

# INVASION ALERT!

## *Japanese barberry*



Groton has been invaded by a foreign plant: Japanese barberry (*Berberis thunbergii*). This spiny, dense shrub is a favored home of ticks, including the Lyme disease-carrying deer tick. Very common in ornamental landscape plantings, it proliferates in open areas via seeds carried by birds.

The purpose of this flyer is to show you what it is, how to identify it, and what you can do about it.



*Japanese barberry leaves, berries, and spines in late summer, and a pale variety planted in an ornamental bed*

## Description

Japanese barberry is a spiny shrub ranging from 2 to 8 feet tall. In the summer it produces ¼-½ inch, ovular red berries that droop down from the twigs and can persist through the winter after its leaves have dropped. Leaves vary in size and shape, but tend to be small and oval to spatula shaped.

Leaf colors include yellow, green, purple and red; numerous varieties have been introduced for landscape planting. Japanese barberry has a dense, umbrella-shaped growth habit. Due to this, it creates a humid microclimate which ticks require for survival as they wait for a host. Areas with Japanese barberry infestations have nearly 60% more lyme-carrying ticks than areas where control measures have been taken.



*Mature Japanese barberry shrub*

Japanese barberry also crowds out native plants and disrupts the ecology of the forest soil decomposition process. Deer avoid it, due to the spines. It has virtually no known herbivores. Introduced to the US as an ornamental plant in the 1800s, Japanese barberry is common in residential and commercial landscape plantings to this day, despite being banned for sale and distribution in Massachusetts as of January 1st, 2009. In Connecticut, where forests are struggling with heavy Japanese barberry infestations, even propane torches are being employed as a control measure.

Japanese barberry readily spreads in open areas such as fields and abandoned lots, but is also shade-tolerant. Self-fertile, one plant is capable of spreading progeny. In addition to via berries, it can reproduce by rooting from the tips of arching branches that reach the ground, and by producing stems from the base of the plant and roots

# Identification

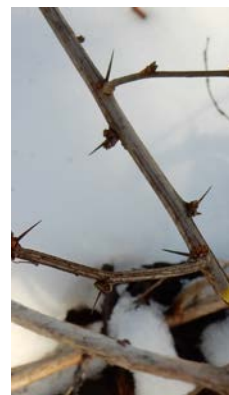


Japanese barberry is easily identified by the small dense spines and leaves, bright red oval elongate berries in the fall and winter, and the umbrella-like growth shape. It forms dense impenetrable thickets in unmaintained areas, but is commonly kept in a traditional round shape when maintained in landscapes. Sometimes kept as a hedge, cultivars range in color from dark purple, red, bright green, to near yellow.

Japanese barberry has small, pale yellow flowers April through June. Green varieties turn reddish in the fall. The spines, which are actually modified leaves, are usually single but occasionally grow in bunches of up to three.

The leaves are alternating, grow in clusters along the branches, and are ovular or spatula-shaped. Their size can vary but are generally small (fingertip sized). Most diagnostic are the bright red ovular berries that are not palatable to people or wildlife. The spines are particularly visible in winter.

*Clockwise from Left: blossoms, berries with fall foliage, leaves, stems (with spines), berries, and a young shrub in forest*



## What You Can Do

Studies have shown Japanese barberry stands to be favored habitats for Lyme disease-carrying ticks. Removing Japanese barberry from your yard is thus beneficial for native wildlife and for you and your family.

- When working to remove Japanese barberry, take care to protect yourself from the nasty spines.
- Small plants can be pulled from the ground and the roots left to dry out. Immediate composting is not recommended.
- Early spring is a good time to remove barberry plants, as they set leaves before other plants and are easily identifiable.
- The best time for manual removal is before or during flowering.
- Repeated cutting or mowing is also effective, if done before fruiting.
- Removal of the entire root system is important, as Japanese barberry can re-sprout from fragments left in the ground. Larger specimens can be dug from the ground using a hoe, shovel, or Weed Wrench®.
- Larger stumps may be successfully treated with herbicide, but that's beyond the scope of this flyer. Please be safe and responsible when working with herbicides.

Some attractive native Massachusetts replacement plants for ornamental beds are spice bush (*Lindera benzoin*), bayberry (*Myrica pensylvanica*), inkberry (*Ilex glabra*), and aronia (*Aronia melanocarpa*). With a little soil acidification via peat and/or iron sulfate, native highbush blueberry (*Vaccinium corymbosum*) makes a lovely (and tasty) alternative addition to the landscape.

The Invasive Species Committee may be able to provide some guidance, possibly help, and would like to know about large Japanese barberry infestations in town. To contact the committee, send email to:

***invasive@grotonma.gov***

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