

Control Methods for Japanese knotweed

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There are two affective methods for controlling Japanese knotweed (*Polygonum cuspidatum*), henceforth referred to as knotweed. It is advised that you evaluate the site conditions where the knotweed occurs to determine which method is best suited for control. One involves smothering and the other uses herbicide.

Smothering



(PHOTO 1)



(PHOTO 2)



(PHOTO 3)

If you wish to avoid the use of herbicides you may want to try smothering. Not only does it eliminate the need for chemicals, but there are also no soil disturbance/erosion issues. Here are the general guidelines:

1. Allowing the knotweed to grow in the spring without attempting to control it;
2. Cut the knotweed at the base and close to the ground around the first week in June (PHOTO 1) (this helps to weaken the rooting system);
3. Pile the cut stems on an impervious surface such as a tarp, plastic, pavement, etc. so they can dry out (after turning brown the stems can be composted);
4. Apply a layer of mulch, grass clipping or other cushiony material over the sharp cut stems to prevent them from puncturing the plastic (PHOTO 2, an old tarpaulin was used);
5. Cover the entire area with the biggest heavy-duty dark colored plastic (7mil thick), tarp or heavy duty weed fabric you can find. If more than one piece is used make sure to overlap the seams by about 2 feet. Also, make sure the cover material extends at least 5-10 feet beyond the limit of knotweed in all directions (PHOTO 3);
6. Weight the top of the tarp/plastic and seal the edges with rocks, sticks, soil, sand, mulch, wood chips etc. (PHOTO 3). Do not puncture the tarp/plastic as this can allow knotweed stems to survive. If there are any tears or holes, patch them. Covering with wood chips or mulch does several things including improving the visual aesthetics; blocks UV rays from the sun, which photo-degrades plastic; and insulates it from cold temperatures so it doesn't crack.
7. After 5 years the covering material can be removed and the area replanted.

Although this method may take a while, it has been very successful in sensitive areas here in NH.

Foliar Herbicide Treatment



(PHOTO 1)



(PHOTO 2)



(PHOTO 3)

To achieve 95%-100% control in one application, use the following guidelines:

1. Allow the knotweed to grow in the spring without doing any type of management until the first week in June;
2. Cut the knotweed at the base as close to the ground as possible during the first week of June (see PHOTO 1 above and note below);
3. Pile the cut stems on an impervious surface such as a tarp, plastic, pavement, etc. so they can dry out (after turning brown the stems can be composted);
4. Allow the knotweed resprout and again, do not do any management until after flowering, which usually occurs in early to mid September ;
5. Just after flowering (early to mid September) an herbicide application using a 5% solution of a glyphosate based product, such as Roundup, should be applied as a foliar spray using a pump, backpack sprayer or mist blower (PHOTO 2). Apply to thoroughly wet all foliage, but not to the point of runoff.
Read and follow the product label!

If resprouting occurs the following year then a re-treatment will be needed following the above described guidelines (As was the case in PHOTO 3).

Note:

Knotweed is herbaceous (non-woody), so although it may be imposing, the stems cut quite easily and can be done using motorized trimmers with metal blades, or hand tools such as a machete or stout sickle, even loppers and hand pruners work just fine. **Mowing is not recommended** as it can promote the spread of knotweed by moving vegetative propagules to new locations. A properly timed cutting will eliminate the tall canopy and make follow-up operations much easier. The best time to cut is in early June and once in the season is all that's required to weaken the rooting system. The best time to apply herbicides to knotweed is in the fall (September to October) once the flowers have died off. The two primary reasons for waiting are: honeybees voraciously forage on knotweed flowers and by waiting till after flowering the herbicide treatment will not coincide with their activity; and secondly, this is also the time of year when carbohydrates start flowing back down into the rooting system (rhizomes) for over wintering. Glyphosate is the herbicide of choice for controlling knotweed. It is effective, has no soil activity, it is readily available, and somewhat inexpensive.