

## Japanese Knotweed Treatment Options

Japanese knotweed is such an aggressive plant that you will need at least five years to eliminate it, so plan long term! The references at the end of this article describe the plant and research on eliminating it.

If you decide to undertake a control project, Rockport Garden Club members of the Invasive Plant Committee will guide you through the steps in exchange for receiving your data and photos. Contact Nan Blue at 978-546-9755 or Laura Hallowell at 781-799-5988.

All data and information sheets are available on the RGC website/Knotweed Project/Data Sheets, [www.rockportgardenclub.org/Knotweed Project.html](http://www.rockportgardenclub.org/KnotweedProject.html). Please mail your completed data sheets to Rockport Garden Club, 37 high Street, Rockport, MA, 01966.

### WETLANDS

If you are within 100 feet of a wetland (pond, ocean, stream, etc.), special restrictions apply. The Garden Club will help you to apply for the required permit and help you with every phase of the work. Please call Laura or Nan if you are near a wetland. ***Using herbicide in a wetland buffer zone is harmful to the area and is against the law.*** The Rockport Conservation Commission is very supportive of our efforts.

### OVERVIEW

Knotweed can be controlled by both chemical and mechanical methods. In both cases, any effort on a particular plot needs to be continued for a minimum of five years because shoots can appear up to 60 feet away from the dormant root systems. The root systems often extend ten feet underground.

Knotweed spreads mainly from small and large fragments of stems and roots (rhizomes); the seeds are usually sterile. **This means that all cuttings of knotweed must be bagged and incinerated no matter which general method is undertaken. Bagged knotweed must be discarded with general incinerated trash, never added to the compost pile.**

### Herbicides

Research shows that judicious application of glyphosate herbicide according to the protocols below can eradicate large fractions of knotweed infestations each year. As knotweed weakens, it may change form dramatically into a twisted, gnarly version of its former self! As the knotweed changes form, your chosen approach will need to evolve.

To use herbicides effectively, cut, bag and incinerate knotweed in mid June or early July; this forces the plant to expend more of its stored food as it re-grows. In late August or early September, as near to flowering as possible when knotweed is most vulnerable, apply the herbicide glyphosate, available in Round Up or Aquamaster, according to one of the methods below.

### Mechanical methods alone

Mechanical methods without herbicide are most effective with small infestations of 50 stems or less where the infestation can be followed carefully. Mechanical control consists of cutting knotweed to approximately six inches high at least four times per growing season from June to October. All cuttings and fragments must be removed from the site and destroyed.

However, research has shown that repeatedly cut knotweed often responds by producing more small stems over a much wider area, so cutting alone should not be undertaken unless the area can be followed for many years. Cutting without removing all fragments will spread the infestation since each piece can start a new plant.

The root clusters of knotweed at the surface may be dug up, bagged and destroyed to further discourage the plant. This is combined with the planting of native grasses and other species approved to prevent erosion and inhibit the growth of knotweed.

## DETAILED METHODS

### Annual schedule, herbicide

May-June	document current infestation
mid-June to early July	cut and bag, and incinerate knotweed new growth
late August-early Sept.	herbicide treatments: stem filling, glove wiping, and foliar spray
Sept. - October	cut, bag and incinerate dead stalks

### For patches with large canes: Stem Filling

**Step 1.** Cut knotweed to about 6" in mid June-early July. Bag and incinerate all cuttings and fragments.

**Step 2.** Cut the knotweed stalks just below a node, about 6" from the ground. Cut only 3-4 stalks at a time; immediately apply 3-5 ml (about 3/4 teaspoon) 18-24% glyphosate, (as in concentrated Roundup) to fill the stem. (If you cut a large number at a time it is difficult to keep track of which ones you have filled. Also, the filling may not be timely.) The Garden Club will lend you the appropriate squeeze bottle.

**Step 3.** Bag all plant fragments in heavy-duty contractor bags and incinerate.

### For very large patches or plants with stems too small to fill: Foliar spray:

**Step 1.** Cut knotweed to about 6" in mid June-early July. Bag and incinerate all cuttings and fragments.

**Step 2.** Apply Roundup (glyphosate) in mid August to early September, preferably just before the flowers bloom. The plants should be well leafed out with a lot of surface area to absorb the herbicide. Spray the foliage, to the extent that the solution does not run off the leaves, using Roundup, 2 to 5% glyphosate. Be sure to follow the directions on the label.

**Step 3.** Monitor the patch and reapply glyphosate to any re-growth before senescence.

**Step 4.** When dead, cut and bag all plant fragments in heavy-duty contractor bags and incinerate.

**For knotweed in sensitive areas that cannot be stem filled: Glove Wiping**

**Step 1.** Cut knotweed to about 6" in mid June-early July. Bag and incinerate all cuttings and fragments.

**Step 2.** Put on rubber/latex gloves followed by a cotton glove. Dip the cotton glove in 2-5% glyphosate and then use it to wet the leaves and stem of the knotweed while protecting desirable plants with paper or cardboard. Let the glyphosate dry.

**Step 3.** When dead, cut and bag all plant fragments in heavy-duty contractor bags and incinerate.

**Annual schedule, cut only areas**

May-June	document current infestation
mid-June to early July	cut and bag knotweed new growth
July-Oct.	three or more additional treatments of cutting and bagging new growth

**Step 1.** Scan the area up to 60 feet away for new stems.

**Step 2.** Cut knotweed stems individually to desired height, but less than 6". Note: Using a mechanical mower will probably spread the infestation since every knotweed fragment can start another plant if left on the ground.

**Step 3.** Bag all knotweed fragments and incinerate.

**Web sites:**

King County [ WA State] Noxious Weed Control Program, Invasive Knotweed BMP, <http://your.kingcounty.gov/dnrp/library/water-and-land/weeds/BMPs/Knotweed-Control.pdf>

Montana State University Extension Service, <http://msuextension.org/publications/AgandNaturalResources/EB0196.pdf>

New England Wildflower Society, <http://www.newfs.org/protect/invasive-plants/removal/common-invasives-management.html>

**RGC Invasive Plant Committee**

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- Nan Blue
- Laura Hallowell

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