

Advancing Tennessee

Statewide Economic Assessment

2017

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 \$605 million** from January 1, through December 31, 2017 for statewide educational programs.

Recurring Economic Impacts – \$401 million – 8,038 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 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 over \$83 million in additional income to Tennessee farmers. Row crops producers reduced fungicide costs and yield loss in field crops and controlled pests, including through integrated pest management, for an economic impact of \$40.4 million. The Crop Nutrient Stewardship Educational Project is an integrated research, education and outreach program to develop and distribute information about sustainable crop fertility practices. These recommended practices have improved crop fertility practices on over 865,000 acres for an economic impact over \$13.5 million. By using no-till production as a best management practice, it is estimated that production costs were reduced by \$18 million. Producers increased the number of irrigated acres used for corn, cotton, and soybean production and increased their return by \$35 million using irrigation instead of dry land production. 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 \$5.9 million on 217,615 acres by using forward pricing market opportunities as compared to selling at harvest. Direct farm marketing practices have generated over \$472,000 in increased sales for farm families.

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 \$3.9 million from better forage production, including following fertilizer recommendations, storage, and feeding practices.

Community Economic Development

Extension community economic development programs produced an estimated \$18 million in increased revenues 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

Challenges facing the beef cattle industry in Tennessee range from the adoption of very basic management practices to complicated global market drivers that affect input costs. Nutrition, reproduction, genetics and health management are areas that most impact profitability. Extension agents delivered more than 35,000 hours of educational programming that reached more than 8700 beef producers with an economic impact of \$110.8 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 save \$518,000.

Saving Our Bees

228 Tennesseans completed the UT Extension Beemaster or Advanced Beemaster programs. UT Extension beekeeping programs have aided beekeepers to reduce their losses of colonies to parasite mites and other causes by 15% with an estimated 11,500 bee colonies saved (valued at \$850 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 \$9.8 million.

Pesticide Safety Education Program

The Pesticide Safety Education program had 1360 initial certifications and 4666 re-certifications with an estimated annual benefit of over \$43.9 million. Landscape and grounds management professionals have benefited from education about pest management practices resulting in \$147,550 in increased profitability.

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. 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 had more than \$1 million in increased revenue or savings as a result of UT Extension recommendations.

One-Time Economic Impacts – \$203 million

One-time non-recurring economic values.

UT Gardens/Residential Horticulture

UT Extension provided education in residential horticulture through the UT Gardens, magazine articles, newspaper articles, "Plant of the Month" Press Releases, websites and radio shows. Consumers bought goods and services, fertility products, designs, plants, and pest control products as a direct result of Extension recommendations, programs, plant evaluations, and applied research. It is estimated that this produced \$42 million in economic activity in Tennessee.

Nutrition Education

Family and Consumer Sciences nutrition education programs reach approximately 2 million adults and youth each year across Tennessee 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 more than \$75.9 million for the investment in UT Extension's nutrition education programs for the state of Tennessee.

Health Literacy

Increasing exercise and participating in health screenings has shown to improve health and reduce the risk of many chronic diseases. UT Extension Family and Consumer Sciences health education programs have been at the forefront of state and national initiatives to improve community health through the promotion of physical activity and increased access to healthy foods. For every dollar spent on UT Extension FCS health education programs, an estimated \$25 is saved on direct medical costs and indirect expenditures resulting in more than a \$49.9 million benefit to Tennessee.

Tennessee Saves

The Tennessee Saves program instructs Tennesseans in sound financial practices, encourages them to build assets and reduce dependence on credit and discharge debt. The estimated economic impact of clientele's saving and debt reduction was \$26.3 million. In addition, over 450 families bought homes in Tennessee as a result of participating in home buyer education programs increasing and strengthening economic stability. Farm families also participated in farm financial management programs with a benefit of \$1.6 million in increased income from farming operations.

Volunteerism

UT Extension agents and specialists managed volunteers for many programs and services including 4-H and Master Gardeners. Volunteers extended the education offered by paid staff. Using the Independent Sector's dollar value of a volunteer hour in Tennessee (\$21.98), the value of the 344,255 volunteer hours served was \$7.6 million.

Cost-Benefit Analysis – \$1 to \$8.46

For every \$1 in public funds invested in UT Extension programs, an estimated \$8.46 is returned to the people of Tennessee.

Real. Life. Solutions.

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