

CU IN THE WOODS

Clemson Extension Forestry and Wildlife Newsletter



Smartphones, More Than Just a Communication Device for Forest Landowners

By Jeff Fellers

Though the first cell phone was released in the early 1990s, most of us probably did not go out and buy one right away. The majority of us probably did not get a smartphone until the early 2000s. It was not until Apple launched the first iPhone in 2007 that the smartphone world was set on fire. Since that time, the capabilities of smartphones have increased drastically. They are now often used as tools with many applications (apps) that help forest landowners better manage their forests.

There are numerous devices available to forest landowners to access technology. Smartphones, computers, GPS units, and tablets, just to name a few. With the evolution of smartphones and the apps associated with them, many forest landowners no longer need computers, GPS units, or tablets to access the new technology. Now, some forest landowners do not want to fool with new technology or smartphones. That is ok. Utilizing new technology often provides a great opportunity to get younger generations involved in property management.

This article will look at how technology can be used and some of the apps available that may interest forest landowners. Some apps are free, and others may be purchased. Keep in mind; it is impossible to list all the applications that are available for forest management. It can often be very beneficial to talk with other landowners and see what apps they use and like.

Mapping – Mapping can provide a birds-eye view of a landowner's property. It can be used to delineate timber stands, wetlands, food plots, calculate area, or just view aerial photographs. Many of the apps available have the option to reference the smartphone's GPS and automatically locate your position. Below are some apps and webpages that may be of interest.

Google Earth – Available for free on both mobile devices and computers. Projects can be edited on the computer and then viewed on a smartphone. It also has a time slider that allows a landowner to look at aerial photographs from different years. This is a great tool for landowners. The user interface is probably one of the easiest to use. Google Earth can be downloaded at <https://www.google.com/earth/>. The app is available for both Android and Apple devices.

UPCOMING EVENTS

Women Owning Woodlands

Virtual Winter Workshop Series

4-part webinar series, which will highlight financial considerations of forest land ownership, as well as managing for forest health. All webinars are from 7pm- 8:30pm.

January 19th-

Federal Income Tax Considerations for Timber

February 2nd-

Land Succession & Estate Planning

February 16th-

Forest Pest I.D. & Management

March 2nd-

Invasive Plant I.D. & Management

Approved: 5 Hours of Category 1 CFE Credits

Click here to register:

https://secure.touchnet.net/C20569_ustores/web/product_detail.jsp?PRODUCTID=4017

Half and Half Webinar

Conservation Easements for Working Forests and Wintertime Invasive Plant Control

January 20th at 1pm

Click here to register: <https://clemson.zoom.us/j/98668915573?pwd=OHIFZU4ybmk2cGw4aIB0cXhmQWhPQT09>

Wild Hog Management Webinar

This free webinar will discuss the history, biology, ecology, and management techniques for wild hogs in South Carolina.

February 16th at 6-8 pm

Click here to register:

tinyurl.com/HogWebinar

Southern Region Extension Forestry-Woodland Stewards Program

Weekly live webinar presentations about topics that will help woodland and forest landowners manage their woodlands. All are at 1pm.

February 2nd-

Woodland Management by Objectives: Taking Stock & Making Plans

February 9th-

The Digital Toolbox for the Woodland Owner: There's an app for that!

February 16th-

Safety Tips for working in Your Woods

February 23rd-

Getting Started Managing Your Land

Click here for more information:

<https://sref.info/woodland-stewards/2021>

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Smartphones, More Than Just a Communication Device for Forest Landowners Cont.

Avenza Maps – A free program with options to purchase different maps. The app gives the option of using the program offline when cellular service is lacking. This is one big difference from some of the other mapping programs. This program is a little harder to use than Google Earth but may give you a few more functions. For more information on Avenza maps, visit <https://www.avenzamaps.com/>. The app is available for both Android and Apple devices.

My Land Plan – A web-based program that gives the landowner the ability to map properties and store records for individual features. As a landowner, you will be able to map your property, set goals, and then customize your information based on your management activities. This program is not as mobile-friendly and is accessed through a web browser. For more information on My Land Plan, visit <https://mylandplan.org/>.

Area Calculation – This is important to help determine stand acreage or acreage in general. There are numerous apps available that work great. Many can measure distance and area. A simple search of “area calculation” on your smartphone’s app store will bring up a variety of area calculation apps that should work fine.

Parcels – Having access to land parcel data can help a forest landowner learn who owns adjacent properties and see an estimate of property lines. Keep in mind that this data may not be survey grade or 100% accurate, but it gives you a good idea of where property boundaries are located.

Websites – In South Carolina, most counties have a GIS database where you can access parcel data for the county. Most of these county sites will provide free data. An example of the Newberry County GIS site can be found here: <https://map.newberrycounty.net/parcel/>

LandGlide – An app that allows access to parcel data. It is available for Apple and Android devices with a fee. The app provides online and offline access to data. This is beneficial when cell phone reception is poor. The app can still be used if data is previously downloaded. For more information on LandGlide, visit <https://www.landglide.com/>.

Tree Identification – This is another tool that landowners may find useful when managing their property. Many of the apps available allow the user to take a photo of the tree characteristics and then the app will show suggestions for the identification of the tree. While it may not always be 100% correct, these apps are pretty good. Most of the time, they can lead you in the right direction in identifying the tree species.

vTree – An app developed by Virginia Tech. This app uses your location to narrow down the trees commonly found in your area. Instead of using a picture, this app asks you a series of questions to narrow down the identification options. It is available for Apple and Android devices. For more information on the vTree app, visit <https://dendro.cnre.vt.edu/dendrology/vtree.htm>.

LeafSnap – Allows the user to take a picture of any plant. It has a claimed accuracy rate of 95%. This is a free app available for Apple and Android devices. For more information on LeafSnap, visit <https://plantidentifier.info/>.

Technology has made many more resources accessible to forest landowners by using a smartphone. This article lists only a few. Most of these apps are easy to find and install on a smartphone. The user interfaces are typically easy to navigate as well. Don’t be afraid of new technology. Try it. . .you might actually like it.

Update on the Emerald Ash Borer Quarantine in South Carolina

By Dave Coyle, PhD

The emerald ash borer (EAB) was first detected in South Carolina in August 2017. This invasive species is now present throughout Eastern North America and has been found in six Upstate counties (Anderson, Greenville, Oconee, Pickens, Spartanburg, and York). EAB attacks all species of ash trees (*Fraxinus* species) and feeding by their larvae will often result in tree death. As of January 14, 2021, this pest and all associated material will no longer be federally regulated. This means that any formerly regulated material (e.g., ash logs, firewood) can now be freely moved within the state and within previously infested areas. This decision was made by the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS) and enacted after a lengthy review and comment period. As there appears to be little stopping further expansion of this pest’s range, resources will now be devoted to other management and containment activities. You can still protect high-value ash trees on your property, as several chemical treatment

methods are very effective (e.g., emamectin benzoate, an often-used active ingredient, can provide up to three years of treatment). For more information on the emerald ash borer in South Carolina, contact Clemson Regulatory Services (<https://www.clemson.edu/public/regulatory/index.html>).



Adult emerald ash borer. Photo Credit: Dr. Matt Bertone, NC State University: <https://www.ces.ncsu.edu/profile/matt-bertone/>



Map of county EAB detections in North America
Photo Credit: USDA APHIS: https://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/MultiState.pdf

South Carolina Stumpage Market in Q4/2020 and Housing Updates

By Puskar Khanal, PhD

South Carolina stumpage market trends: In Q4/2020, prices for both sawtimber and pulpwood (pine and hardwood trees) have recovered from the slump seen in the last quarter, Q3/2020. In a year-over-year comparison, sawtimber prices are still lower, but pulpwood prices have almost recovered to the same levels seen in Q4/2019 last year.

South Carolina Q4/2020 sawtimber stumpage price: Hardwood sawtimber had a steep drop in prices in the first three quarters of 2020, but it has recovered to overtake pine sawtimber prices this quarter. It is an increase of about 14% from the prices seen in the last quarter. On average, South Carolina pine sawtimber prices statewide were \$22.03/ton in the 4th quarter of 2020. For mixed hardwood sawtimber, statewide prices, on average, were \$22.84/ton in this quarter.

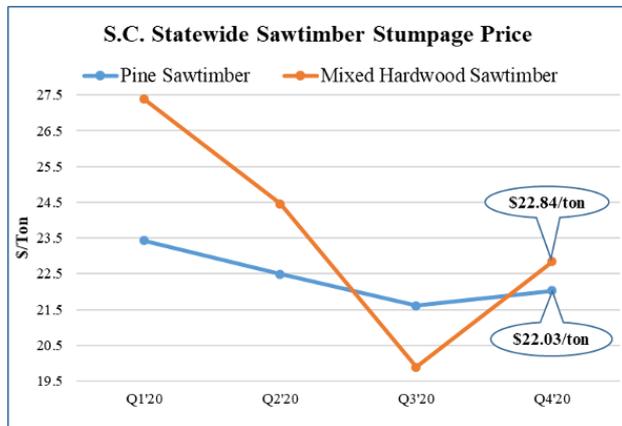


Figure 1. Graph of South Carolina sawtimber prices.

South Carolina Q4/2020 pulpwood stumpage price: Both pine and hardwood pulpwood prices have recovered from the last quarter drop. On average, South Carolina statewide pine pulpwood prices were \$9.47/ton in the 4th quarter of 2020. For mixed hardwood pulpwood, the statewide stumpage prices, on average, were \$8.73/ton in this quarter. As compared to their prices in the last quarter, pine and hardwood pulpwood prices have increased by about 7% and 12%, respectively, in this quarter.

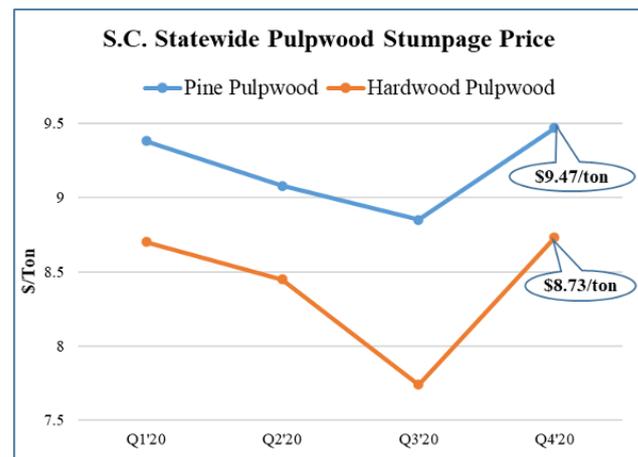


Figure 2 . Graph of South Carolina pulpwood prices.

Overall economy and housing market conditions and local environments such as accessibility/terrain, competition, sale size, tree size and quality, and distance to the nearby mills affect stumpage prices for both sawtimber and pulpwood. Historically, stumpage prices in the southern US tend to decline in hot and dry summer months when harvesting activities could continue with little constraints, unlike in wet weather conditions when some tracts could be inaccessible. Properly managed trees in good health and condition would likely get paid more than unmanaged trees.

Housing updates: Housing has shown a strong recovery after hitting a low point in the spring. It remains a bright spot for the US economy during this pandemic induced economic shock. Single-family starts have been positive for seven straight months, induced by strong demand and low mortgage rates. This trend will likely depend on overall labor market and mortgage conditions. It might see some decline if labor market weakens and lenders start to tighten mortgage credits.

Data credit:

The sawtimber and pulpwood price data included in this newsletter are published with permission from TimberMart-South Athens, GA 30605 email tmart@timbermart-south.com.

Housing data credit to the housing report by Virginia Tech, Virginia Cooperative Extension, and the U.S. Forest Service.

New Housing Starts by Region

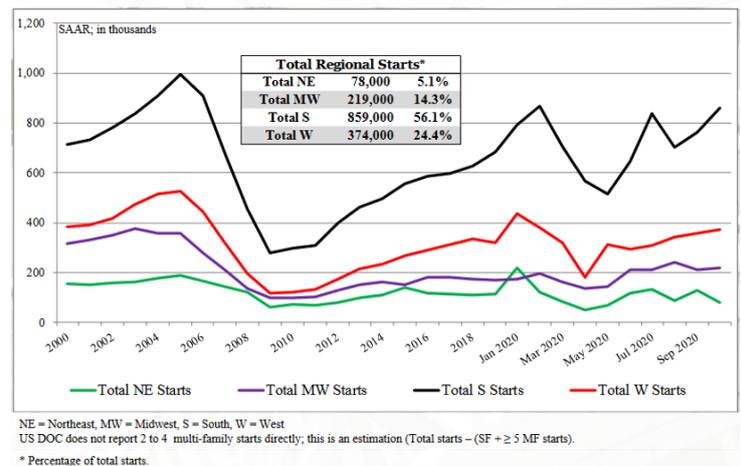


Figure 3. Graph new housing starts by region.

The Post Season To-Do List for Deer Managers

By W. Cory Heaton, PhD

With the passing of 2020 and the closing of deer season, the new year marks the time to get busy. There are many tasks that need to be completed now that deer hunting is not the top priority. If you are like me, you are looking for a reason to stay on the land and out of the house anyway. I have also noticed that my post season to-do lists are always much more enjoyable than the honey-do list my lovely bride assembled while I was hiding in trees picking off does. Seriously, organize the attic (for absolutely no logical reason) or move deer stands to be more effective come fall. I'll take the briars, brambles, and hard work over "move this here and that over there" any day. Let's discuss a few things that fit well into the post season and keep you on the land and out of the house.

Immediately after deer season ends is the ideal time to conduct deer population surveys in South Carolina. Food resources have become more limited at this point. Deer are spending more time searching for food, and cold weather requires considerable food intake to maintain body temperatures. These factors, combined with the lack of sight blocking vegetation, provide a great opportunity to count deer. Post season monitoring of the deer herd allows us to determine which bucks we will be carrying into the following season. We can get a gist of our doe herd and roughly estimate the number of fawns that will be hitting the ground in a few more months. Trail camera and spotlight surveys are both valuable tools for assessing the herd. Spotlight surveys are simple to conduct and provide valuable information on the overall number of deer remaining in the population. Population numbers derived from spotlight surveys provide valuable information for determining if harvest numbers for the previous season were sufficient or if we need to increase or decrease overall harvest for the following season. Trail camera surveys allow the manager to get a close look at the deer herd. Unlike spotlight surveys, trail camera surveys allow us to look closely at individual animals. They allow us to really focus on body condition, age classes, and sex ratios. Both trail camera and spotlight surveys provide vital information on habitat use and identification of important resources. Seeing where deer are concentrated identifies not only valuable habitat but also indicates other areas that may need habitat improvement. The good folks at Texas Parks and Wildlife put together great documents on how to conduct spotlight surveys and trail camera surveys, and they can be found at the following links: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_rp_w7000_1126.pdf and https://tpwd.texas.gov/publications/pwdpubs/media/pwd_br_w7000_1444.pdf.

If you are serious about deer hunting, then you understand how valuable scouting in January can be. You now have a chance to take a close look at your property and clearly see how the deer are using the landscape without fear of spooking the animals. January provides a view of the landscape unobtainable most of the year. The deciduous leaves are gone, the growing season vegetation

has fallen to the ground, and all but the thickest of vegetation offer a wide-open view. Deer trails become very clear, and the ability to see travel paths extends much further than during the season. Now is a great time to break out the GPS and go walk the trails. I have found it to be most insightful over the years. Using the track log features of most GPS devices, you simply walk each trail as far as possible in each direction and then upload the data to your preferred mapping software. The more trails you map, the clearer the image you will have of how deer move across the landscape.

Ever wondered why the once productive box stands or food plots are no longer producing deer? Ever noticed the food plots are hit hard but never seeing deer while hunting? Try walking around the outside of the food plots and note the trail usage. It may take several laps at wider and wider paths to locate the change, but you will find it. Deer figure out where the danger lies and they use their nose to protect them. Deer move trails over time for many reasons, but a commonly observed reason is to by-pass the danger of hunters. They develop travel routes that allow them to check the safety of food plots and other areas without having to leave the safety of cover. Identifying these changes to travel paths allows the repositioning of stands to account for the change. If a stand has been in place for more than 3 or 4 seasons, deer have developed new patterns to account for the danger. Slight adjustments typically allow the hunter to continue hunting the same spot but from a slightly different view. Taking the time to get these stands right can pay off big in the upcoming season.

January is also a great time to stop dreaming about that soft mast orchard and make it happen. More and more options seem to be available each year. Numerous online suppliers and the South Carolina Forestry Commission (<https://www.state.sc.us/forest/nur.htm>) provide seedlings with mail delivery options that make it simple. When planning your orchard, consider what species are naturally present on the property and their abundance. This will help you determine which species would best supplement the available resources. Fortunately for the land manager, many soft masts species are available in numerous cultivars. Spend a little time looking at these cultivars' ripening times and consider planting multiple cultivars to extend the period fruits are available each year. By planting in this fashion for several different species of soft mast producers, the manager can have longer reaching influence on food availability.

I would venture to say if you are reading this article, then deer aren't the only critters you are interested in managing. I bet you have spent a little time reviewing trail cam pictures seemingly filled with raccoons on corn piles. The ole masked bandits get fat and sassy from August – January, living within eyesight of a corn pile that magically reappears as soon as it is gone. You must ask yourself,

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The Post Season To-Do List for Deer Managers Cont.

am I creating a problem by feeding these major nest predators so well? What do all these ring-tailed magicians do for food when we aren't feeding them? Put me on record; there is no better predator of ground-nesting birds in North America. It is hard to imagine how many eggs raccoons take every year. Having researched nest success in the past, I have a hard time imagining how any ground-nesting birds still exist in South Carolina. I realize trapping animals is a controversial topic, a topic that I can respect strong points from both sides. Legally, one can trap raccoons during the trapping season set by SCDNR. Trapping licensing information and trapping information can be found here: <https://www.dnr.sc.gov/regs/furharvest.html>. Having managed for turkeys and quail for over 20 years now, I feel that nest predator management is a requirement.

Hopefully, this article provides you with the ammunition needed to get you back on the land and out of the house. There are thousands of things one can do this time of year to improve habitat, foster conservation, and expand one's knowledge of the critters they are managing. I will leave you with a list of additional tasks you may want to consider now that the season is over.

Winter Activity List

- Prescribed burns
- Winter disking for native vegetation
- Wood duck nest box inspections and shaving replacement
- Songbird nest box inspections and shaving replacement
- Hedgerow plantings to break up large fields
- Tractor and equipment maintenance
- Property line marking
- Supplemental bluegill and forage fish stockings
- Privet control
- Deer stand repairs/replacements
- Assemble spring supplemental planting list and seed orders

County Forestry Associations

**Abbeville County
Forest Landowners Association**
Contact: Tom Brant
jbrant@clemson.edu

**Aiken County
Forestry Association**
Contact: Stephen Pohlman
spohlma@clemson.edu

**Anderson Forestry &
Wildlife Association**
Contact: Carolyn Dawson
dawson4@clemson.edu

**Calhoun-Orangeburg
Forest Landowners Association**
Contact: Janet Steele
jmwatt@clemson.edu

**Chesterfield County
Forestry Club**
Contact: Ryan Bean
rbean@clemson.edu

**Darlington/Florence
Landowners Association**
Contact: TJ Savereno
asavere@clemson.edu

**Edgefield County
Forestry Association**
Contact: Stephen Pohlman
spohlma@clemson.edu

**Greenville Forestry &
Wildlife Society**
Contact: Carolyn Dawson
dawson4@clemson.edu

**Greenwood County
Forestry Association**
Contact: Tom Brant
jbrant@clemson.edu

**Kershaw County Forest
Landowner Association**
Contact: Ryan Bean
rbean@clemson.edu

**Laurens County Forest
Landowners Association**
Contact: Tom Brant
jbrant@clemson.edu

**Lexington County
Forestry Association**
Contact: Janet Steele
jmwatt@clemson.edu

**Lowcountry Landowners Association
(Beaufort, Colleton, Hampton, Jasper)**
Contact: Janet Steele
jmwatt@clemson.edu

**McCormick County
Forestry Association**
Contact: Tom Brant
jbrant@clemson.edu

**Newberry County
Forestry Association**
Contact: Jeff Fellers
fellers@clemson.edu

**Salkehatchie Forestry Association
(Allendale, Bamberg and Barnwell)**
Contact: Stephen Pohlman
spohlma@clemson.edu

**Saluda County
Forestry Association**
Contact: Stephen Pohlman
spohlma@clemson.edu

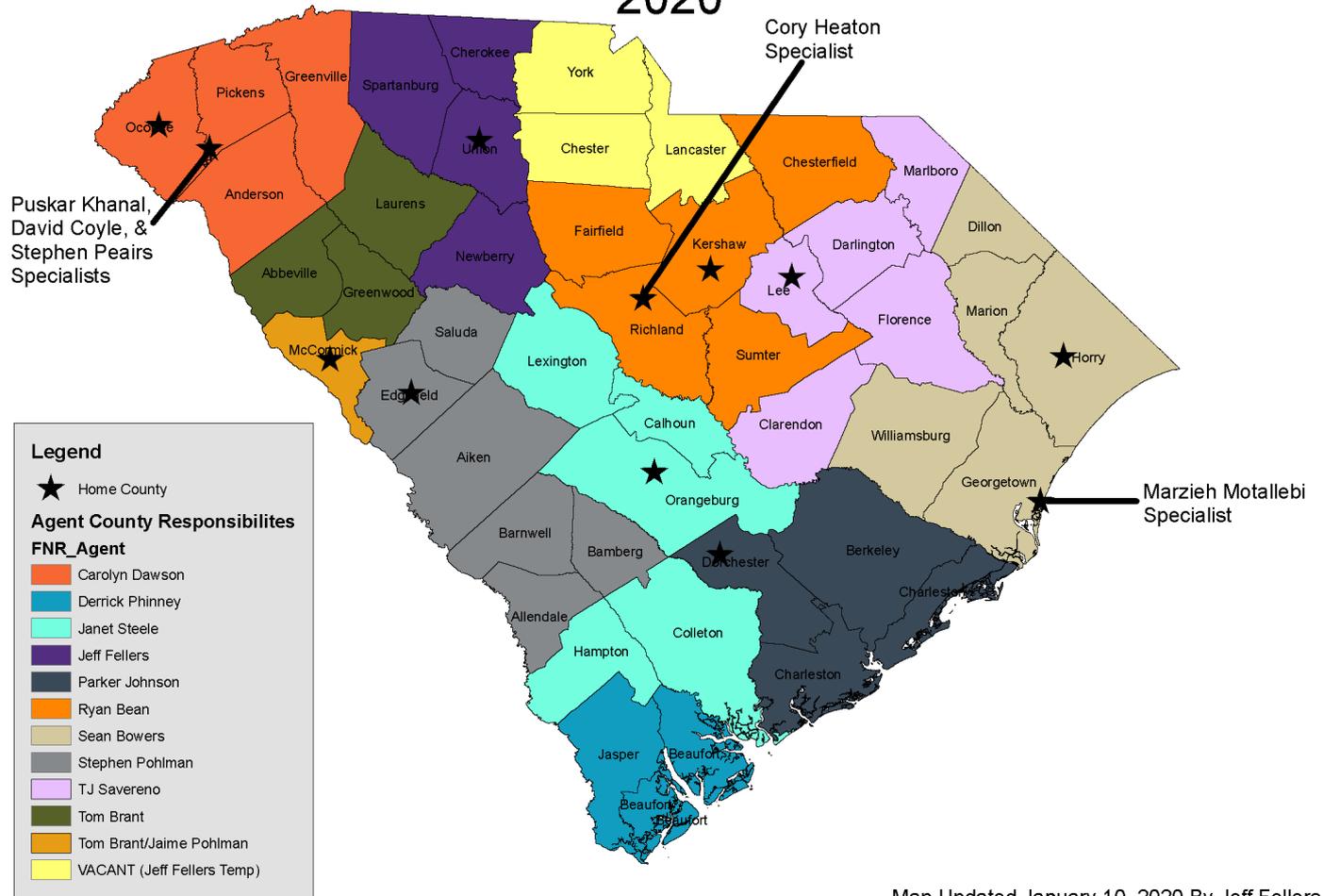
**Sumter County Forest
Landowner Association**
Contact: Ryan Bean
rbean@clemson.edu

**Tri-county Forestry Association
(Berkeley, Charleston, Dorchester)**
Contact: Parker Johnson
pdjohns@clemson.edu

**Williamsburg County
Forest Landowners Association**
Contact: Sean Bowers
sbower3@clemson.edu

**Contact the Association nearest to you
to find out about upcoming meetings!**

Forestry & Wildlife Agent Coverage Across South Carolina 2020



Agent	Email	Background
Ryan Bean	rbean@clermson.edu	Forestry, Cost Share Programs, Prescribed Fire, Soil Types
Tom Brant	jbrant@clermson.edu	Forestry, Prescribed Fire, Herbaceous Weed Control
Sean Bowers	sbower3@clermson.edu	Forestry, Hardwood Management, Prescribed Fire
Carolyn Dawson	dawson4@clermson.edu	Forestry, Conservation, Forest Health, Firewise
Jeff Fellers	fellers@clermson.edu	Forestry, Geographic Information Systems
Parker Johnson	pdjohns@clermson.edu	Wildlife Management
Derrick Phinney	dphinne@clermson.edu	Forestry, Biomass, and Bioenergy
Jaime Pohlman	jaime@clermson.edu	Natural Resource Education, 4-H
Stephen Pohlman	spohlma@clermson.edu	Forestry, Thinning, Hardwood Valuation, Food Plots
TJ Savereno	asavere@clermson.edu	Wildlife Management, Native Vegetation, Invasive Species
Janet Steele	jmwatt@clermson.edu	Forestry and Wildlife, Ownership Transition, Longleaf Pine Management
Specialist	Background	
Dave Coyle	Forest Health and Invasive Species Specialist	
Cory Heaton	Wildlife Management Specialist	
Puskar Khanal	Forest Economics Specialist	
Marzieh Motallebi	Ecological Economics and Carbon Credits Specialist	
Stephen Peairs	Forestry, Silviculture, and Hardwood Management Specialist	

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<https://www.clemson.edu/extension/forestry/newsletter/index.html>

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