

Advancing Tennessee

Statewide Economic Assessment

FY 2016

UT Extension extends the knowledge and expertise of the University to the people of Tennessee through agents and specialists in all 95 counties of the state. Educational programs in 4-H youth development, agriculture and natural resources, family and consumer sciences, and community economic development produce substantial returns to the state. Using research, questionnaires, observations, and sales records, an economic impact was estimated at **more than \$512 million** from July 1, 2015 through June 30, 2016 for statewide educational programs.

Recurring Economic Impacts – \$311 million – 6,222 jobs created or maintained

Recurring economic values (increased revenue, increased savings, and one-time capital purchases) for up to two years after program

Crop Variety Trials, Pest Control, Irrigation, Marketing, and Precision Agriculture

UT Extension crop variety testing data is used extensively by 80% of Tennessee farmers to select the seed that they use to plant their oilseed, grain and cotton crops. Results from the variety testing program have helped farmers increase yields by identifying the varieties that will perform best in their farming operations. The higher yields resulted in approximately \$102.4 million in additional income to Tennessee farmers. Row crops producers reduced fungicide costs and yield loss in field crops and controlled pests for an economic impact of \$3.5 million. About 50% of the state's cotton producers have adopted planter automatic section control which has reduced annual seed costs by \$562,000 on approximately 125,000 acres. Producers increased the number of irrigated acres used for corn, cotton, and soybean production. Based on UT research, average yield increases from irrigation resulted in an additional \$41 million in farm income. Based on an average cost of \$1000 per acre, Tennessee row crop producers invested more than \$9 million in their local economy by purchasing center pivot irrigation equipment. Row crop producers increased returns by \$3.7 million on 137,547 acres by using forward pricing market opportunities as compared to selling at harvest. By using no-till production as a best management practice, it is estimated that production costs were reduced by \$18 million.

Forage Systems

UT Extension educated farmers on the benefits of warm-season grasses, clover, and stockpiling tall fescue. Extension also demonstrated hay storage, feeding methods to reduce waste and spoilage, and broadleaf weed control. Tennessee farmers saved more than \$17.8 million from better forage production, including following fertilizer recommendations, storage, and feeding practices.

Agritourism and Community Economic Development

Tennessee agritourism operators look to Extension for education regarding budgeting, safety, customer service, technical assistance, and more. Estimated sales increased among 200 operators participating in Extension programs by a combined \$7.5 million. Other Extension community economic development programs produced an estimated \$2.1 million in increased revenue and capital purchases such as assisting local charities to obtain grant funds and providing assistance to small businesses.

4-H Centers

UT Extension's 4-H program is the largest youth development program in the state, and UT Extension operates four 4-H Centers across the state, providing summer camping and year-round educational experiences. The 4-H Centers are funded by user fees and provide an economic impact to the communities where they are located by employing staff and purchasing equipment, food, and supplies with a local annual impact of more than \$2 million per location.

Optimizing Animal Production

Extension agents emphasized quality assurance, reproductive management, nutrition, and marketing with Tennessee beef producers, with an economic impact of \$65.3 million. Tennessee horse owners depend on UT Extension's research-based programs for horse health and nutrition. UT Extension taught rotational grazing to increase forage production, vaccinations, dental care, and correct deworming practices. These practices helped 205 horse owners, owning more than 1,000 horses, to save a combined \$1.3 million.

Turfgrass Weed Management

UT Extension's turfgrass education program focused on technical assistance and education to economically control weeds, and the estimated savings to Tennesseans managing golf courses, sod farms, and athletic fields was \$10 million.

Saving Our Bees

More than 300 Tennesseans completed the UT Extension Beemaster program. These beekeepers learned how to save honeybee colonies from various catastrophes, including parasitic mites, with an estimated 11,500 bee colonies saved (valued at \$700 per hive for bees, hive parts, medications, and honey production). The total value of the saved colonies, hive parts, and honey production is valued at \$7.5 million.

Pesticide Safety Education Program and Urban Integrated Pest Management

The Pesticide Safety Education Program had 1266 certifications, and research has estimated annual benefits of \$10.9 million. Additionally, UT Extension taught more than 2,500 pest management professionals how to effectively manage pests found in and around structures, saving an estimated \$1.4 million to the pest management industry.

Optimizing Nursery, Fruit, and Vegetable Production

Tennessee nursery growers depend on UT Extension's educational programs and plant, pest and soil diagnostic services to produce and market healthy crops. Likewise, the state's fruit and vegetable growers depend on Extension agents and specialists regarding variety selection, management, and marketing. The state's ornamental, fruit, and vegetable producers realized more than \$700,000 in increased revenue or savings as a result of UT Extension recommendations.

One-Time Economic Impacts – \$201 million

One-time non-recurring economic values

UT Gardens

More than 7 million contacts were made through the UT Gardens and published magazine articles, newspaper articles, "Plant of the Month" Press Releases, websites, and radio shows. It is estimated that 10% of these 7 million contacts bought goods and services, fertility products, designs, plants, and pest control products valued at \$50 per contact as a direct result of the recommendations that the Gardens staff made from their plant evaluations/applied research. This produced an estimated \$35 million in economic activity in Tennessee.

Nutrition Education

Family and Consumer Sciences nutrition education programs reach approximately two million Tennesseans annually through group meetings, worksite sessions, television, and radio programs. Nutrition education studies have found a cost/benefit ratio of \$1.00/\$10.64. This translates to a return of \$89.4 million for the investment in UT Extension's nutrition education programs for the state of Tennessee.

Health Literacy

Increasing health literacy and adopting healthy habits such as increasing exercise and participating in health screenings have shown to improve health and reduce the risk of many chronic diseases. For every dollar spent on UT Extension Family and Consumer Sciences health education programs, \$25 is saved on direct medical costs and indirect expenditures, resulting in a \$56 million benefit to Tennessee.

Tennessee Saves

The Tennessee Saves program instructs Tennesseans in sound financial practices, encourages them to build assets, and encourages them to reduce dependence on credit and discharge debt. The estimated economic impact of clientele's saving and debt reduction was \$16.5 million.

Volunteerism

UT Extension agents and specialists managed volunteers for various programs and services. Volunteers extended the education offered by paid staff and contacted over 650,000 additional Tennesseans through their service. Using the Independent Sector's dollar value of a volunteer hour in Tennessee (\$20.92/hour), the value of the 211,293 volunteer hours served was \$4.4 million.

Cost-Benefit Analysis – \$1 to \$8.03

For every \$1 in public funds invested in UT Extension programs, an estimated \$8.03 is returned to the people of Tennessee.

Real. Life. Solutions.

*Compiled from faculty and staff reports by
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