

Forest Health



Invasive Plant Hit List: Japanese Honeysuckle

by Zeb Weese



Japanese honeysuckle is a woody vine that is very invasive and considered a severe threat to Kentucky's natural areas. It was first introduced into North America in 1806 from Asia.

Photos courtesy: Chuck Barger, University of Georgia, Bugwood.org Right: James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

Japanese honeysuckle (*Lonicera japonica*) is recognized as one of the worst exotic invaders in the eastern United States. The Kentucky Exotic Pest Plant Council has designated it a "severe threat," which is defined as an "exotic plant species which possess characteristics of invasive species and spread easily into native plant communities and displace native vegetation;

includes species which are or could become wide spread in Kentucky." Like many invasive exotic species, Japanese honeysuckle can monopolize resources and crowd out native species from their habitat. It is indeed a severe threat to the biodiversity of Kentucky and to healthy forest regeneration in your woodland.

Japanese honeysuckle is a Southeast Asian native naturally found along roadsides and sparsely vegetated forests under 5,000 feet in elevation. It is closely related to the equally invasive bush honeysuckle (*Lonicera mackii*) and to some much less common native honeysuckles, such as the trumpet honeysuckle (*Lonicera sempervirens*). It was introduced to North America from Asia in 1806 as an ornamental and, unfortunately, it can still be found at most nurseries and garden centers. It is all too common for landscapers to prefer invasive species over their native cousins because their very invasiveness makes them easy to propagate. In the past, game biologists even promoted Japanese honeysuckle as wildlife forage and recommended its cultivation because it stays green throughout most of the year.

The invasiveness of Japanese honeysuckle is due in part to vigorous resprouting after its aboveground parts are removed, for instance following herbivory or mowing. It is a very aggressive grower and capable of growing 30 feet of vine per year in warm climates. Honeysuckle has the potential to further impact native plants through allelopa-

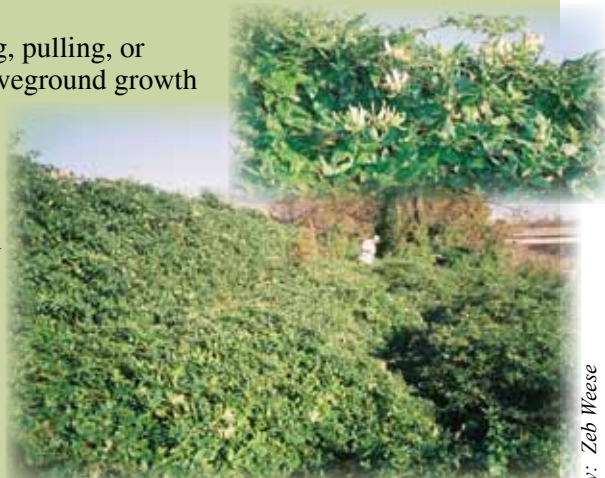
thy, or the production of chemical compounds which change the soil chemistry to benefit it and inhibit the growth of other plants. This effect is particularly noticeable in large infestations where honeysuckle leaves are present in the litter layer. Although it thrives in open areas such as fencerows, it is somewhat shade tolerant and does well at forest edges; it can even invade the forest interior if disturbances create openings in the canopy. Woodland owners should be aware that any Japanese honeysuckle on the edge of their woods has the very real potential to invade the woods soon after trees are harvested and thereby inhibit forest regeneration. Therefore, control of honeysuckle infestations on your property should take place prior to any timber management.

Identification

Japanese honeysuckle is a woody vine which can climb or trail up to 40 feet in length. It generally forms dense mats of vine-like, opposite branches with round, slender stems rarely attaining a diameter of two inches. While the stems are brown or tan, the leaves are bright green on top with a light underside. The leaves are opposite, smooth, and usually elliptical—although they are somewhat variable in shape—and are 1.5 to 2.5 inches long and 1 to 1.5 inches wide. In Kentucky the fragrant, tubular, one-inch-long, white-to-yellow flowers may bloom at any time between April and August. Each flower may produce 2 to 3 black, round, glossy berries from late summer to early spring.

Removal

Mowing, cutting, pulling, or burning the aboveground growth does not kill the plant and in many cases stimulates even denser regrowth the following year. For example, in one study honeysuckle mowed to the ground in February formed a dense seven-inch-tall mat within two



Left unchecked, Japanese honeysuckle can take over an area by forming dense mats that prevent native plants from establishing and surviving. Herbicides are considered the only practical control method for infestations like the one above.



One method that Japanese honeysuckle uses to take over a site is by sending out vegetative runners. As with all invasive plants, early detection and control is much preferred to waiting until they take over an area.

Photo courtesy: James H. Miller, USDA Forest Service, Bugwood.org

months, and a year and half later the mat was 20 inches high. A mat of only a few inches in height is enough to prevent the growth of native plant seedlings. Prescribed burns have proven effective in controlling many invasive species, but fire stimulates honeysuckle growth much as mowing does. Chemical control is the only practical control method, particularly for large plots. Landowners often face a dilemma in selecting herbicides for honeysuckle control – how do you control honeysuckle while protecting habitat for native plants and trees? Because Japanese honeysuckle actively grows until the temperature dips below freezing, it is possible to effectively apply herbicide to it when most native species are dormant. Because it is essentially growing year-round in Kentucky, herbicides can be applied to Japanese honeysuckle in the winter without harming other native trees and shrubs in the area; you

may even allow native seeds present in the soil to germinate. Bear in mind, to maximize herbicide effectiveness and safety, only apply herbicide on a relative dry, sunny, and windless day with temperatures over 40°F. In Kentucky, there are typically many days between November and March which meet this criteria.

The most effective Japanese honeysuckle control is through foliar herbicide application, or herbicide applied directly to the leaves. See Table 1 for information on the herbicides that can be used for control. Glyphosate-based herbicides are the most commonly used for Japanese honeysuckle control; use the label rate (usually 1 to 2 percent of active ingredient) applied with a hand-held or backpack sprayer. Herbicide application before the first killing frost is more effective than application later in the season, so application before the temperature drops below 25°F the first time of the season is recommended. However, applying herbicide any time the plant is green and actively growing will work to some extent. Other herbicides that are also effective in Japanese honeysuckle control include imazapyr-based and metsulfuron methyl-based formulations. Be aware that imazapyr-based herbicides do have quite a bit of soil activity and may not be the best choice for an area that you may wish to re-vegetate the following spring. Triclopyr-based formulations are not among the most effective for dormant season control of Japanese honeysuckle and are not recommended.

Table 1: List of some commonly used herbicides for Japanese honeysuckle control.*

Active Ingredient	Common Brands	Treatment	Cautions
Glyphosate	RoundUp, Accord, etc**	Foliar application any time of the year when the plant is growing - between November and February has least impact on other plants. Conditions optimally should be dry, sunny, low wind, over 40°F.	Make sure that you follow all label directions for mixing and safety.
Imazapyr	Arsenal		
Metsulfuron methyl	Escort		

* Other herbicide brands can be used. The herbicides listed are those that have widespread and research-based used.

** There are currently a large number of brand names for glyphosate herbicides. Many are for use in field or fencerows where Japanese honeysuckle is common; a few such as Accord are labeled for use inside a forest. See Kentucky Woodland Magazine 1(1) for more information.

About the Author:

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