

JAPANESE BARBERRY (Berberis Thunbergii DC)

JAPANESE BARBERRY is an introduced aggressive perennial shrub bearing several stems that grow up to 4-feet or more in height. Each stem bears numerous very sharp 3/8-inch long spines. If you have ever been jabbed by the Barberry spine you will certainly remember it and you will want to avoid this plant. A spine is present at the base of each leaf-cluster along a woody stem. Leaves are up to 1-inch long, somewhat elongated in shape, smooth-edged and narrowed toward the base to its petiole attached to the stem. Several such long spiny stems typically grow from a root clump (Figure 1).

See the attached illustration, or view the plant in the book, *Wildflowers of Door County* (Paul and Marilyn Mahlberg), or other guide of local plants to recognize the Barberry plant.



Figure 1. Barberry plant showing long spines and immature fruit.

Consider its invasive nature! Some Barberry plants and seeds from Asia were introduced at two USA locations, one at Boston in 1875 and another at New York in 1896. From there it spread throughout the Eastern and Midwestern states to Wisconsin and Door County, and then onto your property. All of this area was invaded within a period of about 125 years! Further, it displaces native plants, reduces wildlife and encourages development of populations of field mice or other small mammals that, in turn, attract undesirable wood ticks.

Barberry grows in partially to fully shaded areas, and multiplies so rapidly that it can become the dominant shrubby plant in your area. You will find it to be so obnoxious that you will not be able to walk on your property without being repeatedly jabbed by its

numerous spines. Thus, it takes action on your part to remove these plants so that you can enjoy the full use of your property. Barberry plants will increase in number and density with time, and further degrade the use and economic value of your property, if you do not act to remove them.

It spreads in several ways. When tips of growing plants touch the ground for a period of time new roots will develop from the tip and produce a new shoot that will grow into a new plant. New shoots will develop from its spreading roots. The plant produces an abundance of seeds that will develop into new plants.

Japanese Barberry is very prevalent around the south end of Kangaroo Lake and into the hardwood forests along the west side of the lake. It invades disturbed areas such as along driveways, and then moves into less disturbed areas around the lake. Examine your property for the presence of the spiny Barberry plant and its relative abundance.

If you have only a few scattered plants, remove them by simply digging them out with a long-handled shovel. It is essential to remove or kill the perennial root of the plant. If it also occurs on neighboring property perhaps you and your neighbors can work together to remove the Barberry.

If you have many plants their removal will be labor-intensive, and it will take time to remove them. Because you want native plants to replace the Barberry, try to remove only the invasive plants, and let the native plants in place.

Control: This information outlines procedures to destroy Barberry plants. You want to kill the root, or it can renew growth of the plant:

Wearing apparel: Your clothing should include goggles (a must!) for eye protection from spines and sprays in particular; all-leather gloves; plastic gloves when using herbicides; sturdy footwear, and tough outerwear to resist the spines including a long-sleeved garments; long pants.

Tools and supplies: Long-handled sharp-pointed shovel or spade; long-handled lopper; long-handled 4-tined cultivator rake; root-puller tool (available on loan); the manufacturer's pump tank with herbicide for poison ivy and brush; a typical 3-inch paintbrush and convenient can to hold concentrated herbicide; hand branch-clipper; a handy carrying container for small work items.

Herbicide: The recommended herbicide contains both glyphosate (1%) and triclopyr (0.1%) spray that is applied to poison ivy and tough brush. It is already prepared in the manufacturer's pump sprayer model (1 gallon+ container). It is locally available in Sturgeon Bay. Check several suppliers including Walmart.

Also consider purchasing a small container of Round-Up (Poison Ivy) Concentrate. It contains glyphosate 18% and triclopyr 2%. It can be brushed onto cut stem surfaces as described below.

Procedures: For large plants, you can use one or all of these procedures:

(1) If you have a root-puller, cut off plant stems horizontally about 6 or 8 inches above the ground. This will help you avoid the spines while you wrench out the root. Then attach the root-puller to the stem and root area to pull (leverage) out the entire root. It works best when the soil is moist so that the entire root is pulled out. A root-puller is locally available for your loan.

(2) Lop off plant stems horizontally just above ground level of the root. Then spray the cut surfaces with the manufacturer's sprayer containing glyphosate and triclopyr herbicide. To prevent the herbicide from drifting when you spray, use a piece of cardboard about 24 x 24 inches square to make a spray shield. Cut a hole in the cardboard near the top (middle area) of one side to make a handgrip. Then hold this shield behind the plant root area to be sprayed so as to avoid spraying native plants. The spray can kill native plants. You want native plants to continue growing so as to replace the killed invasive plants.

3) Instead of spraying the cut surfaces, you can paint the freshly cut surfaces with the concentrated herbicide. Use the paintbrush with some herbicide in a convenient can. Avoid getting herbicide on adjacent native plants.

Disposal: Decide how you will dispose of this woody, spiny material. You can leave it in place in the woods but it will take a few years for spiny stems to decompose. If there are seeds on the stems, you must dispose of the seeds, or entire stem with seeds. These seeds if left to fall onto the ground will germinate into new plants. If you have a shredder available, shred some or all of the stems. Or, carry branches by pickup truck to an approved outdoor burning fireplace, or approved plant waste site. You can anticipate accumulating a large pile of spiny branches.

The next year: After you have removed the Japanese Barberry plants plan to check the treated areas yearly for a few years for new or missed plants. Japanese Barberry produces an abundance of seeds that remain viable in the soil for several years. There may be a lot of seeds in the soil. Avoid a re-occurrence of the Barberry Invasion on your property.