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JAPANESE KNOTWEED COMPLEX MANAGEMENT TIPS

Japanese knotweed, a member of the Buckwheat family, is an herbaceous perennial. It is shrub-like and can grow to over 10 feet tall. The stems are hollow and jointed and resemble bamboo. The leaves are large (about six inches long and four inches wide) and heart-shaped. The flowers are small and greenish-white. Reproduction is primarily vegetative by the extensive root system. Plants can push through concrete, displacing foundations, walls and pavement. Knotweed can form dense stands that are almost impenetrable. Knotweed is associated with changes in water quality and food chain interactions and may impact fisheries.



Management and control efforts should focus on reducing seed production and depleting root reserves. Control efforts must be planned for multiple years at the existing site in order to treat new plants that emerge and prevent the re-establishment of Japanese knotweed.

Preventing the establishment of Japanese knotweed is the number one priority for management. Once established, eradication is extremely difficult because of regrowth from the extensive root system. Japanese knotweed is not very common in Gallatin County, but has been found in several areas around Bozeman. If you think you have found this plant, please contact your local county Weed District.

Effective control measures for the management of Japanese knotweed include:

- 1. Mechanical (stem cutting, hand pulling & digging):** Persistent stem cutting several times a year over many years is needed to significantly decrease root reserves. If done consistently, hand pulling and digging can be effective on small patches with relatively new plants. Wear gloves when pulling and digging.
- 2. Herbicide: Always follow directions on the label. The label is the law!** Calibrate your equipment to ensure that you are adding the proper amount of herbicide to your tank. The following herbicides are commonly used to control Japanese knotweed. *For the most effective control, apply herbicides in late summer, after the plants have fully emerged and when there is an abundant amount of foliage, but before a killing frost.*

Mixing rates in small backpack or hand sprayers are as follows:

Arsenal/Habitat (Imazapyr):	2 oz herbicide to 1 gallon of water.
Milestone:	1.25 teaspoons herbicide to 1 gallon of water.
Glyphosate:	5.5 ml herbicide injected into hollow stem approximately 6 inches above the ground.
Glyphosate:	25% solution immediately applied to cut stem.

Rates in large sprayers are as follows:

Arsenal/Habitat (Imazapyr):	2 quarts herbicide per acre.
Milestone:	7 oz herbicide per acre.

NOTE: Adding a surfactant to your tank mix may enhance the performance of your herbicide and is required for certain herbicides (read the label). Add 0.5 - 1 oz per gallon of water for backpack sprayers or 1 – 2 pints per 100 gallons for large sprayers.

- 3. Cultural (revegetation):** Revegetation can be used after a patch appears to have been eradicated by herbicide or mechanical control. This will help decrease the reinvasion potential.
- 4. Integrated management:** Management of Japanese knotweed is more effective when more than one strategy is used.