

# MORROW'S HONEYSUCKLE

*Lonicera morrowii*



TARGET

This Best Management Practice (BMP) document provides guidance for managing Morrow's Honeysuckle in the Oak Openings Region of Northwest Ohio & 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**—Morrow's Honeysuckle (*Lonicera morrowii*) is native to Korea and Japan and was first brought to North America in the late 1800s as an ornamental. Since then, Morrow's Honeysuckle (or "M. Honeysuckle") has been promoted for erosion control and wildlife habitat. M. Honeysuckle is now widely distributed in North America and is found throughout OH and MI.

The Midwest Invasive Species Information Network (MISIN) has no reports of M. Honeysuckle in or within 5 miles of the Oak Openings Region (OOR, green line) but USDA reports it in 3 of 7 counties of the OOR and two neighboring counties (black stripes). Invasive bush honeysuckles are present in many of the region's natural areas and are likely underreported. They have demonstrated the ability to establish and spread in healthy and disturbed habitats of the OOR. Expected quality habitats of M. Honeysuckle include the more nutrient rich soils of floodplains, flatwoods and mesic deciduous forest, as well as, drier deciduous forests.

Morrow's Honeysuckle has many characteristics that contribute to its classification as an invasive, pest species. It leafs out earlier, holds its leaves longer, and grows more rapidly than most native species, depriving them of light, space, and nutrients. Pollinators may favor M. Honeysuckle, detracting from time spent pollinating native plants. Morrow's may also perform some level of allelopathy—the release of germination or growth inhibiting compounds into the soil.

Morrow's Honeysuckle negatively impacts wildlife as well as plants. While its fruit is attractive to many species of birds (its primary disperser), M. Honeysuckle berries lack the fat and nutrients that migrating species require. In addition, research suggests that birds nesting in honeysuckle are more likely to have their nests predated. Other species suffer as their native food sources are outcompeted by M. Honeysuckle. Through its inhibition of native plants and its impact on native wildlife, M. Honeysuckle severely degrades the quality of the habitats in which it becomes established.

**SIMILAR SPECIES**—Morrow's Honeysuckle is similar in appearance and habit to other invasive honeysuckles, including Amur honeysuckle (*L. maackii*), Tatarian honeysuckle (*L. tatarica*), and Bell's honeysuckle (a hybrid—*L. x bella*). None of these species are native to the U.S. and all can be treated with the control methods outlined here.

In the OOR, Morrow's may be mistaken for native bush honeysuckle species *Diervilla lonicera*, *L. canadensis* (North OOR), or *L. oblongifolia* (North OOR). These native species have solid white pith in their

stems and smooth styles in their flowers (except for *L. oblongifolia*), while M. Honeysuckle stems have a hollow center and hairy styles. M. Honeysuckle may also be confused with dogwoods (*Cornus* spp.), but dogwoods flower at the ends of their branches, rather than in the leaf axils. Finally, coralberry (*Symphoricarpos orbiculatus*, native) may be confused with young Morrow's Honeysuckle. Coralberry has sessile leaves with more rounded ends than those of Morrow's, as well as pinkish fruits.

**HABITAT**—Morrow's Honeysuckle prefers open locations and fertile soils but tolerates shade and a wide range of soil types. It has a higher tolerance for moist soil than other invasive honeysuckles, putting wetland habitats at risk. M. Honeysuckle can be found primarily in floodplain, flatwoods and deciduous forests.

**IDENTIFICATION**—**Habit:** Upright, deciduous, multi-stemmed shrub up to 8' tall. Long, arching branches from which younger branches spread upward.



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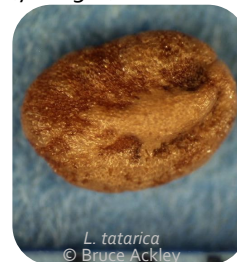
**Leaves:** Opposite, oval to egg shaped, and short stalked. Taper to a wide, sharp point. Upper surface light green. Underside is grayish and hairy. Typically 1-2.5" long. Appear earlier in the spring and remain later in the fall than those of native shrubs. Leaf buds sparsely hairy or hairless and shaped like short cones.

**Stems:** Young stems have brown pith, while older stems have a hollow center. Bark is light brown and often has grooves, ridges or splits lengthwise, appearing striped. Older stems may have shaggy bark. Smells sweet when cut. Twigs are hairy.

**Flowers:** White, tubular, and five-petaled. Turn yellow with age. Fragrant. Usually ≤ 1" long, and found in pairs in the leaf axils. Hairy flower stalks 0.5-1.5 cm long. Pollinated by bees and hummingbirds. Plants under 3.5' tall (younger) not found to be reproductive.



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*L. tatarica*  
© Bruce Ackley



*Lonicera* spp.  
© Ryan Armbrust

Morrow's Honeysuckle Timeline	J	F	M	A	M	J	J	A	S	O	N	D
Life History	Dormant		Leaf Out		Flowering—Fruiting						Dormant	
Cutting Only					Cut/Mow Repeatedly							
Foliar Spray			Spray (early spring to avoid natives, later for best effects)									
Stump Cut/Basal Bark/Girdle	Treat								Treat			
Burning			Burn						Burn			

**Fruits:** Small (1/4"), round berries. Orange to red and paired. Contain an average of 5-7 seeds/fruit. Contain the carotenoid rhodoxanthin, which have been shown to cause orange-tipped (rather than yellow-tipped) feathers in Cedar Waxwings that consume them.

**Seeds:** Less than 1/8" long, oval, flattened, and yellow. Dispersed by animals. Can remain viable for 2+ years. A single shrub can produce thousands to millions of seeds annually.

**Roots:** Shallow, woody root systems, but can re-sprout from root fragments.

**REPRODUCTION AND DISPERSAL**—Reproduction of Morrow's Honeysuckle is primarily by seed, with some possible reproduction by suckers. Birds are the chief dispersers of seed, with help from deer and other animals.

**REPORTING**—Reporting M. Honeysuckle is essential for its control. It is easiest to identify in the early spring or late fall when it has green leaves but other plants do not. Report Morrow's Honeysuckle at [www.misin.msu.edu](http://www.misin.msu.edu) and also to the county or local CWMA or CISMA.

**HUMAN HAZARDS**—Berries are toxic to humans if consumed.

**CONTROL**—The best control is integrated control. Management plans should focus on the depletion of root reserves followed by chemical damage where conditions permit the use of herbicides. Annual follow-up is essential in the treatment of M. Honeysuckle.

**Chemical:** The following recommendations have been compiled from groups working in OH, MI, MO, CT, WI, MN, PA and Ontario. 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 when regrowth is  $\geq 1'$  tall.

**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.) and may be more effective in conjunction with penetrating or sticking agents (i.e. ammonium sulfate at 17 lbs/100 gal). Wait a year after foliar application before cutting.

Herbicide	Trade Names	Concentration
Glyphosate (Recommended)	Aquamaster®, Rodeo®, Roundup®, Glypro®, Razor®, AquaNeat®, Accord®, Touchdown®	Spray—1-3% Stump—20-50%
Triclopyr	Garlon®, Tahoe 4A®, Pathfinder®, Remedy®, Ortho®, Brush-B-Gon®	Spray—1-5% Stump—20% Basal—20-25%
2,4-D + Triclopyr	Crossbow®	Spray—1% Stump—4% Basal—4%
Imazapyr	Stalker®, Arsenal®	Spray—3% Stump—8%
2,4-D + Picloram	Pathway®, Tordon®	Stump—Undiluted

**Stump Cut**—Cut stem 2" above ground and immediately apply 20-50% glyphosate or triclopyr to the cross-section of the stump. Most effective treatment.

**Girdling**—For large plants only. Cut a groove down to the heartwood all the way around the stem. Spray or wipe herbicide into the groove (apply at stump-cut rates).

**Basal Bark Treatment**—Spray or wipe the bottom 12-15" of each stem with herbicide. Cover all sides of the stem. Oil is often the carrier, rather than water. Not for use in standing water or snow.

**Mechanical:** Cutting/mowing to ground level is the recommended method of mechanical M. Honeysuckle removal. Cutting is most effective when used in conjunction with a follow-up systemic herbicide treatment, but can control M. Honeysuckle if repeated throughout the growing season. Hand-pulling may be applied to new seedlings or small plants only. It is important to remove the entire root system and to minimize soil disturbance. In all mechanical removal scenarios, ensure you clean your equipment and dispose of all plant material appropriately (see Disposal below).

**Biological:** Many species feed on M. Honeysuckle, but most do not do enough damage to control the plant. The European Honeysuckle Aphid has been introduced and reduces M. Honeysuckle's fruit production, but the aphid is often predated by native ladybugs. Goats may browse Morrow's Honeysuckle.

**Prescribed Fire:** If there is enough fuel available, fire can control M. Honeysuckle in open habitats. Seedlings are often killed, but mature plants may only be top killed and will re-sprout.

**DISPOSAL**—If no berries are present on shrubs and no soil remains on the roots, M. Honeysuckle plants can be left on site. If berries are present, they should be collected, bagged, and disposed of at a landfill. Branches can be piled and burned or added to municipal compost. Backyard composters do not produce the heat required to break down M. Honeysuckle seeds.

