



Japanese knotweed growing at the Broad Cove Reserve shoreline
Photo by Sukie Curtis

Got Japanese knotweed?

Japanese knotweed is one of the most damaging and fast-spreading invasive plant species in New England—but many organizations and websites are dispensing management advice that could make a bad infestation even worse. The best available science shows that digging, mowing, cutting and/or tarping Japanese knotweed is not effective and can even stimulate expansion of this species' impressive root system.

In fact, the only scientifically-proven control method is applying a low-dose (2-4% dilution) of glyphosate weedkiller, and it must be applied during a specific window in late summer, at least two weeks before the first frost. Fall application is effective because the plant will be drawing resources into its roots for winter, and the herbicide goes with them. A stronger dose of glyphosate can kill the top growth of the plant too quickly, before the herbicide can reach the rhizomes.

If your knotweed is tall, paint or spray only the leaves and stems at shoulder height or below; never spray glyphosate over your head. And be sure to wear an N95 mask and clothing that covers your skin.

The season after the first application should show knotweed greatly reduced in size and vigor; but usually two or three annual late summer applications will be needed to control a large stand of knotweed, while also

clearing the way to plant beneficial native species. However, complete eradication of knotweed is unlikely; stay vigilant for new shoots!

Recent studies in Vermont have shown that knotweed exacerbates erosion along streams and riverbanks; in addition, streams with knotweed become the conveyors of knotweed fragments that start new infestations downstream. If you find knotweed along streamside property, remember that ***special rules apply to herbicide use in or near wetlands or waterbodies; a licensed professional may be required, and consulting state and local authorities is advised.*** [Maine Board of Pesticides Control](#)

So, what do I do if I have Japanese knotweed?

First, get a firm ID



Photos by Sukie Curtis

Some of the common clues to identifying knotweed are: the asparagus-like stems of new shoots; reddish color in new leaves and stems (some desirable plants have reddish stems, too! Don't panic!); a zig-zag pattern to the stem between leaf nodes (see middle and right photos); and somewhat flattened, heart-shaped leaves, about 5-6" long, with a pointed tip. Taller knotweed stems look like bamboo, with enlarged stem "rings." Knotweed can grow to 10 feet tall. Knotweed flowers are in white sprays from the upper side of branches, just beginning to emerge in the photo on the right.

Resist the urge to cut, mow, or dig Japanese knotweed, which is one of the most resilient organisms on Earth. Being a native of volcanic slopes, it has adapted to survive hot lava flows! Its roots, referred to as *rhizomes*, can grow more than 10 feet deep and 30 or more feet beyond where you see aboveground stems. It can stay hidden, dormant but alive, for more than 20 years, just waiting for an opportunity to pop up again.

If you do cut, mow, or dig this plant, bag all broken stems, roots, and leaf parts; do NOT try to compost it, either at home or in the town compost. Composting rarely gets hot enough to destroy knotweed fragments, and it only takes a small fragment to start a new plant. It's best to dry/solarize knotweed thoroughly before either burning it at home or putting it in the town trash for incineration.

Don't be discouraged; control of knotweed is possible!

For more information:

- [Read this 2018 scientific journal article](#), which documented that only glyphosate effectively controls Japanese knotweed
- [Read this 2020 paper](#) on the impacts of knotweed on streamside erosion

From the Cumberland-North Yarmouth "Invasive Plants Annihilation" group.