

# Connecting Tennesseans to a Brighter Future

**Extension Accomplishment Highlights  
2005**



# Table of Contents

---

Introduction .....	3
Accomplishments and Impacts.....	4
Tennessee Agritourism Initiative .....	4
Soybean Disease Control Program.....	5
Feeding is Fundamental.....	5
Forest Stewardship.....	6
Master Gardeners Grow Community Pride.....	7
Tennessee Shapes Up.....	8
Tennessee Expanded Food and Nutrition Education Program (EFNEP).....	9
TNCEP Improves the Lives of Food Stamp Families.....	10
Improving Latino Accessibility to Health Care.....	11
Tennessee Saves .....	12
4-H Citizenship and Civic Engagement.....	13
4-H Builds Stronger Leaders .....	14
Tennessee Youth at Work - Achieving Goals and Learning Responsibility .....	15
4-H Natural Resources and the Environment .....	17

# Connecting Tennesseans to a Brighter Future

---

---

Established by the Smith-Lever Act of 1914, UT Extension is the off-campus, educational unit of the University of Tennessee Institute of Agriculture. The mission of UT Extension is to help people improve their lives through education, using research-based knowledge focused on issues and needs.

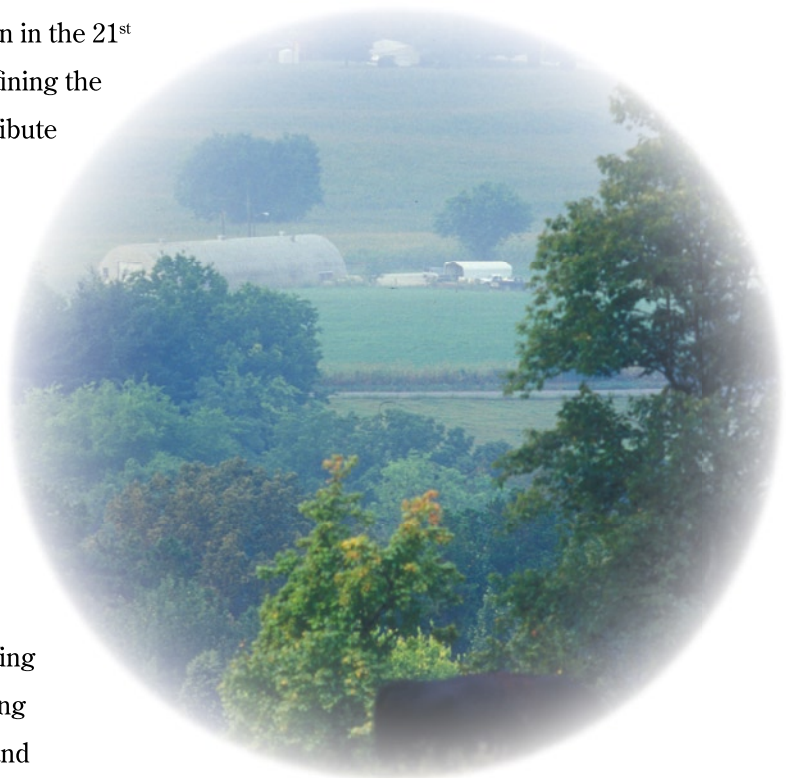
Using direct contact, grassroots involvement and dynamic partnerships, Extension has been very successful in linking university research and experiential learning to the issues and needs of Tennesseans. Its proud history will provide the momentum needed to take Extension into the future.

Many significant changes, however, are confronting UT Extension in the 21<sup>st</sup> century. Technology is redefining the way people acquire and distribute information and how they solve problems. Shifts in financial support mandate seeking new partnerships and fiscal resources. A decline in the number of farms is offset by an increase in the demands and expectations placed on the remaining farmers. Urbanization is rapidly claiming farmland, but it also is creating new markets for traditional and

nontraditional agricultural products.

Changing demographics are providing Extension with opportunities for greater involvement in youth, family and community programs.

Tennessee is expanding and changing rapidly. Extension must continue its role as a leader in providing research-based education and applied learning to address the issues and needs of a growing, more diverse society. How Extension responds to its mission in a changing environment is the key to its future and the reason for a comprehensive strategic plan of action.





## Accomplishments and Impacts

---

### Tennessee Agritourism Initiative

**Issue:** Agricultural producers face many challenges to achieving or maintaining profitability. Although Tennessee farmers generated over \$2.5 billion in farm sales in 2004, only 19 cents of each consumer dollar spent on food in the United States, on average, is returned to the farm. The 85,000 Tennessee farmers averaged a net farm income of approximately \$5,400 last year. Due to low net farm income and structural changes in agriculture such as the tobacco buyout, farmers are looking for ways to add value to their farm production; and for some, agritourism is a viable alternative.

**What has been done:** Activities included 22 educational programs for farmers and professionals. These programs provided approximately 5,000 participant hours of instruction to 1,131 individuals. Activities also included the development of three extensive resource publications and individual assistance for agritourism entrepreneurs.

**Impact:** Web site development and marketing workshops involved 27 participants. Participants in these and previous workshops have reported average financial savings or gain of \$455 in the first three to six months following the workshop by saving class fees, not having to hire Web developers, being able to better communicate with Web developers, earning more sales revenue and other methods. Based on these results, estimates are for over \$12,000 in financial benefit within the first three to six months following the program.

A three-day educational conference was held for 284 participants from 11 states. Through a post-conference survey, 76 participants indicated they would take away an average of 17 ideas per respondent.

- 33 participants indicated the ideas would bring them up to \$50,000 in monetary value within one year.
- Estimates from the 33 participants for monetary value they expect to realize within one year totaled \$330,900, with an average of just over \$10,000 per respondent.
- Within five years, respondents expected to realize monetary value between \$2,500 and \$500,000 for a total value of almost \$2 million.

In-depth, individual assistance with the development of a marketing plan and improvement in marketing materials provided to one Tennessee agritourism entrepreneur resulted in approximately triple the number of participants in school tours and weekend activities for the enterprise in 2005 compared to 2004. The increased traffic generated approximately \$32,500 in additional gross admission revenue for the enterprise as well as an unreported amount of additional revenue from product sales.

**Funding:** Smith-Lever; USDA Rural Development; Tennessee Department of Agriculture; Tennessee Department of Tourism; Tennessee Farm Bureau Federation

**Scope of Impact:** Multistate (Southern Region)



## Soybean Disease Control Program

**Issue:** Soybean producers are losing an average of 25% of their production potential to diseases and nematodes. They are also concerned about the possibility of soybean rust causing even more damage should it become epidemic in Tennessee.

**What has been done:** In 2005, 381 soybean varieties were rated for the major diseases. These ratings and yields were distributed to Extension agents, producers, seed companies, breeders, chemical companies and others. The UT Web site ([utcrops.com](http://utcrops.com)) was used to disseminate this information, and hard copies were handed out at producer meetings as well. Seventy producer meetings were held across the state with over 2000 attending. Soybean disease control and soybean rust were discussed in detail at all of these meetings. A soybean promotion board grant was awarded to purchase microscopes to train approximately 200 professional soybean workers to be first detectors for identifying soybean rust. Thirty soybean rust sentinel plots and 10 spore traps were established across the state at strategic locations and scouted on a weekly basis for early detection of infection and spores of soybean rust. Several trips were made to infested areas in Florida, Alabama and Brazil to gain more firsthand expertise in diagnosing soybean rust.

**Impact:** Soybean producers are able to select varieties with a high level of disease and nematode resistance. They also have information on which foliar fungicides to use and which varieties to spray. This has increased production as well as income for many producers by \$50 to \$100 per acre. Statewide, this program has increased soybean profits by \$100 million. A state plan to guide university and state agency staff responses in the event of a soybean rust outbreak was adopted.

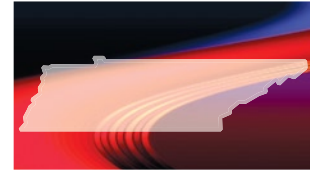
**Funding:** Smith-Lever; Tennessee Soybean Promotion Board; various industry grants

**Scope of Impact:** State-specific

## Feeding is Fundamental

**Issue:** In recent years, UT Extension agents and specialists have had numerous reports from beef cattle producers about problems related to mineral nutrition. Some have been due to grass tetany and magnesium deficiency (and possible excess potassium), but many are also related to deficiencies and imbalances of copper, sulfur, zinc, and possibly selenium and other minerals.

**What has been done:** UT Extension agents provided education and collected forage samples for analysis. A total of 1,021 tall fescue samples were collected in 70 counties. Test results, and detailed recommendations, have been widely disseminated. All companies who manufacture and/or sell minerals in Tennessee have been provided with this data, and many are now making substantial adjustments in products or product lines sold in Tennessee as a result of the applied research and education that have taken place. Articles have been printed in *Progressive Farmer*, *Drovers Journal*, *Tennessee Beef Cooperator*, *Farm Bureau News*, *Southeast Farmer* and other publications. The articles in Angus Association publications have reached the largest audience. The *Angus Journal* circulates to 17,500 people, and the *Angus Beef Bulletin* circulates to 108,000 people. Results have been presented in at least 86 county meetings and, in 2005, at 24 field days or cattlemen's meetings.



**Impact:** A survey administered to participants at 14 county meetings indicated that 78% of beef producers recognized that their herd's symptoms were substantial enough for them to change their mineral program. They estimated that production losses averaged \$910 per farm. The impact per meeting from this survey was \$18,211. Total impact for the 14 meetings is estimated at over \$250,000. Total impact from all meetings and demonstrations is over \$1.5 million. Extended impact (impact beyond direct effects from meetings) is larger. A 1% increase in the calf crop will increase income by almost \$5 million. Given the serious sulfur-to-copper imbalance revealed in this study and the fact that mineral companies have aggressively responded by reformulating mineral supplements and developing their own educational programs, the effects of improved reproduction will be in the \$10 - 20 million range. If only 25% of cattle are affected, the impact would still be at least \$2.5 million.

Increasing the value of feeder calves by improving immune systems will result in animals worth \$4 to \$6 more per hundred pounds. If only 30% of all calves bring an additional \$4, the impact would be \$4 million per year. Decreasing the cost of treating stressed, sick calves is another benefit. If it costs an average of \$10 per head to treat a calf, and the number was decreased by 5 percent, the financial impact would be \$100,000. Total impact of the program prior to 2005 was estimated at \$8 million (counting an estimate of impact outside of Tennessee).

**Funding:** Hatch; Smith-Lever

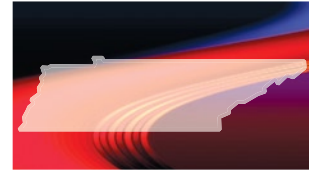
**Scope of Impact:** State-specific; Integrated

## Forest Stewardship

**Issue:** Tennessee forests cover 55% of the total land base. The majority of this forested land is owned by 470,000 private individuals, many of whom are largely uneducated about research-based forest management techniques. Eighty-four percent of Tennessee's annual hardwood removal originates from these private forest ownerships. Programs were needed to gather landowners for natural resource educational purposes. To encourage better management of forest resources, Congress has provided a number of cost-saving opportunities in the IRS code as incentives. It is acknowledged that these incentives are underutilized by qualified taxpayers. For this reason our forest stewardship efforts concentrate on improving forest owner knowledge of timber taxation rules.

**What has been done:** During 2005, three new county forestry associations were added in Tennessee, bringing the statewide total to 43 counties with associations. Natural resource professionals from multiple disciplines delivered educational programs to the 1,551 members. Specifically, one UT Extension specialist delivered 21 programs to 888 landowners who control 133,200 acres of forest land.

In 2005, UT Extension provided regular discussion of timber taxation in Extension newsletters, produced a publication concerning conservation easements, conducted six lectures for county Forestry Associations/Extension meetings and taught tax sessions for 320 attendees. A UT Extension specialist also cooperated with Clemson University to offer the South Carolina Timber Tax Program, which was presented via satellite to approximately 150 persons.



**Impact:** A survey of the association presidents indicates a 59% increase in members who now understand the importance of seeking professional natural resource assistance prior to implementing forestry practices. Landowners indicate an estimated total improvement in income of \$11,753 per landowner, for a total statewide impact of \$18,229,616. The UT Timber Tax Program improves awareness and increases use of these incentives among the forest-owning community. Filing timber sale proceeds as long-term capital gains rather than as ordinary income saves forest owners 5 - 20% on taxes owed.

- One forest landowner amended his return, filing his \$40,000 timber sale as a long-term capital gain rather than as ordinary income, as he had previously. He received a \$3,800 refund.
- With estimated timber sale revenues of \$275 million, potential tax savings are conservatively estimated at \$13.75 million. Our programs modestly help capture \$1 million of those savings.
- Participants reported not only saving on taxes but also improving their forest management.

**Funding:** Smith-Lever

**Scope of Impact:** Multistate (South Carolina)

## Master Gardeners Grow Community Pride

**Issue:** Tennessee citizens continue to exhibit much interest in consumer horticulture due to many factors including gardening as a hobby and residential growth in many parts of the state. Various needs assessment strategies (including input from stakeholder groups, input from county advisory councils and participation records of the local Extension offices) show the need for programs in horticultural education and volunteerism.

**What has been done:** Tennessee Master Gardeners are trained volunteers who assist UT and TSU Extension in sharing the latest gardening information. All volunteers are trained with 40 hours of horticultural classes and return 40 hours of volunteer community service through their local Extension office. Statewide there are approximately 2,000 active Master Gardeners in 44 counties. Master Gardeners who continue to participate in the program return at least 25 hours of service with a minimum of eight continuing education hours annually.

**Impact:** In Rhea County, eight Master Gardener interns and 20 Master Gardener members reported 600 hours of volunteer service to their community. Valued at \$10 per hour, their volunteer service was worth \$6,000 to the community.

In Bledsoe County, 13 Master Gardeners showed a 55% increase in knowledge from a pre-test to a post-test. Master Gardeners indicated that

- 53% now follow soil test recommendations
- 50% now choose landscape plants based on site
- 33% now select plant varieties that are resistant to disease or insects
- 29% now identify a pest before control measures are decided

Master Gardeners have donated more than 4,600 hours of educational programming and community service in Williamson County. The value of volunteer hours (valued at \$17.55 per hour by the independent sector) would exceed \$80,000.



In Sumner County, a questionnaire provided an opportunity for participants to reflect on horticultural knowledge and skill levels before and after receiving training. The greatest increases in knowledge were in the areas of organic gardening (85%), water gardens (84%), urban forestry (80%), wildflowers (73%), and the use of native trees and shrubs in the landscape (72%). A 35% increase in knowledge of vegetable gardening further validated responses in other areas. Overall knowledge increase in 12 subject areas was 64%.

In Madison County, the increase in volunteerism indicates the aspiration levels of interns and members continue to be strong. As evidence, the average number of hours volunteered, reported per intern graduating, increased from 42.6 hours in 2004 to 47 hours in 2005. The average number of hours volunteered, reported per recertifying member, increased from 21.1 hours in 2004 to 23.8 hours in 2005. The average number of hours of continuing education received per recertifying member increased from 15.8 in 2004 to 17.1 in 2005.

**Funding:** Smith-Lever; NARETPA Section 1444 and 1445

**Scope of Impact:** State-specific; Multi-institutional

## Tennessee Shapes Up

**Issue:** Tennessee has one of the highest rates of obesity in the nation.

**What has been done:** The Tennessee Shapes Up program is UT Extension's response to the obesity epidemic. It is an eight-week series of educational programs conducted in collaboration with program partners. The program partners include, but are not limited to, county health councils, local schools, local industry, and community centers. The program is designed for classes to meet two times each week. Educational classes are conducted once each week along with a group walking activity, and the second meeting is devoted to a group walking activity. In Henderson County, Tennessee, this series of lessons was repeated at four different locations in the county and two other locations are planned for early 2006. This program met two times each week for eight weeks (16 sessions/average attendance = 52). Program focus is on healthy eating and physical activity. Data showed weight loss, improved blood pressure, and lower cholesterol and triglycerides.

**Impact:** Outcome data is gathered from pre- and post-assessments for weight, blood pressure, cholesterol and triglycerides. Behavior change is measured through a self-reported behavior checklist. Weight loss was 639 pounds. The 258 total participants registered in the four different program sites reported walking 19,253 miles (not all participants kept a log of miles). Findings from a six month follow-up survey included the following:

- 64% of participants reported they were still walking two or three times each week
- 64% said they were maintaining or still losing weight
- 82% reported their blood pressure has remained at the lower rate
- 100% reported they were trying to practice what they learned in the nutrition classes
- 100% said they would recommend the program to their friends

Analysis of the pre- and post-behavior checklist surveys using SPSS statistical software showed significant change ( $p \leq .001$ ) for reduction of sweetened beverages, increased consumption of



fruits and vegetables, identification and elimination of excess calories, breakfast eaten more often, recognition of non-hunger signals to eat; and more meals eaten together as a family.

**Funding:** Smith-Lever

**Scope of Impact:** State-specific

## Tennessee Expanded Food and Nutrition Education Program (EFNEP)

**Issue:** The major health issue affecting Americans today is the increasing prevalence of overweight and obesity. Unhealthy weight gain increases the risk for numerous debilitating diseases and conditions that lead to increased healthcare costs. In the past 20 years, national surveys have shown that Americans eat too much of refined grains and not enough whole grains. Consumption of added fats has increased, and sugar consumption has nearly tripled. A poor diet combined with lack of physical activity has resulted in an increase in the number of obese and overweight Americans, particularly those that are low-income. Low-income children are reported to consume fewer fruits and vegetables and fewer whole grains and to spend more time watching television, factors believed to increase the risk of unhealthy weight gain. Low-income mothers compromise their own nutritional intake in order to preserve the adequacy of their children's diet.

**What has been done:** UT Extension implemented the Expanded Food and Nutrition Education Program (EFNEP) targeting low-income families in 10 Tennessee counties in 2005. Approximately 40 nutrition educators, supervised by Extension Family and Consumer Sciences faculty, delivered multiple educational sessions to 4,442 families and 12,225 youth. Families were reached through local agencies such as the Department of Human Services and the Department of Health, while youth received education through school enrichment programs. The content of educational sessions included how to choose and prepare healthy meals and snacks and how to manage food resources wisely. Much of the education for adults was delivered through food demonstrations or cooking schools.

**Impact:** EFNEP collected impact through a national reporting system that aggregated data from the 10 counties. Adults enrolled in EFNEP completed pre- and post-24-hour dietary recall forms and pre- and post-behavior surveys to measure changes in food-related behaviors. A one-time survey for youth was implemented at the end of the school year.

Survey data from adult participants showed that 89% of the 2,623 families who completed the surveys improved their diets resulting in increased consumption of dietary fiber, iron, vitamin C, vitamin A and vitamin B6. At the same time, the number of calories they consumed from fat decreased. At the same time, they reduced the amount of money they spent on food, and 46% of the 2,592 families reported running out of food less often. Improvements in skills such as planning meals ahead of time (59% of 2,691 families), comparing prices (50% of 2,598 families) and using a grocery list (55% of 2,590 families) led to more efficient use of food resources such as food stamps.



Surveys completed by EFNEP youth at the end of the school year indicated that

- 75% of 8,865 reported eating a variety of foods
- 77% of 9,991 increased their knowledge of the basics of human nutrition
- 76% of 9,991 increased their ability to select low-cost, nutritious foods

In addition, teachers observed changes in behavior, such as increased milk and vegetable consumption and a reduction in the number of soft drinks and chips. Children also were observed making healthier food choices in the lunch line, such as choosing low-fat milk rather than whole milk and choosing more fruits and vegetables.

**Funding:** Smith-Lever; Tennessee Department of Human Services Community Block Grant for Cooking Schools

**Scope of Impact:** State-specific

### TNCEP Improves the Lives of Food Stamp Families

**Issue:** Tennessee ranks fifth in the country in total households receiving food stamps, and during 2005, the number of Tennesseans receiving food stamps increased 5%. Tennessee families receiving food stamps report a lack of knowledge about cooking, purchasing food, managing food dollars, and identifying alternatives to purchasing fast-food and ready-to-eat foods.

**What has been done:** In 2005, UT Extension delivered nutrition education to food stamp recipients and families eligible to receive food stamps to increase the likelihood that food stamp recipients will make healthy food choices. The program is known as the Tennessee Nutrition and Consumer Education Program (TNCEP). TNCEP is planned, developed and taught through the work of 92 county-based nutrition education coalitions supported by UT Extension agents and specialists. Over 1,400 coalition members representing 237 local and state government agencies and officials, educators, community organizations, businesses, and more than 110 food stamp recipients are involved. In 2005, over 8,000 TNCEP teaching sessions (group meetings) were conducted.

**Impact:** The statewide TNCEP outcome indicators and adoption levels are based on a purposeful sample provided by county best practices at three to 12 months.

Outcome Indicators	Statewide Contacts (Food Stamp Clients)	Number who Plan to Adopt Practice	Percent who Plan to Adopt Practice	State Total Reported Change
Select a diet based on the Food Guide Pyramid	94,345	83,086	88%	65%
Eat five or more servings of fruits and vegetables	94,715	83,160	88%	60%
Eat more whole grains	38,669	31,827	82%	60%
Eat two to three servings per day of dairy products	44,896	38,957	87%	79%
Eat fewer high-fat foods	50,995	42,679	84%	61%
Eat fewer high-sodium foods	26,283	23,270	89%	53%



Outcome Indicators	Statewide Contacts (Food Stamp Clients)	Number who Plan to Adopt Practice	Percent who Plan to Adopt Practice	State Total Reported Change
Eat fewer high-sugar foods	41,849	35,413	85%	61%
Improve food preparation skills	31,404	28,512	91%	47%
Maintain a healthy weight	34,769	29,925	86%	59%
Reduce risk factors for diet-related diseases such as diabetes, cancer, high blood pressure, and osteoporosis	25,259	22,842	90%	27%
Increase physical activity	43,603	39,030	90%	55%
Plan meals and select foods to run out of food less often	2,315	1,960	85%	81%
Read food labels to help select the most nutritious food	2,548	2,392	94%	63%
Use a shopping list	2,522	2,192	87%	100%
Compare prices to get the best buy	3,074	2,642	86%	64%
Plan meals ahead of time	3,074	1,367	44%	68%
Manage family resources to ensure adequate provision for food	2,298	1,871	81%	87%

**Funding:** Smith-Lever; Tennessee Department of Human Services; USDA Food Stamp Program

**Scope of Impact:** State-specific

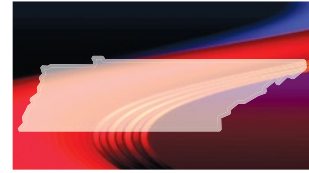
### Improving Latino Access to Health Care

**Issue:** Tennessee ranks fourth in the nation in Latino immigrant population growth. According to the 2000 U.S. Census, Coffee County’s Latino population increased by 305%. However, community representatives believe census data is inaccurate, and actual numbers are much higher than reported.

Through Latino focus groups, the Tennessee Latino Health Coalition serving Bedford and Coffee Counties identified language as the single most critical barrier to health care. Few health care professionals speak Spanish while immigrants speak limited English.

**What Has Been Done:** UT Extension assisted in conducting 11 Latino health coalition meetings to plan offering Spanish language training to health care professionals and to develop health care directories in Spanish. Program partners included Kentucky State University, the University of Kentucky, 10 state government or community organizations, and Latino community representatives. UT Extension, with the Tennessee Commissioner of Health, also conducted a forum for health care providers, which was held at Motlow Community College.

UT Extension coordinated a Spanish Survival language and culture training for health care providers and promoted it through four news articles published in three newspapers, development and distribution of 400 brochures, a radio spot for five radio stations and an advertisement for two cable stations. A cultural reality workshop was conducted for 36 health care providers to build empathy for Latinos and develop an awareness of the Latino culture. A UT Extension agent raised more than \$15,000 for adult education, including English language learners.



UT Extension surveyed 15 Latino parents to identify needs and conducted a heart health education program.

**Impact:** Of the 35 health care providers in cultural reality courses,

- 97% developed an understanding of accessing health care services in a foreign country
- 97% increased empathy for Latino immigrants seeking services
- 100% identified obstacles immigrants face in accessing health care
- 100% stated they would make additional changes in the way they relate to Latino immigrants
- 100% plan to learn more Spanish
- 100% would recommend the cultural reality course to others

One thousand Coffee and Bedford County Latino families received Spanish language health care directories. In addition, the following outcomes were noteworthy:

- 57 Latino adults enrolled in “Easy English” language classes
- 109 Latino adults completed the requirements for a GED
- 52 Latino adults were awarded vouchers through the literacy council GED incentive program, and one Latino student was recognized as the GED top achiever and was awarded a college scholarship

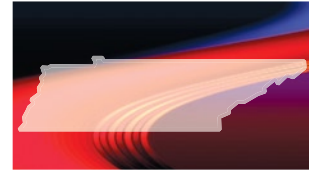
**Funding Source:** Smith-Lever; Rural America Grant awarded to Tennessee (Bedford and Coffee Counties) and Kentucky at \$539,000 for five years (2002-2006); Literacy Council

**Scope of Impact:** Multi-state (Kentucky); Multi-institutional (UT, University of Kentucky and Kentucky State University)

## Tennessee Saves

**Issue:** Because they spend too much and save too little, Tennesseans have a great need to build personal financial security.

**What has been done:** The Tennessee Saves program, begun by UT Extension in 2001, continued to grow in 2005 with three additional counties – Meigs, Fentress and Sevier – either joining existing regional coalitions or beginning development of their own coalitions. Financial education programs continue to grow across the state. In 2005, UT Extension initiated Tennessee Saves Day in the Tennessee capitol building. A joint Tennessee House and Senate resolution proclaimed April as “Tennessee Saves” month, and 65 counties planned financial education activities. Every state senator and representative received notice of the activities planned in their legislative districts. Over 130 banks, credit unions and local financial education partners were involved in the local and regional activities. More than 1,600 youngsters made and decorated piggy banks, either through local “Piggy Bank Pageants” or through “Spend, Save and Share” programs in their local classrooms. The January through April activities culminated in an exhibit in Legislative Plaza in April. The Tennessee Saves Web site, [www.tennesseesaves.org](http://www.tennesseesaves.org), has won national recognition for its tools and resources for educators teaching money management and for its support of coalition development. Its resources are used by “Saves” coalitions across the United States.



**Impact:** Follow-up surveys indicate that adult program participants are saving an estimated \$48.64 a month, while young people (4th-12th grades) save an average of \$32.00 a month. At this rate, the total economic impact on Tennessee families exceeds \$10 million annually.

- 64 Tennessee counties are conducting Tennessee Saves educational programs reaching over 300,000 youth and adult participants annually.
- 10 local and area Tennessee Saves campaigns are marketing the wealth-building messages and conducting motivational workshops to encourage Tennessee Savers through follow-up wealth building coaches.
- Over 3,500 youth and adults have enrolled as Tennessee Savers and set savings and/or debt reduction goals.
- Over 60 local and regional credit unions and banks are partnering with coalitions to provide low- or no-fee Tennessee Saves savings accounts and are providing sponsorship for Tennessee Saves activities.

**Funding:** Smith-Lever; Local and Regional Credit Unions

**Scope of Impact:** State-specific

## 4-H Citizenship and Civic Engagement

**Issue:** Adolescent youth are not involved and informed about government and citizenship. Local school officials note apathy as a common problem.

**What has been done:** 4-H citizenship programs were conducted in over 50 Tennessee counties. Programs were tailored to local assets, needs and situations identified by local advisory committees. Examples include

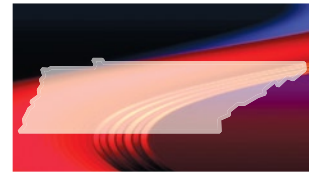
*Activity Sheets* – 600 fifth grade 4-H youth in Knox County completed the objectives on the 4-H citizenship activity sheet.

*Honor Clubs* – Macon County organized a 4-H Honor Club for service projects, including planning and conducting events during the Macon County Fair and raising funds for local charities.

*Recycling* – In Bledsoe County, the UT Extension agent made 6,781 contacts in citizenship education programs. Youth service learning included recycling and litter removal.

*Field Trips and Tours* – In Sullivan County, a county-wide Citizenship Short Course was developed in collaboration with the Farm Bureau Women. Each 5th grade 4-H Club selected two members regarded as outstanding citizens to attend. During the tour, 17 county officials explained their role in the county government, and 12 adult volunteer leaders worked with the 41 4-H members to learn about their county government. In addition, a multi-county 4-H Citizenship Tour of Washington, D.C. was organized and conducted for 17 4-H members. They visited their congressmen and toured the Capitol and Arlington National Cemetery among other learning opportunities.

**Impact:** 4,434 youth were involved in 4-H citizenship programs that targeted short-term outcomes. Intact groups of 4-H youth were randomly selected for post-test only questionnaires, and 1,382 individual youth (31% of total participants) submitted completed questionnaires.



The questionnaires were valid and reliable instruments—part of the Tennessee 4-H Life Skills Evaluation System, an online tool to measure and evaluate the outcomes of 4-H youth development programs.

*Because of their 4-H citizenship experiences,*

- 87% of youth improved their attitude toward service to others
  - 84% now think citizens should be active in the community
  - 88% now think they can make a difference in their community by helping others
  - 85% think service to others makes a difference in their lives
  - 91% think service to others is important
  - 87% think people working together can help others less fortunate
- 62% of youth improved their knowledge of responsible citizenship
  - 64% have learned a lot about the history of this country
  - 53% have learned about important leaders who contributed to this nation
  - 67% have learned about their own family's history
  - 57% understand how community leaders are elected
  - 67% are now proud of the contributions made by leaders of this country
- 82% now think that it is important for citizens to vote in elections

**Funding:** Smith-Lever

**Scope of Impact:** State-specific

## 4-H Builds Stronger Leaders

**Issue:** Tennessee is the volunteer state, and volunteering is known to produce positive results for society, including bringing the family closer together and helping youth feel good about themselves. Opportunities for leadership prepare youth to be capable and contributing members of society. Becky Nichols, a 4-H alumni and prominent community leader in Bedford County stated, “I can tell if the leader in an organization was a 4-H'er. The ones that were 4-H'ers have better speaking skills and conduct more productive meetings. 4-H alumni are more civic-minded, more aware of community and different groups of people....they are doers and more caring people.”

**What has been done:** Over 50 Tennessee counties conducted programs with leadership outcomes. The following local efforts are representative of the statewide effort:

*Teen Leadership* – In Claiborne County, youth-adult partnerships were emphasized, as volunteer leaders and Extension agents cooperated with 92 4-H members in grades 7 - 12 to provide leadership for 42 different 4-H clubs for elementary youth.

*Elected Leadership* –In Hickman County, 64 youth were elected by their fellow members to club officer positions during elections held at 4-H club meetings. Afterschool workshops were used to teach the officers how to conduct a club meeting and how to write minutes and keep participation records. The officers' various responsibilities included reminding members of meetings, presenting awards, distributing handouts and setting up meeting rooms.



**Impact:** 208 Tennessee youth were involved in leadership programs in which a formal evaluation was conducted to measure leadership skills. Intact groups of 4-H youth were randomly selected for post-test only questionnaires, and completed questionnaires were obtained from 122 youth (58% of the total program participants). The questionnaire was a valid and reliable instrument, pilot-tested and revised by UT personnel. The questionnaire used a five-part scale (never, rarely, sometimes, often and always) to determine leadership skills after the program. A typical questionnaire item would be phrased “*Because of my 4-H experiences, I always stick with a job until it is finished and done correctly.*” The following impacts represent “always” and “often” answers.

*Because of their 4-H experiences,*

- 62% report that they use enthusiasm to get a group working
- 90% feel responsible for their actions
- 61% can lead a discussion
- 75% are sure of their abilities
- 75% feel comfortable being a group leader
- 62% can run a meeting
- 78% give praise and credit to others for success
- 80% always stick with a job until it is finished and done correctly
- 67% give clear directions

In Marion County, the leadership program focused on the 4-H Youth Fair Board and the Teen Leadership Marion program. Impacts revealed from participant surveys included the following:

- 35 youth reported improved unity among their various schools and communities
- 32 youth improved their understanding of leadership roles that exist in the county
- 35 youth increased their understanding of key leaders in the county and the major problems, opportunities and services in Marion County
- 33 youth improved their awareness of personal leadership skills and opportunities

Pre- and post-tests of 21 Teen Leadership Marion participants showed the following:

- An 83% increase in leadership life skills
- An 81% increase in responsible citizenship life skills, teamwork skills and communication life skills

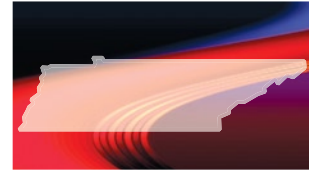
**Funding:** Smith-Lever

**Scope of Impact:** State specific

## Tennessee Youth at Work – Achieving Goals and Learning Responsibility

**Issue:** Numerous needs-assessment activities across the state – including interviews with key informants, document reviews and advisory groups – indicate that Tennessee youth do not have the skills necessary to succeed in the workforce.

**What has been done:** UT and TSU Extension provided programs to help youth gain new knowledge, acquire new skills and change aspirations regarding workforce preparation. Curriculum was selected and programs implemented to help youth attain basic work skills in two areas: achieving goals and responsibility. 4-H workforce preparation programs were



delivered through organized 4-H clubs, camps, project groups and school enrichment programs by Extension 4-H agents and volunteers. Programs were conducted and evaluated in 24 Tennessee counties. The following are examples of 4-H workforce preparation programming in 2005.

*State 4-H Roundup* – 500 high school youth participated in Youth At Work: A Generation to Lead the Nation, a week-long event on the University of Tennessee, Knoxville campus. The event brought youth together with college personnel to explore educational opportunities and careers in their fields of interest.

*Job Readiness* – In Van Buren County, 95 high school students participated in a six-month program on job readiness. Youth learned how to complete a job application and proper interview etiquette.

*Wild Over Work* – Almost 600 Chester County youth participated in the six-month program called Wild Over Work to learn the value of work, to explore work opportunities and to set goals for their jobs or careers.

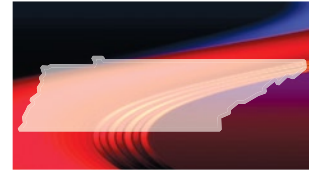
**Impact:** 4,639 Tennessee youth were involved in programs in which a formal outcome evaluation was conducted of responsibility, knowledge, attitudes and skills. Intact groups of 4-H youth were randomly selected for post-test only questionnaires. Completed questionnaires were obtained from 1,544 youth (33% of the total program participants). The questionnaire was a valid and reliable instrument from the Tennessee 4-H Life Skills Evaluation System, an online tool to measure and evaluate the outcomes of statewide 4-H youth development programs. The questionnaire used a five-part scale (never, rarely, sometimes, often and always) to determine teamwork behaviors after the program. A typical questionnaire item would be phrased “*Because of my 4-H experiences, I complete assignments that are given to me.*” The following impacts represent foundational skills and aspirations. Also, the following impacts represent “always” and “often” answers:

- 73% ask for help when they need it
- 57% are willing to try new things
- 80% complete assignments given to them
- 80% keep up with 4-H dates and deadlines

1,802 Tennessee youth were involved in programs in which an outcome evaluation was conducted of their practices toward achieving goals. Intact groups of 4-H youth were randomly selected for post-test only questionnaires, and completed questionnaires were obtained from 527 youth (29% of the total program participants). The Tennessee 4-H Life Skills Evaluation System (described above) was used to obtain the following outcome indicator data.

*Because of their 4-H workforce preparation experiences,*

- 70% report that they now work to achieve their goals
- 69% report that they know where they want to end up and plan how to get there
- 30% now put their goals in writing
- 47% now set deadlines to help themselves achieve goals
- 54% now break their goals down in steps so that they can check their progress



In Marshall County, a workforce program targeting 99 youth had the following impact:

- 54% indicated that the program helped them identify their personalities and their fit for certain jobs and careers
- 49% gained confidence in the ability to master school subjects that interested them
- 42% recognized what kind of skills they have
- 52% developed career ideas for themselves
- 58% increased proficiency in basic skills, interview skills and thinking skills

In Hancock County, a five-session course was offered to middle school students. A random survey of 46 participants showed that they were working to achieve goals (70%). This survey also demonstrated that the students knew how to develop, implement and obtain their goals. They also saw the benefits of teamwork (76%), encouraged other members to give their best effort (95%) and wanted other team members to succeed (78%).

Comments from the 600 youth involved in the Chester County *Wild Over Work* program included:

- “It has opened my eyes to what people go through every day.”
- “It’s gonna be hard in the future, and I need to start working on it now.”
- “I’m sure that I will use these skills in the future.”
- “This program teaches you how to live on your own.”
- “I know that I’m not ready to be on my own, but I need to start preparing and learning how to do these things.”

**Funding:** Smith-Lever; NARETPA Section 1444 and 1445

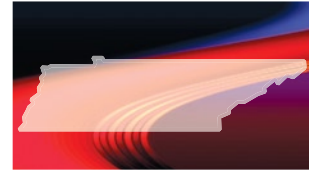
**Scope of Impact:** State-specific

## 4-H Natural Resources and the Environment

**Issue:** Tennessee is experiencing rapid growth and environmental changes that can dramatically affect the accessibility and quality of its natural resources. Youth need a greater understanding of natural resource and environmental issues.

**What has been done:** Natural Resources and the Environment is a Tennessee 4-H Priority Program. Opportunities for youth and adults to explore their environment, examine the interconnectedness of human and natural resources, develop outdoor classrooms, apply the knowledge they have gained, improve the environment and address environmental issues have been provided. Educational efforts include school year programs at 4-H centers, camps and conferences, outdoor learning laboratories, judging teams, service learning projects and classroom programs. Staff members at the four 4-H centers provided natural resource and wildlife activities for more than 6,000 junior and junior high campers.

**Impact:** School-year environmental education programs at the W. P. Ridley and Clyde Austin 4-H Centers served 8,016 youth in 2005. Comments from teachers acknowledge that the programs promote team building and cooperative learning while enhancing formal classroom education in science and related areas and that they contribute to teaching or reviewing TCAP objectives. Questionnaires from the Ridley 4-H Center participants show that 76% of the youth



participants stated they would adopt practices or behaviors learned as a result of participating in the program. Students also indicated they learned more about forest ecology, global connections and entomology.

In the Camp Explore Environmental Summer Camp, 98% of the 48 participants gained a better understanding of ecology and an appreciation of the fragility of the systems on earth that make it suitable for life.

Teacher inservices offered through the Ridley Environmental Education program gave 128 educators an opportunity to enhance their teaching skills related to conservation and environmental education.

- 56% percent of the participants intended to incorporate more experiential education into their classroom instruction as a result of the training.
- 96% of the 56 adults who received training in how to teach environmental education from Clyde Austin staff rated the information as “useful and meaningful.”

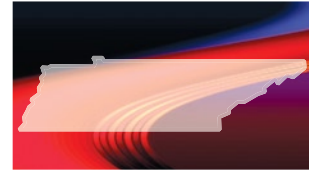
The annual weeklong 4-H Wildlife Conference was attended by 161 Junior High youth and 32 leaders. Average test score comparisons between pre- and post-tests showed an increase in knowledge of 40% concerning issues related to wildlife ecology and management.

UT Extension agents conducted the following county educational programs.

- Field days, day camps or earth day festivals in six counties for 3,460 elementary youth showed an average 95% reported increase in knowledge gained in the areas of natural resources, conservation, water quality, safety and other related areas. A comparison of pre- and post-test scores in Shelby and Rhea Counties showed an average 12% increase in knowledge gained in subject matter areas.
- 31 elementary teachers and 705 fourth graders learned how to plant and take care of trees and gained knowledge about the benefits of protecting natural resources through participation in the ReLeaf Tennessee program. More than 75% of the participants reported correctly planting and caring for a tree.
- A water quality program for 70 fifth grade youth resulted in 67% who “became more aware of the uses of water,” 84% who “learned something about the water cycle,” 65% who “became more aware of conserving water at home,” and 81% who “learned new facts about water.”
- In a waste management program for middle school youth, 85% of the participants gained knowledge about human effects on the environment, and 55% would encourage adults to recycle paper, plastics and metals.

In wildlife and forestry judging, 162 youth enhanced their life skills in communication and decision-making while learning and practicing principles related to these two areas. Eighty percent of the participants cited new knowledge in the content areas of these contests, and that same number plan to utilize that information in the future.

The FACE (Food and Cover Establishment) for Wildlife Contest involved youth from 57 counties who planted approximately 933 acres in supplemental food resources which improved wildlife habitat on more than 14,895 acres.



**Funding:** Smith-Lever; environmental education programs at the 4-H Centers are supplemented by grants and gifts including the Tennessee Wildlife Resources Agency with program support from several cooperating agencies and organizations.

**Scope of Impact:** State-specific

**0.0M-6/06 E12-0115-00-002-06 06-0336**

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development.  
University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating.  
UT Extension provides equal opportunities in programs and employment.