

**BERBERIS THUNBERGII**  
(Japanese Barberry)

**BERBERIS VULGARIS**  
(Common Barberry)

Introduction and Identification

Leaves of Japanese barberry are egg shaped with entire margins and narrowing at the base. Yellow woody stems have straight spines. Yellow flowers bloom in long racemes sometimes solitary or in clusters. The petals are usually smaller than the sepals and the bright red fruit is ellipse shaped ½ an inch long. Flowers blossom in May with fruits remaining on the stems during fall and winter. Seeds are the main mode of reproduction although growth may occur from roots. Japanese barberry height ranges from 2 to 8 feet. This shrub is found along fences, old fields, open woods and roadsides and thickets. The shrub is declared an invasive species in 20 states, particularly Connecticut, and including the District of Columbia.

Common barberry possesses alternate and simple leaves with toothed margins and double and triple branched spines. It may grow to 6 to 9 feet tall. The stems have an ashen colored bark. Primary leaves morph into three pronged spines with a swollen base. Secondary leaves in clusters from the spines are oval, simple and narrowing at the base with finely toothed margins ending in tiny spines. *Puccinia graminis*, the organism that causes black stem rust of wheat, barley, oats and rye and other cultivated and wild grasses, dwells on Common Barberry for a time as part of its life cycle. Crop losses are a financial strain for growers. Ripe fruits have been made into jelly by boiling with sugar. Roots boiled in lye dyes wool yellow. Common barberry bark contains berberine, a crystalline, yellow alkaloid. Medicinal uses include that of an antiseptic, purgative and tonic.

Natural History

Japanese barberry is indigenous to the Asian continent. Its range is from Nova Scotia to North Carolina and west to Montana. The shrub was initially discovered in the Japanese mountains and sent to St. Petersburg Botanic Garden in 1864. Circa 1875 seeds from the garden were given to Arnold Arboretum and eventually introduced to North America. Japanese barberry spread because of its use as an ornamental hedge prized for the red fruit. Barberries are still widely propagated for landscaping use in the United States. Birds eat the fruit and the seeds are acid scarified by their digestive tracts and deposited in new regions and therefore contributing to the naturalization process.

Life Cycle and Ecology

Japanese barberry forms dense growth in open woodlands, meadows, pastures and canopy forests, raising the soil pH and biological activity and reducing the forest litter layer. This shrub competes with native vegetation reducing wildlife habitat and forage. White tailed deer nibble on the native plants and thereby give Japanese barberry more of a competitive edge. Plant is drought resistant, shade tolerant and grows better in sun to part shade, however will flower and fruit in shade. Japanese barberry produces a copious amount of seed with a germination rate up to 90%. Branches that touch the ground can root to form new growth.

#### Management and Control:

Both Japanese barberry and Common barberry infestations are treated in a similar manner. Mechanical removal is effective because the two species leaf out before most of the other shrubs. A mattock, hoe or weed wrench will uproot the shrubs; use gloves to protect hands and a long sleeved shirt to protect oneself from the spines. If the shrub is in fruit, pick and bag them to prevent seed spreading. Repeated cutting or mowing will provide some control of Japanese barberry but not eliminate it. Cut close to ground level at least once per season. One recommendation is to cut or mow in late summer before seed formation.

#### References

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