

**TENNESSEE AGRICULTURAL RESEARCH
AND EXTENSION SYSTEM**



**FY 2005-2006 Plan of Work Update
(October 1, 2004 —September 30, 2006)**

**The University of Tennessee Institute of Agriculture
Agricultural Extension Service
Agricultural Experiment Station
and
Tennessee State University
Cooperative Extension Program**

**submitted to:
United States Department of Agriculture
Cooperative State Research, Education, and Extension Service**

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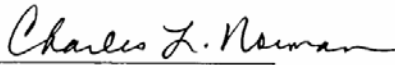
I. Introduction

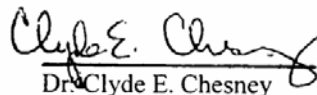
The Tennessee Agricultural Research and Extension System refers to Tennessee's two land-grant universities which conduct research and extension programs. The Agricultural Extension Service and the Agricultural Experiment Station of the University of Tennessee comprise the 1862 institution and the Cooperative Extension Program and the Institute for Agricultural and Environmental Research of Tennessee State University comprise the 1890 institution. This FY 2005-2006 Plan of Work Update represents the combined efforts of the University of Tennessee Agricultural Extension Service, the University of Tennessee Agricultural Experiment Station, and the Tennessee State University Cooperative Extension Program.

II. Certification

This is the FY 2005-2006 Plan of Work Update to the FY 2000-2004 Plan of Work originally submitted on July 15, 1999. This Plan of Work Update covers the period from October 1, 2004 through September 30, 2006.


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III. Performance Goals Update

The performance goals established in the FY 2000-2004 Plan of Work will continue to guide Extension and Research efforts at the University of Tennessee and Extension efforts at Tennessee State University. In addition, performance goals have been added to help Tennesseans cope with emerging issues. In some cases, the research and extension emphasis have been updated for FY 2005-2006, and these emphasis are noted in parenthesis:

Performance Goals for Tennessee Research and Extension

Goal 1 - Competitive Agriculture

- 1.1 - Enhance the competitiveness of Tennessee agriculture through improved management, marketing, and value-added strategies. (FY 2005-2006 emphasis on commercial row crop systems, beef management and dairy grazing.)
- 1.2 - Enhance the competitiveness of Tennessee agriculture through improved forage, livestock, and crop production systems. (FY 2005-2006 emphasis on commercial row crop systems, beef management and dairy grazing.)
- 1.3 - Preserve the sustainability of Tennessee agriculture through improved soil and water conservation.
- 1.4 - Enhance the competitiveness of Tennessee's greenhouse, turf, nursery stock, and associated greens industry.
- 1.5 - Increase understanding and information about management and marketing practices for limited resource and small farm operations that will result in increased net income, improved production and managerial skills, and utilization of improved marketing strategies.

FY 2005-2006 Addition:

- 1.6 - Increase security to Tennessee's agricultural industry and food supply through implementation of agrosecurity plans.
- 1.7 - Develop, distribute and implement bio-based energy technologies.

Goal 2 - Food Safety

- 2.1 - Control or eliminate risks from food borne organisms at the producer level.
- 2.2 - Control or eliminate risks from food borne organisms at the processor level.
- 2.3 - Control or eliminate risks from food borne organisms at the food service handler level.
- 2.4 - Control or eliminate risks from food borne organisms at the consumer level.
- 2.5 - Develop and evaluate new cultivars and plant varieties with optimized nutritional and storage properties and new processing strategies and technologies.

Goal 3 - Human Nutrition and Healthy Lifestyles

- 3.1 - Tennesseans will optimize their nutrition and dietary practices. (FY 2005-2006 emphasis on the Tennessee Shapes Up initiative.)
- 3.2 - Tennessee residents will improve their diets, self-care practices, and lifestyles resulting in improved health.

FY 2005-2006 Addition:

- 3.3 - Tennesseans will decrease the incidence of unhealthy and unsafe indoor environments which contribute to children's health problems including asthma, allergies, poisonings and accidents.

Goal 4 - Natural Resources

- 4.1 - Ensure a balance between the agricultural industry in Tennessee and the environment through improved management and production practices.
- 4.2 - Promote sustainable management of nonagricultural land uses, rural, residential, commercial, industrial, and urban to ensure environmental integrity of all natural systems in all settings.
- 4.3 - Enhance Tennessee agriculture by developing and assisting in the adoption of new practices and technologies to utilize and dispose of waste products from agricultural production and processing.
- 4.4 - Preserve and enhance the quality of surface and ground water supplies in Tennessee.
- 4.5 - Engage the environmental stewardship of all Tennesseans by demonstrating the benefits of wise use of the natural resources of the state. (FY 2005-2006 emphasis on 4-H Natural Resources initiative.)

Goal 5 - Human Development and Economic Challenges

- 5.1 - Improve the economic vitality of Tennessee communities through the use of economic and community development strategies. (FY 2005-2006 emphasis on Tennessee Saves, Sustainable Development Institute and 4-H Workforce Preparation initiatives.)
- 5.2 - Increase the economic stability of individuals and families in Tennessee. (FY 2005-2006 emphasis on Tennessee Saves initiative.)
- 5.3 - Improve employment opportunities for unemployed and underemployed Tennesseans.
- 5.4 - Increase parenting skills of Tennessee parents resulting in improved family relationships.
- 5.5 - Improve the quality of care provided to children by child care facilities utilizing improved child care strategies.
- 5.6 - Improve Tennessee adolescents' lifestyle choices, life skills and character development. (FY 2005-2006 emphasis on 4-H civic engagement and civic education initiatives.)
- 5.7 - Increase the training and utilization of volunteers to extend capabilities of the Tennessee Agricultural Research and Extension System.
- 5.8 - Improve the quality of life of Tennessee residents through improved home environmental quality and safety.

FY 2005-2006 Addition:

- 5.9 - Tennesseans will decrease individual, family and community vulnerabilities to terrorism.
- 5.10- Tennesseans will form youth-adult partnerships through 4-H to increase the community-level response for positive youth development, including leadership development.

IV. Additions to Planned Programs

For each of the FY 2005-2006 performance goal changes, complete State Plan of Work (POW) statements have either been prepared or are being prepared based on Government Performance and Results Act specifications and logic models. The State POW statements include a comprehensive discussion of issues, plans, inputs, outputs, collaborators, outcomes expected, evaluation plan, and funding. For improved response and evaluation, county Extension staff will prepare annual plans each year. This section highlights additions to the POW.

Goal 1: An Agricultural Production System that is Highly Competitive in the Global Economy

Increasing competitiveness of Tennessee agriculture is a major outcome of Goal 1 projects and activities. For FY 2005-2006, emphasis will be placed on commercial row crop systems, beef management and dairy grazing. Agrosecurity and Biobased energy technologies are POW additions. Extension and Research efforts will aim to increase security to Tennessee's food and fiber system.

FY 2005-2006 Addition: Tennessee's Agroterrorism Threat Demands Increased Security

Issue: Because of the continued threat levels from agroterrorism and Tennessee's vulnerability for attack, Tennessee Research and Extension activities will include a focus on increasing security from agroterrorism.

Objective: To increase security to Tennessee's agricultural industry and food supply through implementation of agrosecurity plans.

Implementation Plans: Plans will be formulated and implemented by extension-led county coalitions. These coalitions have already completed an assessment of vulnerability to attack. Research will be conducted on agroterrorism, especially as it relates to securing the food supply. The Agricultural Experiment Station will also conduct applied research on the efficacy of various means to secure applied field laboratories from terror threats.

Research will also be conducted in the production of transgenic phytosensor plants that might someday be used in the war against agroterrorism, to detect plant pathogens and for the sensing of explosives in the soil and water. Extension education will include newsletters, groups meetings, individual assistance, and mass media.

Outcomes: Expected outcomes of this initiative include:

- 100% of Tennessee counties will formulate a plan for agroterrorism prevention.
- Producers and agribusiness will increase knowledge and skills in protection issues.
- Producers and agribusiness will adopt agroterrorism prevention practices, including secure storage of pesticides.

Evaluation Plan: The Extension Management Information System will be used to assess the number of contacts made regarding security issues.

FY 2005-2006 Addition: Biobased Industries Research and Extension Initiative

Issue: America is experiencing its second major energy crisis in 30 years. There have been shortages in electrical power, and retail prices of gasoline and natural gas have hit record levels. Energy costs and shortages affect the entire economy. Farmers have been experiencing economic hardships, as well, resulting in a devastating exodus to urban centers. Viable economic alternatives and diversity are needed in agriculture to bolster the nation's independent farm families.

Objective: Through development, distribution and implementation of biobased energy technologies, UT Research and Extension will:

- enhance America's national energy security,
- promote the diversification and environmental sustainability of America's agriculture, and
- promote opportunities for economic diversification in America's rural communities.

Implementation Plans: During FY 2005-2006, the UT Agricultural Experiment Station will:

- Involve private sector entities and foundations in pursuing biobased research projects.
- Develop a multistate, multi-disciplinary and multi-institutional advisory group, with representation from the nine Southeastern states, to provide input into biobased research and extension programs.

Outcomes: At the close of FY 2006, the UT Agricultural Experiment Station and its land-grant, private sector and government partners will have a biobased energy agenda for pursuing research and extension programs that will reduce America's reliance on imported fossil fuel and petroleum-based products. The pursuit of this agenda during the next 25 years will produce feedstock for a biobased shift to the production of fuels, such as ethanol and biodiesel, electrical power, lubricants, solvents, adhesives and other biobased products.

Evaluation Plan: This biobased initiative will be evaluated based on the number of partnerships formed and the research projects completed (number of publications, presentations, etc.) The biobased extension contacts made will be evaluated using the Extension Management Information System which tracks audience, integrated and multistate work, among other factors.

Goal 2: A Safe and Secure Food and Fiber System

No updates for FY 2005-2006.

Goal 3: A Healthier, More Well-Nourished Population

Tennessee Extension will continue the Tennessee Shapes Up initiative, launched in 2004. This effort reaches youth and adults through the Expanded Food and Nutrition Education Program (EFNEP), 4-H, Tennessee Nutrition and Consumer Education Program, nutrition education for families using food stamps (TNCEP), Family and Community Education (FCE), and other programs. This new emphasis will bring a more comprehensive and uniform set of evaluation measures to nutrition programming. Children's Environmental Health has been added to the POW for FY 2005-2006.

FY 2005-2006 Addition: Children's Environmental Health

Issue: Problems ranging from poor indoor air quality to lead poisoning and exposure to toxic chemicals are placing Tennessee children at risk. Increasing environmental health should contribute to reduced allergies, asthma, radon poisoning and lead poisoning.

Objectives:

- To increase awareness of the relationship between environmental factors and children's health to promote informed decisions on how to provide safe and healthy environments for children.
- To improve children's allergy and asthma management in schools, homes and childcare centers.
- To increase the public's awareness of lead poisoning as a children's health risk.
- To reduce the number of children injured from accidental poisonings and increase the number of parents using the Poison Control Center hotline.

Implementation Plans: Extension will deliver education through and with health councils, county health departments, school personnel, childcare providers, Family and Community Education Clubs and 4-H.

Outcomes: Expected outcomes of this initiative include an increase in the:

- number of families who stop exposing children to secondhand smoke.
- number of homes tested and mitigated for radon.
- number of families installing carbon monoxide detectors.
- number of childcare providers taking action to reduce children's symptoms of asthma and allergies.

Evaluation Plan: Limited, in-depth evaluation will be used in sample studies to determine program effectiveness.

Goal 4: Greater Harmony Between Agriculture and the Environment
No updates for FY 2005-2006.

Goal 5: Enhanced Economic Opportunity and Quality of Life for Tennesseans

Increasing economic vitality of communities and the financial stability of individuals are aims of Goal 5 Extension programs. Because Tennesseans spend too much and save too little, Extension organized statewide organizations and individuals for the Tennessee Saves initiative. The Sustainable development Institute will train local community leaders in capacity building and economic development. Two additions to the POW are Tennessee Homeland Security and Emergency Preparedness and Tennessee 4-H Empowers Youth for Leadership.

FY 2005-2006 Addition: Tennessee Homeland Security and Emergency Preparedness

Issue: Natural disasters strike quickly and with no warning. Consider that the largest earthquakes to occur in the United States were along the New Madrid Fault in 1811 and 1812, and these quakes were felt violently in Tennessee. Tornadoes and flooding are common in Tennessee. As Tennessee is home to two nuclear plants and numerous hydroelectric dams in the Tennessee Valley Authority system, our state is vulnerable to terrorism attack. Increasing personal security and disaster preparedness is of great concern to the state's citizens.

Objective: Tennesseans will decrease individual, family and community vulnerabilities to terrorism and natural disasters.

Implementation Plans: Tennesseans will be taught through marketing and media strategies, web-based instruction, health fairs, and youth programs.

Outcomes: Expected outcomes of this initiative include and increase in the number of families -

- preparing a disaster supply kit,
- preparing a family communication plan, and
- knowing how to turn off the water, power and gas to their home.

Evaluation Plan: The Extension Management Information System will be used to assess the number of contacts made regarding security issues.

FY 2005-2006 Addition: Tennessee 4-H Empowers Youth for Leadership

Issue: To enhance developmental opportunities for youth, especially rural youth, young people must be involved in policy and decision-making. Helping adult leaders to build and utilize partnerships with young people is an important key to enhanced community and youth development.

Objective: Tennesseans will form youth-adult partnerships through 4-H to increase the community-level response for positive youth development.

Implementation Plans: County teams will be trained using the Youth-Adult Training Partnerships Training Manual.

Outcomes: Expected outcomes of this initiative include an increase in the:

- number of youth and adults in equal partnership on a board or committee.
- skill level of youth and adults in these areas: teamwork, problem solving, planning, communication, critical thinking and organizational skills.

Evaluation Plan: Using instruments developed by the National Youth Development Research Consortium, youth engagement, communication, problem-solving, and critical thinking skills will be measured through post-test only surveys completed by youth and adults.

V. FY 2005-2006 Allocations Per Year

	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Total
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TSU Extension						
NARETPA 1444	\$287,381	\$79,796	\$301,705	\$247,370	\$517,457	\$1,433,709
State/County	\$114,316	\$17,864	\$81,704	\$12,993	\$151,048	\$366,225
FTEs	7.5	1.5	8	4.5	13.5	35.0
UT Extension						
Smith-Lever b and c	\$1,098,603	\$109,602	\$3,609,558	\$694,369	\$1,790,171	\$7,302,303
Smith-Lever d	\$24,500	-0-	\$1,899,762	\$299,801	-0-	\$2,224,063
State/County	\$4,364,225	\$445,328	\$6,974,133	\$1,603,184	\$7,273,708	\$20,660,578
FTEs	66.6	6.8	106.0	24.4	111.0	314.8
UT Exp. Station						
Hatch	\$1,850,000	\$600,000	\$275,000	\$950,000	\$250,000	\$3,925,000
Multistate	\$375,000	\$35,000	-0-	\$425,00	\$65,000	\$900,000
Animal Health	-0-	\$35,000	-0-	-0-	-0-	\$35,000
McIntire-Stennis	\$125,000	-0-	-0-	\$400,000	-0-	\$525,000
State	\$10,400,000	\$3,500,000	\$600,000	\$3,900,000	\$1,100,000	\$19,500,000
FTEs	235.0	80.0	20.0	115.0	25.0	475.0

VI. Stakeholder Input Process

Since FY 2000, the separate UT and TSU Extension Advisory Councils have merged to form one cohesive, contributory State Extension Advisory Council. Each institution nominates members to this Council. The original 22 Council seats have expanded to 23 to include a youth member. The administrator and associate administrator from TSU Extension and dean and associate deans from UT Extension serve as ex-officio members of the Council. The Council meets twice yearly and has a membership rotation process that replaces some members each year. Extension staff share program information so that the Council is informed of ongoing Extension programs. The Council continues to discuss substantive issues affecting Extension in Tennessee and make recommendations to the Extension administrators. The Council provided input into the programs developed for this FY 2005-2006 Plan of Work Update.

County Extension advisory committees provided much input for the development of this update. In addition to advisory committees, each Tennessee county also has one oversight committee of local citizens for Extension work (mandated through state legislation), and their input was sought for this update. After stakeholder input and needs assessment, local plans were written by County Extension Agents. Each plan included a statement describing the stakeholder input and needs assessment process followed to justify the planned programs. Planned time for each plan was then aggregated to reveal programs of statewide emphasis.

Extension 4-H specialists and the Assistant Extension Director completed statewide 4-H listening tours where they received input from youth, parents, volunteers, donors, agents, community leaders and others. This input has given rise to a 4-H emphasis on 10 identified life skills, including an evaluation system for Extension 4-H programs focused on life skill development. In FY 2005-2006, 4-H programs will include greater emphasis on achieving life skill outcomes, and agents will use the Tennessee 4-H Life Skill Evaluation System to document impacts and improve programs.

In the Family and Consumer Sciences, planning for the FY 2005-2006 initiatives began in 2001 with visits to Tennessee counties for a review of local needs assessment and plans of work. Four focus groups were conducted across the state in which Extension Agents and stakeholders participated. Extension Agents made personal contacts to secure a varied group of stakeholders including clientele representing minority racial and ethnic groups. After an environmental scanning process, Family and Consumer Science faculty and district program leaders developed initiatives and organized work teams.

VII. Program Review Process

No updates for FY 2005-2006.

VIII. Multi-State Research and Extension Activities

Goal 1: For FY 2005-2006, the Biobased Industries Research and Extension Initiative will potentially involve a multi-disciplinary, multi-institutional team with representatives from eight other Southeastern states (FL, GA, AL, MS, KY, VA, NC and SC).

Goal 3: For FY 2005-2006, the multi-state extension project, the Latino Health Coalition, has been added to the original Plan of Work. This partnership between the University of Tennessee Agricultural Extension Service, Kentucky State University and the University of Kentucky School of Public Health, will increase Latino access to health care in rural Tennessee and Kentucky. By targeting both health care providers and the Latino audience, this program will overcome barriers for Latino health care. Much of the funding has been secured through a USDA Fund for Rural America grant.

Goal 5: For FY 2005-2006, the Sustainable Development Institute will be a multistate Extension project. The goal of the project is to increase community leader's ability to expand capacity building and economic development in communities throughout Tennessee and Kentucky. This project is offered by the University of Kentucky, Kentucky State University, the University of Tennessee, and Tennessee State University

IX. Integrated Multi-Disciplinary Research and Extension Activities

Goal 1: For FY 2005-2006, the Biobased Industries Research and Extension Initiative's ultimate goal is to reduce America's reliance on imported fossil fuels while providing viable economic alternatives and diversity to American agriculture to bolster the nations; independent farm families.

Goal 1: A combined Research and Extension Team of 18 faculty and field staff has been formed to address field crops. It is expected that the effort will focus new research attention on emerging problems in the field and that solutions will be shared with crop producers.

X. Contact Information

Inquires regarding Tennessee's FY 2005-2006 Plan of Work Update may be directed to any of the following:

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