Japanese Knotweed: Options for Control

Japanese Knotweed (Polygonum cuspidatum), a class-B, non-designate, noxious weed in Lincoln County, Wash., also known as Japanese bamboo, Mexican

bamboo, Japanese fleeceflower and huzhang, is a perennial species with spreading rhizomes and numerous reddishbrown, freely-branched stems. The scientific name, *polygonum*, is a reference to the swollen nodes or "knots" along the stem of the plants in this genus. *Cuspidatum* means "sharp-pointed," likely a reference to the leaf morphology. Japanese

Knotweed's
native range is
Asia, particularly Japan,
Taiwan and Northern
China. It was introduced to North America
in the 1880's for use in

Watch out! Japanese Knotweed grows quickly. It can spread and over take vehicles.



Leaves of the Japanese knotweed can be 6-inches long.



Flowers of the Japanese Knotweed are minute, and greenishwhite. Its seeds have low viabil-

estate gardens after receiving wide horticultural attention in Europe. **Japanese Knotweed** was added to the Lincoln County Noxious Weed list in

2007, after three sites were located along Lake Roosevelt and another on Bald Ridge Road north of Davenport. Japanese Knotweed grows quickly and often forms large thickets. The roots are rhizomes extending 30 feet from the parent plant and grow as much as seven feet below the soil. Buds along the length of the rhizomes may develop into new stems depending upon environmental conditions.

Japanese Knotweed spread mainly by rhizomes and stem fragments; however seed spread is also a concern.



Japanese knotweed can grow up to 10 feet tall.

Key Identifying Traits

- Stout **stems** are smooth (bamboo-like) and swollen at the joints where the leaf joins the stem.
- Flowers are minute, greenish-white and occur in branched sprays followed by small winged fruit.
- The broadly-ovate leaves are petiolate, truncate and a little triangular; their tips are pointed, some 2-6 inches long, and 2-5 inches wide.

Biology and Ecology

- Perennial species with spreading rhizomes and numerous reddish-brown, freely branched stems
- Tolerates a variety of adverse conditions including:
- ♠ Full shade
- ♠ High temperatures
- ★ High salinity
- ♠ Drought
- Found near water sources, in low-lying areas, waste places, utility right of ways, and around old home sites.
- Very susceptible to spring and fall frosts.
- Dense colonies can produce 11 to 16 ton per acre of dry matter and rhizome weights of 5 to 14 ton per acre.



Japanese knotweed rarely establishes colonies by seed.



This root fragment can extend 60 feet from the parent plant and seven feet below the soil.



Japanese knotweed hiding amongst trees.



Shady, moist areas are where Japanese knotweed grows best; photos are along Lake Roosevelt, in Lincoln County.

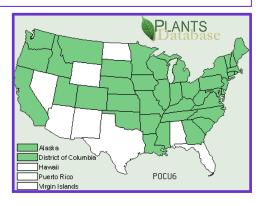
Control Measures

- <u>Prevention</u>: Learn to identify plants; know your property.
- Biological: None known at this time.
- <u>Cultural</u>: Do not mow, the seeds will spread.
- Mechanical: Not effective! Cutting the stems once will result in new shoot emergence. Cut each plant 6 inches tall and at a minimum cut at least 10 times per season (twice a month in April through August).
- Chemical:
- ⇒ Foliar Application Roundup, Aquamaster, Habitat and Arsenal can result in 68%-94% control.

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- ⇒ Stem Injection/cut stem treatment Aquamaster or Roundup Concentrate. An injection gun is needed to get herbicide into the stems.
- Read the label instructions before applying any herbicides.
- Continue to monitor the site.

Protykin® is a high potency 200:1 standardized extract of Japanese Knotweed (root), a powerful antioxidant and cardioprotectant that contains 50% phytoestrogens (natural plant estrogens). As a phytoestrogens, Protykin® helps maintain normal estrogen activity, reduce hot flashes, balance mood swings, and promote healthy bone density. Resveratrol, the active ingredient in Huzhang, is an antibiotic produced by several plants including Japanese knotweed (roots). A number of beneficial health effects, such as anti-cancer, antiaging, anti-inflammatory effects in non-human species





Japanese knotweed infestation before injection treatment.



Post-treatment of 6ml injected resulting in 100% control after 42 days.



Once in bloom, Japanese knotweed should stand out showing its aggressive habits.

Photos and information courtesy of: University of Weed Science, USDA Plants Database, InterHealth, EFG Biodiversity Image Gallery, Clark Co. Noxious Weed Management, Thurston Co. Noxious Weed Control and Washington State Noxious Weed Control Board.