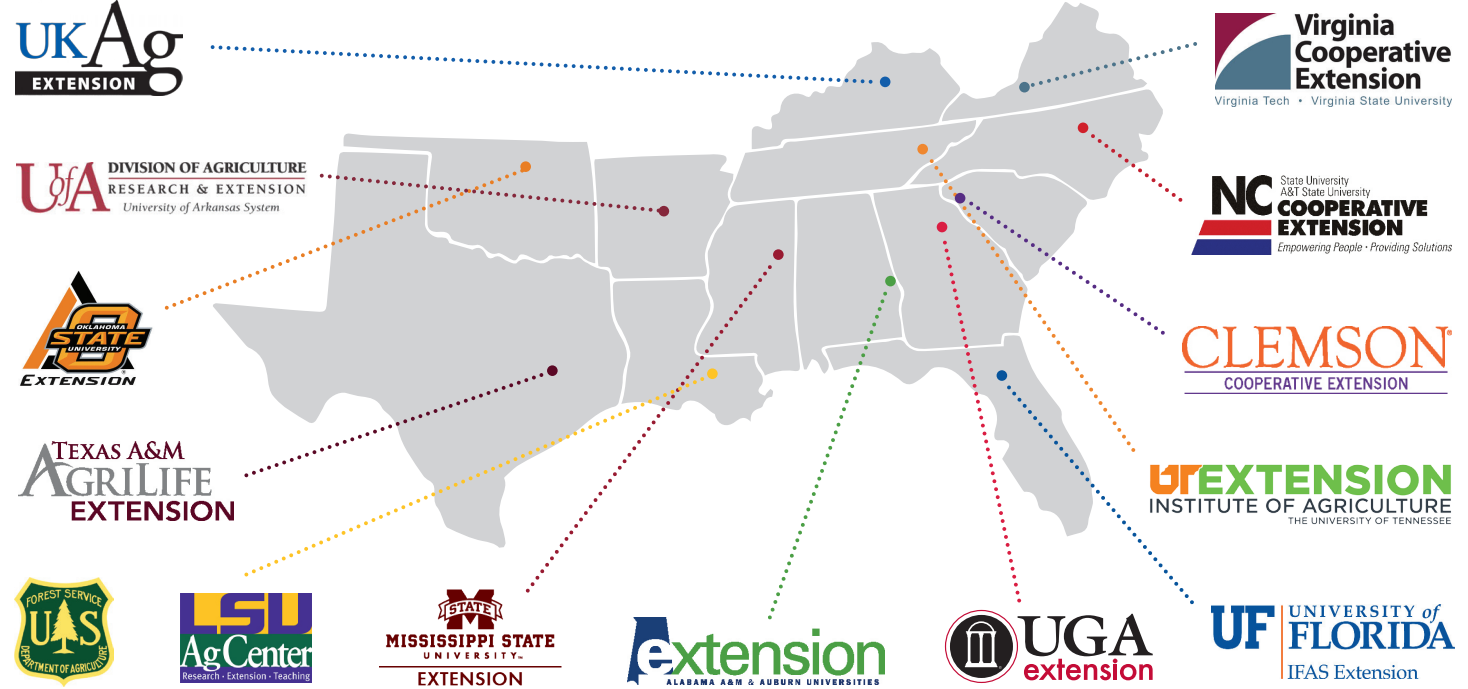




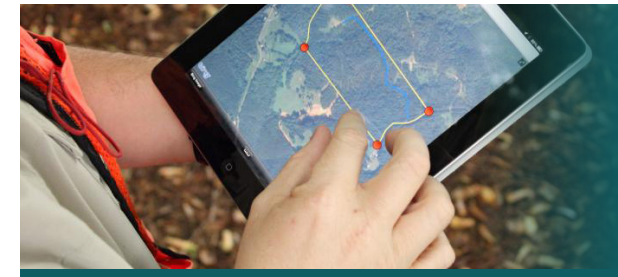
Southern Regional Extension Forestry

⌄ 2014 - 2015 Annual Report

Keeping you connected to an enlightened forest community.



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If you are familiar with the Southern Regional Extension Forestry office (SREF), you'll notice several significant changes within this year's annual report. In 2014 and 2015 we were fortunate to add several professionals who bring a wealth of energy, expertise and passion for Extension forestry in the South. They join a team that has served the region by providing regional responses to forestry and natural resources issues and opportunities. Throughout the

A Message from the

years, our goals and objectives have not changed. Our office was developed to serve the Southern Land-grant Universities and the USDA Forest Service through collaborative development of effective and efficient regional Extension programs.

The past few years have brought rapid change and opportunity in forestry and natural resources Extension in the Southern region. More informative and user-friendly Internet websites and mobile application development have turned forestry tools previously only accessed from books and manuals into interactive applications. The improvements in E-learning and webinar technologies have provided additional avenues for Extension. The past decade has also brought greater urgency and traction to address large, complex, hard-to-tackle issues such as climate change, forest health, bioenergy, forest restoration, urban issues, and wildfire management

that require greater coordination, action and new educational strategies, tools and technologies.

Through collaborations with other land-grant universities on grants and contracts, and funding from the U.S. Forest Service, the National Institute of Food and Agriculture, the Southern Group of State Foresters, and others, we have brought together regional teams of state and county Extension experts who work with federal, state and private partners to develop some amazing resources. We have enlarged our portfolio to embrace regional forestry impact economics as well as initiatives that focus on longleaf and shortleaf pine restoration to further the shared goal of economically, socially and ecologically diverse forests in the South.

SREF also works closely with state units to increase the scholarly approach to

Regional Forester

Extension programming. Applied research assists with program creation, prioritization, development, delivery, and evaluation. Through scientifically designed needs assessments, stakeholder analyses, and program evaluation techniques, we feel that the SREF office is providing leadership in this scholarship of engagement. Extension forestry in the Southern region is much more than factsheets, websites and workshops; it is a collective group of forestry and natural resource specialists fully cognizant of the issues and the means by which we address these issues. SREF is leading the way to greater impact with our individual and regional applied research programs.

In the coming year, the SREF office will continue its active engagement with Extension foresters and state agency professionals in every state in the Southern United States. As in previous years, SREF staff is more than willing to assist state

efforts by traveling to state and county meetings. We encourage you to contact us so that we can visit to describe the products, programs and tools that our office is developing in cooperation and collaboration with our partners. We continue to listen and gather input and information regarding ways that SREF can better serve you, the educators who empower thousands of forest landowners in the Southern United States.

Sincerely,

A handwritten signature in black ink that reads "William G. Hubbard". The signature is fluid and cursive.

William G. Hubbard
Southern Regional Extension Forester

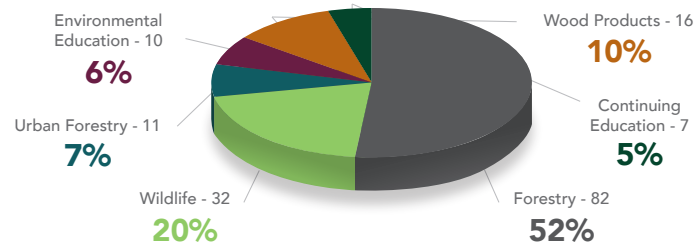
PARTNERS

- Auburn University
- University of Arkansas
- University of Florida
- University of Georgia
- University of Kentucky
- Louisiana State University
- Mississippi State University
- North Carolina State University
- Oklahoma State University
- Clemson University
- University of Tennessee
- Texas A&M University
- Virginia Tech
- USDA Forest Service

Extension Forestry & Natural Resource Capacity in the Southern Region

The Extension forestry and natural resources community in the Southern region consists of a cadre of state, regional and local county/parish based educators. These professionals have a diverse background and slate of responsibilities from forest management on private lands to urban forestry, wood and forest products, wildlife, and environmental education. These people

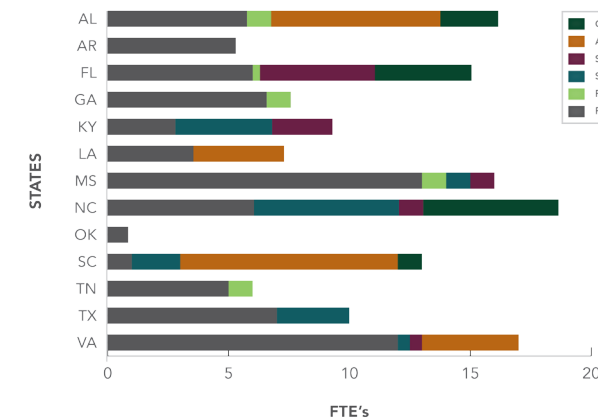
are on the university systems' front line for addressing current and emerging issues and opportunities and receiving valued input for the university community to respond to. The SREF office surveyed state coordinators to gather information on the numbers of specialists and agents by discipline, geographic responsibility, and funding source. The three graphs on this page summarize the results



Number of Persons Employed to Conduct Forest Resources Extension by Discipline in the Southern U.S.

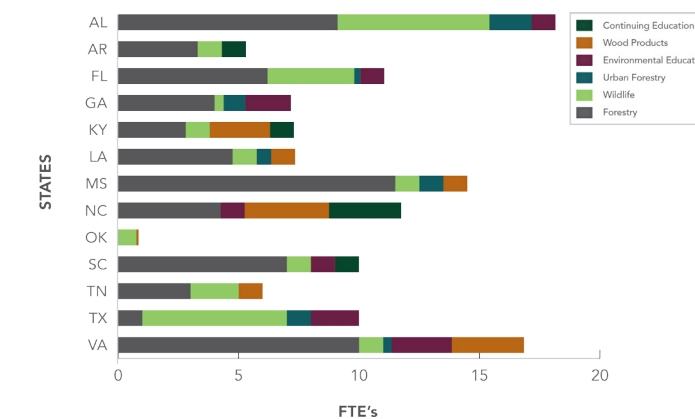
* Information for these FTE graphs was provided by representatives from each state.

of this survey and serve to show the tremendous diversity in capacity throughout the region. This network is extremely valuable and we make every attempt to connect with as many of these individuals as we can when we are developing regional Extension and education solutions. Survey results



Number of FTE's by Professional Status and State in the Southern U.S.

show that while there are over 150 state, regional and local professionals working on Southern forestry and natural resource programs, there are cases where their time is split between other duties such as teaching and research. All together there exists approximately 135 full time equivalents



Number of FTE's by Discipline Area and State in the Southern U.S.

(FTE's) in areas such as forestry, wildlife, wood products, urban forestry and environmental education. These professionals work at the state, region, district or county/parish level and are funded through various means including state, federal and grant funds.

State Updates:

ALABAMA

The Forestry, Wildlife, and Natural Resources Extension team addressed a wide array of topics and issues in 2014 and 2015. Programming involving enhancement of natural resources, management of human conflict issues and invasive species (both flora and fauna) remained a high priority.

Extension faculty coordinated the first residential high school forestry summer camp, traveled to Japan to present research on wild pigs, and hosted the Escambia Experimental Forest Anniversary Workshop focusing on longleaf pine management. Educational issues targeted in the many webinars, seminars, and workshops presented by Alabama Extension Forestry included the control of Chinese kudzu, bamboo, and cogongrass, as well as management of wild pigs, chainsaw safety, and the cultivation of pine straw for profit.

Extension forestry & natural resources professionals throughout the Southern region are charged with the creation and delivery of a variety of programs. Following are a few highlights for the years 2014-2015. The reader is encouraged to visit each states Extension forestry & natural resources website for more information. A map of these sites can be found at www.sref.info/resources/state-resources.

ARKANSAS

Community forestry, timber markets, woodland management, forest health, and the popular Women Owning Woodlands programs continued to be key areas for Arkansas Forestry Extension. The Arkansas Forest Resource Center, affiliated with Arkansas Cooperative Extension, offered continuing education programs to natural resource and forestry professionals such as the Certified Arborist Program and the Hardwood Management Program. In 2014, the Center hosted the biennial Wildlife Habitat Restoration on Private Lands Conference, which addressed the needs of professionals who work with private landowners in Arkansas and surrounding states to improve wildlife habitat. 2015 brought the redesign of Arkansas' Timber Price Report, which provides generalized prices to interested landowners with a reference for market conditions.

FLORIDA

University of Florida Extension staff spent 2014 and 2015 working to better understand audience needs and provide them with critical and useful information. They surveyed landowners to reveal their preferences for various aspects that could be used in future carbon offset programs; produced a web-based animated video - 'It's Time to Thin' - to help landowners learn about the benefits and process of stand thinning; explored how information processing and cognition can help improve how Extension agents approach the topic of climate change with audiences; and wrote, designed, and distributed over 5,500 copies of a comprehensive, 14-activity unit on southern forests and climate change to high school teachers through the Project Learning Tree network.

A particular success was the 2014 Bark Beetle Academy, an intensive workshop on the identification, biology, and management

of bark and ambrosia beetles targeting Cooperative Extension agents, insect identifiers from federal and state agencies, researchers, students, and forest managers. It was the largest and most comprehensive scientific and social event ever focused on these important forest pests and featured internationally-recognized presenters from around the world. The workshop had 35 participants from many countries who according to pre and post-tests increased their knowledge by an average of 50%.

GEORGIA

Extension Forestry at the University of Georgia had new or continuing focus areas in wild pig education, invasive species, longleaf pine restoration, youth environmental education, pond management, herbicide application, timber harvesting, timber taxation and economics, urban forestry, urban tree health, and nuisance wildlife management. In 2014 alone, Extension agents and faculty at UGA taught 231 continuing education courses, published 78 outreach/extension papers or non-technical reports and eight peer-reviewed book chapters or

articles, delivered presentations to over 12,800 citizens and stakeholders providing 471 hours of instruction, and delivered 20 hours of training to 45 ANR county extension agents.

By the end of 2015, Extension at UGA will have hired three new full-time outreach/extension faculty in wildlife, forest health, and economics & taxation and will have conducted two training workshops for 60 county ANR extension agents.

KENTUCKY

Forest health was a major focus area for UK Extension Forestry in 2015, specifically as it relates to eastern hardwood forests and the development of educational programs and information and tools for family forest owners to assess forest health. New science-based findings in Best Management Practices for water quality management spurred and continue to promote changes in timber harvesting laws. Extension played a pivotal role in policy development and continuing education programs for landowners and the forest industry.

LOUISIANA

Louisiana State University AgCenter's students and Extension Forestry staff were recognized for distinguished achievements in 2015. The Northwest Area Forester, Ricky Kilpatrick, was named Extension Forester of the Year by the Forest Landowners Association and LSU's Forestry 4-H team placed 5th nationally and had two students place in the top 10 individually.

LSU Extension Forestry staff hosted a workshop on economic losses associated with feral hogs and the development of humane hog controls. They also organized the 2015 Natural Resources Symposium Program, which focused on the maximization of tree farm value. Key programming areas were feral hog damage mitigation, emerald ash borer identification, economic and financial techniques for forest landowners and tax and estate planning. These will be continuing issues for the state into 2016.

MISSISSIPPI

The State University Extension Service's forestry faculty and staff were the recipi-

ents of the 2014 Family Forest Education Award presented by the National Woodland Owners Association and the National Association of University Forest Resources Programs (NAUFRP). This award, which was presented at the 2014 Society of American Foresters National Convention in Salt Lake City, was in recognition of MSU's comprehensive family forest education efforts, their productivity and creativity, and volume of scholarship in Extension education that they produced from 2009 to 2013.

Throughout the past two years, the Mississippi Forestry Extension program achieved its main goal of increasing the productivity, effectiveness, efficiency, and profitability of its clientele by disseminating new research and technologies statewide. Extension agents conducted 50 county forest landowner workshops for 1,800 participants owning or managing 170,000 acres.

NORTH CAROLINA

The College of Natural Resources Extension faculty and staff linked the three key program areas of conservation, working lands, and

national defense by finding economic models that keep working lands in production, aiding the military in managing land for conservation, and advancing critical conservation goals like the restoration of the longleaf pine ecosystem. Extension Forestry has obtained over \$4M in grants, educated over 3,000 natural resource professionals, assisted over 20,000 private landowners, and improved the management of over 1 million acres of working forest land in three states in the last few years alone.

Moreover, NCSU's tourism Extension faculty just completed a study of the benefits of agritourism in North Carolina and initiated a new "North Carolina Birding Trail Partnership." The wood products Extension faculty and staff prepared "An Economic Impact Analysis of the U.S. Biobased Products Industry" with partners.

OKLAHOMA

Oklahoma Extension forestry in the Natural Resource and Ecology Management Department (NREM) at Oklahoma State University continued to specialize in fire ecology, prescribed fire and wildlife management

outreach, hosting three USDA NRCS Fire School workshops and three workshops on quail management in 2015. Extension displayed its longstanding commitment to youth education by preparing the 58th and 59th Oklahoma Youth Forestry Camps and preparing for the 60th such camp for 2016.

Two NREM graduate students in forestry won 1st and 2nd place out of 30 participants in the graduate student poster competition at the 2014 Pine Integrated Network: Education, Mitigation, Adaptation Project (PINEMAP) annual meeting at the University of Georgia.

TENNESSEE

2014 was an exciting year for Extension forestry at the University of Tennessee. Faculty and staff celebrated the 50th Anniversary of the University of Tennessee's Department of Fisheries, Wildlife, and Forestry, organized a series of Tennessee Healthy Hardwood Regional Field Days, continuing education programs for natural resource professionals, and continued to focus many of their efforts to educate landowners and forestry professionals about timber taxation. Other edu-

cational programs in 2015 focused on the establishment and management of mixed pine-oak stands, diameter limit cutting and the rehabilitation of degraded stands.

SOUTH CAROLINA

2014 and 2015, Clemson Extension forestry published 7+ state-focused fact sheets on forest management and economics; organized workshops on longleaf pine and hardwood management for wildlife; and hosted a series of online continuing education programs on timber taxation, forestry ethics, coyote control, and other topics. Other significant events in 2015 were the Tree Improvement and Forest Production Workshop and the Certified Tree Farm Inspector Workshop. Additionally, Extension continued to offer its successful Master Wildlifer Program in 2014 and Master Naturalist Program in 2015.

The Wood + Design Institute at Clemson received USDA's 2015 Wood Innovations grant to fund the development of new and innovative uses of wood and started work on a nail-free wood-based structure called Indigo Pine.

TEXAS

2015 was the Texas A&M Forest Service's 100th year of service to forests and communities, and the agency celebrated in grand style by sending 100 trees to 100 Texas communities.

Urban forestry was an important topic for Texas A&M Forest Service over the past couple of years. A highly successful podcast, *Trees are Key*, communicated tree care tips to the public. Texas forestry affiliates published the Centennial Edition of 101 Famous Trees of Texas, and staff produced and distributed a series of videos on proper tree planting for the fall season. Fire was also a prominent issue for Texas A&M Agrilife Extension and the Texas A&M Forest Service in 2015. Researchers and Extension specialists sought to adapt maps created by the USDA Forest Service based on large wildfires to assist landowners in making decisions designed to prevent and suppress wildfires and released *Living with Texas Fire*, a series of 20+ videos about fire ecology and prescribed fire education targeted at Texas landowners and available free of charge on YouTube.

VIRGINIA

Virginia Tech's Extension forestry program team conducted over 500 educational programs to reach 180,000 residents directly or indirectly and engaged regularly with forest landowners, businesses, and policy makers. Some of these programs included the Virginia Master Naturalist Program, the Geospatial Technician Education (GeoTEd) Initiative, and the innovative Generation Next! series of short courses. These courses engaged 149 individuals (79 landowner family units) in successional planning over the past five years. The Virginia Master Naturalist Program is a statewide corps of more than 2,500 trained volunteers providing education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities. The GeoTEd initiative created and now offers dozens of new GIS-courses, developed seven new geospatial technology pathways and reached hundreds of high school students through participating teachers.

SREF OVERVIEW

HISTORY

In 1979, the thirteen Southern 1862 land-grant institutions and the USDA Forest Service signed a cooperative agreement creating the Southern Regional Extension Forester position to serve as a liaison role between the USDA Forest Service and the collective land-grant Extension system in the South. Staff of the office regularly participate in regional programming, representation, promotion, and communication within the forestry and natural resource communities.

Mission:

The goal of the Southern Regional Extension Forestry Office is to serve the Southern Land-grant University System and forestry professionals by collaborative development of forestry technologies and programs that improve the efficiency, effectiveness and relevance of supporting institutions.



Who We Are:

William G. Hubbard
Southern Regional Extension Forester

Leslie Boby
Extension Associate - Climate Change and Bioenergy

Dan Geller
Extension Associate - Climate Change and Bioenergy

Holly Campbell
Extension Associate - Forest Management

David Coyle
Extension Associate - Forest Health

Evelyn Denzin
Technical Writer

Steven Weaver
Ext. Associate - Geospatial Apps & IT Programmer

Darryl Outlaw
IT Senior Manager

Daniel Drummond
IT Programmer & Mobile Applications Director

Diane Pritchett
Business Manager

Brent Peterson
Director of Communications & Media



Laura Costa
Director of Marketing & Graphic Design

Sommers Creed
Student Graphic Designer

Connor McDonald
Student Worker

Katie Sanders
Student Worker

PROGRAMMING AREAS & INITIATIVES

Bioenergy

- IBSS

Climate & Weather

- CLN
- PINEMAP

Forest Economics

- Forest Product Locator

Forest Health & Invasive Species

- Southern Forest Health

Forest Restoration

- RAmerica
- Shortleaf Pine Initiative

Urban Forests

- Urban Trees

Wildland Fire

- Cohesive Fire Strategy



Photo Credit: Leslie Bobby

BIOENERGY

IBSS: Southeastern Integrated Biomass Supply Systems

SREF staff continued to engage with the Southeastern Partnership for Integrated Biomass Supply Systems (IBSS), leveraging its Extension and outreach expertise to focus on IBSS' three primary goals: the demonstration of real-world solutions to address economic and environmental barriers that limit sustainable and reliable biofuels productions, the development of new tools and metrics for

biomass to biofuels production, and the integration of education with the goals of raising awareness of the biofuels among the general public and training a workforce skilled in biofuel production and use.

To further these goals, SREF developed an integration summary report that allowed team-members to reflect on their stakeholders and messages. The report will be used for targeted outreach as the project finishes. In addition, SREF helped promote bioenergy education through UGA's Bioenergy days in 2014 and 2015 through exciting games of "Bioenergy Jeopardy," with more than 400 7th grade student participants. SREF continues to co-produce factsheets on bioenergy policies, feedstocks and analysis of public perceptions. SREF also co-sponsors a series of bioenergy webinars for natural resource professionals, policy makers, industry representatives and others. This series, affectionately known as the "Bucket to Barrel" series has been very successful to date. For more info please visit bioenergywebinars.net.

Visit www.se-ibss.org for more information.

CLIMATE & WEATHER

CLN: Climate Learning Network

SREF has provided leadership in the creation of an eXtension learning network on climate change. This network, known as the Climate Learning Network (CLN), will connect Cooperative Extension professionals and facilitate peer-to-peer learning. This project is co-funded by the Office of the Chief Economist (OCE), USDA and the eXtension Foundation, and began in January, 2015 with the hiring of an Extension Associate in climate change.

The Learning Network, which is currently in development, includes input from the USDA Climate Hub leadership as well as experts working on climate change in the land-grant universities. For phase one of the project, SREF surveyed climate hub leaders, developed a database of agriculture and forestry professionals in the Eastern US, and is in the process of creating six online Moodle® learning modules for the eXtension site based on a series of webinars hosted by climate experts and delivered in the final quarter of 2015.

Phase two expansion has been funded to include the Pacific Northwest Climate Hub in the Network and the development of additional, targeted Moodle® modules. Discussions are underway to expand the Learning Network to all Climate Hubs in the country in a manner that ensures the development of powerful tools that are adaptive to users' needs at various scales.

For the next phase, SREF staff will survey agricultural and forestry professionals in the Eastern United States to better understand how the CLN can meet their needs and how to provide content that is relevant to them.

PINEMAP: Pine Integrated Network: Education, Mitigation and Adaptation Project

Another climate initiative is the Pine Integrated Network Education, Mitigation and Adaptation project (PINEMAP). PINEMAP's goal is to increase planted pine resiliency, environmental sustainability, and mitigation impacts



Photo Credit: Leslie Bobby

in the Southern region of the United States by providing the information necessary to adapt management approaches, increase carbon sequestration, and reduce fertilizer use. PINEMAP, a NIFA AFRI CAP program includes over 80 researchers from 12 southern land-grant universities and the federal government, as well as an extensive Extension team.

In 2014 and 2015, SREF organized activities for the Extension team and co-developed Extension materials and webinars for professional foresters, landowners, policy makers, and youth. In 2014, SREF staff produced five fact sheets for landowners and foresters,

assisted in four workshops for Extension agents, facilitated webinars, organized the Southern Region Extension Climate Academy (SRECA) to train Extension agents from across the Southern region on climate science and forest resiliency, and created an infographic factsheet on Southern foresters' views on climate change.

In 2015 SREF focused on providing essential information concerning ways to reduce risks and increase profits for pine plantations under uncertain future conditions and to equip them with the latest developments in science and technology.

Visit www.pinemap.org for more information.

FOREST ECONOMICS

Highlighting the Economic Importance of Forestry

SREF partnered with the utilization and markets subcommittee of the Southern Group of State Foresters (SGSF) to create

several products designed to celebrate, highlight and communicate the importance of the forest industry in the Southern United States. SREF staff developed 2014 and 2015 regional fact sheets on the importance of forestry in the South in partnership with Mississippi State University Extension Forester James Henderson. Additionally, SREF co-organized a summit on forest economics and IMPLAN modeling that engaged experts from the Southern region. A major purpose of the meeting was to work towards development of a standard state-level methodology for analyzing



IMPLAN data. To complete this effort, partners from MSU, LSU, TAMU, and the University of Arkansas co-developed a survey assessing analysis methods. The survey was launched in October, 2015 with results expected by early 2016. Additionally SREF staff have designed and launched a one-stop-shop website to host forestry economics information and products from across the southern region.

Visit www.forestproductslocator.org and www.forestryimpacts.org for more info.

FOREST HEALTH

Southern Forest Health

SREF staff increased in August, 2015 with the addition of an Extension Forest Health Specialist to focus on collaborating with state Extension and forestry agencies to develop a regional training and education program that will supply information and correct misinformation about pine health, pests, disease, invasive species,

and other important forest health issues in the Southern region. The goal of the program will be to create materials and a standardized curriculum that can be used to ensure consistent education among state and local Extension agents in the Southeastern U.S. Planned materials and outreach efforts include workshops, town hall meetings, hardcopy material, webinars, social media outreach, an extensive web presence and other e-Learning modules.

FOREST RESTORATION

Shortleaf Pine Initiative:

There has been a significant decline in shortleaf pine forests and associated habitats in the Southeastern US, and the Shortleaf Pine Initiative (SPI), funded by the USDA Forest Service, was formed in 2013 to address these declines. In 2014, SREF Extension Associates assembled a literature library of more than 250 articles, identified 20 authors to write fact sheets on shortleaf pine growth and management,



Photo Credit: Bill Pickens

compiled 100+ photos of shortleaf pine, and performed hours of research in preparation for overhauling the Initiative's web page at shortleafpine.net. SREF also continued to coordinate with numerous federal, state, and private partners, including state Extension, to promote SPI through marketing, educational products, and other support.

In 2015, SREF completed 17 shortleaf fact sheets and launched **shortleafpine.net** as the go-to source for shortleaf pine information on the web featuring fact sheets, nursery, cost-share, and regional

expert contact lists, an online site suitability mapping tool, a regional events listing and calendar, and pages detailing the Initiative's purpose and history. In addition, SREF staff worked on the Regional Shortleaf Restoration Plan; co-planned the 3rd Biennial Shortleaf Pine Conference; developed a social media plan for the Initiative on Facebook and Twitter; attended numerous regional shortleaf pine-focused workshops to present information on the SPI and network with relevant contacts, showcased products related to the SPI, and created educational video presentations to be housed on the SPI website and YouTube.

URBAN FORESTS

eXtension: Urban Trees for Energy Conservation

SREF staff has been involved in urban forestry in a variety of ways. The Urban Trees for Energy Conservation (UTEC) project aims to educate Extension agents and the public on the value of urban

forestry as an energy conservation tool while providing practical and technical advice on urban forestry topics like: tree planting, placement, and maintenance, energy conservation, etc. Initial funding in 2012 provided for the creation and population of a comprehensive website, Trees for Energy Conservation, housed on the eXtension website: www.extension.org/trees_for_energy_conservation

Currently, the website includes multiple resources from articles and FAQs to archived webinars and e-Learning modules



Photo Credit: Ed Macie

SREF Annual Report 2014 - 2015

such as the Urban Forestry Moodle® course (a free online training in urban forestry developed by SREF). A notable feature allows users to engage urban forestry experts by "Asking an Expert." The second phase of the project, the creation of an urban forestry and energy conservation video series in collaboration with Virginia Tech, began in mid-2015. Completion of the video series is expected by Fall, 2016.

WILDLAND FIRE

National Cohesive Wildland Fire Strategy

The National Cohesive Wildland Fire Management Strategy (Cohesive Strategy) is a multi-agency effort to increase the safety and effectiveness of wildland fire response across US through engagement and collaboration with federal and state agencies and firefighting and forestry professionals. SREF staff has been helping with many aspects of the regional Cohesive

Strategy effort in the South. SREF staff designed and created **southernwildfire.net**, a comprehensive website providing wildland fire prevention and safety information to residents of the Southeastern US. SREF contributed significantly to the website's content by writing 30+ southern success stories, or "Models for Action" which demonstrate successful wildland fire management or prevention programs and successful prescribed fire use examples in the 13 southern states, Puerto Rico, and the Virgin Islands. Additionally, SREF surveyed Extension professionals in the South to gauge their interest and involvement in wildland fire programming and conducted a social network analysis (SNA) to identify the relationships between Southeastern stakeholders affected by or involved in various sectors of wildland fire management, mitigation or restoration.

Visit www.forestthreats.org for more information.



PROFESSIONAL DEVELOPMENT

We keep forestry, natural resource, and extension professionals up to date on skills and knowledge by facilitating, creating, and providing training opportunities through webinars, workshops, conferences, online learning modules, and various educational websites



EDUCATION & OUTREACH PRODUCTS

We produce fact sheets, videos, and interactive websites. We engage the public through social media and online networking. We bolster existing Extension and other educational systems within the forestry and natural resource community to extend relevant research to the public.



APPLIED RESEARCH

We apply the latest methods to perform research that informs the forestry and natural resources Extension and education field. This includes audience and needs assessments, social network analyses, program evaluation, and implementation of the logic model for effective program development, implementation and evaluation.



TECHNOLOGY TOOLS & DEVELOPMENT

We design and create essential tools to increase the effectiveness of natural resource, forestry, and Extension professionals. This leads to new technologies such as decision support systems, mobile applications and highly interactive Internet sites.

PRODUCTS & TECHNOLOGY

INTRODUCTION

The SREF Office employs several specialists with expertise in developing various Internet and mobile applications, geographical information systems (GIS), and decision support systems (DSS). The following is a very brief summary of some of the innovative activities undertaken in 2014 and 2015.

WEBSITE DESIGN & DEVELOPMENT

Forest Products Locators: www.forestproductslocator.org

These websites are portals for interactive online databases of businesses and production facilities dedicated to the manufacture, preparation, and sale of a diverse array of products derived from trees and forests. The Portal is split into two sections based on their location in the production chain of forest resources from stump to final product: Primary forest products, such as lumber, plywood, pulp, paper and other wood products using roundwood logs as a raw material are available at the Primary Forest Products Locator site and secondary forest products, such as furniture, wood fixtures, molding, trusses and other engineered wood products using products from primary mills as inputs are located at the Secondary Forest Products Locator Site.

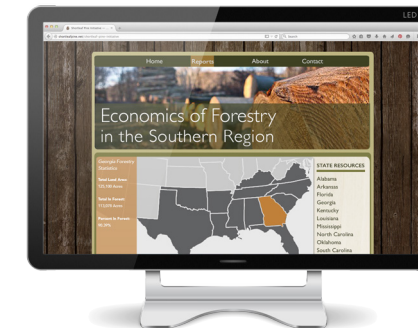
- Features:
- Fully searchable and interactive database
 - Customizable location maps
 - Frequently updated directory of mills, businesses, and production facilities



Forest Economics: www.forestryimpacts.org

This website houses state and region-wide forestry economic reports, as well as links to relevant resources. Effectively, this site is a one-stop shop for forest economic data and factsheets. Having this single resource will make it easier for anyone searching for forest economic data to find the correct information. All reports and information have been vetted by our partners.

- Features:
- Regional and statewide fact sheets
 - Interactive Tools
 - Easily searchable website

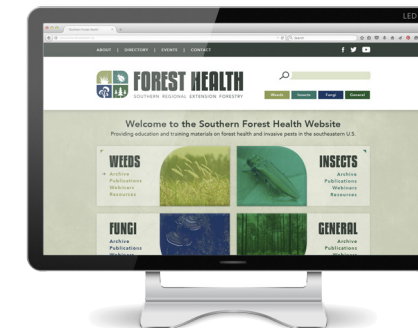


Forest Health: www.southernforesthealth.org

COMING SOON

This website will connect county and regional Extension agents as well as other forestry and natural resource educators to up-to-date, streamlined resources about forest health and invasive species. A collaboration between SREF's new Forest Health Extension Associate and the USDA Forest Service State & Private Forestry, the site will be a significant step towards unifying the forest health and invasive species narrative in order to provide accurate and relevant information to forest landowners and their managers in the Southeast.

- Features:
- Regional fact sheets
 - Professional webinar and video content
 - A searchable database of educational resources that cover all aspects of forest health in the southeast region





Reforestation, Nurseries and Genetics Resources (RNGR): www.rngr.net

A partnership between Southern Regional Extension Forestry and technical specialists with the Reforestation, Nurseries and Genetic Resources (RNGR) program whose mission is to supply people who grow forest and conservation seedlings with the very latest technical information, and to provide links to other organizations and individuals with similar interests.

- Features:
- A database of over 7,000 technical articles, many available in PDF format
 - Full online edition of the Container Tree Nursery Manual
 - A national nursery and seed directory
 - Calculation tools to assist the reforestation and restoration communities
 - An interactive online forum for nursery managers and forestry professionals



Restore America (INREFA): www.restauramerica.info COMING SOON

La Iniciativa de Rehabilitación Forestal de las Américas (INREFA) website will house Spanish language materials related to the rehabilitation and conservation of forested ecosystems to connect researchers and practitioners working in natural resource management and to increase the effectiveness of restoration efforts.

- Features:
- An online forum to increase collaboration and communication among Spanish speaking researchers and forestry professionals in the Americas
 - An on-line library of forest nursery and seed manuals and academic papers
 - Hosted webinars and FAQs

Shortleaf Pine Initiative: www.shortleafpine.net

SREF staff designed and developed shortleafpine.net to be the go-to resource for shortleaf pine on the web as well as the headquarters of the Shortleaf Pine Initiative. This site contains technical information for shortleaf restoration and management, including a GIS decision support tool.

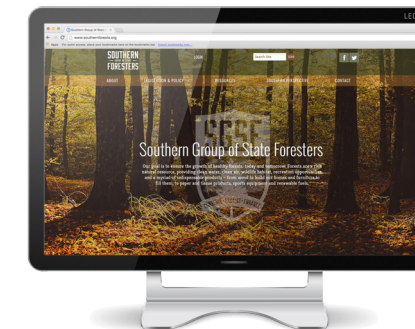
- Features:
- 20+ fact sheets by subject experts on all aspects of growing and managing shortleaf pine
 - A fully interactive GIS site suitability and decision support tool
 - A directory of nurseries at which shortleaf pine seedlings may be available

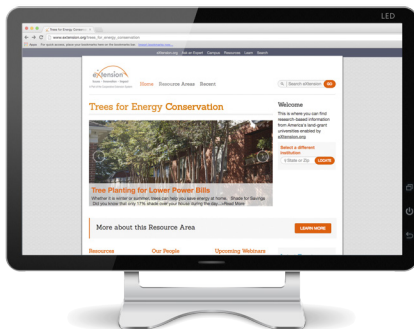


Southern Group of State Foresters: www.southernforests.org

SREF IT staff created the infrastructure and concept for the original layout of the popular Southern Group of State Foresters (SGSF) website. The site is maintained on SREF servers, but new content is produced and managed by SGSF staff through the site's easily navigable, PLONE-based content management system.

- Features:
- A resource database with graphical interface
 - Easy navigation
 - Intuitive content management system

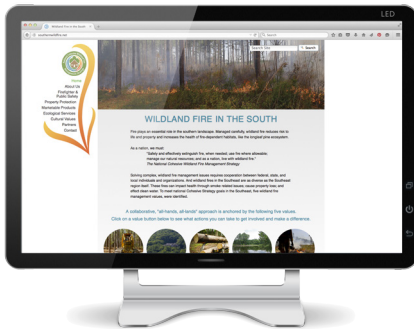




Urban Trees: www.extension.org/trees_for_energy_conservation

A nationwide online, interactive, and educational resource, designed within the eXtension platform, specifically geared toward providing businesses, developers, communities and the broader public with an understanding of the vital role trees can play in reducing energy demand.

- Features:
- 63 published articles
 - 105 published FAQs
 - Ask-An-Expert participation
 - High-quality photo library



Wildland Fire in the South: www.southernwildfire.net

A collaboration with the National Cohesive Wildland Strategy, the wildland fire in the South website is intended to educate the public about the benefits and risks of wildland fire in the South and to provide examples for minimizing those risks. It includes activities and tasks to reduce the risk and contribute to the greater strategy addressing wildland fire across the South.

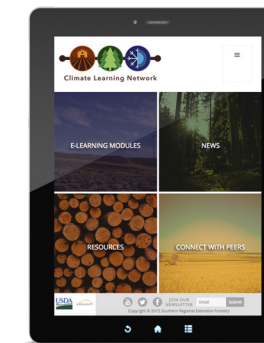
- Features:
- 30+ Models for Action (MFAs) that demonstrate successful community responses to wildfire prevention

e-Learning

Climate Learning Network: www.climatelearningnetwork.net

An interactive website that will house the materials produced by the Climate Learning Network in collaboration with the USDA Climate Hubs.

- Features:
- 10 innovative interactive e-Learning modules delivered by experts in climate science, forestry, and agriculture and created by SREF staff
 - A forum for peer interaction
 - Resources on the effects of climate variability on forestry and agriculture

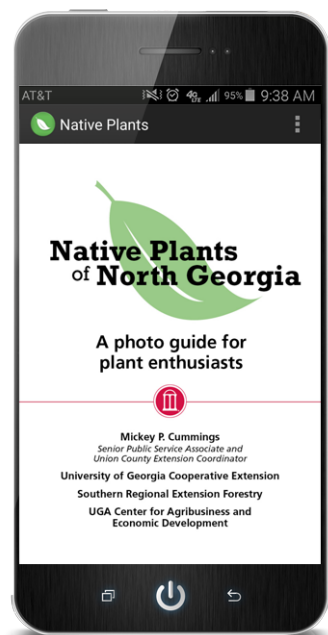


e-Learn: urban.elearn.sref.info

State-of-the-art online, distance-learning programs geared towards professionals, natural resource planners, landscape architects, city officials, public works employees and others.

- Features:
- Flash-based interactivity
 - Professional video & audio
 - Articulate software enabled
 - International Society of Arboriculture and Society of American Foresters CE credit eligible





MOBILE APPS

Native Plants of North Georgia

This quick and easy app is the equivalent of a pocket guide to the native plants of North Georgia. Plants are searchable by bloom time, common name or scientific name. The app is based on a book of the same name and was created in collaboration with the University of Georgia and the Extension Mobile Application Development Program.

- Features:
- Full color photographs
 - Brief plant descriptions
 - Easily searchable
 - Available on Google Play and the Apple Store

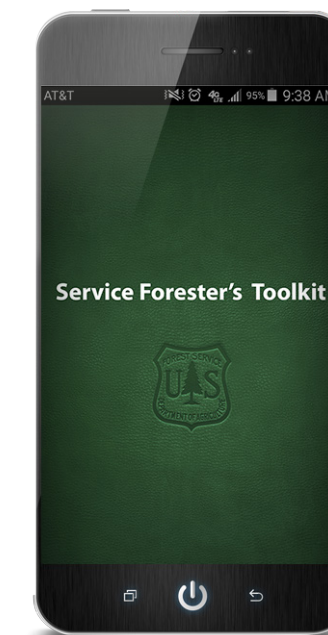


Service Forester's Toolkit

SREF IT staff, in collaboration with UGA's Extension mobile application developers, updated, designed and published an electronic, interactive version of the 135-page Service Forester's Handbook that features the latest information including calculators on soil texture, site index, basal area, and tree stand density in addition to other useful tools. Staff continued to improve the application throughout 2014 and 2015, making it compatible with both Android-based smart phones and tablets as well as Apple products.

In 2015, SREF began to work with the Southeastern Regional Climate Hub (SERCH) to incorporate climate change information, data, and tools into the existing Service Forester's Toolkit. These changes along with updates to the Toolkit's facts, tables, and figures will constitute the forthcoming Service Forester's Toolkit 2.0.

- Features:
- Content updated from the Service Forester's Handbook
 - Helpful charts and graphs
 - Basal area and tree stand density calculators
 - Site index and soil texture tools
 - Available on Google Play and the Apple Store

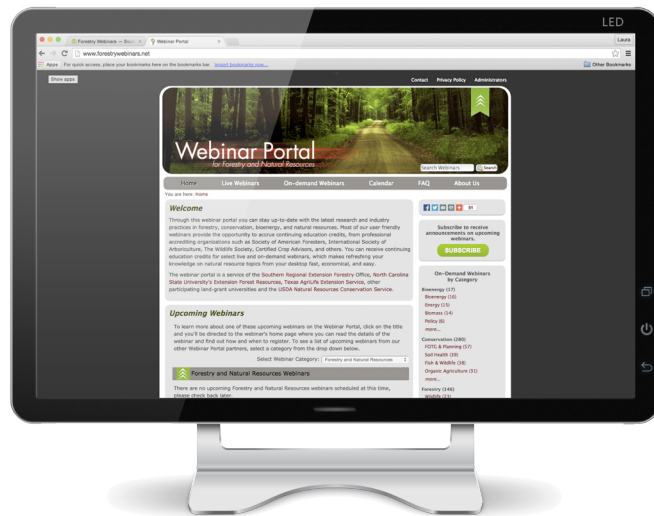


WEBINAR PORTALS

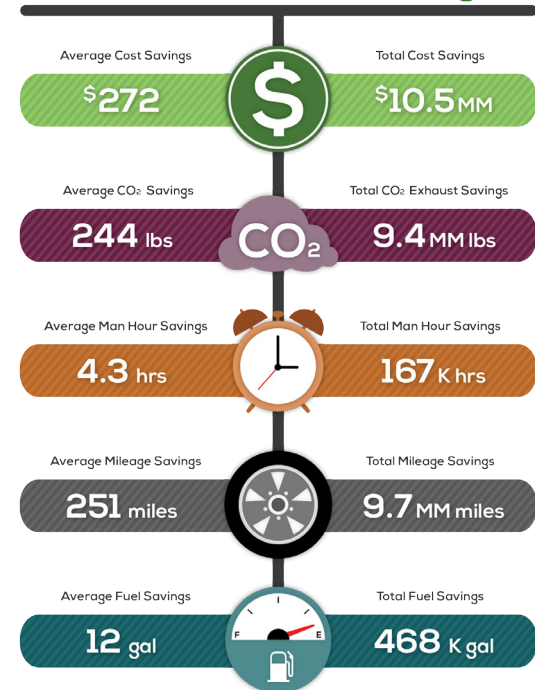
Professional Development Webinar Series

Through the first 10 months of 2015, participation in live and on-demand webinars at SREF's webinar portals increased to over 38,000 viewers. The webinar portals have served the Southern region and beyond for several years by providing webinars in multiple disciplines including forestry, natural resources, conservation, bioenergy and climate science. NCSU Extension, Texas A&M Agrilife Extension and SREF partnered with the US Forest Service, SGSF, the Natural Resources Conservation Service (NRCS), and other stakeholder groups to ensure that these webinar portals are reliable resources for professionals seeking continuing education credits as well as for the public sector, private individuals and students interested in learning more about and staying abreast of the latest topics, practices and issues. Specialty branded portals and content now exist at ForestryWebinars.net, ConservationWebinars.net, BioEnergyWebinars.net, ClimateWebinars.net and SustainableForestsWebinars.net.

These websites provide free of charge webinar viewing to participants and are robust, content management style portals with access to live and on-demand content, certification, marketing tools, green savings and impact calculators, social media and now ranking/rating tools.



2015 Green Savings

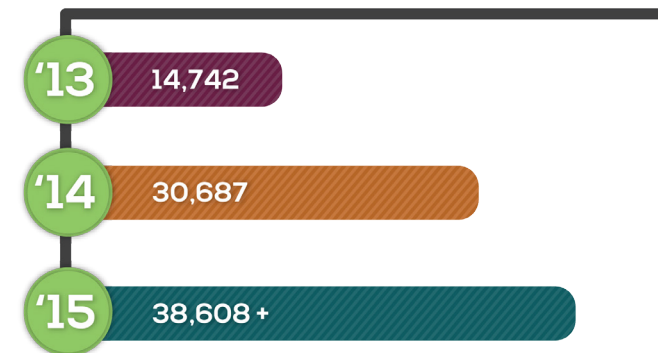


AVERAGE WEBINAR RATING



RATED BY **6,300** PARTICIPANTS

TOTAL WEBINAR VIEWS FROM 2013-2015



GENERAL PRODUCTS

Logo Design

Logo design has become one of the key services SREF's graphic design team offers to its affiliates since the new Director of Marketing and Graphic Design started in early 2015. SREF design staff work closely with partners and colleagues to develop an attractive and cohesive set of logos and brand marks tailored to express the unique personality of products, websites, publications, and organizations.



Climate Learning Network



FOREST HEALTH

SOUTHERN REGIONAL EXTENSION FORESTRY

Publications

Attractive templates, typography, and graphic design greatly enhance content already prepared by SREF's affiliates, and SREF writers and editors are skilled at writing new content with a variety of different datasets. SREF's team of designers and communications writers provide services at all stages of editing and preparing content for publication. Recent publications prepared include the Forest Products Directory, 20+ Shortleaf Pine Fact Sheets, and a series of Success Stories for the National Cohesive Wildland Fire Strategy.



2016: The Road Ahead

As we complete this summary of our achievements and the achievements of our partners, we turn our attention towards the challenges and opportunities for the coming year. Serving the Southern Land-grant University System and improving and expanding forestry education for professionals, Extension agents, landowners and others in the South will remain our primary focus.

To that end, we will continue to provide a variety of services to the Southern Land-grant Universities, the USDA Forest Service, and forestry agencies in the Southern United States while connecting them to the latest developments in science, technology, and research. SREF staff will also engage with Extension foresters and natural resource professionals throughout the South including participation in state and county meetings where appropriate.

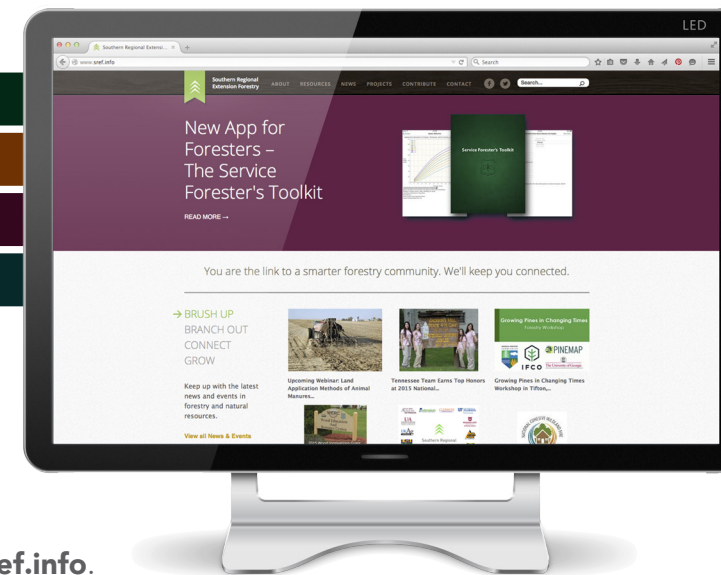
The completion of the website to house eXtension's Climate Learning Network (CLN) and the finalization of the first six e-learning modules will be major objectives for 2016. Launching the Forest Health and Invasive Species and the Forest Economics websites and laying the groundwork for Restore America's internet presence will also be key projects. Additionally, SREF will seek out further opportunities and work with the southern forestry community to develop a center

focused on more effective delivery of information and education to the South's family forest owners. These efforts include practical and applied research and the development of tools to meet forestry professionals' needs so as to augment their ability to engage, educate and empower. Finally SREF will continue our work with our partners and collaborators through our many programs and initiatives while exploring new possibilities for projects and collaborations.

The office of Southern Regional Extension Forestry and our colleagues at the 13 Southern Land-grant Universities have set a high standard with the accomplishments of 2014 and 2015. With expansion of our staff and resources in the areas of forest health, climate science, and marketing and communications as well as exciting new opportunities for collaboration with our Extension partners, we enter 2016 fully expecting to meet and exceed that standard.

HOW CAN WE HELP YOU?

Email us at contact@sref.info or visit www.sref.info for more information.



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Southern Regional
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