Knotweed plants may be controlled by application of a systemic herbicide containing glyphosate or triclopyr to the actively growing plants. Cut or break stems in early summer, then apply herbicide spray to the regrowing shoots in late summer. Cutting should be timed so that plants do not exceed three feet in height when sprayed. Use a bulk handheld or backpack-type tank sprayer. Dispense the product at the lowest pressure and largest droplet size possible to reduce the risk of exposure and drift. Stem injection is another technique for killing knotweeds (for example: http://www.jkinjectiontools.com/). The advantage of these devices is that plants that are too tall to spray easily may be treated by injecting herbicide directly into the hollow stems. Injection methods reduce injury to desirable vegetation. Injection is also thought to lead to more immediate death of knotweed plants. Injection is more costly and labor intensive than foliar spray application. It also requires greater quantities of herbicide than foliar spray application, as each stem must be treated separately. Supplemental herbicide labels that give specific instructions for stem injection are available from the manufacturers. Any weed management activity should include a plan to reintroduce native or desirable landscape or crop plants. This allows the area to recover and resist future invasions. Monitor the site for at least two years following treatment to ensure that the knotweed has been completely killed. Small stunted plants are often observed resprouting on the site the year following treatment. These may be removed with a repeat application of the treatment. Wait for one year after herbicide application before restoring the site to ensure that eradication is complete, so that replanted vegetation is not damaged by further herbicide treatment.
Knotweeds (Polygonum spp.) are recognized as a significant invasive plant problem throughout much of the northern United States, British Columbia in Canada, and the United Kingdom. Escaped knotweeds have become established in many communities throughout southeast Alaska. Three species of particular concern in Alaska are: Japanese knotweed (Polygonum cuspidatum), giant knotweed (P. × bohemica), and a hybrid cross of Japanese and giant knotweed known as Bohemian knotweed (P. × bohemica). The three are often collectively referred to as “Japanese knotweed.”

Knotweeds were originally imported from Asia to North America as ornamentals and for use in stabilizing disturbed sites. Today these plants are propagated by unwary gardeners because they are easily established and form a dense hedge with attractive flowers. However, many gardeners regret their decision to plant it after it takes over the yard, spreading beyond where it was originally wanted. Due to its invasive characteristics, many states prohibit its use in landscaping. State and federal agencies, environmental groups, and private landowners are working to control Japanese knotweed in the Pacific Northwest, where it is now spreading into riparian areas throughout much of the northern United States, British Columbia in Canada, and the United Kingdom.

Description

Invasive knotweeds are easily identified. They are herbaceous perennials with stems up to ten feet tall. Stems are also angled slightly at each node. In late summer plants produce branched sprays of tiny white flowers (Figure 1). In late fall the stems die back, but the underground stems, called rhizomes, survive the winter in a dormant state. In early spring, the rhizomes produce new rapidly growing shoots, which can quickly dominate the site. The roots and rhizomes of a knotweed plant form an extensive underground network, growing up to 45 feet in length (Figure 2).

Of about 80 species of the genus Polygonum that occur in North America, many are non-native species. To differentiate the three species of particular concern for the maritime portion of Alaska use the following: Look at leaves from the middle of a stem, not the shoot tip leaves, which are highly variable. Hairs on the midvein on the underside of the leaf are diagnostic of the species. Use a 10X lens to view the backlit underside of the leaf are diagnostic of the species. Use a 10X lens to view the backlit underside of the leaf are diagnostic of the species.

Japanese knotweed flowers and foliage resemble bamboo, but lack the long grass-like leaves characteristic of bamboos. Stems are also angled slightly at each node. In late summer plants produce branched sprays of tiny white flowers (Figure 1). In late fall the stems die back, but the underground stems, called rhizomes, survive the winter in a dormant state. In early spring, the rhizomes produce new rapidly growing shoots, which can quickly dominate the site. The roots and rhizomes of a knotweed plant form an extensive underground network, growing up to 45 feet in length (Figure 2).

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