

CU IN THE WOODS

Clemson Extension Forestry and Wildlife Newsletter



TIME TO GET PRIVET UNDER CONTROL

By Stephen Pohlman

It is time to get privet under control with a method that works in the late fall that most people can do! Glyphosate is a non-restricted use product that can be found at local places and at an affordable price. It is a non-selective herbicide product, thus why we want to use this method in the late fall.

The non-native invasive plant known simply as privet, can be a worthy adversary for anyone unlucky enough to have this plant on their property. (For simplicity in this article, we are going to refer to all the various species of privet as simply privet).

One of the best ways to control privet is with a glyphosate application in late fall to early winter. Typically, around late October /early November until about December is the time frame depending on geographic location in the state. The best time is when desirable plant species you want to keep have gone dormant, yet the privet still has green leaves on its branches and the temperatures are still mild. Avoid cold weather, especially as temperatures begin to get near freezing.

Examples of situations to use this method. If you have young hardwoods that you are trying to keep but want the privet gone, you want the hardwood sprouts/saplings to drop their leaves while the privet still has theirs. The downside to this method is if you have small pines or other conifers that you are trying to save, as these will retain green needles during this time period and are susceptible. Extreme caution and care should be exercised if this is the case. The good news is that most of the time, privet thickets are usually so thick that nothing is growing underneath them to have to worry about.

Glyphosate comes in many different forms with the most common being Ready To Use (RTU) or 41% concentrate products. When performing privet control, the applicator will want to use a 41% or higher percentage concentrate product. RTU products oftentimes do not achieve good control due to the lower amount of material in the percent solution. The applicator will need to read the herbicide label of the product they are using, as this will tell them how many ounces/gal and/or percent solution to be applying for foliar privet control.

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UPCOMING EVENTS

Professional Tree Care & Health Workshop

October 17, 2019

North Augusta Community Center

Contact: Stephen Pohlman

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Hemlock Treatment and Demonstration

October 17, 2019

Pickens, SC

Contact: Carolyn Dawson

dawson4@clemson.edu

Forest & Woods Road Soil Stabilization

October 21 and 23rd

Clemson, Manchester State Forest,

Sand Hills State Forest

Contact: Ryan Bean

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Controlling Vegetation in your Forest

October 30, 2019

Edgefield, SC

Contact: Stephen Pohlman

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Pine Straw Workshop and Field Tour

November 14, 2019.

Sandhill REC

Contact: Ryan Bean

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Full
can be added
to waiting list

Find more events:

www.clemson.edu/extension/forestry

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COOPERATIVE EXTENSION

Privet Control Cont.

Surfactants help in the efficiency of the herbicide by improving absorption into the waxy covering on the leaves. Not all glyphosate products contain a surfactant already added. Reading the label on the product you have will tell if the product has a surfactant and/or if it should be added in the tank mix. If the label says add a surfactant, choose one that is a nonionic surfactant. Marking dyes can be added to the tank mix as well. In certain situations, such as treating in strips due to making passes, marking dyes are very helpful. Just know that if you add marking dye to your tank mix you can expect it on everything. Most places (such as farm-&-garden, feed-&-seed, agricultural cooperatives, etc.) should carry these products if needed.

The application method used to apply your glyphosate solution depends greatly on the situation you have and your equipment. Backpack sprayers, ATV sprayers and tractor 3-point hitch mounted sprayers are popular methods of delivering this foliar application method. The applicator will want to spray foliage till wet, but not to the point of running off. Complete coverage of all foliage from top to bottom is key in getting control. The more leaf surface area you can contact with herbicide, the more material that will be absorbed into the plant, the better your chance at control. If equipment is not capable of delivering the herbicide to the top of the privet, you will want to explore other options, such as cutting/mulching the privet down first and then spraying the plant once it sprouts back. Another option may be to do a basal bark application on the bigger privet stems as a follow-up treatment.

Follow-up treatments are a must. As you eliminate mature plants and sunlight can hit the forest floor, something is going to grow in its place. Oftentimes it will be with germinated privet seed and/or root sprouts, not to mention new seed from neighboring properties. The key to eradication is persistence, thus spray those new stems as soon as possible and every time they re-sprout.

If controlling privet in and around water, make sure that you are using a glyphosate product and surfactant that have an aquatic label. Glyphosate products and surfactants used to control terrestrial plants oftentimes have formulations that are harmful to many aquatic organisms. Companies do make aquatic labeled products (such as glyphosate, surfactants, etc.) that have a different formulation designed to not harm aquatic organisms (fish, frogs, turtles, salamanders, etc.). Remember, the label is federal law.

Keep in mind drift concerns on windy days, especially since using a non-selective herbicide, to prevent killing and/or damaging desirable plant species.

You can use this method at other times of the year too. Just remember that glyphosate will kill other plants as the product lands on their green leaves/needles. Thus, the great thing about jumping on privet control soon, as desirable species are going into dormancy and privet is still hanging on.

County Forestry Association Meetings

Aiken

Date: November 21st

Topic: Quail and Quail Management

Contact: Stephen Pohlman
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Lowcountry Landowners

Date: October 22nd

Topic: Landowner Rights, Responsibilities,
and Legacy

Contact: Janet Steele
jmwatt@clemson.edu

Saluda

Date: December 9th

Topic: Christmas Banquet
Contact: Stephen Pohlman
spohlma@clemson.edu

Edgefield

Date: November 11th

Topic: The Timberland Valuation Process

Contact: Stephen Pohlman
spohlma@clemson.edu

Newberry

Date: November 12th

Topic: Best Management Practices

Contact: Jeff Fellers
fellers@clemson.edu

ARMADILLO IDENTIFICATION AND CONTROL

by Parker Johnson

Armadillos have become the talk of the town throughout South Carolina. They are often found digging in gardens, flower beds, or yards searching for food or taking a very long “nap” upside down near the road. There are currently 20 species of armadillo in existence, but the Nine-banded Armadillo (*Dasypus novemcinctus*) is the only species found in the United States. The name “armadillo” from the Spanish translation of “little armored one” and the Nine-banded Armadillo gets its name from the nine bands that wrap around its torso.

Adult armadillos weigh 8-17 pounds and have 28-32 peg-like teeth with no front teeth. Armadillos have poor eyesight and hearing. They are agile runners and exceptional swimmers. They can hold their breath for up to six minutes, making it easier for them to swim long distances or to forage for food while digging in the soil. Female armadillos have one litter per year in the spring. The litter consists of four young, all of which are the same sex. Armadillo pups reach sexual maturity after one year.

Armadillos prefer warm, wet climates and live in forested or grassland habitats with dense, shady cover that serves as protection from predators and harsh environmental conditions. Armadillos primarily feed on insects, larvae, small vertebrates, and eggs. They cause most of their damage while rooting or digging in the soil for food. They are nocturnal and tend to avoid activity during extreme temperatures.

Signs of possible armadillo presence may include: uprooted flowers and ornamentals, damage to turf, disrupted insect mounds, and broken yellow jacket nests. They create several “cone-shaped” holes, measuring 1-3” deep and 3-5” wide, in the ground when rooting. Their burrows measure 7-8” in diameter and up to 15 feet in depth. They can have several burrows in one area.

To discourage armadillos, remove cover or brush from areas where you might expect them. They prefer to dig burrows in areas with cover so removing the cover will make the area less attractive and feel less safe. If you choose to use exclusion techniques, build a fence at least 3 feet high and that is buried 12-18 inches deep (deeper in sandy soils). Keep in mind, armadillos can jump at least 3-4 feet high if provoked. There are no known frightening devices or repellents known to be effective and no toxicants registered for use on armadillos. If you choose to try a repellent, check the label on several mole and gopher repellents to see if armadillo is listed.

In South Carolina, when it comes to shooting armadillos, there is no closed season on armadillos on private lands. You must still have a valid hunting license. Armadillos that are causing damage may be shot where it is legal to discharge a firearm. Recommended firearms include either a shotgun with No. 4 to BB-sized shot or .22-caliber rifle. Try to avoid using firearms with low velocity rounds, the bullet tends to ricochet and cause injury. Night hunting is permitted from the last day of February to the 1st of July as long as the South Carolina Department of

Natural Resources (SCDNR) is notified beforehand. Please contact SCDNR for further restrictions.

To trap armadillos, either a single-door or a 2-door cage is recommended. It is best to set traps along pathways to burrows and along structures, including fences, buildings, etc. The trap sets work best when using “wings” to guide

the armadillo into the trap. These wings are typically made from 1 x 6-inch boards anchored into the ground. There is no need to use baits when trapping armadillos, especially if you’re using traps with wings. If you do feel the need to use baits, spoiled fruits, rotten meat, or mealworms are known to work.

SCDNR prohibits the relocation and translocation of trapped wildlife. Relocation is moving an individual from one location within its home range to another location within the same home range. Translocation is moving a free-ranging animal from one location to a new location significantly distant from their original home range or established territory. Once an animal is trapped, it needs to be quickly and humanely dispatched. Contact SCDNR for a list of wildlife removal services. These services will typically cost a fee. SCDNR also has a list of certified technical assistance providers who can help you.



Evidence of Armadillo digging/rooting damage

List of Wildlife Removal Services

<http://www.dnr.sc.gov/wildlife/control.html>

Wildlife Technical Assistance Providers List

<http://www.dnr.sc.gov/wildlife/technicalasst.html>

Nuisance Problems with Wildlife

<http://www.dnr.sc.gov/wildlife/nuisance.html>

UPDATING SOUTH CAROLINA STUMPAGE PRICES

by Puskar Khanal

Many landowners have heard the word “stumpage price” but may not be so sure about its meaning. The word stumpage is derived from stump + age. Stumpage price refers to a price that a timber buyer will offer landowners for standing trees. In general, larger standing trees (diameter over 10 inches) suitable for sawtimber get higher prices on the stump, whereas pulpwood size trees (less than 9 inches diameter) get less value.

Sawtimber stumpage price: South Carolina statewide (state as a whole) pine sawtimber stumpage (standing timber) prices, on average, were \$23.11/ton in the 3rd quarter of 2019. For mixed hardwood sawtimber, statewide prices, on average, were \$24.41/ton in this quarter. In general, the sawtimber prices for both pine and hardwood receive higher rates in the lower part of the state than closer to the mountains.

Pulpwood stumpage price: South Carolina statewide pine pulpwood prices, on average, were \$10.04/ton in the 3rd quarter of 2019. For hardwood pulpwood, the statewide stumpage prices, on average were \$9.34/ton in this quarter. In general, the pulpwood prices for both pine and hardwood receive higher rates in the lower part of the state than closer to the mountains.

However, stumpage prices for both sawtimber and pulpwood in your local markets could vary significantly as compared to the

above statewide averages depending on: size and species composition, quality of timber, total acres and volume, logging operability, distance from nearby mills, and overall market condition. Managed timber stands with large, straight, and quality trees with clear logs (logs without knots or branches) that could be used for lumber, veneer, or export products generally get higher price. This means, properly managed trees in good health and good quality would likely get more stumpage price than unmanaged trees. Trees that are blown down or broken during hurricanes or ice-storm also have a residual value, but their value would be somewhat less than standing trees.

One common mistake some landowners make while selling their timber is to accept the first offer, without waiting for other offers. Competitive bidding by timber buyers tends to assure that fair market value for timber is offered. For more information, please refer to the SC Forestry Market Quarterly Updates Archive, <https://www.clemson.edu/extension/timber-market/>



MIDSTORY/ UNDERSTORY CONTROL IN HARDWOOD STANDS

by Stephen Peairs

Most mature hardwood stands lack an adequate abundance of oak reproduction (seedlings and saplings) on the forest floor. If oaks are to be successfully regenerated into the future stand, silvicultural practices need to begin years prior to the complete removal of the standing timber. One of these practices may include a midstory and understory treatment to control less desirable species occupying these canopy layers. This is especially true when there is a moderately to full midstory canopy layer present.

The density of stem abundance in lesser canopy layers is commonly associated with previous disturbance activity such as partial harvesting, wild fire, or heightened natural mortality from insect or disease. For undisturbed stands, stem density may be limited with few scattered saplings or smaller pole timber sized stems distributed across the area. In either instance, midstory and understory stems are more likely to be less desirable, shade tolerant species such as red maple, American beech, hickory, blackgum, eastern hophornbeam, etc. The presence of these less

desirable stems is problematic for land managers whom are attempting to promote oak regeneration.

Less desirable stems in the midstory and understory cause two primary complications for oak regeneration efforts. Heavy shading (especially with denser sub-canopy layers) hinders the recruitment and growth of oak seedlings on the forest floor. Research has found that oak seedling growth is promoted when sunlight penetration is between approximately 25 – 50%. Most closed canopy stands have less than 10% sunlight availability on the forest floor.

Shade tolerant species on the contrary can continue to advance in height growth as they require less sunlight (photo active radiation). The larger sized reproduction has a higher probability of establishing dominance in the future stand over smaller reproduction. This competitive advantage is attributed to greater mass of root stock. Should these larger stems be severed during timber harvesting, resprouting will occur and

Midstory/ Understory Control in Hardwood Stands Cont.

these stems will more rapidly develop in height growth compared to newly established reproduction. Thus, resprout regeneration is most likely to suppress the slower growing young seedlings.

Herbicide treatment using the hack and squirt method enables the landowner to both begin to enhance understory light conditions and gain control over regeneration of less desirable species. Common herbicides used for stem injection include imazapyr (Arsenal AC, Polaris AC, Imazapyr 4 SL), triclopyr (Garlon 3A, Tricera), and picloram (Tordon RTU). Each of these herbicides have some species that are resistant yielding the chemical ineffective at inducing mortality. Imazapyr does not control leguminous species such as locust, mimosa, etc and conifer species such as pines and cedar. Triclopyr inadequately deadens sourwood where as picloram may not control sassafras.



Area on the left received midstory chemical control versus untreated on the right

Proper identification and inventory of all target species should be made in order to use a herbicide acceptable to obtain the desired results. Check the herbicide label (attached to the container or available online) to ensure the selected herbicide includes the target species listed as controlled.

Some herbicides can be used “as is” and are already pre-mixed such as Tordon RTU (stands for ready to use). Other herbicides such as imazapyr should to be diluted in water. Arsenal AC, for example, should be diluted into a 20% solution (20% imazapyr, 80% water). All herbicides that can be used for cut stem treatments (hack and squirt) will depict dilution rates for application on the label. Labels also contain application procedures needed to conduct treatments. Each herbicide will vary for the number and distance between hacks. For example, Arsenal AC can be applied at 1 milliliter of mixed solution at one hack for every 3 inch increase in stem diameter. Refer to the MSDS label for pertinent details prior to treatment conductance.

Expenses for conducting midstory control will likely fall between \$120 - \$150 per acre pending stem density. For more densely stocked understory and midstory layers, prices may elevate to over \$200 per acre. This may especially be true when non-native, invasive plant species are present.

Cost-share assistance is available to alleviate the financial burden associated with the herbicide treatments. The Natural Resources Conservation Service (NRCS) has a program named the Environmental Quality Incentives Program (EQIP) that may provide funding for this silvicultural practice. The South Carolina Forestry Commission may also be able to provide financial assistance thru the Forest Renewal Program (natural hardwood regeneration). Seek assistance from either your local NRCS district conservationist or SC project forester for additional details on program enrollment.

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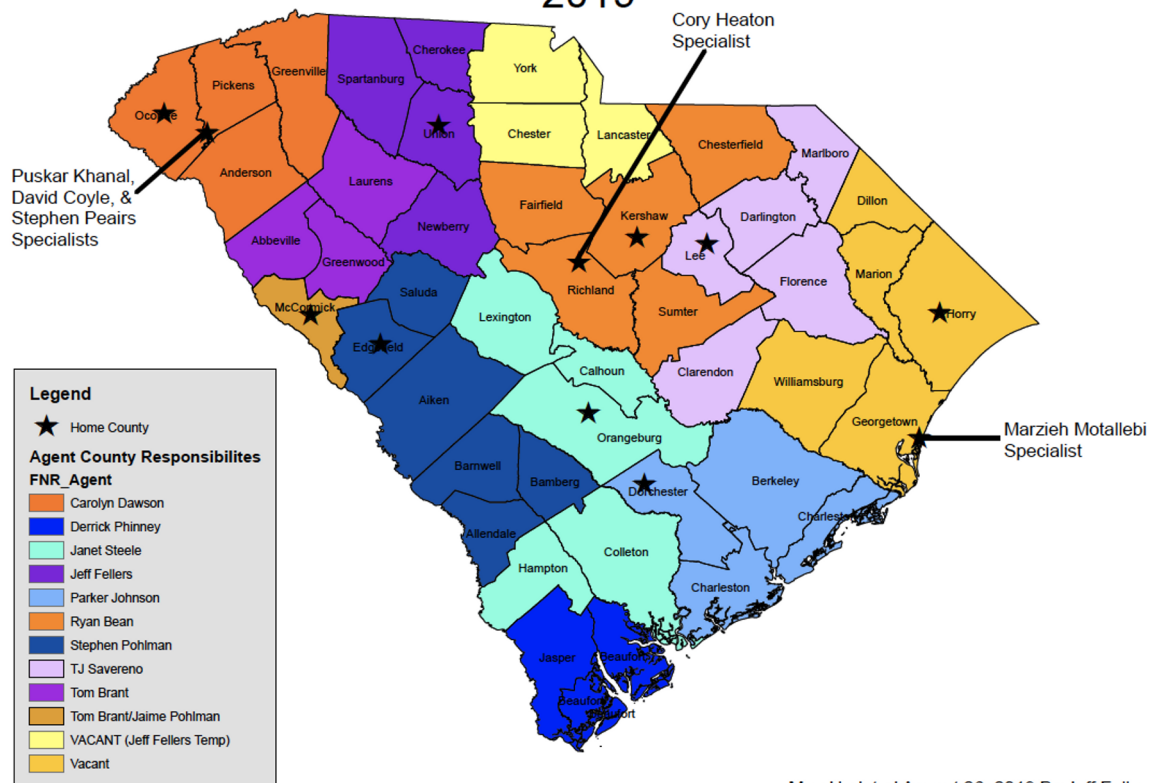


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Forestry & Wildlife Agent Coverage Across South Carolina 2019



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Forestry, Cost Share Programs, Prescribe Fire, Soil Types
Forestry, Prescribe Fire, Herbaceous Weed Control
Forestry, Conservation, Forest Health, Firewise
Forestry, Geographic Information Systems
Wildlife Management
Forestry, Biomass, and Bioenergy
Natural Resource Education, 4-H
Forestry, Thinning, Hardwood valuation, Food Plots
Wildlife Management, Native Vegetation, Invasive Species
Forestry, Ownership Transition

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Newsletters are archived online at: <https://www.clemson.edu/extension/forestry/newsletter/index.html>