

ASIAN BITTERSWEET

Celastrus orbiculatus



Description: Asian Bittersweet is a woody, perennial vine. Leaves are alternate, toothed, and teardrop-shaped to round with a pointed tip. Flowers are small and greenish yellow, with male and female flowers on separate plants. They bloom in early summer and fruit in the fall. Fruit are greenish to yellow and grow in clusters of 3-7 along the stem at the leaf axils. They split open to reveal a bright red inner fruit.



Native range: Eastern Asia, Korea, China and Japan (<http://www.nps.gov/plants/alien/fact/ceor1.htm>)



Ecological threat: This plant threatens woodlands, forests, floodplains, savannas, and riparian corridors. It is a vigorously growing vine that climbs over and smothers vegetation which may die from excessive shading or breakage. When bittersweet climbs high up on trees the increased weight can lead to uprooting and blow-over during high winds and heavy snowfalls.

Current North American Range: Asian Bittersweet is currently known to be throughout Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio. It is also in southeastern Minnesota and into southern Ontario.

Current Midwest general distribution, including southern Ontario Not Known Isolated Locally Abundant Widespread

Early Detection and Rapid Response Can Help Stop the Spread!

ASIAN BITTERSWEET, *Celastrus orbiculatus*

MANAGEMENT OPTIONS: (<http://www.nps.gov/plants/alien/fact/ceor1.htm>)

Manual, mechanical and chemical control methods are all effective in removing and killing Asian bittersweet. Employing a combination of methods often yields the best results and may reduce potential impacts to native plants, animals and people. The method you select depends on the extent and type of infestation, the amount of native vegetation on the site, and the time, labor and other resources available to you. Whenever possible and especially for vines climbing up trees or buildings, a combination of cutting followed by application of concentrated systemic herbicide to rooted, living cut surfaces is likely to be the most effective approach. For large infestations spanning extensive areas of ground, a foliar herbicide may be the best choice rather than manual or mechanical means which could result in soil disturbance.

Biological

No biological controls are currently available for this plant.

Chemical

Systemic herbicides like triclopyr (e.g., Garlon® 3A and Garlon® 4) and glyphosate (e.g., Accord®, Glypro®, Rodeo®) are absorbed into plant tissues and carried to the roots, killing the entire plant within about a week. This method is most effective if the stems are first cut by hand or mowed and herbicide is applied immediately to cut stem tissue. Herbicide applications can be made any time of year as long as temperatures are above 55 or 60 degrees Fahrenheit for several days and rain is not expected for at least 24 hours. Fall and winter applications will avoid or minimize impacts to native plants and animals. Repeated treatments are likely to be needed. In areas where spring wildflowers or other native plants occur, application of herbicides should be conducted prior to their emergence, delayed until late summer or autumn, after the last killing frost occurs, or carefully targeted. Herbicidal contact with desirable plants should always be avoided. If native grasses are intermingled with the bittersweet, triclopyr should be used because it is selective for broad-leaved plants and will not harm grasses. Follow-up monitoring should be conducted to ensure effective control.

Glyphosate products referred to in this fact sheet are sold under a variety of brand names (Accord®, Rodeo®, Roundup Pro® Concentrate) and in three concentrations (41.0, 50.2 and 53.8% active ingredient). Other glyphosate products sold at home improvement stores may be too dilute to obtain effective control. Triclopyr comes in two forms – triclopyr amine (e.g., Garlon® 3A, Brush-B-Gone®, Brush Killer®) and triclopyr ester (e.g., Garlon® 4, Pathfinder®, and Vinex®). Because Garlon® 3A is a water-soluble salt that can cause severe eye damage, it is imperative that you wear protective goggles to protect yourself from splashes. Garlon® 4 is soluble in oil or water, is highly volatile and can be extremely toxic to fish and aquatic invertebrates. It should not be used in or near water sources or wetlands and should only be applied under cool, calm conditions.

Manual and Mechanical

Small infestations can be hand-pulled but the entire plant should be removed including all the root portions. If fruits are present, the vines should be bagged in plastic trash bags and disposed of in a landfill. Always wear gloves and long sleeves to protect your skin from poison ivy and barbed or spined plants. For climbing vines, first cut the vines near the ground at a comfortable height to kill upper portions and relieve the tree canopy. Vines can be cut using pruning snips or pruning saw for smaller stems or a hand axe or chain saw for larger vines. Try to minimize damage to the bark of the host tree. Rooted portions will remain alive and should be pulled, repeatedly cut to ground or treated with herbicide. Cutting without herbicide treatment will require vigilance and repeated cutting because plants will resprout from the base. the

For more information on control and management of this species, please visit the following Web sites: www.usda.plants.gov, www.nps.gov/plants/alien/factmain.htm, tncweeds.ucdavis.edu/comtrol.html, dnr.wi.gov/invasives/plants.htm, www.invasivespeciesinfo.gov/plants/main.shtml, <http://www.nps.gov/plants/alien/fact/pope1.htm>

Early Detection and Rapid Response Can Help Stop the Spread!

