OAK OPENINGS REGION BEST MANAGEMENT PRACTICES

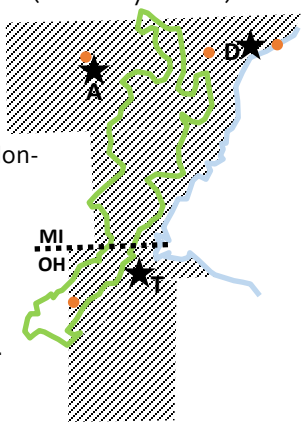
JAPANESE HONEYSUCKLE

Lonicera japonica

TARGET

This Best Management Practice (BMP) document provides guidance for managing Japanese Honeysuckle in the Oak Openings Region of Northwest Ohio and Southeast Michigan. This BMP was developed by the Green Ribbon Initiative and its partners and uses available research and local experience to recommend environmentally safe control practices.

INTRODUCTION AND IMPACTS— Japanese Honeysuckle (*Lonicera japonica*) is native to eastern Asia and was first brought to North America in 1806 as an ornamental. It has been used for erosion control and wildlife habitat. Japanese Honeysuckle ("J. Honeysuckle") is now widely distributed in North America and is found throughout OH and MI.



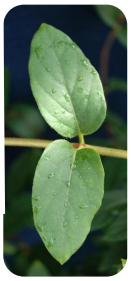
The Midwest Invasive Species Information Network (MISIN) has 5 reports of Japanese Honeysuckle (orange dots) in or within 5 miles of the Oak Openings Region (OOR, green line). It is found in 4 of the OOR's 7 counties, as well as several neighboring counties, but is currently absent in most of our natural areas. However, J. Honeysuckle has demonstrated the ability to establish and spread in both healthy and disturbed habitats of the OOR (see habitat section).

Japanese Honeysuckle has many characteristics that contribute to its classification as an invasive, pest species. It has an aggressive growth habit and easily forms dense mats, shading out native vegetation below. It can also girdle and kill small saplings. The weight of climbing J. Honeysuckle can cause shrubs and small trees to become damaged, or even collapse. It leafs out earlier and retains its leaves longer than many native species, creating season-long competition for light resources. Additionally, J. Honeysuckle's extensive root system makes it a strong competitor for soil resources. Invasions of J. Honeysuckle can alter understory bird populations and it is a host for several agricultural pests. Through its inhibition of native plants, J. Honeysuckle severely degrades the quality of the habitats in which it becomes established.

SIMILAR SPECIES—Japanese Honeysuckle is similar in appearance and habit to several native honeysuckle vines in the OOR: *L. dioica,* possibly *L. hirsuta* and *L. sempervirens*. However, native honeysuckles have red to orange berries, fused leaves at the branch tips, and clusters of many flowers. J. Honeysuckle is the only invasive honeysuckle **vine,** though there are several invasive honeysuckle shrubs. The invasive bush honeysuckles (*L. maackii, L. tatarica,* and *L. morrowii*) can all be distinguished by their red berries in addition to their shrubby growth form.

HABITAT—Japanese Honeysuckle prefers partial to full sunlight and fertile, loamy soil but is shade tolerant and can grow in a wide range of soil conditions. J. Honeysuckle is frequently found along roads, railways, woodland edges, old home sites, streams, and rivers. In the OOR, J. Honeysuckle has been found largely in disturbed habitats and a target natural community list is still being compiled.

IDENTIFICATION—Habit: Semi-evergreen woody vine. Can grow over 80' long and add 30'+ of new growth in a year. Twines around anything thin enough, including saplings, shrubs, and other vines.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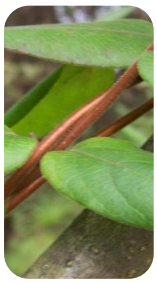
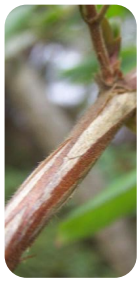
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Leaves: Simple and opposite, 1.5-3.2" long. Green above, whitish-green below. Leaves close to the ground may be lobed, but are otherwise oval or oblong with entire margins. At least sparsely pubescent, with short pubescent petioles.

Stems: Young stems are reddish-brown and usually pubescent. Older stems are hollow and hairless, with brown bark that peels in long strips. Up to 4" in diameter.

Flowers: White to pink, turning yellow with age. Tubular and 1-2" long, with 5 fused petals forming a two-lipped corolla. 4 lobes on the upper lip and 1 on the lower. Extremely sweet-fragrant. Grow in pairs of the leaf axils.


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Fruits: Firm berry containing 2-10 seeds. Small (0.25"), shiny and black. Hard and green when immature.

Seeds: 2mm in diameter, ovate to oblong with a flat to concave inner surface and three ridges on the dorsal surface. Brown or black in color.

Roots: Extensive root system, up to 15' across and 4'deep.

Japanese Honeysuckle Timeline	J	F	M	A	M	J	J	A	S	O	N	D
Life History	Dormant		Leaf-Out	Flowering			Summer Growth		Fruit Ripens			Leaf Loss
Pull or Dig			When soil conditions are appropriate									
Cutting Only							Mow 1		Mow 2			
Foliar Spray			Can spray in spring, especially before other spp. leaf out				More effective		Most effective after first killing frost but before first hard frost (25° F)			
Stump Cut	Cut and treat								Cut and treat			
Prescribed Fire			Burn					Burn				

REPRODUCTION AND DISPERSAL—Japanese Honeysuckle reproduces vegetatively and by seed. Extensive rhizomes sprout and create local colonies, in conjunction with lateral stems rooting at the nodes. Long distance dispersal is facilitated by birds, rabbits, and other animals that readily consume the fruit. Little information exists on J. Honeysuckle's persistence in the seed bank. ***Thoroughly cleaning equipment is a critical prevention measure for J. Honeysuckle in the OOR. Land managers should consider incorporating pre– and post-project equipment cleaning into contracts.***

REPORTING—As a species identified for eradication in the OOR, reporting J. Honeysuckle is essential for its control and implementation of Early Detection Rapid Response across the partnerships. It is easiest to identify in the spring or fall before/after other plants have leafed out, or when it is in flower. Report J. Honeysuckle at www.misin.msu.edu and also to the county or local CWMA or CISMA.

CONTROL—The best control is integrated control. Management plans should focus on the depletion of root/rhizome reserves followed by chemical damage to the rhizomes where conditions permit the use of herbicides. An annual follow-up is essential in the treatment of J. Honeysuckle, and monitoring should include an area of at least 20' around the original patch.

Chemical: The following recommendations have been compiled from groups working in OH, IN, PA, VA, MO, NY, CT and IL. It is the responsibility of the applicator to ensure compliance with herbicide labels and regulations when planning chemical treatment. Follow-up treatments should take place six weeks after cutting or initial application.

Foliar Spraying—Best for large, dense populations or as follow-up after cutting. Herbicides should be used with 0.5-1% of an appropriate non-ionic surfactant (e.g. Cygnet Plus®, LI-700, etc.).

Stump Cut—This technique is less straightforward with J. Honeysuckle than with other species because its stems can root at their nodes, but it can be effective. Cut stem 2" above ground and immediately apply glyphosate, triclopyr, imazapyr, or picloram + 2,4-D to the cross-section of the stump. Best for small to medium populations.

Mechanical: Small J. Honeysuckle can be pulled by hand or dug, but care must be taken to ensure all roots and rhizomes are removed.

Herbicide	Trade Names	Concentration
Glyphosate	Aquamaster®, Rodeo®, Roundup®	Spray: 0.75-8% Stump: 10-25%
Imazapyr	Habitat®, Arsenal®	3-4 pt/ac
Triclopyr	Garlon 3A® or 4 Ultra®, Pathfinder®	Spray: 2-10% Stump: 10-100%
Triclopyr + 2,4-D	Crossbow®	
Sulfometuron	Oust®	2-3 oz/ac

Mowing will stimulate dense regrowth but can serve to deplete rhizome reserves if repeated frequently enough. Some resources suggest lifting up the vine mass with a rake while using a chainsaw or brushcutter to cut the stems close to the ground. Mowing at least twice yearly may slow vegetative spread, but cutting is most effective when used in conjunction with a follow-up systemic herbicide treatment. Currently (2019), there is not clear information regarding whether cut stems of J. Honeysuckle can re-root, but it seems likely. In all mechanical removal scenarios, ensure the equipment used is clean and all plant material is disposed of appropriately (see Disposal below).

Biological: Japanese Honeysuckle has many natural pests in its home range, but to date none have been tested and approved for use in the USA. Goats may suppress J. Honeysuckle growth and weaken plants, but grazing stimulates sprouting from the roots. Deer readily consume J. Honeysuckle foliage, but not enough to control it.

Prescribed Fire: Little information is available on J. Honeysuckle's response to burning, but evidence suggests fire alone does not effectively control J. Honeysuckle. Fire removes aboveground biomass and may kill seedlings, but it has little effect on the rhizomes of more mature plants, leading to resprouting. Additionally, fire can reduce competition and shade from other plants, increasing J. Honeysuckle's rate of growth. Fire is best used in conjunction with a follow-up herbicide treatment 1 month after resprouts emerge. Use caution as J. Honeysuckle will act as a ladder fuel.

DISPOSAL

- Cut vines can be left in place if no fruit is present and they are not in contact with the soil.
- If fruit is present: fruit should be incinerated, or sealed in plastic bags and disposed of in a landfill.
- Ensure all plant parts are dead before composting, either by drying completely or liquefying in plastic bags.
- Do not remove soil from the site unless it is being disposed of in a landfill.


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