

Japanese barberry

(*Berberis thunbergii*)

Homeowners Fact Sheet

Tips for identifying, controlling, and monitoring Japanese barberry on your property

Background

Japanese barberry (*Berberis thunbergii*) is a spiny, deciduous shrub that is native to Asia. It was first introduced to the United States from Russia in 1875 as an ornamental plant. It is currently a very popular landscape and hedge plant prized for its red autumn foliage and red berries in winter. It grows well in full sun to deep shade and is found in closed canopy forests, open woodlands, wetlands, fields, and other areas in Cook, DuPage, Kane, Lake, McHenry, and Will Counties.

Why Should You Care?

Japanese barberry forms dense thickets that outshade and displace native trees, shrubs, and herbs that are important to native animals for food and shelter. In some cases, birds and small mammals will eat the fruits and deposit seeds over long distances. In places with dense infestations, barberry leaves can change the chemistry of the soil and affect what plants grow there.



Red berries stay in the winter. (Photo taken from Virginia Tech vTree website.)



Pale yellow flowers appear in spring. (Photo taken from Virginia Tech vTree website.)



Branches have bright yellow-green interior wood. (Photo taken from Virginia Tech vTree website.)



Grooved branch with spines. (Photo taken from Virginia Tech vTree website.)

Identification

- Perennial, woody shrub that has red autumn foliage; loses its leaves by late autumn.
- Leaves are small, .5 to 1.5 inches long, shaped like spatulas or narrow ovals, ranging in color from yellowish green to green to bluish green to reddish purple.
- Shrub grows 3 - 6 feet in height; dwarf forms never reach 2 feet
- In spring plants produce clusters of 2 – 4 small, pale yellow flowers along the length of each branch.
- Fruits are red, 1/3 inch long, and mature between July and October. The red berries remain throughout the winter.
- In addition to spreading by seed, Japanese barberry can spread using roots and tip rooting branches.

Some Suggested Prevention and Control Methods

Do not plant Japanese barberry and replace existing plants in your landscape or garden with native or non-invasive plants!

Mechanical Small infestations of young plants can be pulled by hand before they produce seeds, but be sure to wear thick gloves and a long sleeve shirt to protect your hands and arms from the spines. A Weed Wrench® can be used to uproot roots of young plants and entire larger plants (stems up to 2.5 inches) when the soil is moist. The entire root should be removed to avoid resprouting. Shrubs can also be mowed or cut back repeatedly during the growing season.

Chemical

Basal bark method This method is effective throughout the year as long as the ground is not frozen. Prepare a mixture of 25% triclopyr plus 75% horticultural oil and apply to the base of the shrub to a height of about a foot from the ground. Thorough wetting is necessary for good control, but be careful to avoid run-off at the ground line. A dye added to the mixture will help keep track of treated plants.

Cut stem method This method is most effective if the stems are first cut by hand or mowed to ground level and herbicide (triclopyr or glyphosate) is applied immediately to cut stem tissue. Herbicide applications can be made any time of year as long as rain or snow is not expected for at least 24 hours and there is little or no wind during application. Fall and winter applications will avoid or minimize impacts to native plants and animals. Make sure to not use herbicide on or near water.

Foliar application Because this method involves applying herbicide mix to foliage (leaves), it should be considered mostly for large infestations where the risk to non-target species is minimal. The best time to treat is late fall or early spring. Apply a 2% solution of glyphosate or triclopyr and water to thoroughly wet all leaves. Mix should not be dripping off leaves. If desirable plants are nearby, a no-spray buffer area should be established to protect non-target plants.

Follow-up

As Japanese barberry is removed from the site, fill the space with native or non-invasive ornamental plants by seeding or planting. A variety of attractive selections of native shrubs are available that provide nectar, seed and host plant material for butterfly, hummingbirds, and other wildlife. They include Physocarpus Coppertina™ Ninebark (*Physocarpus opulifolius* 'Mindia'), Physocarpus First Editions® Amber Jubilee™ Ninebark (*Physocarpus opulifolius* 'Jefam'), Physocarpus First Editions® Little Devil™ Ninebark (*Physocarpus opulifolius* 'Donna May'), Physocarpus 'Lady in Red' Ninebark (*Physocarpus opulifolius* 'Tuilad') and Physocarpus Summer Wine® Ninebark (*Physocarpus opulifolius* 'Seward'). Another native shrub, *Sambucus nigra* L. ssp. *canadensis*

also called *Sambucus canadensis*, has a purple-leaved cultivar called Sambucus Black Lace™ Elderberry (*Sambucus nigra* 'Eva'). Other introduced species include Dark Horse Weigela (*Weigela* x 'Dark Horse'), Weigela Fine Wine (*Weigela florida* 'Bramwell') and Weigela Wine and Roses® (*Weigela florida* 'Alexandra'). New Jersey Tea (*Ceanothus americanus*), although not purple-leaved, is another small stature native shrub for the residential garden.

Precautions

- In areas where spring wildflowers or other desirable native plants occur, herbicide application should be carefully targeted with protection of surrounding plants or conducted prior to their breaking ground in the spring, delayed until they senesce in late summer or autumn, or after the last killing frost. Foliar application of the herbicide MUST be applied to the target plant while it is in an active growth stage.
- Herbicidal contact with desirable plants should always be avoided. If native grasses are intermingled with the Japanese barberry, triclopyr should be used because it is selective for broad-leaved plants and will not harm grasses.
- Because triclopyr amine is a water-soluble salt that can cause severe eye damage, it is imperative that you wear protective goggles to protect yourself from splashes. Triclopyr ester is soluble in oil or water, is highly volatile and cannot be used in temperatures above 80° F; 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, dry, and low wind conditions.
- If using herbicide, be sure to follow all label instructions
- Monitor treated area and treat resprouts!

Equipment & Supplies You May Need

Loppers or machete

Weed Wrench®, Weed wacker, and/or mower

Herbicide (glyphosate and triclopyr)

Rubber gloves and appropriate eye protection

Long pants, long sleeved shirt, closed-toe shoes

Spray bottle and liquid dye (food coloring or Rit dye works)

Patience, persistence, and commitment (this will take years)

Additional Resources

Midwest Invasive Plant Network Control Database

<http://mipncontroldatabase.wisc.edu/>

Northeast Illinois Invasive Plant Partnership www.niipp.net

