

NEW JERSEY NON-NATIVE PLANTS



Japanese knotweed

(*Polygonum caspidatum*)



Description

Japanese knotweed is a herbaceous perennial that forms large clumps up to 13 feet tall. The smooth stems are stout and hollow like bamboo. The leaves are broadly ovate, 2-6 inches long and taper to a point. The plants are dioecious (male and female flowers on separate plants), and bloom in late summer and early fall. The greenish-white flowers are very small. When in full bloom, the plant has masses of flowers all along the stem. The seeds are held in winged, triangular, shiny black-brown achenes that are generally wind dispersed, but can also be dispersed by water and by transportation of fill dirt. The plant also produces long rhizomes (up to 20 m in length) that allow the plant to spread quickly locally, and when rhizome fragments are transported to new sites they can initiate a new population.

Why is Japanese knotweed bad for New Jersey?

The early spring emergence of Japanese knotweed, and its dense growth, prevent indigenous species from establishing, in turn reducing species diversity and wildlife habitat. Because Japanese knotweed favors damp areas and areas that have been disturbed, riparian corridors are particularly at risk. Japanese knotweed can tolerate a variety of adverse conditions including full shade, high temperatures, high salinity, and drought. It is found near water sources, such as along streams and rivers, in low-lying areas, waste places, utility rights-of-way, and around old homesites. It can cause flooding by decreasing water flow through stream channels. Once established, it is extremely persistent. Reproduction occurs both by vegetative cuttings and seeds, making this plant extremely hard to eradicate. Once introduced it spreads rapidly by rhizomes and is extremely competitive.



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Control:

How can you get rid of Japanese knotweed?

Mechanical: Small stands can be controlled by repeatedly cutting the stems during the growing season. All plant parts should be removed from the site. Digging out rhizomes creates soil disturbance and may spread rhizome fragments. Shading with black plastic or shade cloth may also reduce growth.



Chemical: Large stands can be treated effectively with herbicides, but many of the most effective herbicides are nonselective and may persist in the soil. The following herbicide application methods are most common:

Cut stem application

Use this method in areas where plants are established within or around non-target plants or where vines have grown into the canopy. This treatment remains effective at low temperatures as long as the ground is not frozen. Cut the stem about 2 inches above ground level. Immediately apply a 25% solution of glyphosate (e.g., Roundup®, or use Rodeo® if applying in or near wetland areas) or triclopyr (e.g., Garlon) and water to the cross-section of the stem. A subsequent foliar application of glyphosate may be required to control new seedlings and resprouts.



Foliar application

Use this method to control large populations. It may be necessary to precede foliar applications with stump treatments to reduce the risk of damaging non-target species. Apply a 2% solution of glyphosate or triclopyr and water to thoroughly wet all foliage. Do not apply so heavily that herbicide will drip off leaves. A 0.5% non-ionic surfactant is recommended in order to penetrate the leaf cuticle, and ambient air temperature should be above 65 °F.

Biological: Biological control agents are being investigated in Europe, but research is still in the early stage.