

Clearing a Path Through Bottomland Hardwoods Using the Basal Bark Treatment Method

by Tim Albritton

Alabama's bottomland hardwoods are rich in diversity and filled with beauty, providing fantastic wildlife habitat. These swamps found along rivers and streams also protect our waters by filtering run-off within the watershed. There is a problem, however, because to see them you often have to hike through a mass of exotic shrubs invading these areas. You don't have to be an invasive plant expert to find this pest that is spreading throughout the state and, for that matter, the southeastern U.S.

Chinese privet (*Ligustrum sinense*), often called "common privet," was introduced into this country from China in 1852 as an ornamental shrub. The spread of privet is escalating in Alabama's bottomland hardwoods, but most landowners are unaware of its invasion. It really becomes a problem after a timber harvest. Having already been established for years, privet growth explodes once the mature overstory trees are removed. If you wait until after your timber harvest to address the problem, you have waited too long. Prescribed burning at regular intervals will effectively control privet in pine forests. However, prescribed burning is not an option in bottomland hardwoods.

The easiest way to control privet in bottomland hardwoods is with herbicides, before a timber harvest. This shrub is fairly easy to control with a number of herbicides and three common treatment methods: foliar spray, cut stump, and basal bark. Each of these methods has advantages and disadvantages. The purpose of this article is to highlight my experience with the basal bark treatment method.

I have tried all three methods on my own property along the Tallapoosa River in Elmore County, Alabama. When I stated that privet explodes after a timber harvest, I was speaking from experience, or what I term my "lessons learned the hard way." Since I harvested a small stand of hardwoods in 1996, I have been spending weekends battling the privet invasion. Having spent most of my time using the foliar spray and cut stump treatment methods, I decided to give the basal bark treatment method a try.

I chose a herbicide from Dow AgroSciences called Pathfinder II. It is labeled for the control of woody plants in the forest, and privet is one of the 95 species listed on the label. I like the Pathfinder II herbicide for a number of reasons: it comes ready-to-use (no mixing is required), and it can be used in the cut stump treatment method as well. The herbicide can be applied any time, including winter. If you have ever tried working in bottomland hardwoods during



Especially visible in winter, Chinese privet forms dense thickets in bottomland hardwoods.



Ligustrum sinense fruit in January.

PHOTOS BY JIM MILLER, COURTESY OF UGA BUGWOOD.ORG

the summertime in Alabama, you can readily appreciate that aspect. Another advantage to treatments in the dormant season is that privet is easily identified. Most of the native hardwoods in the bottomland are deciduous (naturally shedding their leaves in winter), but privet is an evergreen. It stands out like a horse in a dog race.

I found the basal bark treatment method to be fairly easy. I didn't have to spray all of the foliage as with the foliar spray method or cut the tree down as with the cut stump method. With the basal bark treatment method, the herbicide is sprayed down low at the base of the tree, which reduces the amount of drift. The herbicide should be sprayed around the entire circumference, completely covering the bark from the ground level to a height of 12 to 15 inches. The herbicide penetrates the bark into the living tissue (cambium) where it is transported through the tree into the roots and leaves. This treatment provides a fast and effective method of controlling selected trees and shrubs.

Before you grab your sprayer and head out into the woodlands, it is good to familiarize yourself with some other non-native invasive species. While you are controlling privet, you can treat them, too. Some additional pest plant species in central Alabama include silverthorn or thorny olive (*Elaeagnus pungens*), tallowtree (*Triadica sebifera*), chinaberrytree (*Melia azedarach*), princess tree (*Paulownia tomentosa*), and silktree (*Albizia julibrissin*). If I were a betting man, I would bet a dollar to a doughnut you have one or more of these species on your property.

You can find information on all of these species in *A Field Guide for the Identification of Invasive Plants in Southern Forests*, available at <http://www.treesearch.fs.fed.us/pubs/35292>. A free copy may be requested online. My good friend, Dr. James Miller, is the author of the book and a Research Ecologist with the USDA Forest Service, Southern Research Station at Auburn University, Alabama. I encourage you to check out Jim's books and learn more about invasive plants in beautiful Alabama.

I have served with Jim and other concerned resource professionals on the Alabama Invasive Plant Council (ALIPC), www.se-eppc.org/alabama/. If you are not a member of the ALIPC, please consider joining us in our efforts.

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Treating Chinese privet using the basal bark treatment method.



One year after treatment, the tree is dead.

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