target Audiences

Individuals and families, elder care providers

Performance Goal 6

Long-term support systems will develop competent and responsible youth.

Output Indicators

Youth ages 5-19, adult volunteers, and donor sponsors will implement long-term support systems providing youth with increased life skills, expanded community service, and improved academic performance.

Outcome Indicators

- 1) Youth will develop and demonstrated life skills
- 2) Total dollars saved by communities by youth service and work projects
- 3) Communities will benefit from hours of youth and adult volunteers labor
- 4) Communities will benefit from maintenance of 4-H clubs and other long term units

Key Program Components

Youth, families, and communities will be engaged through 4-H to expand life skills, personal and community assets for increased resilience through the use of research grounded long-term educational designs to produce self-reliant, responsible citizens.

Internal and External Linkage

Higher education, local, regional, and national government of youth agency organizations, program design, delivery, and support agencies in private and public sector.

Target Audiences

Youth, ages 5-19, volunteers, donor/sponsors, program design, delivery and support collaborators.

FTEs & PROGRAM COST

state FTEs - 22.9	county FTEs - 154	Program cost - \$7,038,750
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