

Tennessee Forestry Commission FY 2013 Annual Report



TENNESSEE DEPARTMENT OF AGRICULTURE
DIVISION OF FORESTRY

Members

John Ross, Chair

Savannah, TN
Represents owners of greater than 500 acres

Bob Qualman, Vice-Chair

Brentwood, TN
Represents owners of less than 500 acres

Paul Trianosky, Secretary

Mountain City, TN
Represents owners of less than 500 acres

Johnny Heard

Collinwood, TN
Represents hardwood manufacturers

Jack Holder

Counce, TN
Represents pulp and paper manufacturers

Dottie Mann

Clarksville, TN
Represents conservation organizations

James W. Reeves

Stanton, TN
Represents public at large

Julius Johnson, Ex-Officio

Commissioner - Tennessee
Department of Agriculture

Ed Carter, Ex-Officio

Director - Tennessee Wildlife
Resources Agency

Robert Martineau, Jr., Ex-Officio

Commissioner - Tennessee
Department of Environment
and Conservation

Actions and Activities for FY2013

The Tennessee Forestry Commission met five times during the 2013 fiscal year. The Commission received reports from citizens, staff, and subject matter experts on various forestry topics and issues affecting forest landowners and citizens of Tennessee during the year. The Commission discussed and took action on the following matters:

- Reviewed and approved the Division of Forestry operating budget for FY 2014.
- Reviewed and approved the Division of Forestry forest seedling price schedule for 2013-14.
- Reviewed and approved the Division of Forestry annual activities report for FY 2012.
- Presented the Commission's 2012 Annual Report to the House Ag and Natural Resources Committee and the Senate Energy, Agriculture and Natural Resources Committee.
- Reviewed applications, selected, and interviewed six applicants for the vacant State Forester position.
- Discussed and submitted three nominations to the Governor for the vacant State Forester position.
- Discussed and received comments regarding revision of the green building guidelines issued by the State Building Commission and ways they should be modified to encourage use of Tennessee products.
- Discussed and received comments on the increase in state forest timber sales to support improvement in the quality of timber stands on state forests and meet budget requirements.
- Discussed and received comments on private forest certification.
- Discussed and received comments on modifications to the Greenbelt Law to further encourage sustainable forest management practices.
- Reviewed and discussed the need for a new cooler for seedlings at the Chickasaw State Forest and recommended that construction of one be included in the budget.



Forest Resource
Protection



Forest Resource
Management



Urban Forest
Resource Management



State Forest Management



Reforestation



Forest Data & Technology



Forest Businesses



Environmental Affairs &
Public Outreach

Core Businesses
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FEATURED PROGRAM



Best Management Practices (BMP) Implementation Remains at High Levels in Tennessee

In order to meet the objectives of the Federal Clean Water Act - "to restore and maintain the chemical, physical and biological integrity of the Nation's waters," Tennessee has adopted Best Management Practices (BMPs) for forestry operations. These are practical nonregulatory guidelines to be used during the construction of roads, log landings, and skid trails to minimize the environmental impact of forest management activities. Best Management Practices offer a flexible, preventive and nonregulatory approach to protecting water quality during forestry operations. They are designed to be low-cost, practical and easily applicable to all forestry operations.

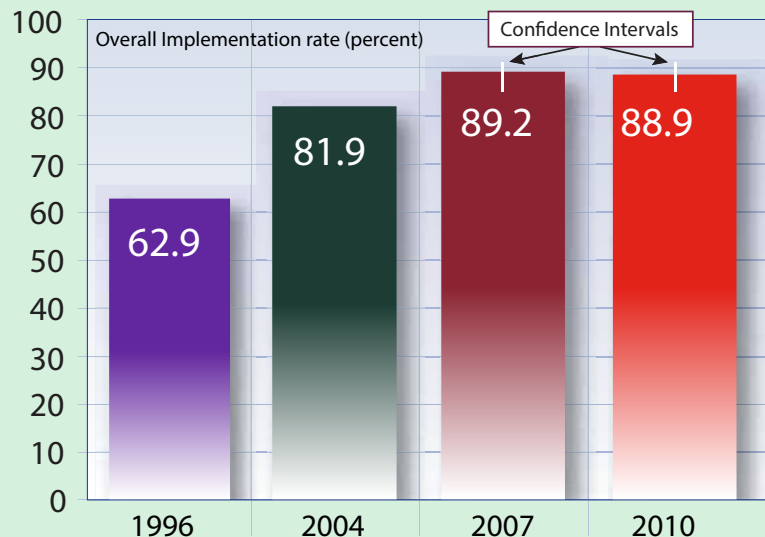
The goal of the Department of Agriculture Division of Forestry's BMP implementation survey is to accurately evaluate BMP use and identify areas for continued improvement. Tennessee Forestry BMP implementation surveys are planned on a five-year cycle. This provides information for timely

assessment of forestry BMP use in Tennessee.

This past year the 2010 BMP Implementation survey was completed and revealed an average overall BMP implementation rate of 88.9 percent, representing little change in overall BMP implementation when compared to the 2007 survey (89.2 percent). Substantial improvement in BMP implementation rate has been achieved since the Division's first BMP implementation survey conducted in 1996 (62.9 percent) (see chart below). The improvement in implementation rates from 1996 to the present can be attributed to greater awareness of water quality issues associated with forest practices and improved understanding of correct BMP implementation. The resources invested over the past two decades to educate the forestry community about practices that protect water quality continue to show positive results.

continued with findings on page 20...

Overall Forestry BMP Implementation Survey Results: 1996 - 2010





Forest Resource Protection

Wildland Fire Protection

Mission: Minimize damage caused by wildfire to forest resources and personal property while giving priority to firefighter safety.

The Division protects forest resources from destructive fire so that the intrinsic benefits of the state's forests can be realized. It does this by preventing and suppressing wildfires, promoting hazard reduction activities, and supporting wildland fire training for volunteer fire departments and other wildland firefighters. The highest priority of this program is firefighter and public safety.

Objectives for Year

- Update County, District and State Fire Prevention strategies.
- Acquire fire suppression equipment.
- Develop burn permit rules.
- Develop Prescribed Burn Act rules.
- Develop Certified Burn Manager training course.
- Develop County Wide Protection Plans and Firewise communities.
- Conduct fire suppression training.

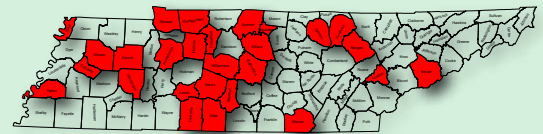
Major accomplishments for July 1, 2012 – June 30, 2013

- Suppressed 923 forest fires that burned 19,633 acres.
- Issued 379,029 burn permits across the state.
- Administered Department of Agriculture's, Commissioner's Burn Ban in 31 counties during July and August, 2012 (see sidebar).
- Broadcasted fire prevention announcements from numerous radio stations with emphasis on obtaining a burn permit and awareness of fire weather conditions.
- Deployed 15 out-of-state resource federal assignments to western states.
- Completed 4 Hazard Mitigation Projects in 3 communities (Shagbark, Laurel Mtn. Lake, and Cobbly Nob).
- Developed the curriculum for the Tennessee Prescribed Burn Manager training.
- Conducted a Firewise Community Leader workshop in Oak Ridge.
- Facilitated national Firewise Communities recognition process for Laurel Mountain Lakes in Monroe Co. and Long Branch Lakes in Bledsoe & Sequatchie Cos.
- Conducted wildfire prevention projects with Chattanooga Lookouts baseball, University of Tennessee Chattanooga football, Middle Tennessee State University football and baseball, Nashville Sportsfest, and Tennessee Titans.
- Facilitated open houses at all fire stations in Monroe County to promote fire prevention and Firewise practices.
- Provided grants to 114 volunteer fire departments totaling \$218,000.
- Provided Fire Prevention and Firewise training to Fire Chief groups in three counties.
- Promoted interagency wildfire prevention messages through the interagency working group that includes federal and state land management agencies.
- Assisted Sevier County officials with efforts to manage building recommendations following the Black Bear Cub Fire by facilitating the involvement of the Insurance Institute of Business and Home Safety.

Unit Mission

The mission of the Forest Resource Protection Unit is to reduce losses from wildfires and forest pests, and to prevent water quality degradation from forestry sources. The Forest Resource Protection Unit administers the Division's Wildland Fire Protection, Forest Health, and Water Quality programs.

Commission of Agriculture Burn Ban - 2012



Under state law, the commissioner of agriculture, in consultation with the state forester, has the authority to issue burn bans at the request of county mayors under certain weather conditions. Such conditions existed during the summer months of 2012, and 31 counties were placed under the ban's regulations.



Forest Resource Protection

Forest Health

Mission: Minimize forest resource losses caused by forest pests through effective prevention, detection, evaluation, suppression, and technical assistance measures.

The Division works to meet the constant challenges in the forest health arena. The difficulty of managing forest pests has been made more complicated by the ever-increasing number of native and non-native pests encroaching on Tennessee's forests. Coordination with other agencies and interest groups is becoming a critical part of the Division's response.

Objectives for Year

- Manage grants and contracts associated with the detection and control of gypsy moth, hemlock woolly adelgid, southern pine beetle, and exotic plants.
- Conduct gypsy moth detection and eradication trapping.
- Facilitate Tennessee Hemlock Conservation Partnership and successfully treat 300 acres of public land for hemlock woolly adelgid.
- Provide support to TDA-Regulatory Services and USDA-Animal and Plant Health Inspection Service in detection and monitoring of thousand cankers disease and emerald ash borer.
- Provide technical assistance to forest industry and private landowners on forest health related issues and forest management strategies.

Major accomplishments for July 1, 2012 – June 30, 2013

- Conducted southern pine beetle (SPB) trapping in Chester, Marion, Rhea, and Wayne Counties where pine is a major component of several forest types. Surveys indicated low and stable SPB populations.
- Conducted gypsy moth egg mass survey in Johnson City, Washington County, TN in early February. Three adult male gypsy moths were captured at this location in August 2012. No egg masses were found at the time of this survey. This location will be delimited during the 2013 gypsy moth detection season.
- Placed 7,500 gypsy moth detection and delimiting traps in 93 counties.
- Completed hemlock woolly adelgid (HWA) surveys in east and middle Tennessee. One new county, Bledsoe, was added to the infestation area.
- Treated 1,508 acres of public land for HWA, released several thousand predator beetles on various state lands, and conducted two private landowner technical assistance field days with over 100 participants. This was done in cooperation with the TN Hemlock Conservation Partnership (see sidebar).
- Provided grants to eradicate exotic invasive plants at Radnor Lake State Park, Warner Parks, and Bells Bend Park.

Tennessee Hemlock Conservation Partnership

The partnership, which encompasses staff from the Tennessee Wildlife Resources Agency, Tennessee Department of Environment and Conservation (TDEC), Tennessee Division of Forestry (TDF), National Park Service, The Nature Conservancy (TNC), US Forest Service, University of Tennessee, as well as concerned individuals, have identified Hemlock Conservation Areas (HCAs) on public lands where treatment to save hemlocks will take place over the next several years.

This group of 13 wildlife and biology students from TN Tech conducted a treatment on April 20, 2013 at Burgess Falls State Park with the assistance of TNC, TDEC and TDF (pictured left is Douglas Godbee, Forest Health Forester).



- Conducted aerial surveillance over Cedars of Lebanon State Forest to assess extent and severity of cedar stress and mortality.
- Developed insect and disease content for TDA's new forest health website, www.protecttforests.org.
- Conducted first forest health webinar as a component of Tennessee Healthy Hardwoods education and outreach program.
- Monitored 95 counties for forest health related issues and reported over 250 observations.
- Conducted three community meetings - one in each of Putnam, Smith and Wilson Counties - to educate forest industry and private landowners on the impacts of the expanded emerald ash borer quarantine to Smith County.



Forest Resource Protection

Water Quality

Mission: Protect waters of Tennessee from degradation attributable to forestry practices.

The Division of Forestry works to ensure that forestry practices are performed in a manner that does not result in the degradation of the State's water resources. The Water Quality program involves prevention, education, training, monitoring, response to complaints, and assistance to Tennessee Department of Environment and Conservation (TDEC) Division of Water Pollution Control (WPC) with complaint resolution.

Objectives for Year

- Fill Water Quality Program Specialist position.
- Complete, publish and distribute Best Management Practices (BMP) Implementation Survey.
- Enhance more even distribution of courtesy checks and logger contacts.
- Provide Master Logger education with emphasis on stream crossings.

Major accomplishments for July 1, 2012 – June 30, 2013

- Filled Water Quality Specialist position.
- Completed, published and distributed Best Management Practices implementation Survey (see story on page 2).
- Conducted 764 on-site visits with landowners and loggers, providing technical assistance concerning application of BMPs, 636 of which were courtesy checks.
- Prepared 1,164 written BMP recommendations for forest landowners in forest management plans and through timber sale assistance by Area Foresters.
- Presented 19 BMP sessions in cooperation with the Tennessee Forestry Association (TFA) for the Tennessee Master Logger program, training 357 loggers who received scholarships funded through the Tennessee Agricultural Enhancement Program, in partnership with the TFA.
- Conducted 58 forestry water quality and BMP familiarization and training workshops for 1,409 resource managers, forest landowners, and loggers.
- Investigated and made recommendations on 109 complaints from other sources, 13 in cooperation with TDEC Division of Water Pollution Control.



Forest Resource Management

Forest Landowner Assistance

Mission: Encourage and assist landowners to implement forest management practices that yield healthy, productive forests.

The landowner assistance program provides technical assistance, forest planning assistance, cost-share assistance, forest health assessments and forestry information to private, non-industrial forest landowners. The Division assists landowners in achieving forest resource conservation and forest management objectives on their land.

Objectives for Year

- Add all Stewardship Plans from the past 10 years to a spatial database to allow tracking of forest practices.
- Contact forest landowners that received assistance over the past 23 years to determine how many still own the property.
- Identify and contact landowners with unmanaged forests and unprotected riparian areas in high priority areas.
- Facilitate 3rd party certification of private forest landowners by enrolling them in the Tree Farm program.
- Leverage funding for forest landowners from other natural resource conservation organizations.
- Increase the quality of Stewardship Plans by monitoring all plans based on National Standards and Guidelines developed by the U.S. Forest Service.
- Develop a repository of forest management plans on a cloud-based server and make it available to Area Foresters.

Major accomplishments for July 1, 2012 – June 30, 2013

Forest Management Planning

- Provided 1,041 forestland inspections to landowners (649 were first time assists).
- Added contact information and spatial data for 990 landowners to the Stewardship Spatial Database which now contains 3,630 landowners who received Stewardship or Management Plans since 1990.
- Wrote 160 Forest Stewardship plans addressing 24,846 acres.
- Recognized implementation of 23 Forest Stewardship plans improving 4,368 acres (see picture).
- Wrote 891 other forest management plans addressing 64,815 acres.
- Scanned 700 plans and placed on a cloud-based server. The statewide forest management database allows Area Foresters access to each management plan through a hyperlink field. This allows Area Foresters to search for planned practices, and know when plans need to be updated at the end of each 10 year planning period.

Forest Stand Prescription Planning

- Wrote 260 prescription plans improving 11,920 acres.

Forest Stand Prescriptions Implemented

- Assisted 27 landowners in planting 208 acres of hardwood trees.
- Assisted 107 landowners in planting 6,315 acres of pine trees.
- Assisted 81 landowners in other forest improvement activities on 4,301 acres of forestland.

Unit Mission

The mission of the Forest Resource Management Unit is to promote and advance sustainable forest management on non-industrial private forestlands for the multiple uses and benefits provided by forested landscapes. The Forest Resource Management Unit administers the Division's Landowner Assistance and Forest Legacy programs.



Area Forester Terry Tynes reviewed a Stewardship Plan and discussed treatment options with a landowner for a 16 year old pine stand in Benton County.

Other Forestry Technical Assistance

- Assisted 11,621 landowners by phone, pre-prepared information, follow up-checks, individual consultations or e-mail.
- Developed an analysis of the riparian areas Clark Creek Watershed, a 303(d) impaired stream, jointly with the MTSU Department of Geosciences.
- Held training for 212 forest landowners attending the Tennessee Healthy Hardwoods Field Days at Ames Plantation, the University of the South, Cedars of Lebanon State Forest, and Lone Mountain State Forest.
- Maintained the spatial Tennessee Tree Farm Database.
- Developed estimates of forested area for each parcel in the state of Tennessee based on aerial photographs.
- Ground proofed riparian zone analysis of Swan Creek based on aerial photographs using GPS and georeferenced photographs taken on-site.



Forest Resource Management

Forest Legacy

Mission: Protect environmentally important, private forestlands threatened with conversion to non-forest uses.

The Forest Legacy Program identifies and protects environmentally important private forestlands that are threatened by conversion to non-forest uses. Program emphasis is to maintain well-managed, working forests on the landscape. Since initial involvement in 2000, fee simple and permanent conservation easement purchases now total 44,973 acres valued at \$48.4 million. Tennessee utilized \$28.3 million of federal Forest Legacy grant money in reaching that total. An offer to buy a conservation easement on the Fiery Gizzard tract was accepted by the owners, clearing the way for an November 2013 closing.

Objectives for Year

- Compete for FY 2014 Forest Legacy funding for a conservation easement on the Carter Mountain Working Forest in Franklin County.
- Close on the Fiery Gizzard Conservation Easement Forest Legacy Tract.

Major accomplishments for July 1, 2012 – June 30, 2013

- Secured placement of Carter Mountain Working Forest on the President's list of projects recommended for federal funding.
- Completed environmental studies and appraisal work on the Fiery Gizzard tract, allowing an offer to be made for the purchase of a conservation easement (see pictures).



The Fiery Gizzard Forest Legacy tract would help protect the Fiery Gizzard Trail (shown here), which was called one of the top 25 hiking trails in the United States by Backpacker magazine.



Urban Forest Resource Management

Urban forestry emphasizes the important role trees play in communities: from the many intangible benefits to the economic benefits of air pollution abatement, heat island mitigation, and storm water runoff reduction. To attain these benefits, the urban forestry program strives to provide assistance to Tennessee's cities and towns, where the majority of the population lives. Urban Forestry impacts people where they live.

Objectives for Year

- Provide urban and community forestry assistance to cities and towns across Tennessee and to green industries (arborists, grounds managers, landscape architects, others) that impact the management of the urban forest resources.
- Administer grants, Tree City USA, Tree Line USA, Tree Campus USA, Champion Tree and related program and project administration.
- Complete canopy cover analyses for Tennessee communities.

Major accomplishments for July 1, 2012 – June 30, 2013

- Completed 12 Tennessee Agriculture Enhancement Program (TAEP) community tree planting grants in cities and towns across Tennessee totaling \$58,577 and planting 1,258 trees.
- Made 77 assists to 47 cities and towns, and 75 secondary assists to arborists, nurseries, landscape architects, schools, grounds managers and other related entities that have an impact on urban forests. Assists included technical information on planting care and maintenance of trees and information to tree boards, ordinance reviews, tree city information, planting recommendations, etc.
- Partnered with the Tennessee Urban Forestry Council to host a statewide Urban Forestry Conference and State Tree Climbing Championship for arborists.
- Provided assistance to the Tennessee Urban Forestry Council to support and continue their programs through a transition period of changing officers and their executive director.
- Completed canopy cover analysis for Bristol and Pigeon Forge with Brentwood underway and expected to be completed in early FY 2014.
- Re-certified 16 Tree Line USA's (Tennessee is Number One in the country in recognized Tree Line USA's).
- Recognized 39 cities and towns as Tree City USA in 2013 (see sidebar for 2012 infographic).
- Certified Bryan College in Dayton as a Tree Campus USA and re-certified Cleveland State Community College.
- Conducted 3,227 hours of instruction at 37 training sessions.

Unit Mission

The mission of the Urban Forest Resource Management Unit is to assist and encourage municipalities and private urban landowners to establish, improve, and maintain urban forest resources.

Tennessee: 2012 Tree City USA Summary

By the Numbers...

- 40** Tree City USA Communities
- 0** new Tree City USA communities
- 19%** of TN lives in a Tree City USA Community
- 100%** Recertification Rate
- Largest:** Nashville (635,475)
- Smallest:** Bell Buckle (405)
- Norris** 34 years Tennessee's longest running Tree City USA community
- \$8,049,435.99** spent on urban forestry management
- \$6.54** average per capita

Growth Award

- 6** Growth Award recipients
- 2** New Growth Award recipients: Nashville, Sevierville
- Longest Growth Award:** Bristol, Jackson • 19 years
- Growth Awards through 2012:

Tennessee

Year	Recipients
1983	0
1984	0
1985	0
1986	0
1987	0
1988	0
1989	0
1990	0
1991	0
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
1998	0
1999	0
2000	0
2001	0
2002	0
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	6

Beyond Tree City USA:

- 68%** used online data management system
- 2** Tennessee Tree Campus Schools
- 1** New Tree Campus Schools
- 16** Tree Line Utilities
- Longest Running Tree Line USA Utility:** Dyersburg Electric System (14 years)

Arbor Day Foundation



State Forest Management

The Tennessee Department of Agriculture Division of Forestry manages 15 state forests totaling 168,349 acres based upon multiple-use and sustainable forest principals. The forests are quite varied, ranging from mountain coves to cedar glades to bottomlands along the Mississippi river.

Objectives for Year

- Complete 16 Compartment Plans
- Hold 4 demonstrations, tours or field days
- Harvest 1,435 acres of timber
- Generate \$3.1 million in Timber Sales Revenue
- Complete 360 State Forest Inventory Plots
- Achieve American Tree Farm Certification
- Map and designate for public use state forest roads
- Complete timber sales and Compartment Plan writing training

Major accomplishments for July 1, 2012 – June 30, 2013

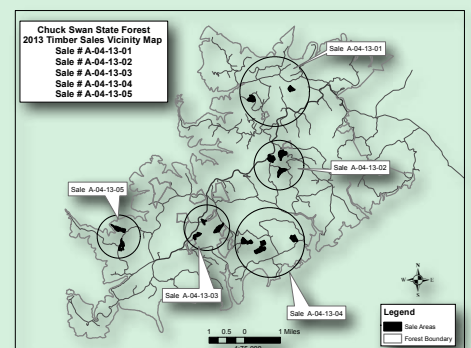
- Submitted 17 Compartment plans; 12 were approved.
- Demonstrations, tours and field days:
 - ◊ Held two Tennessee Healthy Hardwood field days (Chickasaw and Lewis State Forests)
 - ◊ Held a tour at Natchez trace for selected legislators
- Harvested 1,268 cut acres; 1,368 gross stand acres. This yielded 12.9MM board feet and 11,738 tons of pulpwood.
- Timber sales revenue for FY 2013 totaled \$3,043,528.52 (\$2,681,013.52 from FY2013 scheduled sales and \$362,515.00 from scheduled FY2012 sales booked in FY2013) (see sidebar)
- Completed 279 state forest inventory plots.
- Completed draft of the pro forma American Tree Farm Certification contract and 85% of the request for proposal (RFP) for soliciting bids to conduct the certification audits.
- Mapped approximately 50% of the state forest access roads and designated for public use.
- Completed three sessions each of the timber sales and compartment plan writing training for state forest foresters.
- Completed the state forest inventory training for the Cumberland and East Tennessee Districts.
- Negotiated tentative terms for a land swap between Bethel Baptist Church and TDF at Chickasaw State Forest that was submitted for State Building Commission (SBC) approval.
- Completed a tour of pine converting facilities to help develop markets and increase timber sales for Chickasaw and Natchez Trace pine sawtimber.
- Completed the Quick Guide for Writing Compartment Plans and streamlined the written compartment plan and data inputs process for state forest foresters.

Unit Mission

The mission of the State Forest Management Unit is to provide for the multiple use management of all resources on State Forest lands such that those resources are protected and utilized in the combination that best meets the long-term needs of the people of Tennessee.

Plan 2020 Put into Action

An increased level of harvesting activity took place in FY2013 as part of the Plan 2020: Harvest Plan for Sustainable Forests. The plan works to ensure a continuity of age classes in the State Forests by setting a cap on removals at 70 percent annual growth. That means that less volume will be cut than grows, but the harvest rate will help diversify the age classes by creating younger trees.



The map shows the timber sale areas conducted at Chuck Swan State Forest in 2013.



Reforestation

Seedling Nursery

Mission: To provide high quality conifer and hardwood tree seedlings to the state's landowners at a competitive price.

The Division of Forestry's seedling nursery, located in Delano, TN, produces forest seedlings that are available for sale to landowners in Tennessee. These seedlings are adapted to growing conditions found in Tennessee and are used primarily for reforestation and forest conservation projects. Approximately one-half of the 80 acres available for seedling production at the nursery are used for this purpose each year. The remaining seedbed area is planted in cover crops each year to ensure the long-term productivity of the nursery soil.

Objectives for Year

- Increase seedling sales revenue.
- Seek new venues to market Division seedlings.
- Engage District personnel in seedling marketing.
- Develop core list of natural resource agency/organization offices appropriate for delivery of seedling applications. Work with District offices to ensure that seedling applications are delivered to each office.
- Contact new agencies/organizations to market seedling purchasing opportunities offered by the Division.
- Visit field staff periodically to discuss current seedling quality, use and dissemination.
- Achieve a customer satisfaction rating of 95% or greater.
- Develop new value added seedling opportunities.
- Prepare a facilities plan that addresses the need to purchase and construct a new seedling cooler at Chickasaw State Forest.

Major accomplishments for July 1, 2012 – June 30, 2013

- Increased seedling sales revenue by 32% compared to the previous season.
- Increased the number of seedlings sold by 11% compared to the previous season (see picture).
- Achieved a customer satisfaction rating of 98% based on the results of our annual customer satisfaction survey.
- Increased advertising presence as part of our efforts to increase seedling sales revenue. Published advertisements in the TWRA Fall Hunting Guide, Tennessee Home and Farm Magazine and Tennessee Magazine.
- Displayed exhibit at the Land and Water Expo and the National Wild Turkey Federation's annual convention to promote TDF seedlings.
- Partnered with the Tennessee Wildlife Federation to publish an article about the Division's reforestation programs in their Tennessee Out-of-Doors Magazine.
- Worked with District personnel to provide information and materials for displays at state and local fairs and other events to promote seedling sales and the Division's reforestation programs.
- Began working with outside vendors and the Tennessee Department of Agriculture's computer specialists to develop an on-line seedling sales system that will allow the public to order seedlings via the internet.
- Identified Sawtimber Select families in several loblolly pine seed orchards. Seedlings from these families will be marketed as a value added product from the nursery. Seed will be sown in the spring of 2014.

Unit Mission

The mission of the Reforestation Unit is to provide quality, affordable seedlings (genetically improved where feasible) to Tennessee landowners and to optimize genetic improvements to increase the productivity of the state's forest resource.



Increased seedling sales resulted in more seedlings sold compared to the previous season. Shown are workers lifting seedlings from the nursery beds prior to shipment to customers.



Reforestation

Tree Improvement

Mission: To genetically improve the forest plantations of Tennessee through a program of breeding, testing, selection, and orchard management for important tree species; and to provide the state nursery with genetically improved seed from these orchards.

The Division manages over 200 acres of seed orchards and more than 214 acres of progeny tests at various locations around the state. Currently, the Division is actively working with 7 hardwood and 4 conifer tree species. Tennessee is also a member of the North Carolina State University – Cooperative Tree Improvement Program. Membership allows accelerated breeding and establishment of genetically superior seed orchards. Seed produced from these orchards is used to grow seedlings tailored for survival and fast growth on Tennessee's landscape.

Objectives for Year

- Expand the loblolly pine Sawtimber elite seed production orchard at the West Tennessee Tree Improvement Center (WTTIC) in Chester County with appropriate selections.
- Establish full-sib performance, rust resistance and form quality (PRS) test at the WTTIC.
- Expand black walnut seed production orchard and archive at the WTTIC and the East Tennessee Nursery (ETN).
- Update and revise work plan for WTTIC as needed to reflect changes in plans and work completed.
- Calculate performance value estimates for major program species.
- Maintain, monitor, and manage orchards to promote healthy trees.
- Thin loblolly pine orchards at ETN to promote better cone crops.
- Harvest seed from producing orchards.
- Prepare a facilities plan that addresses the need to purchase and construct needed buildings at the West Tennessee Tree Improvement Center in Chester County.

Major accomplishments for July 1, 2012 – June 30, 2013

- Harvested 1,269 pounds of hybrid chestnut from the seed production area at ETN.
- Harvested 3,079.5 pounds of sawtooth oak acorns from seed production areas at ETN and Pinson Reforestation Complex (PRC).
- Harvested 25.9 pounds of cleaned/de-winged seed from the 2nd generation yellow-poplar orchard at ETN.
- Harvested 5.8 pounds of advanced generation loblolly pine seed at PRC.
- Harvested 6.7 pounds of seed from Virginia pine orchard at ETN.
- Harvested 4 pounds of seed from shortleaf pine orchard at ETN.
- Collected approximately 8 pounds of seed from wild persimmon and plum at the WTTIC.
- Harvested 796.5 pounds of white oak acorns, and 8.4 pounds of Washington hawthorn from seed production areas at ETN.
- Fertilized orchards based on soil test results and recommendations from NCSU-CTIP personnel.
- Produced containerized seedlings and planted a loblolly pine full-sib progeny test at the WTTIC.
- Prepared 25 acres of planting sites for future use for progeny tests and orchards at the WTTIC.
- Prepared and distributed a Tree Improvement Program Status report that evaluated program species, level of genetic improvement, historic seed production and future work needs.
- Calculated estimated performance gains for loblolly pine, Nuttall oak and white pine orchard selections.
- Prepared written documents with guidelines for insect and weed control in genetic tests and orchards.



Forest Data and Technology

The Forest Data and Technology Unit is charged with the task of seeking out and implementing relevant technology. The Unit is also responsible for maintaining relevant databases and presenting data in a format for further analysis. Critical work areas include updating information systems and getting new mapping and remote sensing technology into the hands of field personnel. Adopting such technology will lead to better communications, increased efficiency, and strengthened credibility.

Objectives for Year

- Rollout Online Burn Permit System for the Permit Writers statewide.
- Develop Nursery Online Seedling sale program.

Major accomplishments for July 1, 2012 – June 30, 2013

- Established new online system giving Permit Writers ability to issue burn permits statewide. The system was able to handle issuing 15,000 permits on a single day.
- Issued 379,029 permits for the Burn Season of October 15, 2012 to May 15, 2013; of those, there were 40,421 permits issued by the automated website (11%).
- Moved the Online Burn Permit System for the Permit Writers off the state's network to fix reliability issues.
- Created a new web link for Forest Technicians that provided them the ability to shut down the Burn Permit System for their county from any internet connection.
- Activated 40 new Verizon 4G Hotspot cards, which has increased internet capabilities in the field.
- Assisted with the Nursery Online Seedling site design and development testing; estimated availability for public use by January 2014.

Unit Mission

The mission of the Forest Data and Technology Unit is to facilitate the development and utilization of technology to meet the needs of the Division's core businesses. The Forest Data and Technology Unit has the responsibility to implement state of the art technology, manage and compile data, and administer the Division's Forest Inventory and Analysis, and Geographic Information Systems programs.



Forest Data and Technology

Geographic Information Systems

Mission: Analyze and present tabular information in visual (map) form or extract data from imagery and present it in tabular form that assists in making resource decisions.

The Geographic Information Systems (GIS) section supports program managers decision making by analyzing data and presenting it in map or tabular form.

Objectives for Year

- Provide GIS support for Division projects - Gypsy Moth, Hemlock Woolly Adelgid, Sudden Oak Death, Emerald Ash Borer, Forest Legacy, Statewide Forest Resource Assessment, Water Quality, Urban Forestry.
- Direct and conduct training of seasonal personnel in the use of new GPS technology.

Major accomplishments for July 1, 2012 – June 30, 2013

Gypsy Moth

- Managed the property inventory of global positioning system (GPS) units issued annually to the seasonal and full-time employees, and laptop computers issued annually to the lead trappers used in gypsy moth trapping.
- Conducted technology training for, and technical support to, full-time employees in the use of GPS units in the execution of the gypsy moth trapping program.
- Received and processed GPS trap placement data downloads from full-time employees statewide.
- Processed more than 7,290 trap placement data records from field employees in the production of gypsy moth occurrence/spread maps.
- Produced 95 detection survey grid maps (one per county) for gypsy moth trap placement.
- Produced 13 delimiting grid maps for gypsy moth trap placement to ascertain the extent of the gypsy moth threat in areas of previous catches.
- Produced numerous large scale (statewide) gypsy moth trap placement maps and (statewide and district) gypsy moth catch location maps (see picture).

Forest Health

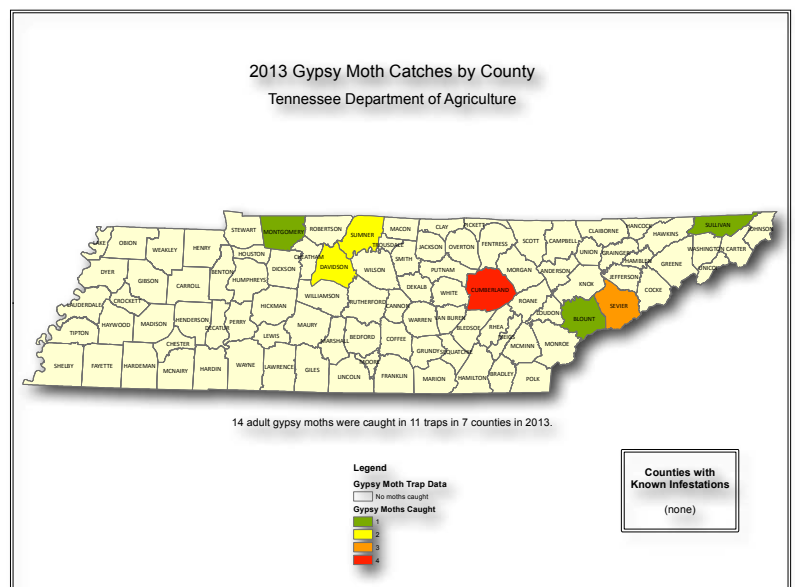
- Produced pest occurrence, spread & quarantine maps from current field survey data for Emerald Ash Borer and Thousand Cankers Disease.

Urban Forestry

- Performed data re-projections for various projects.

Other

- Produced pest occurrence, spread & quarantine maps from current field survey data for Spotted Wing Drosophila.



Map indicating Gypsy Moth catches by county.



Forest Data and Technology

Forest Inventory Analysis

Mission: Characterize changes in Tennessee's forest resource through data collection and analysis

The Division works with the USDA Forest Service to produce periodic reports of the condition and extent of Tennessee's forest. Some 4,600 plots statewide are accurately measured at regular intervals to provide the data needed, with 20% of the plots scheduled for measurement each year. Information from this data is used to qualify and quantify Tennessee's forest resource.

Objectives for Year

- Measure 972 plots.
- Hire, train and certify Forest Inventory Foresters (2+ FTEs vacant).

Major accomplishments for July 1, 2012 – June 30, 2013

- Measured 655 forest inventory plots.
- Restructured funding and staffing levels to operate at no cost to the state.
- Trained and certified current Forest Inventory Foresters for data collection under new field manual.

Radio Communications

The Radio Communications section operates, maintains and provides technical and administrative support for the Division's statewide radio system used by field personnel.

Objectives for Year

- Total narrow-banding and reprogramming of radio sites, mobiles and portables, statewide, by January 1st, 2013.
- Install radios in new trucks.
- Install 4RF microwave equipment at 2 radio sites.
- Work with Department of Safety on new tower sites.
- Hire Radio Analyst and Radio Technician.

Major accomplishments for July 1, 2012 – June 30, 2013

- Reprogrammed and narrow-banded 20 radio sites, 600+ mobiles, and 500+ portables by November 2012.
- Installed radios in 60 new trucks.
- Received training on use and installation of 4RF Microwave equipment.
- Staged and programmed entire East TN microwave network at the radio warehouse.
- Purchased new microwave dishes, antenna, feed lines and mounts (see picture) and installed on Department of Safety's new Greentop and Sullivan Ridge radio towers. This upgrade, along with additional grounding, has helped increase coverage and reliability.
- Moved Cookeville comparator from office to fire tower in preparations of office move.
- Programmed Forestry's fire line frequencies into National Guard helicopters.



View from behind a microwave dish from a tower near Burns, TN.



Forest Businesses

The goal of the Forest Businesses Unit is to improve Tennessee's forest resources by facilitating linkages between sellers and buyers and promoting value-adding industry. The Division's Forest Businesses program provides descriptive data about, and for, the forest products industry in Tennessee, technical assistance to forest products businesses or forest landowners, assistance in recruiting or establishment of forest products businesses in the state, and analysis to aid understanding of the forest resource.

Objectives for Year

- Publish the Forest Products Bulletin quarterly and the Forest Industry Directory.
- Conduct biennial survey of all primary and secondary wood-using industries in Tennessee.
- Update Tennessee Forest Products database.
- Assist Tennessee Forest Products companies and citizens with information regarding forest products marketing/ utilization.
- Serve as Forestry representative on the Agriculture/Forestry Rural Development Task Force.

Major accomplishments for July 1, 2012 – June 30, 2013

- Completed the biennial Tennessee Forest Industry Survey of all primary and secondary wood using industries in the state through a coordinated effort of forestry field personnel.
- Published the "2012 Directory of Tennessee's Forest Industries" listing the primary and secondary forest products using industries located in the state.
- Published four issues of the Tennessee Forest Products Bulletin, which provides information on forest products, prices, specifications, and equipment.
- Participated on the Department's Agriculture/ Forestry Rural Development Task Force.
- Began development of a logo and supporting materials for the Tennessee Wood Products Program. The materials will be made available to participating companies for use on their products, print materials, websites, and other applications to better promote Tennessee's forest industries.
- Advised Tennessee citizens on their forest products questions and needs for help with timber sales, logging, forest inventory and other inquiries.
- Provided prospective companies looking to relocate to Tennessee with forest resource data.
- Provided export information and resource needs from foreign companies looking to export timber products from Tennessee.

Unit Mission

The mission of the Forest Business Unit is to provide support for the Tennessee forest industry and forest-based businesses, and to provide data to characterize Tennessee forest products.

Tennessee Forest Products Bulletin

The Tennessee Forest Products Bulletin is a condensed report on forest products, prices, specifications, equipment, and utilization news. It is prepared quarterly (January, April, July & October).





Environmental Affairs and Public Outreach

The Environmental Affairs and Public Outreach Unit seeks creative ways to provide outreach to the various publics in the State of Tennessee. Additionally, the unit seeks to foster greater collaboration with environmental advocacy groups to produce a climate for problem solving which will help reduce unnecessary conflict in various arenas with favorable outcomes for all.

Objectives for Year

- Implement and promote the Clean Water for Urban Forests Program
- Encourage and foster partnerships with conservation organizations related to all units and programs of the Division

Major accomplishments for July 1, 2012 – June 30, 2013

Clean Water for Urban Forests Program

- Managed 25 tree planting projects on 11 sites; this resulted in the planting of 3,950 trees along 7,995 feet of riparian buffers covering 3.96 acres in Davidson County.
- Potted 2,035 bare root seedlings in the spring for planting the following fall.
- Involved 323 volunteers accounting for 861 volunteer hours served towards the project.
- Attracted and fostered program involvement with 18 partner and volunteer organizations including: Hands On Nashville, Tennessee State University, Vanderbilt University, Phi Theta Delta Fraternity, SoundForest, Cumberland River Compact, Tennessee National Guard, Metro Water Services, CSX Railways, Land Trust for Tennessee, Students Today Leaders Forever-Wisconsin, Construction and Engineering Consultants, Operation Stand Down, and a Boy Scout Troop.

Forest Health

- Fostered collaboration with several conservation based organizations related to forest health issues such as Emerald Ash Borer, Thousand Cankers Disease and the detrimental effect of the movement of firewood. Partnerships included USDA Forest Service, USDA APHIS, USDI National Park Service, University of Tennessee Extension, TDEC State Parks, TWRA and TN Department of Agriculture Division of Regulatory Services.

Forest Policy/Business

- Fostered collaboration with several conservation based organizations including The American Chestnut Foundation (see picture), the National Association of State Foresters, the Southern Group of State Foresters, Kentucky/Tennessee Society of American Foresters, Tennessee Forestry Association and Tennessee Farmland Legacy Partnership.

Unit Mission

The mission of the Environmental Affairs & Public Outreach Unit is to communicate clearly and accurately to the Division's publics forestry information necessary to accomplish the Division's mission, and to optimize in-house communications. The Environmental Affairs & Public Outreach Unit also administers the Division's Information and Education program.



Members of the Tennessee General Assembly Senate Committee on Energy, Agriculture and Natural Resources received "Restoration 1.0" chestnut seedlings from the American Chestnut Foundation by way of a partnership with the Division.



Environmental Affairs and Public Outreach

Information and Education

Mission: To produce educational materials and provide forest resource information through a variety of media, and provide support to all Division programs in the dissemination of information to our publics.

The information and education program is essential in helping the general public understand forestry as a discipline and the role that the Division plays in maintaining a healthy forest resource while providing a stream of essential ecological benefits to society. The program also helps to foster communication within the Division, a critical function of a healthy organization.

Objectives for Year

- Raise awareness about important and timely forest resource issues.
- Increase the use of social media into standard operating procedures (see sidebar).

Major accomplishments for July 1, 2012 – June 30, 2013

- Held 2,118 educational outreach activities reaching 339,970 children and adults statewide.
- Facilitated 30 Project Learning Tree (PLT) Workshops for 704 educators which will result in approximately 126,000 students being exposed to PLT principles.
- Led statewide communications response to forest health threats related to Emerald Ash Borer, Thousand Cankers Disease, and the detrimental effect on forest health related to the movement of firewood.
 - ◊ Produced and led multi-state platform campaign in conjunction with the Southeastern Football Conference (SEC), including the UT Vol Network, to promote “Don’t Move Firewood” message at SEC football games in 9 southern states. This included radio spots aired during coaches call-in shows and during games.
 - ◊ Distributed “Don’t Move Firewood” rack cards to all Tennessee interstate welcome centers and rest stops.
- Produced 22 news releases pertaining to relevant topics including: forest pests, wildfire danger, burn permit requirements, UT Conference on EAB and TCD, dangers of moving firewood, employee awards, TN Urban FIA Report and Commissioner of Ag Burn Ban.
- Referenced in 690 newspaper articles.
- Gave multiple radio and television interviews addressing Division programs and topical issues.
- Maintained fire prevention website - BurnSafeTN.org. The site had 248,298 page views from 114,974 visits. This marks an 80% increase in the number of visits to the site from the previous year, and continues a trend of increasing traffic as more citizens use the site to learn more about safe debris burning, wildfire conditions, Firewise Communities and to obtain a burn permit.
- Launched a new forest health website - ProtectTNForests.org - on September 12, 2012. The site had 5,173 page views from 2,077 visits.
- Maintained the Division’s YouTube Channel. The number of video views was 11,643, a 35% increase over last fiscal year. The most viewed video continues to be “Using Handtools to Suppress Tennessee Forest Fires” representing 54% of total views to a worldwide audience including 123 countries.
- Posted 65 status updates related to forestry on the Department’s Facebook page generating 40,848 impressions with 9% engagement.
- Facilitated the 64th annual Forestry Camp for 61 Future Farmers of America high school students.

‘Like’ Us on Facebook

The Division joined with the Department of Agriculture’s accounts to enter the Facebook and Twitter social media realms this past year. This further adds to the Division’s use of social media, as its YouTube Channel has been active since 2007. A great benefit of using social media to feed information about the Division is the ability to track impressions and engagement that our audience has with the content. This information helps to drive content delivery that is relevant to our followers.





Safety and Training

The Division stresses safety first in all activities and program areas by providing the tools and training necessary to enable employees to work effectively and safely. In addition, physical fitness standards help the Division maintain a physically capable and healthier work force.

Objectives for Year

- Conduct work capacity test.
- Coordinate ongoing training program.
- Maintain training database.
- Maintain safety records.
- Coordinate safety inspections of facilities.
- Provide safety information (updates, messages).
- Investigate accidents/unsafe work practices.

Major accomplishments for July 1, 2012 – June 30, 2013

- Administered the work capacity test to assess fitness among Division firefighters.
- Conducted the Division's annual wildfire training academy for new employees. (see pictures)
- Made materials available for the Division's annual wildfire safety refresher.
- Assisted with development of online Certified Prescribed Burn Manager Training.
- Administered web-based training database (IQSweb) and Resource Ordering and Status System (ROSS).
- Participated in the 11th annual Tennessee Kentucky Wildland Fire Academy, which offers advanced wildfire training for Division firefighters.
- Trained firefighters in the use of fire operations in the wildland-urban interface.
- Assisted with Pest Management Certification Training for employees.
- Coordinated First Aid/CPR Training.
- Coordinated Defensive Driving Training.
- Coordinated Citation (Badge) Training with the Agricultural Crime Unit.
- Maintained the Division's Pesticide Certification Program/Records.
- Compiled and submitted OSHA reports.
- Coordinated safety inspections of facilities.
- Investigated accidents/unsafe work practices.
- Chaired Safety/Training Committee meetings.

Unit Mission

The mission of the Safety and Training Program is to protect the lives and well-being of Division employees and the public by reducing or eliminating unsafe acts and/or conditions that may result in personal injury or loss of life and to coordinate training opportunities that will enhance employee career development and the delivery of forestry services to our constituents.



New employees received wildfire training to prepare them in advance of the fire season.





Administration

Spread across the State and administered from four district and one reforestation offices, the 325 employees of Department of Agriculture's Forestry Division have responsibilities in nine separate programs. Effective planning, priority setting, and communication within the Division are crucial to organizational effectiveness. Assistant State Foresters and the Budget & Planning Unit Leader work with Staff to refine systems that improve customer services and operational efficiencies.

Objectives for Year

- Plan and allocate budget (revenues, reversion and FY2014).
- Develop Customer Focused Government Plan.
- Map business process that need streamlining.
- Maintain TDF partnerships.

Major accomplishments for July 1, 2012 – June 30, 2013

- Promoted Jere Jeter to the position of Assistant Commissioner/State Forester (see sidebar).
- Developed Customer Focused Government Plans.
- Hosted a team of Foresters from China to study the management of forests and parks in Tennessee.
- Initiated the process to evaluate our Forest Management Program and increase its effectiveness.
- Honored our Outstanding Forester and Employee of the year.
- Toured the Districts to encourage alignment with priority programs.

Unit Mission

The mission of the Administration Unit is to assist the State Forester in increasing the effectiveness of management, the quality of customer services, the efficiency of operations, and the cost effectiveness of Division programs.

Jere Jeter Promoted to State Forester

Jere Jeter was appointed state forester and assistant commissioner in December 2012. He is responsible for directing the activities of the Division of Forestry. A native of Weakley County, Tennessee, Jeter has been with the state for more than 31 years. He first joined the agency in 1975 as an area forester.





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The 2010 BMP implementation survey is the second cycle to utilize the methodology as described in the Southern Group of State Foresters (SGSF) Silvicultural Best Management Practices Implementation Monitoring Framework for State Forestry Agencies. Adoption of the SGSF methodology provides more consistency between surveys and compatibility with other southern states, resulting in a more objective and robust approach to BMP implementation monitoring.

The 2010 survey identified the following situations as opportunities for providing BMP education and training: 1) the lack of sufficient water control structures, 2) problem areas not stabilized 3) improper materials left in streams

and 4) wetland areas. These issues will be addressed through additional courtesy check site visits, logger contacts, educational materials, technical guides, and demonstrations. Regardless of BMP category, special emphasis will also be given to highlight the importance of stabilizing disturbed areas.

The 2010 BMP implementation survey was conducted in partnership with the University of Tennessee, Department of Forestry, Wildlife and Fisheries. This project was funded, in part, under an agreement with the Tennessee Department of Agriculture, Nonpoint Source Program, and the U.S. Environmental Protection Agency. The information in the 2010 survey report will help assure that Tennessee will maintain high levels of BMP implementation.



Focused education and training on identified issues will be addressed through demonstrations, workshops, and additional courtesy check site visits.

Forestry Commission Duties and Functions

The Tennessee Forestry Commission was established by the legislature under T.C.A. 11-4-201 to:

1. Nominate candidates for State Forester.
2. Review, approve and submit the annual budget of the Forestry Division to the Commissioner of Agriculture.
3. Make an annual report to the Governor, Commissioner of the Department of Agriculture and the Senate Energy, Agriculture and Natural Resources Committee and the House Agriculture and Natural Resources Committee.
4. Recommend to the General Assembly legislation to protect, conserve and develop the forest resources of the state.
5. Approve the Division's comprehensive long-range plan for the state's forest resources.
6. Establish state forestry policies that will enable the Division to manage its programs.
7. Include in budget recommendations those goals and objectives necessary to implement state forestry policies.

The State of Tennessee policy of non-discrimination

Pursuant to the State of Tennessee's policy of non-discrimination, the Tennessee Department of Agriculture does not discriminate on the basis of race, sex, religion, color, national or ethnic origin, age, disability or military service in its policies or in the admission or access to treatment or employment in its programs, services, or activities.

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Tennessee Department of Agriculture, Auth. No. 325324, 350 copies, January 2013.

This public document was promulgated at a cost of \$1.81 per printed copy.