

Japanese Knotweed (*Polygonum cuspidatum*)

Look: Perennial

- Hollow bamboo-like stems growing 3-10 feet high with swollen joints at leaf nodes. Large, heart-shaped, smooth-edged leaves. Dies back every fall then re-sprouts from same root mat. Reproduces vegetatively through rhizome networks and root and stem fragments. Flowers are small white/greenish on branched clusters. Seeds are produced in late summer; they are a secondary means for re-generation.

Issues: Extremely aggressive and resilient forming dense thickets that overrun native plant communities. Once established, a colony is extremely hard to eradicate. Root and stem fragments as small as ½” can form new plant colonies. Knotweed re-sprouts vigorously following any disruption like cutting, mowing, digging and even sometimes herbicide treatment.

Control: Two systems- Mechanical and Chemical

Depending on the size and location of the knotweed either **or both** systems of control may be appropriate to use. Mechanical control aims at starving the roots by removing the green vegetation or up rooting the plants all together and is best suited for small, isolated patches. To be successful, mechanical control programs need to be aggressively administered for at least two or three years. Remove all cut vegetation from site or be sure to thoroughly dry the material because any piece of stem or root can re-sprout and colonize another patch.

Chemical control programs should always consider the suitability and sensitivity of the site and should match the project with the correct herbicide and application method. Chemical applications should be initially applied just before flowering with follow-up applications to suppress any re-growth. Combination plans using both mechanical and chemical treatments like tilling then herbiciding re-growth, may be appropriate in some areas.



Mechanical Control (continued)

Hand Cutting: Using a machete, loppers or pruning shears, cut the stems down to the ground surface as often as possible, but at least every 2-3 weeks from April (or as soon as the plant appears) through August. Sprouting slows after August, so you can reduce cutting frequency, but try and prevent the plants from ever exceeding six inches (15cm) in height. Pile the cut stems where they will quickly dry out.

Mowing: Using a weed-eater or mower, cut as low as possible and as often as possible, but at least every 2-3 weeks through August. Be sure you are not scattering stem or root fragments onto moist soil or into the water. Goats are reported to eat knotweed and in some circumstances controlled goat grazing may be an option similar to intensive mowing. Be aware they will eat desirable vegetation as well.

Digging/Pulling: If the knotweed has established in soft soil, or better yet sand, try pulling the plant and major rhizomes up by the root crown to remove as much of the root system as you can. Although you will almost certainly not kill the plant in one treatment, you will reduce the root mass. Each time you see new sprouts (start looking a week after you pull and search at least 20 feet away from the original plant), uproot them as well, trying to pull out as much of the root as you can each time. This is probably only feasible with small patches. Be sure to carefully dispose of any root material.

Tilling: Used alone, tilling or otherwise physically disturbing the root system will not provide control and will create many re-sprouts. This approach may however offer some benefit in an integrated strategy, since it will increase the shoot to root ratio. The more shoots there are per linear foot of root, the more likely you will be to be able to physically pull them out, exhaust them by depriving them of energy (i.e. by cutting the shoot off) or kill them with herbicides.

If you do try and control knotweed manually, be sure you practice the four T's: be timely, tenacious, tough and thorough. And as always, carefully dispose of any stem or root material.

Control summaries from *Controlling Knotweed in the Pacific Northwest*, Jonathan Soll, The Nature Conservancy, 2004.

Traditional western cuisine combines rhubarb with strawberries. Japanese knotweed, a superior relative of rhubarb, makes this union even better. Layered between cottage cheese, breadcrumbs, and walnuts, it can't be beat.

2 cups breadcrumbs

1/4 cup corn oil

2 cups cottage cheese

3 cups Japanese knotweed shoots, sliced

2-1/2 cups wild or commercial strawberry jam

1 cup walnuts, chopped

1. Mix the breadcrumbs with the corn oil.

2. Layer a large, oiled casserole dish with soy-cottage cheese, Japanese knotweed, strawberry jam, oiled breadcrumbs, and walnuts, pressing everything down with the palm of your hand.

3. Bake, uncovered, 30 minutes in a preheated 350°F oven.

4. Chill. \

(Note: You definitely should peel Japanese knotweed shoots that are over 1 foot tall because the skin tends to be stringy.)

Serves 6

Time: 20 + 30 minutes