

FC Noxious Weed Control Best Management Practices



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Tree of Heaven

Alianthus altissima

Family: Simaroubaceae

Class C Noxious Weed

Education

Background Information

Tree of Heaven, a Class C noxious weed in Franklin County, is a fast growing tree of the Simaroubaceae family. Tree of heaven was introduced into the United States in the Philadelphia area around 1784. In the 1850's tree of heaven was brought to the west coast with immigrants. Valued initially as an urban street tree, it was widely planted in the Baltimore and Washington D.C. area. From there, tree of heaven spread and became a common invasive plant in urban, agricultural and forested areas. It has the potential to establish in every state, and has been found on every continent except Antarctica.

Spotted Lanternfly, an invasive agricultural pest, prefers tree of heaven for nesting. Spotted Lanternfly is present in the Eastern United States and poses a serious threat to Washington's agriculture. **Tree of Heaven is on the WA State quarantine list. It is prohibited to transport, buy, sell, offer for sale, or distribute plants or plant parts, seeds in packets, blends, or wildflower mixes of this species, into or within the state of Washington.** WAC 16-752



Dense thicket crowds out natives



Flowers



Fruit

Impacts

Tree of heaven competes with native plants for nutrients, light and moisture. It is very fast growing and forms thickets. It leaches a variety of toxic chemicals into the soil that inhibits the growth of other plants. The extensive root system can damage infrastructure and hardscapes in areas where it has been planted as an ornamental tree.

Mature plants- damage to a retaining wall



Key Identifying Traits

- ◆ Bark is smooth and green when young, eventually turning light brown to gray, resembling the skin of a cantaloupe.
- ◆ Leaves have a central stem in which leaflets are attached on each side. The leaf margins are smooth.
- ◆ Base of leaflets have glands which when crushed have a strong offensive odor.
- ◆ Twigs have a large V or heart shaped leaf scar. The interior of the twig contains a large, spongy brown center, or pith.
- ◆ Fruit and seeds on female trees are a long, twisted samara, or wing which is found in clusters and often persists on the tree through winter.

Biology and Ecology

- ◆ Dioecious, a tree is either male or female.
- ◆ Grows in dense colonies.
- ◆ Female trees capable of producing more than 300,000 seeds annually.
- ◆ Established trees continually send up root suckers that can emerge as far as 50 feet from the parent tree. Injured trees may send up as many as a dozen root sprouts.
- ◆ Produces toxic chemicals that inhibit the growth of other plants
- ◆ Hosts the invasive pest, Spotted Lanternfly



Be on the lookout!

Spotted lanternfly has been found in the eastern U.S. and may be introduced into WA via numerous modes of transportation.

Control Measures

Prevention: Control efforts should focus first on preventing establishment in new areas.

Biological: None available

Cultural: Healthy competitive vegetation reduces open spaces which lessens the chance for invasion.

Mechanical: Mowing is ineffective. Seedlings can be hand-pulled but root fragments left in the soil can sprout. Mechanical methods alone are not recommended as they result in basal and root suckering.

Chemical: Tree of Heaven is tough to control and will require multiple years treatment. Target the root system with systemic herbicides from July through the onset of fall color. Foliar application of glyphosate or triclopyr at a 2% solution is effective for small trees where thorough coverage is possible. Do not spray desirable plants as injury will occur. Concentrated glyphosate or triclopyr can be applied to cuts evenly spaced around the trunk using the hack and squirt method. FCWB can help you determine the best control option for your unique circumstance. Call our office to schedule a consultation.

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