



## INVASIVE PLANT FACT SHEET

# Privet

(*Ligustrum* spp.)

Photo credit: Dave Jackson

## Background

Privet (*Ligustrum* spp.) is a shrub originally imported from Asia in the mid-1800s for hedges and other landscaping use. The privet colonies found across Pennsylvania and other Mid-Atlantic states are a gradient of four different species: border (*L. obtusifolium*), common (*L. vulgare*), Japanese (*L. japonicum*), and Chinese (*L. sinense*). It is difficult to differentiate between species, though that is usually not needed as they function similarly in an ecosystem and follow the same control methods. Privet continues to be used in the landscape industry, despite its invasive nature.

## Description

**Size:** Up to 15 feet tall.

**Leaves:** Simple, leathery, oppositely arranged, with entire or smooth margins, and from 1 to 3 inches in length.

**Flowers:** Four-petaled, trumpet-shaped flowers appear in clusters along the stem late in spring. The flower petals are thick and brilliant white, and each blossom is ½ inch or less in length.

**Fruit:** Though they emerge in summer, the fruit ripens over winter and often can be seen alongside the next year's flowers. The fruit are dark purple or blue black, about ¼ inch in diameter and, when crushed, reveal a single seed.

**Stems:** The stems are yellow gray and follow a distinct four-ranked growth pattern. The four-ranked growth can be observed by viewing a section of stem lengthwise: the branches will appear to follow an “X” shape.

## Look-alikes

Several native shrub species, including flowering dogwood (*Cornus florida*) and blackhaw (*Viburnum prunifolium*), also have simple leaves and opposite branching. Bark texture is the best trait to use in differentiation as it is available year-round. Both flowering dogwood and blackhaw have highly textured bark on their lower stems, often appearing like reptile scales.

## Dispersal

Privets are primarily spread by birds eating and dispersing their abundant fruit and seeds, which are available almost year-round. Privets can regenerate after cutting by sending up sprouts from their roots and stump.

## Site

While privets prefer full sunlight such as at forest edges and along fence rows, they are moderately shade tolerant and can begin to invade under a mature canopy. They have a preference for disturbed mineral soil and bottomlands and are often found on sites with rich soils.



A



C



B



D

- A. Flowers and leaves
- B. New growth showing opposite leaves
- C. Opposite, four-ranked branching
- D. Fall color and ripe fruit

*Photos by Dave Jackson*

## Control

Individual small plants can be pulled by hand. However, all roots must be removed, as fragments have the possibility of resprouting. Cutting or mowing effectively eliminates the shrub canopy and provides access to overgrown sites, but the plants will readily resprout. Smaller stems are easily cut with heavy-duty rotary or flail cutters (i.e., “brush hogs”). For larger stems, fixed-tooth, drum-type forestry cutters have the capacity to not only cut down large stems but also finely chop the debris.

For mowing to be effective, it must be followed with an herbicide application to cut surfaces or regrowing sprouts. Oil-based herbicides (1:4 mixture) can be applied to stumps anytime after cutting, while water-based herbicide (1:1 mixture) treatments should be applied as the stems are cut. Treating sprouts with a fall foliar herbicide application (or application the following growing season) is an alternative to treating cut stumps when immediate application of the her-

## Management Calendar

The management calendar for privet is quite flexible because the foliage emerges early and falls late. Treatments to intact stems or cut stumps provide a year-round window of opportunity.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Leaf Out												
Flowering and Seed Ripening												
Foliar Herbicide Application												
Basal Bark and Cut Stump Treatments												

## Treatment and Timing

Privets leaf out early and drop their leaves late, providing a long foliar application window. Basal bark and stump treatments can be made anytime weather permits. Product names reflect the current Pennsylvania state herbicide contract; additional brands with the same active ingredients are available.

Treatment	Timing	Herbicide	Product Rate	Comments
<b>Foliar</b>	Mid-May to onset of fall color	Aquaneat (glyphosate) plus Garlon 3A or Vastlan (triclopyr)	3 quarts/acre plus 2 quarts/acre or 1.5 quarts/acre	A combination of glyphosate plus triclopyr is effective against a broad spectrum of woody species. Additionally, this mixture reduces risk to nontargets because it has practically no soil activity and the herbicide products are safe for aquatic applications. Garlon 3A and Vastlan are both water-soluble, aquatic-labeled triclopyr formulations, but have different active ingredient concentrations.  A surfactant (e.g., CWC 90) needs to be added. If using a different glyphosate product, be sure to check the product label to see if a surfactant is needed; some come premixed.
<b>Basal Bark</b>	Year-round	Pathfinder II or Garlon 4 Ultra (triclopyr ester)	Ready-to-use or 20%, 1:4 in basal oil	Oil-based herbicides penetrate the plant's bark and travel systemically through the plant. Basal bark applications wet the entire circumference of the lower 12 to 18 inches of the stem. Aim for full coverage on stems without creating excessive runoff.
<b>Cut Stump</b>	Year-round	Pathfinder II or Garlon 4 Ultra (triclopyr ester)	Ready-to-use or 20%, 1:4 in basal oil	Cut stump treatments with oil-based triclopyr ester herbicides are applied to the cut surface as well as the bark of the stump and can be applied anytime after the stems are cut. An oil-soluble colorant should be added to improve tracking, avoid skips, and duplicate treatment.
		Aquaneat (glyphosate) or Garlon 3A or Vastlan (triclopyr)	50%, 1:1 mix with water	Unlike the oil-based herbicides, water-based treatments are only applied to the cut surface and must be made immediately after the stems are cut. A water-soluble colorant should be added to improve tracking, avoid skips, and duplicate treatment.

bicide to stumps following cutting is not possible. Selectively treating knee-to-waist-high resprouts with a backpack sprayer is a relatively quick process on the low growing foliage.

Foliar herbicide treatments with a backpack sprayer are the most effective means to treat sites with low to moderate plant densities. A useful treatment for privet is a water-based solution of glyphosate and triclopyr at a 2:1 ratio, respectively, as glyphosate alone is an ineffective foliar treatment for this species. Other herbicides proven effective for privet are 2,4-D (in combination with triclopyr), imazapyr, and dicamba, all

available under many different brand names. Be sure to calibrate your spray application to achieve the desired dosage, and follow the label.

Basal bark treatments are effective against privet and can be applied throughout the year. Basal bark treatments use a concentrated mixture of the herbicide triclopyr ester in basal oil applied to the entire circumference of the lower 12 to 18 inches of the intact stem, depending on its size. Pathfinder II is a ready-to-use triclopyr ester product that can also be used, no mixing required.

Privet is very persistent and can continue growing in areas even after multiple removal attempts. In planning your control approach, plan to “save the best,” or begin work in the least invaded sites and areas where there is desirable native vegetation already present. This approach to control work will be more successful over a larger scale, not only producing an outcome of higher ecological value, but also creating a much greater sense of accomplishment. Additionally, while treating privet you are likely to encounter other invasive shrub species. This all-too-common situation is why the use of a broad-spectrum herbicide solution is advised. As the plant is readily bird dispersed, new invasions can and will reoccur, but spot removal of isolated individuals is easy to accomplish as a regular maintenance activity.

## Human Use

All species of privet continue to be used in landscaping, particularly as ornamental hedges. The same vigorous regrowth and dense foliage that are prized in horticulture are what make privet so difficult to control in natural areas. Some nurseries market cultivated variations, or cultivars, of privet that claim to be sterile and thus do not produce fruit that could spread to surrounding areas. However, this claim does not consider the fact that yard plants may become fertilized by pollen from naturalized individuals or other genetic combinations, resulting in viable seeds. It is better to avoid introducing plants known to be invasive into your landscape; seek native alternatives instead.

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