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Progressive Tennessee farmers help advance the ag industry

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A true Tennessee success story, Bush Brothers and Co. triumphs as a household name. Thousands of tourists flock to Bush’s Visitor Center in Chestnut Hill every year to learn about the company’s rise from a small-town operation to a national brand.

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TENNESSEE
AG INSIDER
A guide to the state’s farms, food and forestry

On the Cover
Women farmers, like Kim Kee at Renfroe Farms in Carroll County, Tenn., have a huge impact on the state’s agriculture industry. Staff Photo by Michael D. Tedesco

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SPECIAL ADVERTISING SECTION:
Ag America Lending
We share a collaborative spirit for hard work in a place where sleeves are rolled-up and things are still made the right way. Our approach to rural development is no different. We are investing in innovative programs centered on workforce, technology, tourism, agriculture and entrepreneurship to ensure our communities are among the best places in the world to live and work. Together, we will create dynamic, diverse and thriving communities for generations that call rural Tennessee home.
It’s hard to overstate the importance of agriculture and forestry to Tennessee. Not only do they drive our rural economies and communities, they are also engines for entrepreneurship and innovation as farmers are often early adopters of new technology, research, and science.

We have made rural development a priority in Tennessee. Through the Drive to 55 – our efforts to increase the number of Tennesseans with a postsecondary credential to 55 percent by 2025 – we’re moving the needle on educational achievement and attainment to meet the workforce requirements of tomorrow. We’re encouraging private investment and job creation by providing a favorable business climate and managing state government more efficiently. These are all critical to the future growth and development of the industry, as well as the prosperity of our entire state.

Whether competing for world commodity markets or tailoring production practices to meet local consumer demand, Tennessee agriculture is on the move. This edition of the Tennessee Ag Insider focuses on many of the new and exciting developments in agriculture and forestry and explores how the face of farming is changing in our state. I hope you’ll enjoy this look at the very best of Tennessee’s farms, food, and forests.

Bill Haslam
Governor
Welcome to Your Future

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• Agribusiness
• Agricultural and Extension Education
• Animal Science/Pre-Veterinary Medicine
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• Food Technology
• Plant and Soil Science

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Ph.D. with Biotechnology Concentration

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• Agricultural and Extension Education
• Animal Science
• Food Marketing and Supply Chain Mgmt
• Plant and Soil Science

www.tnstate.edu/agriculture
I’m optimistic about what the future holds for Tennessee agriculture and forestry. As the stories in this edition will attest, we have a diverse, vibrant and thriving industry that is on the cutting edge of food, fiber and fuel production.

From homegrown, stalwart businesses such as Bush Brothers and Co. and Benton’s Smoky Mountain Country Hams to fresh innovators like Greener Roots and Landmark, Tennessee farmers and agribusinesses are making the grade – not only producing quality products, but often fulfilling a community service or need.

Today, more than ever, women are having a major impact on Tennessee agriculture as the number of female farm operators increases and more women assume important leadership roles within the industry. Youth programs, such as 4-H and FFA, continue to be important feeders to our agricultural colleges and universities, where the future of our industry is shaped and molded.

Ultimately, it takes the farmer or forester in the field, making decisions day in and day out, to make this food and fiber system work so we can all enjoy the abundance, security and natural beauty it provides.

We’re proud to bring you the 2016 edition of the *Tennessee Ag Insider* as our way of celebrating this dynamic industry and the people who help make life possible and a little more enjoyable.

Julius Johnson
Commissioner
Tennessee Department of Agriculture
Tennessee farming is far from the mule and plow stereotype of the past. Staying attuned to the technological times, embracing sustainability and innovation in an ever-changing industry is how agriculture and forestry have remained vital sectors in the Volunteer State, contributing approximately $74.8 billion to Tennessee’s economy each year.

This issue of Tennessee Ag Insider will highlight farmers and producers working toward improvement in rural economic development, sustainability and innovation within Tennessee agriculture. With just over 67,300 farms spread across 9 million acres of land and $4.28 billion in cash receipts, Tennessee contains many prosperous traditional farming operations. But the state is also a hotbed of agricultural innovation and entrepreneurship.

Seeing the opportunity to expand on resources already available in the town, historic Jonesborough is celebrating the two-year anniversary of the Boone Street Farmers Market in 2016, which was born out of a redevelopment project that converted an old building into a year-round farmers market.

Several farmers across the state are executing innovative growing methods, such as hydroponics and indoor farming to combat food insecurity and grow crops sustainably.

Tennessee’s female farmers are taking charge, creating a huge impact on agriculture and beyond. According to the 2012 Census of Agriculture, nearly 7,700 women were principal farm operators. And the state works harder than ever to support agricultural youth programs like 4-H and FFA to ensure a strong future for the industry.

The Pick Tennessee Products program is celebrating its 30th year in 2016, marked by significant growth. The program is just one service, along with others in the Tennessee Department of Agriculture and University of Tennessee Extension, using mobile applications and social media platforms – such as Facebook, Twitter and YouTube – to spread agricultural awareness and help consumers easily gain access to information.

These examples are just the tip of the iceberg as to how Tennessee is embracing and adapting to change while continuing to preserve the state’s important agricultural past.

– Rachel Bertone
FOOD SAFETY AT YOUR FINGERTIPS

Want to make sure your favorite restaurant is serving safe food? There’s an app for that.

The Tennessee Department of Health, with support from the Tennessee Department of Agriculture, has developed a new mobile app allowing users to check the inspection score for any restaurant within the state. With a quick finger tap, users can find health inspection scores for any operation that prepares food, including restaurants, as well as grocery stores, convenience markets and kitchens for hotels, hospitals, schools and food trucks.

The free app is available for iPhone and Android, and uses GPS to bring up a map of the user’s location, listing food services in that area. For more information, visit [tn.gov/main/article/mobile-apps](http://tn.gov/main/article/mobile-apps), or search for the app using “Tennessee Restaurant Inspection Scores” in the Apple App Store and Google Play store.

BOOK FAIR

Thanks to the Tennessee Valley Fair, children of all ages have the opportunity to learn more about the state’s agriculture through the summer reading program.

Celebrating its 9th year in 2016, Knoxville-area libraries offer interactive storytelling and activities, advocating for agriculture and literacy.

All events are free, and participating children will also receive a ticket to the fair, scheduled for Sept. 9-18.

For more information on library locations and fair events, visit [tnvalleyfair.org](http://tnvalleyfair.org).

SINCE 1999, THE LAND TRUST FOR TENNESSEE HAS HELPED PROTECT

34K

ACRES OF WORKING FARMS FROM DEVELOPMENT.

According to the most recent Connected Tennessee data, 83 percent of households in Tennessee have access to the national benchmark of 25 Mbps download/3 Mbps upload broadband networks.

Sources: Connected Tennessee, Tennessee Department of Agriculture, Land Trust for Tennessee

SMALL FARMS, BIG IMPACT

Each year, Tennessee State University’s (TSU) College of Agriculture, Human and Natural Sciences in Nashville hosts more than 400 farmers and agricultural experts at the Tennessee Small Farms Expo.

The event aims to highlight Tennessee’s agricultural diversity and includes demonstrations and farm tours from area high school students. Visitors can also see the latest in farm equipment, farming techniques, and products and produce available. TSU Extension agents are on hand to showcase the impact of their activities throughout the state.

At the end of the event, the Expo recognizes the state’s top four farmers and presents the Farmer of the Year award.

Find more information at [tnstate.edu](http://tnstate.edu).
With today’s technology constantly changing, it’s important for Tennessee farmers and producers to be on top of the latest innovations.

Connected Tennessee, a public-private partnership, works to bridge the gap between rural communities in the state and access to broadband Internet and related technologies.

Connected Tennessee was formed in 2007, and in 2010, the Recovery Act helped fund five broadband infrastructure projects to bring improved access to rural areas of the state. Citing the importance of improved Internet service, the projects gave the areas tools to expand economic, health care, educational and public safety services. Since then, availability to broadband at 3 Mbps download/768 Kbps upload for rural Tennessee communities has increased, from 87.61 percent in 2011 to 88.54 percent in 2014. And in 2015, “advanced broadband” was defined as 25 Mbps download/3 Mbps upload. Though a high percentage of Tennessee households have access to this speed, 422,440 still have broadband below this benchmark, most of which are in rural Tennessee, hindering some of agriculture’s latest technological advances.

Learn more about how Internet in Tennessee and agriculture are working together at connectedtn.org.
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THE VOLUNTEER STATE’S LEADING AG COMMODITIES

1 / CATTLE AND CALVES
Tennessee’s cattle inventory totaled 1.73 million head in 2015, generating $825 million in cash receipts for cattle and calves.

2 / SOYBEANS
Farmers in the Volunteer State produced 81.3 million bushels of this top crop – or the equivalent weight of almost 11,000 Statues of Liberty – valued at $785 million.

3 / BROILERS
Chicken is the No. 1 protein consumed in the U.S. Around 180.6 million broilers brought in cash receipts of $598.2 million to Tennessee.

4 / CORN
U.S. corn growers produce around 36 percent of the world’s corn grain production. Tennessee produced 113.6 million bushels of this major crop for $453.9 million in cash receipts.

5 / HAY
Tennessee produced 3.78 million tons of hay, including alfalfa, with a production value of $368.75 million. Producers harvested 1.72 million acres – the equivalent of about 1.3 million football fields.

6 / MILK
A dairy cow produces 350,000 glasses of milk over a lifetime. Tennessee produced 765 million pounds of milk for a value of $193.5 million.

7 / WHEAT
Tennessee farmers produced 26.9 million bushels of wheat for grain. That’s enough to make 5.6 billion servings of spaghetti. Wheat generated $214.6 million in cash receipts.

8 / COTTON
Tennessee produced an estimated 290,000 bales (weighing 480 pounds each) of upland cotton, generating $214.6 million in cash receipts.

9 / TOBACCO
Tobacco has been commercially produced in the U.S. since 1612. Tennessee farmers produced 46.72 million pounds of tobacco for $114.7 million in cash receipts.

10 / FRUIT AND VEGETABLES
Tennessee produced fruits and vegetables valued at more than $78 million. The state ranks No. 4 nationally in the production of fresh market tomatoes with the production of 100.3 million pounds valued at $56 million.
Women at the Forefront

Women thrive in agriculture careers across the state

Tennessee women are contributing to the state’s agriculture sector in major ways, taking leadership roles on family farms and inspiring the next generation to follow in their footsteps. “Agriculture is a field that’s truly wide open,” says Jennifer Houston, a livestock market operator for Houston Farms Inc. at East Tennessee Livestock Center Inc. in Sweetwater. “Attitudes toward women have changed dramatically since I first began.”

After growing up on a cattle and hog farm in West Tennessee, Houston attended the University of Tennessee where she graduated with a degree in animal science. She then worked for the U.S. Department of Agriculture full time while working part time for the East Tennessee Livestock Center Inc., which her husband’s family owns. She began working full time at the livestock center in 1987. “I’ve really been involved in the agriculture industry my whole life,” Houston says.

Houston also serves as the chairman for the Policy Division of the National Cattlemen’s Beef Association. The role is well deserved as Houston has been...
involved with beef checkoff and membership programs in Tennessee and nationally for about 30 years.

“Agriculture is a passion for me,” Houston says. “It’s a lifestyle that I grew up in and wanted to raise my children in.”

CULTIVATING CAREERS IN ROW CROPS AND PRODUCE

Kim Kee, who now helps manage her family’s farm – Renfroe Farms in Carroll County – with her father, brother and uncle, left her profession as a high school biology teacher to pursue a career in agriculture eight years ago.

“I always loved being on the farm,” Kee says. “When they had grown large enough where they needed more help, they asked me to come back, and I was thrilled.”

Renfroe Farms, which is a 5,500-acre row crop operation that grows corn, soybeans and cotton, was established by Kee’s grandparents, Garvin and Virginia Renfroe, in 1953. Kee says her role on the farm involves “whatever needs to be done that day,” such as delivering products to market and sowing and harvesting crops.

Source: USDA

28,711
Number of women farmers in Tennessee

969,672
Number of women farmers in the U.S.

29%
Percentage of women farmers in Tennessee

$139.2M
Economic impact of women farmers in Tennessee

3.27M
Acres farmed by women in Tennessee

Source: USDA
“I love it,” Kee says. “It’s physically and mentally challenging, and there’s a lot of variety in what I get to do. I’m not doing the same thing every day; it’s a lot of fun.”

Across the state in East Tennessee, Renea Jones-Rogers has also built a career on her family’s farm. Located in Unicoi, Jones & Church Farms was created by Jones-Rogers’ father and his business partner in 1975. Today, the farm covers 600 acres, and it produces fresh-market tomatoes including round tomatoes and Roma tomatoes.

“I grew up on the farm, so I knew from an early age that I wanted to make my career in agriculture,” Jones-Rogers says. “I always thought I would work for a pesticide company in research and development, but I’m an only child and decided I wanted to come back and continue my father’s legacy.”

Jones-Rogers’ main role on the farm involves post-harvest grading, quality control, packing and shipping to customers, such as Publix, Subway, and Panera Bread, and ensuring the produce meets the latest food safety requirements.

Her son, who is working on his master’s degree at Clemson University, plans to return to the farm after graduation, continuing the family tradition.

“We are good stewards of the land, and we’re very active in our community,” Jones-Rogers says. “We’re proud to be a family farm.”

– Jessica Walker Boehm

Learn more about Tennessee women in agriculture at TNagriculture.com.
Known nationwide for its iconic Bush’s Baked Beans and “secret family recipe,” it’s no secret that Bush Brothers and Co. is a true Tennessee agriculture success.

Tucked away in the small community of Chestnut Hill in East Tennessee, the company’s roots trace back to 1896 when founder A.J. Bush established a general store, and later opened a tomato cannery in 1904. Not too long after, Bush expanded his operations – a decision he made after starting a family and desiring to provide jobs for his children and others in the community. The company has since expanded into one of the largest employers in the area today, with canning plants in Chestnut Hill and Augusta, Wis. Thousands of tourists are drawn each year to Bush’s Visitor Center, where they learn about the variety of beans and canned goods marketed across the U.S. and internationally.

“As a fourth-generation Bush family member, we are fortunate to remain rooted in East Tennessee,” says Drew Everett, A.J. Bush’s great

Staff Photos by Michael D. Tedesco
grandson and chairman of the Board for Bush Brothers and Co. “My great grandfather realized his dream of involving his community and his six children in the family business. I don’t know that anyone could have imagined when he opened the general store that it would one day host thousands of visitors to Chestnut Hill, or that the company he founded now ships its products throughout the U.S. and Canada over 100 years later.”

Ed Harlan, assistant commissioner for Market Development with the Tennessee Department of Agriculture (TDA), says Bush Brothers and Co. exemplifies what it means to be a Tennessee agriculture and economic success story. “The Bush success story really speaks for itself,” he says. “And we have industries and businesses like that all over the state.”

FAMILY OWNED

Staying true to its Tennessee roots, the company’s hub remains in Chestnut Hill. Each year, thousands go to the Smoky Mountains and stop at Bush’s Visitor Center, which opened in 2010. According to Max Fultz, longtime employee and visitor center manager, it opened thanks to A.J. Bush’s grandson Jim Ethier. The inspiration to open a center came after visitors would ask time and time again whether the company offered tours. “As a 26-year employee of Bush Brothers and Co., it’s been gratifying to see how much the company has changed and grown over the years while maintaining a family atmosphere,” Fultz says. “Having the opportunity to see the Bush’s Visitor Center being built and come to life has certainly been one of the many highlights of my career here.”

Also on site is a remodeled version of the original A.J. Bush and Co. General Store, where customers purchase Bush’s Beans, along with gifts, candy and more. Additionally, visitors can rest and treat themselves at Bush’s Family Café, dining on hardy Southern comfort food, including Bush’s Beans and unique desserts.

A distinctive feature, Bush Brothers and Co. also hosts a beef cattle farm on 2,000 acres in Chestnut Hill and 1,000 acres in Newport, using beans to feed cattle and waste water used to wash beans at the plant to irrigate fescue fields.

A TRUE SUCCESS

Harlan says Bush Brothers and Co. is a model of inspiration for agribusiness in the state. Other notable companies that produce in Tennessee and provide jobs include Tyson Foods, Pictsweet, Little Debbie owned by McKee Foods, and many more. “Over the last several years, the TDA has had a real focus on agribusiness development, such as Bush Brothers and Co.,” Harlan says. “They have been a longtime provider of not only jobs, but also for the food-processing part of the economy in East Tennessee.”

He adds, “What we’re trying to do with agribusiness development is provide more opportunity for Tennessee farmers and growers, and also to provide jobs in rural Tennessee for farm families.”

A big focus for his department is on food-processing operations. “The state sees opportunity there because of our transportation network, strong incentive programs, and growth and potential for growth of population,” Harlan says. – Brittany Stovall

Tourists get both a history lesson and meal at Bush’s Visitor Center in Chestnut Hill, Tenn.
**BUSH’S BEANS: 100 YEARS IN THE MAKING**

**1896**

**1904**
A.J. Bush opens a tomato cannery in Chestnut Hill.

**1908**
Bush Brothers and Co. is founded.

**1922**
Bush Brothers and Co. is incorporated, and Fred Bush, A.J. Bush’s eldest son, is named president.

**1933**
Pork and Beans, a new product from Bush Brothers, is introduced and quickly becomes a popular staple in many households.

**1952**
Bush Brothers and Co. begins selling variety beans, which become a hit.

**1969**
The famous “Secret Family Recipe” for Bush’s Baked Beans is developed, with baked beans sales soaring in the 1970s and 80s.

**1994**
Jay Bush, A.J. Bush’s great grandson, along with his golden retriever sidekick, Duke, stars in the company’s first national TV ad after the company starts transforming from a regional cannery to a national brand presence.

**2008**
The company celebrates 100 years with the launch of Bush’s Grillin’ Beans.

**2010**
Bush’s Visitor Center opens in the remodeled A.J. Bush general store. It includes a museum, old-fashioned general store and café.

Source: Bush Brothers and Co.
BETTERING THE FARM
AgLaunch aids entrepreneurs, innovators in state’s ag industry

Looking for the next big thing? Rural Tennessee is a great place to start.

AgLaunch, which aims to bring 100 new agricultural businesses to Tennessee by 2022, focuses on developing entrepreneurs, inventors, innovators and job creators specifically in the agriculture sector.

“Gov. Haslam has asked every department to contribute to the success of his priorities, and creating jobs is his No. 1 priority,” says Commissioner Julius Johnson of the Tennessee Department of Agriculture (TDA), the contact point for this initiative. “We want to do what we can to create jobs in agriculture.”

TDA has partnered with the Memphis Bioworks Foundation and USDA Rural Development for the initiative. In 2015, officials announced at an event in Ripley, Tenn., that $220,000 of state and federal funding will serve as seed money to help attract private venture capital needed to fund early stage development activities.

AgLaunch may be the most comprehensive focus by any state on attracting early stage agricultural companies.

“Tennessee farmers have been very innovative to embrace new technology, and we think that gives us an advantage for attracting new companies focused on agriculture here,” says Pete Nelson, AgLaunch director at Memphis Bioworks.

Additionally, AgLaunch will have a coaching component that will mentor entrepreneurs.

“Agriculture represents 13 percent of the state’s economy,” Johnson says. “The agriculture sector is driven by technology, and farmers and producers are early adopters of technology. There are new applications of technology and new innovations on farms, in farm shops, and in rural communities all across this state. We want to help those entrepreneurs bring those new ideas to the market place.”

A NEW KIND OF PICKER

Jimmy Hargett, from Bells, is one of those innovative farmers. In the 1990s, he devised a design for a new kind of cotton picker.

Mechanical pickers pull cotton bolls off the plant. The bolls are deposited at a module builder, which compresses the bolls into 11-ton bales for transport to the cotton gin. The process requires three or four workers per cotton picker.

“Building a combination module/picker was all about reducing labor,” says Hargett, whose idea caught the attention of farm machinery manufacturer CaseIH. Work on a prototype started in 2000 at Hargett’s farm shop. “It took a team of people to make it work.”

He worked closely on the prototype with a retired CaseIH engineer. The company then built the first generation combination picker/module builder from 2010 to 2014.

“Most good ideas on the farm come from a farmer trying to make his life better.”

FARM AND LAB

AgLaunch helps provide direction for new agricultural ideas.

“We keep a database of everyone contacting us with ideas and
maintain a network of farmers willing to test new technologies at field scale,” says Pete Nelson, AgLaunch director.

Helping farmers test their ideas is only part of AgLaunch, which also identifies scientific discoveries – made in Tennessee – with commercial potential for agriculture. That includes work at UT’s agricultural research and experiment station network statewide, as well as research at institutions like Vanderbilt University and Oak Ridge National Laboratories.

Memphis Bioworks developed the AgLaunch framework and is recognized as a Mid-South leader in encouraging entrepreneurship in the health sector. “We saw a connection between health, food production and economic prosperity,” says Dr. Steve Bares, Memphis Bioworks president and executive director.

FOCUS ON PRECISION AGRICULTURE, BIOLOGICS

One focus of AgLaunch is precision agriculture, using GPS-based technology to make soil and crop management decisions tailored to every location in a field. “Nationally, no one state or region has focused on technology development in the precision agriculture space,” AgLaunch’s Nelson says.

AgLaunch also identifies “biologics” as promising for attracting innovators to Tennessee. Biologics involves harnessing biological solutions to agricultural problems – diseases, insects and even weeds.

An area ripe for development in Tennessee: helping farmers manage field data. For example, Granular, a farm-focused startup headquartered in California, is developing software that sorts through a farm’s millions of data points to help make money-saving management decisions. The agri-

AgLaunch is key to the GOVERNOR’S RURAL challenge, which is a 10-year strategic plan to expand Tennessee’s agriculture and forest industries.

AGLAUNCH WILL HELP AG AND AG-RELATED BUSINESSES IN AT LEAST 77 OF THE STATE’S 95 COUNTIES.

TENNESSEE’S AG AND FORESTRY ECONOMIES WERE ESTIMATED AT $74.8B IN 2015.

AGLAUNCH IS EXPECTED TO SPUR 2,000 HIGH-WAGE JOBS BY THE END OF THE FIVE-YEAR PLAN.

The agriculture and forestry sectors account for 13% of the state’s economy.

Sources: TDA, Memphis Bioworks, Venture Tennessee Connections
A tech startup was one of several companies that demonstrated at the funding announcement in Ripley.

**HOMEGROWN SUCCESS**

AgSmarts is the type of company that AgLaunch aims to encourage in Tennessee.

Started in 2013, AgSmarts developed a “field node station,” a device placed in farm fields to remotely track variables including moisture, humidity and temperature. Early field tests were conducted at the UT-Martin research farm, while AgSmarts was based at the Northwest Tennessee Entrepreneur Center.

The company has raised more than $1.5 million in capital investment and is now headquartered at Agricenter International in Memphis.

The Mississippi Delta is a good fit for the company, says Brett Norman, AgSmarts co-founder and CEO. “We can drive 30 minutes in any direction and be on a 10,000-plus acre farm. It lets us right out in the field, working on software apps and provides a good location where our dealers can come for training.”

The AgLaunch team believes it is time to replicate development successes like AgSmarts. And with global capital investment in agriculture increasing from $2.5 billion in 2014 to $4 billion in 2015, growing new agricultural businesses appears to be a sound strategy for growing Tennessee’s economy.

— Matthew D. Ernst

“Tennessee farmers have been very innovative to embrace new technology, and we think that gives us an advantage for attracting new companies focused on agriculture here.”

**PETE NELSON**
AgLaunch director at Memphis Bioworks

Learn more about AgLaunch and ag innovators at TNagriculture.com.
Discover your possibilities on campus...
Kacey Cannon, a University of Tennessee at Martin student from Somerville, Tenn., received the 2015 Golden Opportunity Scholars Award from the American Society of Agronomy, the Crop Science Society of America and the Soil Science Society of America.

Kacey will earn a Bachelor of Science degree in agriculture with a concentration in plant and soil science. She is active in the UT Martin Agronomy Club, where she has served as both treasurer and president. Kacey has also completed internships with the Tennessee Farmers Cooperative, where she worked as a precision agricultural sales intern, and DuPont Pioneer, where she served as a trait and characterization development intern.

The College of Agriculture and Applied Sciences offers bachelor’s degrees with majors in:

- Agriculture
- Geosciences
- Natural Resources Management
- Family and Consumer Sciences

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For more information on undergraduate and graduate programs in the College of Agriculture and Applied Sciences, please visit our website at utm.edu/caas.
Tennessee’s Rural Development Task Force is bringing economic development to the state, while also helping rural communities thrive and grow.

Made up of more than 20 officials and agencies, the task force identifies, designs and applies innovative ways to address key issues impacting rural life. Leaders and partners across the state are making a positive impact, bringing together stakeholders who can make a difference.

Economic and Community Development Commissioner Randy Boyd, who co-chairs the task force, says now is the best time in Tennessee’s history, on many fronts, for economic development.

“The state is booming and having all kinds of success, but on the other hand, we’re not sharing that success equally,” he says. “We have many parts of our state that are suffering. We realized they don’t have the resources and need additional help.”

Task force co-chair, Agriculture Commissioner Julius Johnson says, “We want to help ag industries expand. The biggest part of growth can come from the expansion of existing businesses.”

Johnson says Gov. Bill Haslam’s Drive to 55 initiative, with its mission for 55 percent of Tennesseans to have educational degrees or certificates beyond high school by 2025, plays a critical role.

“We want to demonstrate to businesses and industries we are trying to attract to our state that we have an educated and ready workforce,” he says.

From a tourism standpoint, Tennessee Tourist Development Commissioner Kevin Triplett says there is untapped potential to bring tourism to rural areas. He also co-chairs the task force.

“A significant percentage of tourism’s impact in Tennessee comes from our major cities, yet a large part of the population and many of tourism’s most authentic and inspiring destinations exist in our rural counties,” he says.

– Brittany Stovall
Harvesting RENEWABLE ENERGY

Progressive farmers harness renewable, alternative energy
Agriculture leaders are increasingly harvesting – and harnessing – another kind of “crop” down on the farm in the Volunteer State: homegrown, renewable energy.

As renewable energy sources gain popularity thanks to their affordability and sustainability, progressive Tennessee farmers are tapping into clean, alternative options produced right here in their home state, offering a variety of benefits and creating jobs.

**FUELING THE FUTURE**

One utility district in West Tennessee is helping pave the path for the future of the use of natural gas on the farm.

Pat Riley, manager of Gibson County Utility District, says compressed natural gas – or, simply, natural gas – is an alternative to gasoline, diesel fuel and propane with the benefits of being a clean-burning, domestic energy source that comes at a significantly cheaper price.

“The farmers are loving it because it’s cleaner, greener and all about sustainability,” Riley says.

Not long ago, the utility district saw an opportunity to provide natural gas to farmers after the area went through several hot, dry summers. Gas mains were extended so farmers could use natural gas to power engines. Additionally, 19 pivots were installed in the system over the last three years.

“We looked at it as an opportunity,” Riley says. “We started running gas lines out to meet farmers’ needs ... What they are doing is using a natural gas engine to generate the power to the pump, which pumps the water out through the agricultural pivot to water their crops. There are about 45 in the West Tennessee area, and we have 19 of those.”

Riley notes the United States Department of Agriculture (USDA) provides a Rural Energy for America Program grant to financially help farmers convert existing diesel and electric powered pivots to run on natural gas.

The utility company hopes to deliver compressed natural gas to farmers via mobile fueling stations once the tractors and combines start running on compressed natural gas, creating on-site, fast-fill fueling stations.

“My hope is that combines and tractors will eventually run on compressed natural gas,” Riley says.

While the use of compressed natural gas and establishment of stations are on the rise in the U.S., Riley stresses it’s still largely one of the best-kept secrets.

And widespread use of compressed natural gas would make farmers, and the U.S. as a whole, more independent of overseas oil suppliers, he says.

“It’s as American as it can be – it’s an American fuel, and we won’t be subject to the whims of world oil prices,” Riley says. “I think that’s one thing farmers like, and that it’s abundant and clean ... It could have a huge impact on the farming community.”

**SOLAR FIELDS**

Solar energy as a clean, alternative fuel is gaining ground in Tennessee, which is home to

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**NATURAL GAS VEHICLES AROUND THE WORLD**

- **North America**: 140,000 NGVs
- **Europe**: 1,800,000 NGVs
- **Africa**: 158,000 NGVs
- **South America**: 4,300,000 NGVs
- **Asia and Middle East**: 8,800,000 NGVs

multiple solar farms. State funding, like the $23.5 million Solar Opportunity Fund through the Volunteer State Solar Initiative, helps support local solar manufacturers, installers and consumers.

In 2015, Bill Parker installed a solar panel system at his grain bin facility at Parker Farms in Lauderdale County. Solar energy is now helping offset electrical costs at the facility through credits on power it generates.

“We’re very conscientious about conservation, and solar is a part of that,” he says. “But there are also financial benefits.”

Parker first learned about solar farming at a conservation convention in Nashville from Lightwave Solar Electric of Tennessee. He then committed to a Tennessee Valley Authority’s (TVA) Green Power Switch Generation Partners Program, in which TVA purchases electric output of qualifying business systems. Additionally, benefits like tax incentives and USDA Rural Energy for America Program grants helped make the decision to commit appealing.

“The benefits and financial incentives appealed to me,” Parker says.

According to Parker, installation was designed around the facility’s annual energy usage. “I had enough electrical demand there that I could go with the largest solar panel system, 50 kW, which was the largest commercial size,” he says.

With the incentives and TVA’s program, Parker is certain the investment will pay off in several years and completely pay back on his yearly electrical costs, which total more than $15,000 per year. Without the grant and tax incentives, it could take 12 to 15 years.

“There’s a large electrical need there at the facility, and it’s helped reduce my electric bill,” he says.

**HARNESSING POWER**

To Greene County farmer Wayne Brown, harvesting solar power is just like harvesting any other kind of traditional field crop. He and his wife, Virginia, lease their land at Braunhurst Farms in Chuckey to a renewable energy source company that will generate solar power to be used by the TVA.

“My hope is that combines and tractors will eventually run on compressed natural gas.”

**PAT RILEY,**
Manager of Gibson County Utility District

“I think it’s a really positive thing, and it will preserve my farm for my children and future generations,” Brown says.

The U.S. Army veteran has been growing soybeans for years in the fields of his farm, which has been in his family since the early 1800s. Now approaching retirement, Brown wants to keep his farm active and preserve the land; he seized the opportunity to do just that after North Carolina-based company Birdseye Renewable Energy approached him in 2013.

That company is now leasing nearly 80 acres of Brown’s 1,500-acre farm to establish a 100-acre tract, installing acres of solar panels, Brown says.

In late 2015, the farmer was in the process of prepping the land and getting ready for the big changes.

“This is still like growing crops on the farm, but with electricity instead,” Brown says. “I’m looking toward the future.” — Brittany Stovall

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**CLEAN ENERGY JOBS INCREASED 6.3% IN TENNESSEE IN 2015.**

The state is one of the fastest growing for this sector.

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**876**
Compressed natural gas fueling stations in the U.S.

**THERE ARE 150 SOLAR COMPANIES AT WORK IN TENNESSEE, EMPLOYING 2,200 PEOPLE.**


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Ted Smiley shows off his Tennessee Ag Tag.
THE ROAD AHEAD

Ag Tag funds drive growth, progress in ag youth organizations
Even if you’re not driving down a country road in Tennessee, there are plenty of red barns to admire. Since 1996, the “Ag Tag” license plate, which features a red barn, has illustrated support for local agriculture, and sales from this farm-themed plate go to the state’s Agricultural Development Fund, administered by the Tennessee Department of Agriculture.

Thanks to Ag Tags, a quarter of a million dollars is given back annually to the agriculture community in the form of grants to agricultural youth organizations and a variety of agricultural projects and programs across the state.

In 2003, Ag Tags (and its resulting Ag Development Fund) reached its first milestone granting more than $1 million to Tennessee’s ag community since the tag’s inception. By 2009, the $2 million mark was hit and now, 2016 marks the 20th anniversary celebration of the popular red barn tag.

One reason the Ag Tag program has been so successful is that it’s the only tag with a fund committed to supporting organizations other than itself, focusing funds outwards toward the agriculture community. For example, Ag Tag sales provide a combined $165,000 annually to Tennessee’s 4-H, FFA and Agriculture in the Classroom (AITC) programs.

AG TAG BOOSTS AG YOUTH RESOURCES

“The Ag Tag fund has helped us further establish endowments that help support 4-H county programs, like providing more scholarships,” says Justin Crowe, extension specialist with Tennessee 4-H Youth Development.

Additionally, events like livestock expositions, 4-H Roundup and 4-H Congress, where students visit legislators in Nashville and learn about state government, have all benefited from increased funding.

Another area expanding because of Ag Tags is volunteer development. “We could not have a strong program in Tennessee without the support of all our volunteers, who are out every day meeting 4-H clubs at the schools and training judging teams,” Crowe says.

As of 2015, 4-H has received more than $750,000 since Ag Tags hit the roads.

“These funds have helped bring competitions, activities, events and teams to a level that we can really be proud of, and we know it wouldn’t be at that level without the support of Tennessee’s Department of Agriculture and Ag Tags,” Crowe says.

Buying Ag Tags also supports Tennessee’s FFA, which has 14,084 members, 322 advisors and 216 chapters. Allie Ellis, career and technical education specialist for FFA, sees numerous benefits.

“Ag Tag funds help sponsor state-winning Career Development Events (CDE) teams and individuals, Tennessee’s FFA breakfast at National Convention, FFA forestry camp, Blast-Off state officer training, the National Leadership Conference for State Officers, regional officer leadership training, and the state FFA degree pins and ribbons,” she says.

These additional resources make a positive difference in students’ education. Similarly, Ag in the Classroom, which provides professional development for the state’s classroom teachers, spends Ag Tag funds in support of summer workshops at 10 locations statewide.

“With the support of Ag Tags, AITC trained more than 1,400 teachers in 2014. That’s a 418 percent increase over the 270 trained in 1997 before Ag Tag funding,” says Dan Strasser, Tennessee Farm Bureau, special programs director.

LOOKING AT THE ROAD AHEAD

According to the USDA, the U.S. produces only one qualified candidate for every two jobs in agriculture that require a college degree.

“4-H, FFA and AITC make students aware of the broad scope of careers available in agriculture. This knowledge increases the odds that some students will pursue a career in agriculture through post-secondary education,” ultimately
leading to an agriculturally literate population, Strasser says.

Crowe agrees. “We feel strongly that all of our young people are advocates for agriculture and are shaping the industry’s future. The training they’ve received will help them tremendously now and down the road.”

As before, community support is vital to the Ag Tag program’s success and ability to advance local agriculture.

– Keri Ann Beazell

1,400
THE NUMBER OF TEACHERS TRAINED BY AG IN THE CLASSROOM IN 2014 THANKS TO AG TAG FUNDING.

$165K
THE AMOUNT OF AG TAG SALES FUNDS PROVIDED TO TENNESSEE’S 4-H CLUB, FFA AND AG IN THE CLASSROOM EACH YEAR.

$250K
THE AMOUNT OF AG TAG FUNDS GIVEN BACK ANNUALLY TO TENNESSEE’S AGRICULTURE COMMUNITY.

Sources: Tennessee Farm Bureau, TDA

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Learn more about the Tennessee Ag Tag program at TNagriculture.com.
HISTORY

A LASTING LEGACY

Ag Tag serves Tennessee’s agriculture community

It’s a great idea that developed from a desire to serve. That’s the basic history of the Tennessee Ag Tag, a specialty license plate that celebrates the state’s agriculture and raises funds for agricultural youth programs, such as 4-H, and forestry awareness, education and marketing programs.

More than two decades ago, two members of the Tennessee Department of Agriculture (TDA) marketing team, Cynthia Kent and Keith Harrison, started a conversation about Tennessee leaders they admired, people like state Sen. Tommy Burks and Agriculture Commissioners A.C. Clark, Terry Oliver and Cotton Ivy. Talking about these agriculture heroes led to a discussion of how they could contribute more to the ag community in the state.

Jerry Blankenship, who at the time was working with TDA as the new fruit and vegetable specialist and now owns Blankenship Farms and Nursery, suggested a license plate. With the license plate, Blankenship reasoned, the state could raise money the department could use to support ag groups.

“From there, the planning began,” says Kent, TDA Market Development creative resources coordinator, who was part of that initial conversation. Then-TDA employee Harrison, who now directs marketing and promotions at the Tennessee Farmers Cooperative, suggested the plate feature a barn because the image represents all of agriculture.

“Keith had the idea that the Ag Tag would be the unifying voice of agriculture in Tennessee,” Kent says. “The tag would literally put agriculture on the road. People would see the barn and associate all things agriculture with it.”

Legislation was drafted and passed by the state General Assembly, thanks to the work of then-counsel and current Consumer and Industry Services administrative manager David Waddell, and the Ag Tag became available to Tennessee residents. That’s when the red barn started taking over in Tennessee. It could be seen everywhere—fair associations, ag organizations and ag events.

The iconic red barn is a depiction of one located on Kent’s grandfather’s property in Pickett County. It’s the familiar mule barn that Tennesseans grew up seeing on fields and farms. Kent worked on the design to ensure it was both attractive and practical—easily read by law enforcement. In addition to the barn, it features the green of 4-H and the sunrise image of FFA.

The tag serves as a traveling billboard for Pick Tennessee Products and promotes agriculture with a positive image. More important, it raises thousands of dollars annually to support ag programs and projects.

– Kim Madlom
Young Tennesseans are getting a chance to take a shark-sized bite out of agribusiness entrepreneurship with a new “shark tank” program from the Tennessee Department of Agriculture.

Commissioner of Agriculture Julius Johnson, who dreamed up and encouraged the idea, says its purpose is to inspire young people involved with 4-H and FFA to think about their futures in agribusiness. This is just one of the department’s many new efforts to drive agricultural innovation in the state.

“We thought it would be great to grow a generation of young people in rural Tennessee who thought about taking an idea, a product, to market and learn everything there is involved,” Johnson says.

Recognizing the importance of developing a program dedicated to teaching the ropes of “agri-entrepreneurship” to students – the future leaders of the agriculture industry – Johnson approached 4-H and FFA about starting the program.

Knowing how to present an idea or product to business investors is just as important as the product itself, Johnson says.

“This will be training on how to get your idea out to folks and how to attract investors.”

The state is investing $5,000 annually to support a competition for Tennessee’s 4-H and FFA, which Johnson says are some of the strongest in the nation.

“This just adds another element that youth can get involved in – and that could come back to our local economies,” he says.

The commissioner also says there are more investors today than there have been in quite some time.

“The United States Department of Agriculture has put incentives out there for investors to invest in these kinds of ideas,” he says. “And knowing how to get to those funds and make connections is part of the program, along with learning the business profile and what being an entrepreneur is all about.”

– Brittany Stovall

**POSITIVE Youth Development**

- The Tennessee 4-H Camping Centers offer an extensive summer camping program for youth in 4th through 12th grades.
- In 2015, over 12,000 youth participated in 4-H Camping programs.
- Tennessee 4-H Camps allow youth to “learn by doing,” through 4-H’s experiential learning method of “Do, Reflect, and Apply.”
- 4-H also offers specialty camps in subject areas such as Wildlife, Fashion & Design, Electric Energy, Shooting Sports, and the Environment.
- Tennessee 4-H Centers offer science and nature educational programs during the school year to school and other groups.

4h.tennessee.edu • tn4hfoundation.org
Making the Connection

Pick Tennessee Products program helps farmers, consumers

After receiving his master’s degree in education, Allan Benton was a bit underwhelmed when he saw that he wouldn’t be making much more money as a high school guidance counselor. So he left his job and did what anyone would who wanted to remove themselves from a school environment: he began curing hams.

Now, nearly 45 years later, Benton is still turning out smoked and unsmoked country hams and bacon, selling them all over the country. He has owned Benton’s Smoky Mountain Country Hams in Madisonville since 1973, after buying the business from the original owner who had started it in 1947.

“I had planned to just do it for a while until I figured out what I really wanted to do (with a career),” Benton says. “I didn’t think I would make it for over a year or two. Somehow I made it last, and I still enjoy what I do.”

Benton admits he went through some rough patches in his early years as owner of the company, saying “I barely kept my doors open. It was a struggle. I was very lucky.”

Getting Attention

Much of being “lucky” had to do with his involvement in the Pick Tennessee Products (PTP) program, a Tennessee Department of Agriculture initiative that is commemorating 30 years in 2016. The program, which connects farmers and producers to consumers in a variety of ways, began as a campaign to identify local food products in retail stores, but has expanded to focus on farm-direct foods and local farmers markets.

Benton was basically introduced to the PTP program at a photo shoot conducted by the Department of Agriculture. It involved Louisville, Ky., Chef Jay Denham, who was in Nashville at the time.

Soon after the photo shoot,
Benton says, “I started selling Jay hams, and that opened up the Middle Tennessee market for me immediately. He later went back to Louisville, where he was from, and he opened up that market for me.

“There’s no telling how many customers I picked up because of that photo shoot.”

Benton has been involved in PTP in other ways through the years, and recommends it for any farmer or producer looking to improve business.

“Pick Tennessee Products has gotten so many of us attention that we couldn’t have garnered for ourselves,” he says. “And for people who are just getting started, the program is a big tool for them.”

A BIG ASSET

Danny Shelton, a third-generation farmer who owns Shelton Farm in Jefferson County, has likewise benefited from PTP. A former tobacco farmer, Shelton now grows corn, soybeans, wheat and rye, as well as produce such as green beans, tomatoes, cantaloupes, watermelons and several kinds of berries. He also has artisan ground grits, whole-wheat flour and more. “I’ve tried about everything,” he says.

PTP helped Shelton get into the wholesale end of produce, taking him to a bidding operation conducted through the Produce Marketing Association.

“They introduced me to people at Wal-Mart, Food City, Kroger, places like that,” Shelton says. “It helped me to get in several chains. The program’s been a big asset. I believe I’ve had everyone from the Department of Agriculture out at the farm at one time or another. They’re always welcome.”

PTP is also a valuable tool for consumers seeking local food as well as wineries, greenhouses, Christmas tree farms and more. Explore picktnproducts.org, or use the PTP mobile app that makes those searches even easier. The app lets users keep track of favorites and provides links to seasonal recipes, handy tips and fun facts.

– John McBryde

**PICK TENNESSEE PRODUCTS HELPS CONSUMERS PINPOINT 2,200 INDIVIDUAL STATE FARMERS AND FARM-DIRECT BUSINESSES THAT LIST ALMOST 10,000 FARM PRODUCTS.**

Source: Tennessee Department of Agriculture Market Development Division
Pick Tennessee Products (PTP), the flagship marketing program of the Tennessee Department of Agriculture (TDA), marks 30 years in 2016, and it continues to grow and help the state’s farmers and producers get their products to market.

PTP came out of the department’s new Marketing Division, established in 1984 by newcomer Joe Gaines. He brought the perspective of the modern consumer to the division.

“Joe envisioned and then established a division at TDA that addressed all the aspects of modern marketing including packaging, distribution, promotion and advertising,” says Cynthia Kent, TDA Market Development creative resources coordinator.

By 1986, the PTP program was born. Gaines and his team worked on developing and branding the PTP marketing program. Kevin Hosey came up with the program name and Pete Cardinal worked on the logo. Later, Keith Harrison worked on launching a website with John Burkitt. Picktnproducts.org was the first state-sponsored website in Tennessee.

PTP started as a retail program focusing on getting Tennessee products on grocery store shelves – products like Monterey Mushrooms and Pictsweet, a family-run frozen vegetable business. Other early members of PTP include Strickland Place Farms, Shelton Farms, Sweetwater Valley Farms and Colts Chocolates.

As the local food movement began to grow, so did the opportunity to market farm-direct and artisan products. Producers like Danny Shelton, initially a tomato, pepper and cantaloupe grower for commercial markets and grocery stores, began to embrace the new opportunities of the direct-to-consumer market.

TDA’s marketing team kept working to get products in grocery stores, but also focused on finding other ways to help farmers reach consumers and become more profitable. From advertising to point-of-sale marketing to web and social media, the program has helped producers reach customers they could not have reached on their own. All of these services are free to the state’s farmers.

At least part of the success of the program can be linked to the close-knit agriculture community, Kent says. There’s a trust that’s been built through years of FFA and 4-H and working together in the Farm Bureau and other ag organizations.

“Agriculture is especially good at holding onto history while still adapting for the future, Kent says. “There’s so much continuity in agriculture, so some of the things have stayed the same and others have been modernized as we’ve gone along.”

Part of that continuity has been the support the program has received over the past three decades. Every Tennessee governor has actively supported and promoted Pick Tennessee Products.

“Other programs tend to come and go with administrations,” Kent says. “Pick Tennessee Products has not done that. We have people who have been with us from the start.”

– Kim Madlom
Dave Hughes knows chefs. As a farmer who grows and sells specialty produce to Nashville area restaurants, he’s been building relationships with them for more than 16 years. And what he’s learned is that chefs are looking for consistent quality and reliable service.

“I had one restaurant where I sold just a bit of produce each week for three years, maybe $40 to $50 worth a week,” Hughes says. “And then one day the chef said to me, ‘You’re going to be our sole provider for the summer,’ and overnight the restaurant became a $500-a-week customer. I pulled the chef aside and asked him why he made that decision, and he told me he needed to be sure that I could consistently and reliably deliver quality produce over the long term. When I did, I won his business.”

That dependability is essential because when chefs have to feed 150 people or more a night, they can’t worry about whether the food will be there or if it will be fresh.

“As a farmer in this market, if you want this to be a long-term business proposition, you have to do your part every single time,” says Hughes, who works with 23 different restaurants.

You also have to listen.

“I have had the honor of working with very talented chefs, and they provide direction on how and what we grow, so we can meet their needs and their food-cost parameters,” Hughes says.

Shawn Mitchell, a chef with Iris, Etc. Catering in Memphis, agrees that the chef-farmer partnership is integral to what happens in the kitchen and what is presented at the table. He says initiatives like the Pick Tennessee Farm and Restaurant Alliance, which provides opportunities for farmers and chefs to connect, further those relationships.

“Everything is intertwined,” says Mitchell, whose previous experience includes teaching at the L’Ecole Culinaire in Memphis and running a national traveling chef tour.

“When chefs build a strong relationship with the farmer, they have a partner who will grow things specifically for them. That provides benefits for the chef, the farmer and, ultimately, the consumer.”

Building such partnerships is natural for Mitchell because he’s worked on farms and has an appreciation for the farmers’ hard work.

“I always try to get as much local food as possible because I have the relationship with the farmers and the producers. I know the story behind their businesses, and I know that I’ll be able to get a fresh product,” he says.

– Cathy Lockman
FINANCING THE FARM

AgAmerica’s innovative approach to land lending is helping the next generation of American farms grow.
At AgAmerica Lending, they understand that land loans are not one size fits all. “We know that farmers are progressive people who are always innovating,” says Brian Philpot, owner and managing partner at AgAmerica. “We feel like we must innovate along with them to satisfy their needs and remain relevant.”

Philpot and his business partner both came from agricultural families, and founded AgAmerica after years as land investors, realizing that there was a need for a flexible land lender that could tailor their offerings. Since the company’s beginnings in 2009, they have expanded their products to allow the farmer or rancher to identify their needs first, and then create a customized loan package for them. Many AgAmerica employees come from agricultural backgrounds, so they can uniquely relate to clients and have a firm knowledge of what they require to be successful.

“We pride ourselves on service, and our long history of understanding what owning land means,” Philpot says.

AgAmerica gives farmers the option of longer term loans, some up to 25 years, without having to go through the hassle of renewing annually. They offer a 10-year line of credit; again, much longer than what traditional banks offer.

AgAmerica also takes a deliberate team approach. “We want our loan officers and underwriters to act as a team, dealing with the client together,” says Philpot. “It helps us process loans quicker and smarter.”

Farmers can choose from different types of land loans, including agricultural farm and ranch loans, recreational land loans, and raw development land loans, as well as loans tailored to specific commodities, such as melons and cattle.

“A lot of farmers have loans with multiple banks,” Philpot says. “We’re able to help them consolidate and save money.”

One such success story is a fruit grower who wanted to expand his operation and consolidate debts. AgAmerica designed a package that saved him $57,000 in payments annually.

Discover more about AgAmerica’s products, mission and success stories at agamerica.com.
LENDING A HAND

AgAmerica employees with agricultural backgrounds relate to clients, understand their needs.

AgAmerica employees know firsthand how important loans can be in helping farmers grow their business, because they, too, are involved in agriculture.

Take Cameron Flowers, AgAmerica correspondent lender. “I grew up working with my cousins during the summers, which helped mold my understanding and appreciation for agriculture,” he says. Along with the family tobacco farm, Flowers was actively involved in FFA in high school, and graduated from Clemson University with a degree in Food Science.

Chief financial officer, Julia Hubbard grew up on a small farm in Tennessee that had a garden, chickens and cattle. “At age 9, I won a first-place ribbon for my baby chicken,” she says.

Rob Harper, managing partner, is the co-owner of Little Gator Creek Cattle Company. His ranch includes a variety of cattle species, and he’s recently donated close to 70 Zebu cows for the Florida public schools’ agriculture programs.

Brian Philpot, managing partner, owns 1,000 acres of timberland with Bryce Philpot, senior vice president of underwriting.

Brian’s family timber business inspired his career path. “I logged a lot of miles riding in the back of my dad’s truck looking at timber tracts, and fell in love with it. I realized it was something I wanted to invest in,” Philpot says.
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Culinary trends are always on the move, but food truck culture is picking up speed in Tennessee. Dallas Shaw, owner of Hoss’ Loaded Burgers and president of the Nashville Food Truck Association, estimates that Nashville boasts approximately 70 food trucks, with Jackson, Knoxville, Memphis and Chattanooga getting in on the trend.

Shaw says there are many reasons that make owning a food truck popular with aspiring restaurateurs. “Some chefs choose to open a food truck as a less-expensive way to build a brand, menu and following, so if they ever want to open a restaurant, they would be better prepared,” Shaw says. “But owning a restaurant isn’t always the goal. Having the ability to go to customers, the flexibility to only be open when customers are eating, and having a smaller staff are all major benefits to running a food truck compared to running a restaurant.”

And the customers keep coming back for seconds. “Customers love food trucks because of the convenience. If we park at an office building, the employees only need to walk out the front door to get their food,” Shaw says. “We make it easy.”

In a delicious twist on the farm-to-table movement, the farm-to-truck movement offers fresh food on the go, serving locally sourced ingredients. Hoss’ Loaded Burgers features local beef patties from Porter Road Butcher, buns from Champier’s Bakery and Benton’s Bacon.

“We are a small business, and the people we purchase from are small businesses,” Shaw says. “We are helping each other out.”

The Grilled Cheeserie, owned and operated by Crystal and Joseph De Luna-Bogan, also incorporates local ingredients in their gooey creations. “We decided to open a food truck because, as transplants from Los Angeles, food truck culture was something we missed and saw a need for in the community,” Crystal De Luna-Bogan says. “We decided on grilled cheese because we wanted to source locally. Tennessee has outstanding dairy farms where we could find high-quality cheeses year round and incorporate seasonal ingredients into grilled cheeses.”

Clamoring customers sink their teeth into a variety of favorites, such as the B&B of Tennessee, the Pimento Mac & Chee, and the Buffalo South. “A great dish, or in our case, melt, starts with great ingredients. It’s as simple as that,” Crystal De Luna-Bogan says. “Without our local vendors like Porter Road Butcher, Bloomsbury Farms, Green Door Gourmet, Bells Bend Farms and companies like Nashville Grown, we would not be who we are today.”

– Hannah Patterson

Dallas Shaw loads up on burgers in the Hoss’ Loaded Burgers food truck in Nashville.
Advanced
AGRICULTURE
A few decades ago, the typical American farm would conjure images of hundreds of acres of crops growing on rolling fields spanning the countryside. Mentions of indoor farming would be few and far between. Today, that’s changing.

“Growing up, my family’s land was surrounded by pastures, fields and wooded areas as far as we could see. The idea that these key resources might be considered scarce never entered my mind,” says Ed Harrison, co-owner of SmarterGardens in Columbia. “Today, however, there are plenty of studies to support the position that the world’s supply of cropland won’t be able to keep pace with overall population growth.”

SmarterGardens is just one of several innovative Tennessee farms choosing to address this issue with hydroponic farming methods. The approach uses no soil, instead adopting a closed-loop system that circulates nutrient-rich water across the plants’ roots. Harrison says this method produces zero soil erosion, uses about 90 percent less water than traditional agriculture methods and reduces fertilization requirements. Hydroponics are also typically grown vertically on 8-foot-tall structures, so farms like SmarterGardens can produce 50 times more than a traditional growing environment on a per-square-foot-per-year basis.

Still a relatively new venture, Harrison and his business partner, Jordan Taaffe, founded SmarterGardens a couple years ago.
NO SUBSTITUTE FOR SCOUTING

You can’t fix problems in your fields if you don’t know what’s out there. Scout your fields once a week to check for stand issues, insects, diseases and weeds. Here are a few tips:

1. **Walk your fields.** While drive-by scouting is faster, this method won’t allow you to see problems until it’s likely too late to stop the damage. Check several areas of the field as problems in one section may or may not be present in others.

2. **What should you look for?** At the early stages of soybean growth, look for issues with population or plant stands. It may not be too late to replant those spots. As the growing season progresses, be on the lookout for diseases, insects and weeds.

3. **When you do find a problem, don’t be tempted to manage all your fields the same way.** Treating fields on an individual basis may prevent you from applying unnecessary treatments. As most farmers face smaller profit margins this year compared with recent years, this individualized treatment can make a big difference on your bottom line.

Visit [www.UnitedSoybean.org](http://www.UnitedSoybean.org) for harvest tips and updates from across the country.
They currently grow greens, herbs and peppers in a 340,000-square-foot facility in Middle Tennessee. “The fact that we can build our systems inside virtually any building opens the possibility of constructing farms closer to urban populations and operating them year round,” Harrison says. “This reduces transportation expenses, gives consumers a fresher product and provides farm workers with year-round employment.”

Jeffrey Orkin adds that a huge benefit of vertical hydroponics is that crops aren’t affected by seasons or weather. “We’re eliminating food miles by growing in a method that doesn’t have seasons. I like to say ‘we never have a cloudy day,’” he says.

Orkin founded Nashville-based Greener Roots farm, which produces several different varieties of hydroponic lettuces and herbs. With a background in landscape architecture and a passion for sustainability, he began experimenting by growing plants in the windows of his downtown Nashville apartment. After learning a few hard lessons through trial and error, Orkin rented an empty warehouse in April 2014 and planted his first seeds that July.

Greener Roots currently supplies acclaimed local restaurants, including Husk, Sinema, SLOCO, The 404 Kitchen, Catbird Seat and more, as well as several markets such as The Turnip Truck, with high-quality greens year round.

He says hydroponics could never replace conventional agriculture, but especially as populations become denser, taking over abandoned warehouses to turn them into agricultural hubs is an exciting thing. “Because of the conditions we grow in, we produce very high-quality, consistent products,” Orkin says. “Chefs appreciate that. They like to know the farmer and see the farm. Locality is certainly an aspect, but quality is also very important.”

John Mitchell agrees. A sixth-generation farmer in Grainger County, Mitchell farms with conventional methods. He started out with a dairy operation but transitioned to producing only beef. He decided to move the farm in the direction of high-quality hamburgers, and with a couple hundred head of Holstein steers, Mitchell began taking the product to local farmers markets.

A Knoxville chef caught wind of the ground beef and called them for a sample. “One thing led to another, and they opened a gourmet hamburger restaurant on Market Square in Knoxville called Stock and Barrel. We supply all their hamburger – several head per week,” Mitchell says. “They’ve been voted best hamburger by reader polls two years in a row, and TripAdvisor ranked them the No. 5 best hamburger in the U.S.”

He says though he farms conventionally, it took innovation and adaptation to find a direction for their farm that kept them viable. “What worked for us was cutting out the middle man and going farm-to-table with beef. I take out filets, rib-eyes and New York strip cuts, but the rest of the steer goes into the hamburger. I want to produce and supply a top-quality burger,” Mitchell says.

— Rachel Bertone

"What worked for us was cutting out the middle man and going farm-to-table with beef."

JOHN MITCHELL
Sixth-generation farmer in Grainger County
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Tennessee farmers aren’t just meeting the nation’s fiber needs by raising cotton, sheep and goats – they’re also raising alpacas and creating high-quality apparel with warmth and comfort in mind.

“Clothing made from alpaca fiber is softer than wool, generally speaking, and it’s more insulating than cotton,” says Ruth Fuqua, who owns Hickory Bluff Farms with her husband, Bill Fuqua. “It’s considered to be a luxury fiber like cashmere, and acts similar to cashmere as far as the softness and the wearability.”

Located in Mt. Juliet, Hickory Bluff Farms is a 106-acre operation that raises 60 Huacaya alpacas on a pasture covering about 15 acres. Huacaya alpacas produce dense, fluffy fleece, and they make up the majority of the world’s alpaca population.

Hickory Bluff Farms includes the Alpaca Store, which offers items such as socks, gloves, scarves, hats, men’s and women’s clothing, stuffed toys, and yarn. While most of the garments are handmade using the farm’s alpacas’ fiber, select items are imported from Peru. And because alpacas naturally come in 26 colors, minimal dyeing is required when preparing products for market.

“More and more people want to wear clothing made from alpaca fiber every year,” Ruth says. “The ‘prickle factor’ is very low compared to wool.”

In nearby Gallatin, Long Hollow Alpacas features 150 Suri alpacas on 62 acres. Suri alpacas, which are rarer than the Huacaya breed, have long, rope-like, twisted locks that drape and create a silky fiber. The farm’s store offers men’s and women’s clothing and yarn. Services like alpaca breeding, training and boarding are also available.

“We enjoy the alpacas because they are great animals with wonderful personalities,” says Jan Heinrich, who owns Long Hollow Alpacas with her husband, Karl Heinrich. “The alpaca community is filled with interesting, dynamic people from all walks of life. Alpacas allow us to travel to shows and be a part of a nationwide group.”

Jan and Karl also own New Era Fiber, an alpaca and llama fiber processing company that provides customers with yarns and roving. In addition, the company offers a line of original knitting patterns designed for alpaca fiber.

Both Hickory Bluff Farms and Long Hollow Alpacas offer tours of their grounds and facilities by appointment.

— Jessica Walker Boehm
Lelan Statom, Nashville NewsChannel 5 meteorologist, is often asked to speak at civic and community events. There he uses skills first practiced in 4-H as a fourth grader at Jennie Bell Elementary School in Dyersburg. He fondly remembers his first 4-H project – photography.

“One of your first experiences in 4-H was giving a project demonstration or presenting a poster about your project,” says Statom, who is now a member of the Tennessee 4-H Foundation, which advises direction of state 4-H programs.

More than a million young Tennesseans have participated in 4-H since the 1930s, when the first 4-H clubs started in Crossville. Those first 4-H members learned about raising corn and canning garden crops.

Commissioner Candice McQueen, with the Tennessee Department of Education, can also personally attest to how 4-H can guide a young person on a path to success.

“I look back on all the 4-H contests, leadership opportunities, trips, time with my extension agents, the infamous ‘record book’ and friendships very fondly. 4-H has shaped who I am today and for that I will always be grateful,” she says.

DISCOVERING THE WORLD

Traditional 4-H projects like livestock and foods are still popular in the state, but only 7 percent of nearly 170,000 Tennessee 4-H’ers lived on a farm in 2014. There are new favorites: computers, engineering and technology, and also communications projects now including video production. In 2015, Cameron Sanford and Katelyn Wilson, Crockett County 4-H’ers, won awards for 4-H videos at that year’s NO BULL Teen Video Awards in Los Angeles, a contest focused on preventing bullying and promoting good citizenship.

The appeal of 4-H beyond its historic rural base makes sense to Reuben Buck, a Brentwood-based attorney who is the senior director, global brand protection, for multinational computer networking company CISCO Systems.

Buck, who also serves on the Tennessee 4-H Foundation, grew up on a farm in Robertson County,
where his whole family was active in the club. He showed cattle, won the state crop science project contest, and served in regional and state 4-H youth leadership.

“Science has always been central in 4-H,” he says. Whether teaching basics of livestock nutrition or computer programming, 4-H projects involve experiential learning that engages the whole person. “It all starts with the ‘Four H’s’ – head, heart, hands and health.”

One aspect of 4-H that McQueen likes best is “the opportunity to put your knowledge to work.”

“Students can tailor their 4-H experience to their interests, allowing them an outlet to hone their writing skills or develop an invention using scientific principles. This is the kind of personalization many teachers strive to achieve in their classrooms,” she says.

BUILDING CITIZENS

Both Statom and Buck say 4-H helped them learn the value of good citizenship and civic engagement.

“I remember learning how a bill becomes law at the Tennessee State House,” Statom says. “We 4-H’ers were actually allowed on the floor during the debate.”

Buck recalls attending a national 4-H citizenship event in Washington, D.C., personally meeting members of Congress.

“That made a tremendous impression on me,” he says.

McQueen notes 4-H’s potential to positively influence students living in all settings – rural, suburban or urban.

“While the program grew from rural roots, it is now anchored on citizenship and leadership, skills that we know employers are clamoring for.”

LIFELONG INVOLVEMENT

During his summers in college, Statom was athletic director at the former 4-H camp in Milan. Today, he emcees the annual Tennessee 4-H History Bowl at the state 4-H Congress. Plus, Statom and his wife, Yolanda, have two children who are both 4-H’ers.

Buck stresses how 4-H’s adult volunteer leaders are models of community involvement for young club members.

“The 4-H volunteers showed us members how just one person can really make a difference in the community,” says Buck, who also has children in 4-H.

In addition to service on the Tennessee 4-H Foundation, both men served on the Davidson County Extension Committee. They’re also involved in the community beyond 4-H.

“4-H serves as a good foundation for making you a well-rounded individual,” Statom says.

– Matthew D. Ernst
SKILLS FOR LIFE

4-H teaches life skills to Tennessee children for more than 100 years

Founded in Tennessee more than 100 years ago, one 4-H goal has remained steady over the decades – put young people on the path of success.

“We really want to help them develop life skills, because that’s what we’re about – helping them become successful and productive,” says Justin Crowe, extension specialist with Tennessee 4-H Youth Development. “Gaining these life skills through 4-H is what leads to their success in the workplace.”

4-H started nationwide more than 110 years ago, gaining ground in the Volunteer State in 1910. Mertie Hardin from Benton County is considered the first 4-H member in the state, Crowe says. “It started when six part-time agents went to West Tennessee to tend to their own farms and educate the public about agricultural principles,” he says. “That’s when it really began.”

At first, 4-H was primarily aimed at helping rural youth. Young men learned the best agricultural practices for growing crops like corn, while young women were taught canning, food preservation and cooking.

“We were founded on principles in both agriculture and what used to be called home economics, which is now called family and consumer sciences,” Crowe says. “4-H taught skills to young people to help them in everyday life at home and with farming practices.”

From its beginnings to present day, members learn by doing with hands-on projects. Though many agricultural and societal changes have taken place, 4-H stays strong in teaching essential skills. Today, more than 185,000 youth are involved in 4-H in the state each year, representing the largest 4-H Club program in the U.S.

“As we have evolved and focused on those life skills, we’ve incorporated not only leadership but also citizenship into our program,” Crowe says.

Tennessee 4-H continues to evolve with the times, incorporating projects relevant to everyday life and affording new opportunities. Animal projects remain a strong interest for many, but new areas have been added over time such as computers and technology, and nutrition, health, and fitness. Areas are developed with the goal of helping youth develop workplace skills and workforce pathways.

“We have 4-H’ers working with GPS technology, building websites and even a young man who has built a mobile app,” Crowe says. But those age-old skills such as sewing that have been taught by Tennessee 4-H are still important, helping connect generations.

“Many people still tell me the very first time they learned to sew was in 4-H,” Crowe says. “When I talk to a 15-year-old who tells me the first time she learned to sew was in 4-H, and there are people in their 80s who tell me they did the same when they were young, that’s pretty powerful to hear.”

– Brittany Stovall

Learn more about 4-H in Tennessee at TNAgriculture.com.
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I will know my weeds. I will target their strengths and exploit their weaknesses.

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A new grassroots campaign is helping Tennesseans connect agriculture to the magic moments in their everyday lives.

“Agriculture’s indelible footprint on our lives can be seen everywhere,” says Commissioner Julius Johnson of the Tennessee Department of Agriculture (TDA).

Imagine a Nashville song without a guitar. Picture the joy a parent feels when a baby takes her first bite of solid food. Launched in October 2015, the TN Magic Moments campaign shows how agriculture is central to many of life’s “mAGic moments” just like these.

“None of these moments would be possible without agriculture,” Johnson says. “Take a wedding, for example. The food, cake, clothing, flowers, the drink to toast to and the hardwood floor to dance on – all of that is really brought to you by agriculture.”

TN Magic Moments raises awareness on how agriculture and natural resources impact daily life, while providing online tools for anyone to tell their ag stories.

“We wanted to find a new way to try to reach out to both non-agricultural and agricultural audiences,” says Lisa Stearns, vice chancellor of marketing and communications with the University of Tennessee Institute of Agriculture (UTIA). “The team quickly realized social media would become central to our efforts. When people post videos or pictures on Facebook, Twitter or Instagram, they are sharing significant moments in their lives. Without realizing it, they are already telling the ag story.”

At tnmagicmoments.com, users can find speaking and social media tools, and instruction on how to tell others about why a magic moment “would have no magic without ag.” Visitors can also view moments and speeches others have shared and are encouraged to do the same.

The campaign was spurred by the Governor’s Rural Challenge, which encouraged the UTIA, Tennessee Farm Bureau Federation and TDA to help develop a strategy to ensure the growth and prosperity of agriculture and forestry over the next decade.

“Our industry makes up 13 percent of our state’s economy, providing $74.8 billion in economic impact,” Johnson says.

The UTIA Advancement Board saw Tennessee’s ag world needed a way to tell its story and connect with those outside of the sector. The board then gained financial support to launch the campaign.

“Our goals are for this to be a collaborative effort throughout the state and to be able to tell the story in a way that’s relevant to today’s audience outside of agriculture,” Johnson says.

– Brittany Stovall

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TNAGRICULTURE.COM // 57
The Legacy Lives On

Harlinsdale Farm’s newest addition draws equine enthusiasts and hosts special events

Harlinsdale Farm has been a fixture in both Williamson County and the Tennessee Walking Horse industry since it was established by W.W. Harlin in the 1930s. The former walking horse breeding farm is best known for Midnight Sun, a legendary stallion that won the World Grand Championship in 1945 and 1946. In addition, all but four horses to win the championship to date are descendants of Midnight Sun, adding to the farm’s lengthy legacy of success.

“Franklin and Williamson County have a long equine history,” says Franklin Mayor Ken Moore, M.D. “We also are home to over 75 breeds of horses, and our state has one of the largest horse populations in America.”

Now owned by the City of Franklin, The Park at Harlinsdale Farm includes a catch-and-release fishing pond, a walking and running course, and dog park, as well as the brand new Tractor Supply Co. Arena. Open since late September 2015, the arena is the city’s first open-air public-use equestrian facility. Riders enjoy a trail system that winds through the property.

“Having a 200-acre legacy farm at the gateway to downtown Franklin is an asset for locals and an attraction for visitors,” says Dr. Monty McInturff, an equine veterinarian and owner of Tennessee Equine Hospital in Thompson’s Station. He is also the president of the Board of Governors for Friends of Franklin Parks. “The community raised the money to build an incredible arena that will allow more people to interact with these amazing animals. Not only will it serve a diverse group of equestrian athletes, but we believe it has the ability to create a whole new generation of horse enthusiasts.”

A LABOR OF LOVE

The Friends of Franklin Parks, a public-private partnership established in 2011, raised $1.4 million to make the arena a reality.

“I like to think I helped to build an awesome
team with similar passion, and together we were able to rally the community – the City of Franklin, private supporters and corporate partners – around the project,” McInturff says. “It’s an honor to build on the Harlins’ legacy and a blessing to be able to give this to Franklin.”

And the group isn’t finished. McInturff says the Tractor Supply Co. Arena is just the first phase of the project, and he hopes the farm will one day include a “Museum of the Horse in Tennessee” as well as “additional amenities for the public to enjoy.”

“This is the first step of many to realize the full potential of this historic property,” Moore says.

ARENA AMENITIES AND EVENTS

Covering about five acres, the Tractor Supply Co. Arena is designed for both Western and English riding. The facility, which is the only public equestrian arena in the state to have the netting required to accommodate arena polo, features paddock space, a warm-up ring and day-use stalls.

“In my opinion, what really sets this arena apart is its spectator-friendly design,” McInturff says. “With the beautiful grass berms on either side of the arena, there is not a bad view on site.”

The arena’s first event, an arena polo exhibition match, took place in late October 2015. The venue also hosts 4-H events and hunter/jumper competitions, as well as non-equine events. The park drew approximately 20,000 people when it held a series of concerts during the 2015 Pilgrimage Music and Cultural Festival, and one of the main stages was located inside the arena.

“The public has embraced the arena, and there’s a world of potential to wrap our arms around our horse history in the same way we have our Civil War and agricultural identity,” McInturff says. “That’s what makes Williamson County such a special place to live, work and play.”

– Jessica Walker Boehm
When the foundation of Tennessee’s beloved beef production began to wane, organizations joined forces to revitalize the state’s No. 1 ag commodity.

Many factors had caused the state to drop from the ninth largest beef cattle state to 13th in recent years. High feed prices, drought, farmer retirements and urban encroachment have challenged the state’s beef industry. The Tennessee Beef Heifer Development Program seeks to reverse that downward trend. It aims to rebuild the state’s beef herd and improve beef quality. The program’s home facility educates farmers on how to custom-raise heifers to add value.

“We really think this program can be extremely beneficial to beef cattle producers in our state,” says Kevin Thompson, director of the University of Tennessee’s Middle Tennessee Research and Education Center. “It offers an opportunity for our producers to diversify. It gives an enterprise within the state that producers can implement on their farms to raise heifers for their neighbors. They can come to Lewisburg and physically see a facility easily duplicated on their farm.”

Developing replacement heifers ranks as one of the most time-consuming and costly aspects of beef production for farmers, Thompson says. The inaugural class of 100 beef heifers arrived in the fall of 2015 at the University of Tennessee’s Dairy AgrResearch and Education Center in Lewisburg. Farmers retain ownership of their heifers and pay the facility to manage nutritional and health needs from weaning to pregnancy. Heifers are then returned to the farm or sold to other farms.

The Tennessee Department of Agriculture, Tennessee Farmer’s Cooperative and University of Tennessee Institute of Agriculture joined forces to create the heifer development program, an initiative consistent with the Governor’s Rural Challenge to improve rural economies. A $243,000 grant from the Tennessee Agricultural Enhancement Program built the facility, and a contribution of $125,000 from the Tennessee Farmer’s Cooperative equipped it, says Justin Rinehart, University of Tennessee beef cattle specialist.

“The impact of the program is that we can grow our herd quicker and with higher quality cattle,” he says. “That will increase revenue for the state’s largest ag commodity.”

TDA Commissioner Julius Johnson says that although Tennessee’s cattle numbers have increased by 2.6 percent in the last year, the state is still not fully realizing its potential. The demand for beef is strong across the globe. In Tennessee, rebuilding the beef herd will position the state to gain a greater share of that global market.

“UT has previously identified that the best way to grow the state’s ag industry is through the beef cattle industry,” he says. “We are great at growing grass and forage, but our herd numbers are the lowest since 1959. Regrowth of the herd is important to our state, and it’s starting already.”

– Joanie Stiers
ENTREPRENEURS

Mike Minnis, who heads Landmark Training in Memphis, teaches inner-city youth how to grow produce.

The U.S. Department of Agriculture’s Specialty Crop Block Grant program, administered by the Tennessee Department of Agriculture (TDA), helps improve Tennessee production.

GROWING GARDENS AND YOUTH

Landmark Training Development Company, in the Orange Mound neighborhood of Memphis, tends gardens full of nutritious vegetables.

“Our mission is to use specialty crops to create sustainable agricultural environments in food desert communities,” says Mike Minnis, who organized Landmark in 2010.

Minnis’ original aim was to teach construction skills to Memphis youth. “We planted some garden beds on property we had received from the city to rehab,” he says.

The gardens produced a bumper crop of specialty, multicolored carrots. Minnis asked the produce manager at a nearby Whole Foods what the carrots were worth. “When he saw those carrots, grown right here, he wanted to buy them,” he says.

Landmark later received a Specialty Crop Block Grant in 2013 to help establish a honeybee hive on the properties. Bees pollinate the gardens and educate garden guests.

“We host many educational tours for school and community groups,” Minnis says.

Landmark’s gardens supply its food pantry, while some produce is sold at the Landmark Farmers Market. Carrots, cherry tomatoes and okra are also delivered to the nearest Whole Foods store.

“We do all the work in our gardens by hand – digging, weeding, picking,” Minnis says. “It’s more laborious,

Mike Minnis, who heads Landmark Training in Memphis, teaches inner-city youth how to grow produce.
Landmark works with Shelby County’s juvenile justice program to help young people fulfill community service requirements. Specialty Crop Block Grant funds awarded in 2014 and 2015 helped develop two simple greenhouses, called high tunnels, at Landmark’s sites.

“The high tunnels extend our growing season and have created excitement in our community,” Minnis says. “It’s another way we teach our neighbors about nutritious food choices that we can grow right here.”

THUNDER ROAD WINE TRAIL

From Knoxville to Butler, wineries along the Thunder Road Wine Trail are using history to bring visitors to East Tennessee tasting rooms.

“Our Tennessee winemakers are making outstanding wines with regional grapes, and people need to stand up and take notice,” says Rick Riddle of The Winery at Seven Springs Farm in Union County.

Riddle founded the trail to complement the region’s tourism industry; it was themed around the route Kentucky moonshiners would take when going south during the Prohibition Era. A 2015 Specialty Crop Block Grant helped the trail’s six wineries develop a first-class website and other marketing materials.

“Every one of these wineries is less than three years old,” Riddle says. “To have the specialty crop grant helping with this is instrumental.”

Riddle says his research found wine trails help fuel tourism growth, and he sees the wine trail as a full circle to the past.

“Growing crops for brewing and distilling was vital to East Tennessee’s economy in the 1800s,” he says. “Today, tourism is our No. 2 industry, and wine trails can increase tourist revenues.”

SECOND HARVEST

Second Harvest Food Bank of Northeast Tennessee – serving Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi and Washington counties – received a 2015 Specialty Crop Block Grant to assist in collecting farm-donated produce.

“Local farmers are encouraged to plant an extra acre and donate the food or the proceeds from the sale of the harvest to their local food bank,” Executive Director Rhonda Chafin says.

Second Harvest collected 73,000 pounds of farm-fresh Tennessee produce during the summer of 2015, including 25,000 pounds of green beans.

“The grant reimbursed some of the transportation costs and helped purchase mini produce bins, making it easier for farms to donate,” says Tom Cromie, senior operations director.

– Matthew D. Ernst
A dynamic, working 65-acre farm with a rich history, the Glen Leven Farm is a model of farmland conservation practices.

“Glen Leven Farm is something of a land conservation museum,” says Liz Edsall McLaurin, president of The Land Trust for Tennessee.

The farm, which is located 4 miles from downtown Nashville, was donated to the nonprofit land conservation organization in 2006 through a will left by Susan M. West, whose instructions said to leave the land intact.

Full of rich history, Glen Leven Farm was once the site of a field hospital during the Battle of Nashville during the Civil War, as well as the home to John M. Thompson, a Tennessee commissioner of agriculture. It now hosts educational programs by appointment and has regular open days, with about 25 acres conserved for diverse uses like educational gardens. There is also an arboretum that includes the country’s largest mass of American Yellowwood.

Additionally, The Hermitage Hotel’s Sustainable Farming Project tends a 2-acre heirloom garden. Farm-fresh produce is both served at the hotel’s Capitol Grille and donated to area food pantries. Hermitage Hotel guests support The Land Trust of Tennessee’s statewide work through a $3-per-room night opt-out donation program.

Glen Leven Farm hosts events with low land impacts – corporate retreats, weddings, and video and photo shoots, as well as educational programming, though the vast majority of funding comes from individual gifts and grants.

A herd of registered Polled Shorthorn cattle are at home on Glen Leven Farm’s other 40 acres, fenced into smaller fields. This allows easy movement of cattle to fresh pasture, discouraging overgrazing and soil erosion. Farm streams are also fenced, with two crossings for cattle and equipment.

“In 2015, we had our second farm field day, partnering with the Davidson County Soil Conservation District and USDA Natural Resources Conservation Service, showcasing the conservation practices here,” says Gary Moore, farmland conservation director for the Trust.

The organization has protected nearly 100,000 acres in 58 counties, largely through donated conservation easements. “A conservation easement is an agreement between a landowner and a land trust that limits development and protects the conservation values of the property forever,” Moore says.

While there can be significant tax advantages for donating easements, Moore notes landowners do not typically make their decisions based on those benefits. “Our landowners are motivated by love of the land. They want it to remain in its present state for future generations as a legacy,” he says.

The Tennessee Department of Agriculture assists in these easements through a grant that helps cover transaction costs for landowners who demonstrate need.

“Glen Leven Farm has really become a front door for our organization in Middle Tennessee,” McLaurin says. “It is a tangible embodiment of so many aspects of our mission – a place to learn about the importance of agriculture, history and open space conservation.”

– Matthew D. Ernst
A Cycle of SUCCESS

Rural development provides a win-win for small towns, agriculture

For some, the small town of Ripley is defined by its downtown district and all the amenities that have made it so attractive in recent years.

Others embrace the age-old agrarian lifestyle that has made Lauderdale County one of Tennessee’s leaders in agriculture.

But the face of this West Tennessee county bordering the Mississippi River is not framed by one quality against the other – of city versus country. Instead, it’s a melding of Ripley’s downtown revitalization and the continued relevance of rural life. And it makes for an impressive economic impact.

“Agriculture is very important to Ripley and Lauderdale County,” says Frankie McCord, the city’s Main Street program director. “We have a lot of farmers in the county who invest, support and put back into the economy here through their purchases for their crops and the spending of their dollars. It’s like a cycle.”

FROM THE GROUND UP

It’s a cycle that has made Ripley a beacon of how breathing life into a small town can be significant on many levels. It’s an important part of rural economic development, and this town of some 8,400 residents is an example of what can be done through community leadership and the use of resources such as the Tennessee Department of Agriculture and the USDA Rural Development (USDARD) agency, among others.
USDARD, for instance, invests over $1 billion each year for rural projects across the state, with eight regional offices.

“Our agency is the arm of the federal government that can help rural communities,” says Bobby Goode, Tennessee state director for the USDARD. “We really say we can build them from the ground up because we have approximately 46 different programs for economic development of rural communities.

“The rural economy in Tennessee is so important, and to tie that rural economic development with the agriculture that’s out there is the thing that’s going to keep that rural economy strong. Any type of economic development we do in rural Tennessee touches our ag producers.”

REVITALIZATION PROJECTS

The efforts in Ripley and similar small towns make them viable for both young and old, McCord says.

“I think it’s critical that small towns jump on board of revitalizing,” she says. “Millennials (are) wanting to go back to hometowns that feel like the towns where they grew up. They’re the ones who will be our leaders, and we need look at their needs and expectations. Even people who grew up here in Ripley, moved, and have now retired and come back, they’re looking for similar things.”

Downtown Ripley began undergoing revitalization after a group of citizens formed the nonprofit Ripley Downtown Development Corporation in 2006. Their keynote project was the improvement of the Lauderdale County Courthouse, an art-deco-style structure that anchors the downtown district. Funding came from the state through the Courthouse Square Revitalization legislation sponsored by Ripley banker and state Rep. Craig Fitzhugh, as well as from USDA Rural Development.

Other highlights of Ripley’s downtown include an amphitheater that hosts live music, a wading fountain popular during the summer, city parks, dining and shopping destinations, and a farmers market that stays busy May through October.

A more vibrant Ripley makes for a sustainable agriculture industry. Lauderdale County is primarily known for its tomatoes – around 65 growers produce and ship them, and a tomato festival is held each year in honor of the growers. Additionally, the county grows 90,000 acres of soybeans, 19,000 of corn and 10,000 of cotton. Farmers here can be found not only in their fields, but also coaching youth sports, serving on church committees and volunteering in civic organizations.

“They give of their time, which is critical in smaller rural communities,” McCord says.

– John McBryde

457 farms are in Lauderdale County, with each averaging 439 acres in size.

Sources: USDA Census of Agriculture, RipleyTenn.com
While folks at Jonesborough Locally Grown were thinking big when they presented the idea for the Boone Street Farmers Market in historic Jonesborough, their key to success may lie in their approach to thinking small.

Small, that is, in how the facility caters to small-scale farmers in the area – even those who may just have a patch of ground for growing produce.

“I think the thing that distinguishes us from anywhere else is we are able to serve even the backyard gardener who wants to sell, say, a bumper crop of sweet potatoes without having to get into a wholesale relationship,” says Karen Childress, executive director of Jonesborough Locally Grown (JLG). “We have a fellow who brings in muscadines whenever he has them. So there’s a lot of serendipity in it.”

It’s also a “proving ground” for those getting into farming on a smaller scale, she says.

“It gives them a chance to test the market. We hope most will want to continue to grow into larger-scale producers.”

Boone Street Farmers Market is a unique redevelopment project that converted an old abandoned service station on a high-profile corner of downtown Jonesborough into a year-round market. It officially opened for business in October 2014. Attracting farmers and consumers throughout the region, vendors sold more than $250,000 worth of locally grown products at the market during its first year.

Funding for the project, which was completed in partnership with the Town of Jonesborough, came through grants from the Tennessee Department of Agriculture and the state’s USDA Rural Development office, as well as donations from individuals, businesses and civic groups.

“Customer-wise, we have folks who haven’t just shopped with us but who have also invested in the store as members,” Childress says, adding that the market had 330 members after the first year of operation.

“We thought that was a pretty good showing.”

JLG is a nonprofit organization that also operates the Jonesborough Farmers Market, which opened in 2008. The Boone Street facility is a farmers market-plus of sorts, open year round with vendors selling not only produce, but other food products as well. Vendors include Mountain View Bakery, Sunset View Farm and Panacea Coffee Company, among others. The building is also a fully equipped retail food space with fixtures, display freezer, a display-front walk-in cooler and commercial kitchen.

– John McBryde
TENNESSEE FFA: JUST THE FACTS

89.6%
Members say FFA has given them a place to call “home” within their high school.

80.5%
FFA members plan to attend college or pursue technical training.

14,084
Tennessee FFA Members as of 2015

Data from survey of 2014 FFA Camp Attendees & TN Dept. of Ed.

WWW.TNFFA.ORG
@tnffafoundation
Tennessee FFA Foundation
Tanimura & Antle, one of California’s largest lettuce growers, wanted to start cultivating lettuce in greenhouses for the East Coast market – and Livingston, a city in the Upper Cumberland region of Tennessee, offered natural advantages.

“They needed a location at a certain altitude above sea level, with certain average temperatures and sunlight exposure,” says Ed Harlan, assistant commissioner for Market Development at the Tennessee Department of Agriculture (TDA). “The Cumberland Plateau is an ideal location.”

Attracting new businesses to Tennessee’s rural areas and smaller cities is one of Gov. Haslam’s priorities for economic growth. Proper infrastructure helps attract new businesses to rural Tennessee.

“We grow lettuce using hydroponic technology, which allows us to grow premium products year round using less fertilizer and water,” says Zack Barnes, general manager of hydroponics for Tanimura & Antle. “Water and logistics take an important role in our business.”

Infrastructure changes are the most common needs for new agribusinesses, Harlan says. “Most often, electrical and road upgrades are needed.”

The greenhouses required increasing local water capacity as well as some road improvements.

“This kind of project requires a team approach,” says Harlan, who adds many people and agencies are needed for the success of a project.

TDA has an educational and supportive role in such projects. “We can help explain the infrastructure needs of a forestry, agriculture or food business, like the Tanimura & Antle greenhouses,” Harlan says. “We are a supporting player on these project teams. There are many other people and agencies that actually make the upgrades a reality.”

Tanimura & Antle built 12.5 acres of greenhouses in 2007, recently expanding to 16.5 acres. “Our facility is equivalent to over 300 acres of outdoor farming,” Barnes says.

According to Harlan, Tanimura & Antle has been a steady source of employment for the people on the Cumberland Plateau – there are over 70 employees producing over 9 million heads of lettuce annually.

More jobs – paying competitive wages with good benefits – are likely to come. “We could see having more than twice our current growing area here,” Barnes says. “The lettuce we ship from Tennessee can get to the East Coast three days sooner than West coast production, and that only means fresher, better product for our consumers.”

And that is business that’s good for both Tennessee and the American food supply – a winning combination of town and country.

“Matthew D. Ernst
BUZZY BUSINESS

Urban beekeepers spread honeybee awareness, produce local honey for Nashville

Staff Photos by Jeffrey S. Otto
As America’s latest “it” city, it’s not uncommon to see new buildings, shopping centers and restaurants popping up throughout downtown Nashville. But as of late, you might see something unexpected buzzing in the heart of urban Music City – honeybees.

“No other pollinators compare to the role honeybees play in pollinating crops,” says Bob Fisher, president of Belmont University in Nashville. “They’re vital for food production but also for creating a beautiful urban atmosphere. That’s what we’re doing here.”

Fisher started beekeeping 35 years ago when he was living in Arkansas. He recently revived his passion with a hive on the green roof of Belmont’s 18,600-square-foot Wedegwood Academic Center.

“I’ve lived in Nashville for 15 years and have always been looking for a spot. I never felt like my neighbors would welcome them,” he says with a chuckle. “The Wedegwood Academic Center is one of several buildings on campus with substantial green roofs. It’s the largest, so it made sense.”

Fisher began tending the hive about a year ago, so he hasn’t produced honey yet – that will come this spring – but says there’s a noticeable difference on campus.

“It’s pretty amazing how often I see them on campus now, and the flowers look more beautiful than ever.”

Since Belmont doesn’t grow crops, Fisher says flowers and plants around campus and surrounding areas are the main beneficiaries of their honeybees. But it’s important for consumers to know how vital the insects are for pollination, especially in light of their recent decline.

“Honeybees are vital for pollinating crops – soybeans, corn, you name it,” Fisher says. “When I was in beekeeping 20 years ago, it was very simple, and a lot of the diseases we are dealing with weren’t around back then. Beekeeping isn’t that complicated to get into, and it can help the overall population.”

Mike Studer, Tennessee state apiarist, says urban beekeeping is on the rise nationwide.

“We have urban beekeepers in every major city in Tennessee, and for the most part, neighbors never know they’re there unless they see the hives,” he says.

Studer adds that raising bees in city environments reduces the number of defensive feral honeybee colonies that can live in walls of buildings.
Ultimately, though there are many benefits, the most important part of urban beekeeping is aiding in the fight against honeybee decline, which is essential for food production.

“The main thing the public needs to understand is that if they want to eat, they have to have honeybees to pollinate their food,” Studer says. “At least 30 percent of what we eat every day is pollinated by honeybees.”

Even Nashville musicians are getting in on the act. Draper and Douglas Mauldin, also known as Southern rock duo The Mauldin Brothers, regularly play on Broadway, but when they’re not jamming out, they raise honeybees in their downtown backyard.

“About six years ago, my allergies got so bad and no pills were working, so I turned to local, raw honey,” Draper Mauldin says. “My brother and I started calling ourselves honey heads. We’d go find a local beekeeper to help with allergies, and then it just made sense to start raising our own.”

Mauldin says they currently have about 20 hives in downtown Nashville and 200 more in their home state of Mississippi.

“Bees make more honey in neighborhoods because there are so many flowers and different nectars,” he says. “We produce roughly 50 to 60 gallons of honey per year.”

Their company, aptly named Honey Heads, provides local honey to Nashville restaurants including Acme, Urban Grub, Peg Leg Porker and more.

“We need more beekeepers,” Mauldin says. “Awareness is key, and it’s important to support your local beekeeper by buying their honey.”

– Rachel Bertone

**HELPING HIVES**

Tennessee pollinator program helps crops flourish, yield market-ready produce

Designed to protect Tennessee’s honeybees while serving beekeepers across the state, the Tennessee Apiary Act of 1995 also benefits farmers by helping ensure crops receive the pollination they need to thrive.

Mike Studer, state apiarist at the Tennessee Department of Agriculture (TDA), says apiaries are especially important today because there are not enough feral colonies in the state to adequately pollinate crops.

“If apples and similar fruits don’t get enough pollination, they end up misshapen,” Studer says. “Also, if squash, cucumbers and pumpkins don’t get at least 300 grains of pollen transferred from the male flower to the female flower, they don’t even get a fruit set. They need over 600 grains of pollen in order to get a decent-looking fruit for market.”

The act requires beekeepers to register their apiaries with the TDA every three years, with registration forms available at [tn.gov/agriculture](http://tn.gov/agriculture), the TDA office, County Extension Agent offices and local beekeeper associations, and registration is free. After registering, beekeepers receive a unique registration number, which may be used to brand hives and beekeeping equipment. Registration comes with several benefits, including emails regarding disease outbreaks; notifications of nearby aerial pesticide spraying; free colony inspections when preparing to move or sell bees, or when a health problem may take place; and compensation if colonies are lost due to American foulbrood or other regulated pests or diseases.

Studer says it’s common for honeybee colonies to have Varroa mites – also known as Varroa destructors – which transmit viruses, and cause a disease called varroosis, as well as tracheal mites and small hive beetles. Undetected and untreated, these pests and parasites can cause colonies to shrink or disappear. But regular inspections and proper care can help colonies continue to grow.

“As long as the beekeepers keep the colonies healthy and strong, watch the levels of mites and beetles, and treat when needed, they can keep the bees healthy,” Studer says.

– Jessica Walker Boehm

Learn more about urban beekeeping in Tennessee at TNagriculture.com
FORESTRY

Staff Photos by Michael D. Tedesco
Nearly half of Tennessee is covered with forests. This beautiful land provides recreation, serves as wildlife habitat, allows for timber production and enhances the overall environment. But tens of thousands of the state’s 14 million acres of forest are at risk every year because of wildfires.

The Tennessee Department of Agriculture Division of Forestry is responsible for protecting the state’s forestlands. Their 200 full-time and 150 part-time firefighters provide the front line of that protection.

Weather and terrain make it a challenging and often unpredictable task, but the firefighters have the training and resources to tackle it proactively while keeping safety their top priority.

“While we fight fires year round, we have two primary seasons,” says John Kirksey, the division’s Fire Management Unit leader. “The fall season is from mid-October until the end of November, and the spring season is from about March 1 until the middle of May. The threat is higher during those times because of dry weather, and because it’s a time when people are burning more debris.”

That burning is responsible for a large percentage of Tennessee’s forest fires. The Division of Forestry works to lower the threat through education, prevention and burn permit regulation.

Brock Campbell, a forestry technician for the division, explains that the state requires landowners and the public to obtain a permit before burning any debris in the open air. The requirements serve two purposes: they provide an opportunity for the public to be educated about safe debris burning, and they let the division know where fires will be burning, so they can be alert for any problems.

“During the fire season, we issue nearly 100 permits a day in Greene, Washington and Unicoi

Firefighters with the TDA Division of Forestry, such as Rick Martin, protect Tennessee’s forests against wildfires.
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counties,” he says. “With each one given, we provide a safety checklist. Following those tips and taking adequate precautions can be the difference between a safe debris burn and one that quickly gets out of control.”

When there is a forest fire, whether from unsafe burning, arson, lightning or other causes, the division and firefighters are ready. Much of the work involves coordination of the many aspects of firefighting – from aerial detection and crew dispatch to assembling the equipment to dig a containment line around the fire.

“In active firefighting there are many different roles,” Kirksey says. “There are those out there containing the fire line and those who support their efforts in terms of logistics and management. We have folks who might not have stepped foot near a wildfire this year, but they were actively involved in training, equipment and preparedness work in addition to fire prevention.”

TAKING THE HEAT

There are an average of 2,000 wildfires each year in the state that burn about 25,000 acres. That’s a lot of digging, a lot of heat and a lot of experience fighting Tennessee fires. And in the summer when wildfires are less likely to burn in the Volunteer State, many of Tennessee’s forest firefighters help out in the West, where the size and intensity of the fires require more manpower.

Campbell spent 24 days in California in the summer of 2015 on fire detail. He was one of nearly three dozen Tennessee firefighters to head west to help on larger fires.

“It’s an opportunity to help, and it also provides our firefighters with a very challenging experience that better prepares us for our work in Tennessee,” Campbell says. He explains that the higher elevations, extremely dry fields and rugged terrain create conditions unlike those seen in Tennessee. “Plus, the fires themselves are explosive. They burn hotter and faster, and they’re usually much larger.”

Kirksey says every opportunity to work a fire – whether here or on a western detail – provides firefighters with a chance “to improve their situational awareness.”

“There are so many hazards in addition to the fire itself that you need to always be aware of, like holes that are covered by leaves and moving rocks. Situational awareness is the key to safety.”

Keeping firefighters and the public safe is the Division of Forestry’s top priority.

– Cathy Lockman
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Dr. Kater Hake
Vice President of Agricultural & Environmental Research
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TENNESSEE’S BEEF COMMUNITY TAKES PRIDE IN “Doing Things Right.”

Tennessee is doing things right with the Beef Quality Assurance (BQA) program. It’s a program for cattlemen nationwide that focuses on judicious use of animal vaccines and proper animal care. Tennessee has BQA certified over half of state’s 43,000 beef farmers and leads the nation in certifications. Cattle are the state’s number one agricultural commodity annually providing a $2 Billion dollar economic impact.
The world knows about Lynchburg, where Jack Daniel’s Tennessee Whiskey is made, barreled and distributed. But the world knows little to nothing about Clifton, though it’s integral to Jack Daniel’s whiskey production.

Clifton, on the Tennessee River in West Tennessee, is one of four locations where the company that owns Jack Daniel’s, Brown-Forman Corp. of Louisville, Ky., has stave mills. Each location manufactures barrel staves, which form the barrel body and end pieces.

“Barrels are more than a container for our whiskey, they’re an important ingredient,” says Jeff Arnett, Jack Daniel’s master distiller. “The color of Jack Daniel’s and more than half of our whiskey’s flavor is derived from the barrel.

“We believe in the importance of the barrel in making our whiskey so much that we are the only major distiller that makes its own barrels.”

Brown-Forman barrel wood comes from American white oak trees in Tennessee, Kentucky and Virginia. About 85 percent of the trees that go to the Clifton mill are from West and Middle Tennessee.

The use of white oak for whiskey or wine barrels was introduced by the Romans more than 2,000 years ago, the Brown-Forman website states. White oak has what is known as tyloses, a type of cell that makes the wood water- and rot-resistant.

“It allows the whiskey to go into, but not penetrate all the way through the wood,” says Darrell Davis, senior operations manager for the Brown-Forman mills.

– John McBryde
RECLAIMING NATCHEZ TRACE

Forest resource management models success
It takes photos to prove that Tennessee’s breathtaking Natchez Trace State Forest endured a destructive past.

Nearly a century ago, old farming practices stripped tons of soil from the land’s sandy loam base. Erosion ripped gullies 100 feet long by five stories deep. But today, nearly the entire 37,000 acres of this forest in central-western Tennessee have recovered from their dismal state in the 1930s. In fact, proper management of timber, wildlife and recreational uses has transformed Natchez Trace State Forest into one of the state’s most prized public lands.

“To be in that decimated condition to the point it is today – one of the most valued forest resources in the state of Tennessee – that is a huge conservation success story,” says David Todd, assistant state forester with the Tennessee Department of Agriculture Division of Forestry. “Words don’t describe it. If you look at the photographs from the 1930s to the 50s and 60s to today, it’s unbelievable how that forest recovered. Today, Natchez Trace State Forest is one of the most valued tracts in the state in terms of timber value.”

Natchez Trace State Forest represents one of 15 state forests that encompass more than 168,000 acres in Tennessee. The state also owns more than 50 state parks and a multitude of wildlife management areas and natural areas. Each of these public lands carries distinct management practices tailored to the missions set by law or the respective agencies.

For quick comparison, state park staff manages people and their enjoyment of the land, perhaps through boating and swimming. In contrast, the state’s professional foresters manage the forest resource: timber production, wildlife habitat, aesthetics, forest...
health, watershed protection and more, says Philip Morrissey, state forest unit leader.

“One way to continue to have a high-quality forest is to manage it actively,” he says.

TAKING ACTION

The federal government acquired Natchez Trace via the Resettlement Act of 1934. The Tennessee Division of Forestry managed the land through a use agreement until 1955 when the federal government deeded the land to the state, and it was placed under the jurisdiction of forestry.

Fire control and erosion prevention became the initial emphasis of the Tennessee Division of Forestry, the agency charged with repairing and regenerating the forest. The division put erosion control practices in place. They also planted and established pine trees, which shed needles that deterred erosion.

As part of its documented management plan, the division today maintains timber inventories, monitors growth and calculates how much timber to harvest annually to remain sustainable. Following harvest, hardwood forests generally regenerate by themselves. Where pine is harvested, forest managers replant genetically improved varieties of pine trees.

All the while, the Division of Forestry intends for these management plans to demonstrate sound forestry practices to Tennessee’s more than 500,000 private landowners who own sizable forested tracts, Todd says.

“We believe it is important for them to understand that they have ways they can manage the land to meet their objectives,” he says. “If they can see the management of our state forests, they can make better decisions on their own land.”

State forest caretakers also oversee trails for horseback riding, biking, hiking and all-terrain vehicle riding. They manage game species in cooperation with the Tennessee Wildlife Resources Agency and allow hunting to control wildlife populations. Their management roles turn cultural too. Natchez Trace State Forest alone contains 24 cemeteries and 62 historic sites.

The Division of Forestry is currently working to establish third-party oversight to certify the sustainable management of its state forests. The division also intends to look at more recreational opportunities in its forests, Todd says.

“These forests are great places to work, but they are also great places to simply be. There are really neat places to visit in these forests, even if you don’t like wildlife. It is a very satisfying resource to the people of Tennessee.”

– Joanie Stiers

NATCHEZ TRACE STATE FOREST REPRESENTS 1 OF 15 STATE FORESTS THAT ENCOMPASS MORE THAN 168,000 ACRES IN TENNESSEE.

1. Chickasaw
2. Natchez Trace
3. Stewart
4. Lewis
5. Cedars of Lebanon
6. Franklin
7. Prentice Cooper
8. Bledsoe
9. Standing Stone
10. Pickett
11. Scott
12. Lone Mountain
13. Chuck Swan
14. Martha Sundquist
15. John Tully

Source: Tennessee Department of Agriculture Division of Forestry

– Joanie Stiers

30% SOFTWOODS
70% HARDWOODS
Forestry officials want Tennesseans to keep it local and “buy where you burn” or look for certified heat-treated options when choosing firewood.

“Please help us to protect the trees and forests of Tennessee from invasive insects and diseases,” says Heather Slayton, forest health unit leader for the Tennessee Department of Agriculture Division of Forestry. “Buy local firewood at or near your destination or use certified heat-treated firewood.”

A deadly threat to trees, the emerald ash borer – a beetle native to Asia – feeds on a tree’s inner bark, causing it to eventually die. Other invasive insects and diseases include the Asian long-horned beetle, European gypsy moth and hemlock woolly adelgid, among others. All get a free ride when you transport firewood where they reside, usually undetected.

Several precautions can help reduce risk. Be aware of state and county regulations – many Tennessee counties prohibit moving firewood outside county lines. Also, bringing firewood into the state from elsewhere is strongly discouraged.

If camping, determine local firewood distributors by calling state parks, federal parks or forest officials when driving to a campsite, or visit the free online directory firewoodscout.org and type in your destination’s ZIP code.

After locating firewood, always ask where the wood was cut (this should be within a short distance of the site) or if it was heat-treated to kill pests. And never transport locally purchased firewood outside the area.

– Brittany Stovall
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www.TNWoodProducts.org
Major expansions poise Calhoun mill for growth

Economic support, available timber and quality mill workers prompted Resolute Forest Products to print its future on Tennessee-grown and -made paper products.

Two major expansions at the company’s pulp and paper mill in Calhoun are collectively investing $375 million and adding 150 employees to the location between 2015 and 2017. This historic change and growth meet the demands of an evolving paper market.

“We realized we needed to retreat from the manufacture of certain declining paper grades and instead focus on growth markets, such as commercial-grade printing and consumer premium tissue grades,” says Debbie Johnston, director of U.S. public affairs for Resolute Forest Products.

“You see it clearly reflected in what’s happening in Calhoun.”

The facility, northeast of Chattanooga, manufactures commercial-grade paper for brochures, books, paper bags, placemats and advertising inserts. Employees there also produce baled pulp, some newsprint, and soon will bring an edge to the consumer bath tissue and paper towel markets.

As of late 2015, the Calhoun mill completed its most recent $105 million project, which added a continuous pulp digester. The equipment allows the mill to produce a greater volume of higher quality pulp to manufacture paper products on site. The facility also has the ability to dry and sell baled pulp to other mills.

By early 2017, the company will complete a $270 million expansion that will provide them with entry into the tissue market. This move will increase the Calhoun mill’s employment to about 650 people in 2017, Johnston says.

“It’s an exciting endeavor for us because it will be our first entry into the tissue market, and we feel we can be a significant player for a long period of time,” she says. “We produce our own pulp, make our own tissue and wrap it on site for our customers, which gives us a competitive advantage at this location. It will be the first consumer-ready product we have ever made.”

The Calhoun site represents one of about 40 pulp and paper mills and wood products facilities that Resolute Forest Products owns and operates in the U.S, Canada and South Korea. The company’s global market includes about 80 countries. The Calhoun mill primarily serves customers within 180 miles of its site. The company expects future tissue sales to permeate the private-label market up and down the East Coast.

The Calhoun mill alone generated an annual economic impact of $339 million in 2014 to state and local economies, Johnston says. That impact will escalate with these expansions.

– Joanie Stiers
Families across Tennessee, such as the Donnells in Jackson, boast a rich farming heritage.

Staff Photos by Michael D. Tedesco and Jeff Adkins
On most fall mornings, the Donnell Century Farm in Jackson bustles with groups of wide-eyed children picking pumpkins, taking hayrides and happily getting lost in a corn maze.

Rose Ann Donnell started hosting families and school groups on the family’s 1,000-acre farm because she wanted to “educate the public about agriculture.”

“There are so many people who have never been in a barn, and so many people don’t understand where their food comes from,” she says. “We need to become the ambassadors of agriculture.”

LEGACY AND LEARNING

A desire to teach more people about agriculture is also why Donnell and her husband, Billy, registered their farm with the state’s Century Farms program, which was established by the Tennessee Department of Agriculture in 1975 as part of the nation’s bicentennial celebration, and in recognition of those farms that have continuously operated within the same family for 100 years or more.

“It’s amazing how many kids have no idea where their food comes from. I think if you want people to value your farms and agricultural land, your green space, you have to help educate them,” says Laura Stewart Holder with the Middle Tennessee State University Center for Historic Preservation, which now oversees the Century Farms program. “We need to help people understand that without these farms, they wouldn’t have the food they eat. That’s a really important part of life – whether you live in a city or you live on a farm.”

The Donnell family settled their West Tennessee farm in the early 1800s.

“They came from North Carolina because they were looking for good cotton-growing ground,” Rose Ann Donnell says. “We still grow cotton...
on our farm today along with corn, soybeans, hay and Angus cattle.”

Billy Donnell is the fifth generation to farm the land, and son Andrew, who also works on the farm, is the sixth. Rose Ann Donnell says her hope is for their grandchildren to continue the tradition and keep the farm in the family.

**SOWING SACRIFICE AND REAPING REWARDS**

“The Century Farms program recognizes the dedication and contributions of the families who have been such great stewards of these farms,” Holder says. “Some of them have been in the same family for over 200 years, since before Tennessee was even a state. It’s really important to recognize those founders and those families, and all the work, effort and sacrifice they have put in to maintain these farms.”

Bruce Bacon, owner of a 115-acre hay and steer Century Farm in Washington County knows firsthand about the dedication, and sometimes sacrifice, associated with farming. Bacon’s great-great grandfather Robert Bacon founded the farm in the late 1800s, and it was eventually passed down to Bacon’s father, who grew tobacco and corn and raised dairy cattle.

“I remember Mama and Daddy using horses to pull the plow. We didn’t get a tractor until around 1952. They bought a tractor, mowing machine, disc, plow, all brand new for a total $2,800,” Bacon says. “Mama and Daddy milked by hand though, so they could never go anywhere. We never did go on vacations until we got milking machines. Sometimes Daddy would take us to Florida; he had a sister down there. But Mama had to stay home and milk. That’s the way it was.”

Bacon says he’s thankful technology has made farming more efficient for his children and more appealing to his grandchildren.

“I just like to see these family farms stay where they need to be,” he says. “Housing is taking over, and these days there’s always two or three farms down here for sale. But I want to keep this farm in the family name. I’ve got four grandkids, so they’d be the seventh generation. I just want to keep holding on.”

Holder says while Tennessee is growing and developing rapidly, it’s important to recognize the state’s agricultural and rural roots.

“When leaders are planning for cities to grow, expand and develop, it helps if they recognize some of these important historic sites that we still have and incorporate those into their planning for growth,” she says.

“Agriculture is not only a big part of Tennessee’s economy, it’s a part of the landscape of our state.”

– Teree Caruthers
THE OLDEST CENTURY FARM IN TENNESSEE, MASENGILL FARMS IN SULLIVAN COUNTY, WAS ESTABLISHED IN 1775.

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Source: Tennessee Century Farms
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The Tennessee Farm Bureau is the collective voice of Tennessee’s farmers – and so much more. Through its affiliated service companies, Farm Bureau enhances and protects the lives of nearly one in three Tennesseans.

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