

Control Options for Chinese Privet

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Chinese privet (*Ligustrum sinense*) and other invasive privets in the genus *Ligustrum* are a serious problem for many homeowners, farmers, foresters, and land managers in Alabama.

Privet control often seems insurmountable because of its aggressive growth, prolific root and stump sprouting, copious seed production, and widespread seed dispersal by birds and other animals. However, with the correct approach and diligent follow-up treatments, privet can be effectively controlled. This publication provides recommendations for widely available privet control options that can be used across a range of land management scenarios.

It is not, however, exhaustive as certain herbicides used in forestry and rights-of-way are not covered.

Hand Pulling

Hand pulling is an option that can be used only to remove privet seedlings and small saplings. It can be done any time of year but is easiest when soils are moist. Grasp privet stems by the base and pull upward, removing as much of the root system as possible. If the plant does not come up easily, it is likely a sprout from a lateral root and hand pulling will not be effective.

Weed Wrenching

Weed wrenches are effective for removing privet saplings up to 2 inches in diameter. Weed wrenches are steel, handheld tools that grasp woody stems at the base and use leverage to lift the plant out of the ground (figure 2). They work best for single-stemmed plants but can also be used for some multistemmed clumps. Because privet has a shallow fibrous root system, pulling may severely disturb the soil and is not recommended along stream banks or steeply sloped areas where erosion may be of concern.

Hand Cutting

Cutting, when used alone, does not provide satisfactory control because of rapid stump sprouting. However, it can be integrated with cut stump or foliar herbicide treatments described below.



Figure 1. Chinese privet is a woody shrub with opposite leaves that remain green throughout the winter and dark blue fruit that ripens in the fall. (Photo by Karan A. Rawlins, University of Georgia, Bugwood.org)

Brush Mulching

Brush mulchers (figure 3) are typically mounted on skid steers and grind or mulch entire shrubs and small trees. They quickly remove dense stands of privet, providing immediate access to an area. Most brush mulchers can mulch all sizes of privet and often leave a thick mulch layer. They do not remove the root system and sprouting will inevitably occur (figure 4). Brush mulching cannot be effectively integrated with cut stump treatment because stumps will be buried under the mulch layer. However, brush mulching often results in very uniform privet regrowth that can easily be sprayed. Brush mulching can be used anytime but may spread privet seed if used in the fall.

Herbicide Treatment

Privet can be effectively controlled with foliar, cut stump, and basal bark herbicide treatments. Always read and follow the herbicide label, paying attention to site and rate restrictions and safety recommendations for applicators.

Foliar Herbicide Treatment

For many situations, herbicides with the active ingredient glyphosate are the most effective option. However, not all glyphosate products are created



Figure 2. The weed wrench uses leverage to easily lift privet saplings out of the ground.

equal. They can vary in concentration and may or may not include a surfactant, which improves absorption into the leaves. Use a concentrate type product with at least 41 percent glyphosate. Do not use glyphosate formulations that are called “Ready to Use” because they generally do not contain enough glyphosate to be effective. Mix the herbicide with water, preparing a 3 to 5 percent solution (4 to 6 fluid ounces of herbicide product per gallon). If the label recommends additional surfactant, add a nonionic surfactant at 0.5 percent (0.6 fluid ounces per gallon).

Privet foliar herbicide treatments can be applied with several types of sprayers, but single nozzle backpack sprayers are used in many situations (figure 5). Spray the foliage to wet, but not to the point of runoff. Good spray coverage over the entire plant is very important as privet shrubs sprayed only on the sides will not be completely killed. If the privet is taller than 6 to 8 feet, consider using other methods such as brush mulching, basal bark, or cut stump treatment. The optimal timing for glyphosate treatment is late fall to early winter (November through early January) when day temperatures are mild. However, do not treat during extended cold weather when temperatures are at or below freezing. This late fall timing is very advantageous as most other vegetation is dormant and will not be harmed by glyphosate. Glyphosate treatments applied in the spring and summer may not provide effective control and the risk of damage to surrounding vegetation is much greater.



Figure 3. Skid steer mulchers can quickly grind dense stands of privet to the ground.

When applying glyphosate, volatility and soil activity are not a concern. Drift, however, can be a serious problem, especially on windy days. Be very careful where spray drift can damage or kill nearby desirable vegetation. Additionally, when spraying along streams, ponds, and lakes, use a glyphosate product and nonionic surfactant labeled for use in aquatic environments. Glyphosate products not labeled for use in or near water often contain a surfactant that is very harmful to many aquatic organisms.

Cut Stump Herbicide Treatment

This method entails cutting followed by application of an herbicide to the surface of the stump. For best results, cut privet stems close to the ground and remove any sawdust from the stump. Then, within a few minutes at most, spray or paint the entire cut surface with the herbicide solution (figure 6). Spray to wet, but do not puddle the herbicide around the stump. Use an herbicide concentrate product with either 41 percent or higher active ingredient glyphosate or 44 percent active ingredient triclopyr amine. Mix the herbicide with water, preparing a 25 percent solution (32 fluid ounces of herbicide product per gallon). There are herbicide concentrate products available with lower concentrations of glyphosate (20 percent) or triclopyr amine (8 percent). These are applied to stumps at full strength. However, avoid formulations with lower concentrations as they do not contain enough glyphosate or triclopyr amine to be effective.



Figure 4. Following mulching or other mechanical treatments, privet rapidly sprouts from stumps and lateral roots. This creates a good setup for a late fall foliar treatment with the herbicide glyphosate.

If the herbicide treatment must be delayed following cutting, a different approach must be used. Within a few weeks of cutting, use a triclopyr ester herbicide product mixed with oil instead of water. Mix the herbicide with an oil carrier such as diesel or bark oil, preparing a 20 percent solution (26 fluid ounces of herbicide product per gallon). There is also a triclopyr ester ready-to-use product with no mixing required. Spray the entire surface and sides of the stump.

Both water- and oil-based cut stump treatments work on any size privet, but it is critical to treat every cut stem. Untreated cut stems will sprout. Cut stump treatments can be done almost any time of year but late fall is the easiest from an operational standpoint. The only time cut stump treatments should not be done is in the early spring when privet shrubs are experiencing strong upward sap flow. This is evident when stumps appear to “bleed” water following cutting.

Basal Bark Herbicide Treatment

This method entails spraying the entire circumference of the bottom 12 to 15 inches of each stem with an oil soluble herbicide (figure 7). Use a triclopyr ester herbicide product. Mix the herbicide with an oil carrier such as diesel or bark oil, preparing a 20 percent solution (26 fluid ounces of herbicide product per gallon). There is also a triclopyr ester ready-to-use product



Figure 5. A blue spray indicator or dye improves spray visibility for the applicator.



Figure 6. Spray to wet the entire surface of the stump. A spray indicator helps keep track of what has been treated.

with no mixing required. Spray to wet, getting complete coverage of each woody stem, but do not puddle the herbicide on the soil. Fall is generally the best time for this treatment but it may be used any time of the year. This treatment may take a few months to kill privet but it is very effective. Triclopyr ester does have some soil activity, and damage to nontarget species can occur when numerous privet stems are treated in a small area.



Figure 7. Chinese privet is very thin barked and even large diameter shrubs can be controlled with the basal bark treatment method.

Realities of Privet Control

No single treatment will eradicate privet. There will almost always be a flush of new seedlings in the year following intensive control, especially along woodland edges. Some sprouting from lateral roots and stumps missed during initial treatment will also be inevitable. These seedlings and sprouts can be easily controlled with foliar glyphosate treatment, which is best done in the late fall. While privet seeds in the soil seed bank only survive for about one year, birds and flooding can reintroduce seed into the area. Follow-up monitoring and spot treatment of newly established plants should be done to prevent reinfestation.

Following privet control, many factors influence which species naturally recolonize the site. In addition to sunlight and moisture availability, these factors include surrounding vegetation and prior land use. To direct this process of recolonization and site restoration, land managers may choose to actively plant desired species. If replanting, continued monitoring and spot treatment of new privet is critical as there are no known plant communities in the southeastern United States that will completely resist privet invasion.