



JEFFERSON COUNTY NOXIOUS WEED CONTROL BOARD

380 Jefferson Street, Port Townsend WA 98368

360 379-5610 Ext. 205

noxiousweeds@co.jefferson.wa.us



BEST MANAGEMENT PRACTICES

Spurge Laurel (*Daphne laureola*)

(Family— *Thymelaeaceae*—Daphne Family)

Legal Status in Jefferson County: Class B non-designated noxious weed (non-native species listed on the Washington State Weed List, but already widespread in this area). The Jefferson County Noxious Weed Control Board recommends, but does not require, property owners to control and prevent the spread of spurge laurel on private and public lands throughout the county. Containment of current infestations and prevention of new populations are strongly encouraged.



BACKGROUND INFORMATION

Impacts and History

- Spurge laurel threatens certain native ecosystems, especially Garry oak woodlands and madrone\ Douglas fir forests.
- It can rapidly colonize new areas, outcompeting native plants and forming single-species stands.
- It has the potential to change soil chemistry and to alter natural plant succession.
- Very difficult to eradicate once established.
- The leaves, bark and fruit are toxic to humans and most mammals, but not to birds. The sap can cause skin and eye irritation.



- Spurge laurel is native to the British Isles, other European countries, and North Africa.
- Because of its shiny evergreen leaves and fragrant flowers, spurge laurel has been used as an ornamental in Pacific Northwest gardens. However, it is rarely sold in nurseries today.
- In recent years it has spread rapidly in coastal areas of British Columbia and in western Washington.

Description

- Evergreen shrub that grows 2 to 4 feet high.
- Stems are green when young, turning grey with age.
- Plants are multi-stemmed with most or all stems originating near the base of the plant.
- Leaves are dark green, 4 to 7 inches long, 2 to 3 inches wide. They are thick and glossy, spirally arranged, clustered near the tops of the stems.
- Flowers are inconspicuous, yellow-green, and bloom from late January through May.
- Berries start out green but turn black when ripe.

Habitat

- Spurge laurel can tolerate shade and prefers a well-drained soil.
- It is found mostly in wooded areas, close to houses or parks.

Reproduction and Spread

- Reproduction is mainly by seed.
- Plants spread underground through root sprouts.
- The fruits, which appear in early summer, each contain one seed. Seeds are spread by birds and rodents.
- Seeds are currently believed to be quite short-lived.

Local Distribution

- Spurge laurel infestations are known to occur at Fort Worden State Park and near East Beach on Marrowstone Island.
- Others probably exist but have not yet been surveyed and recorded by the Weed Board..

CONTROL INFORMATION

Integrated Pest Management

- The preferred approach for weed control is Integrated Pest Management (IPM). IPM involves selecting from a range of possible control methods to match the management requirements of each specific site. The goal is to maximize effective control and to minimize negative environmental, economic and social impacts.
- Use a multifaceted and adaptive approach. Select control methods which reflect the available time, funding, and labor of the participants, the land use goals, and the values of the community and landowners. Management will require dedication over a number of years, and should allow for flexibility in method as appropriate.

Planning Considerations

- Survey area for weeds, set priorities and select best control method(s) for the site conditions . Small infestations can be effectively dug. Isolated plants should be carefully removed in order to stop them from infesting a larger area.
- For larger infestations, the strategy will depend on the land use of the site. Specific suggestions are given later in this section.
- Generally work first in least infested areas, moving towards more heavily infested areas.
- Control practices in critical areas should be selected to minimize soil disturbance and reduce the potential for erosion. Minimizing disturbance also avoids creating more opportunities for germination of weed seeds.
- If the control site requires extensive clearing or grading, or is located near a shoreline, steep slope, stream, or wetland, contact the Jefferson County Department of Community Development to find out whether or not a permit may be necessary.
- Because spurge laurel is a state-listed noxious weed, control (both manual and chemical) in critical areas is allowed as long as the landowner consults with the Jefferson County Noxious Weed Control Board and follows their guidelines.

Early Detection and Prevention

- Because spurge laurel is seen mostly in wooded areas close to houses or parks, these are the types of habitat that should be searched. It is an evergreen plant with shiny leaves and is therefore easily spotted year-round..
- Isolated small populations can be dug but the site should be monitored for several years for plants growing from the seed bank or re-generating from roots left in the ground.
- Prevent plants from spreading from existing populations by washing equipment, vehicles, and boots that have been in infested areas.
- Cover all noxious weed loads when transporting to a landfill.

Manual

- Gloves and protective clothing should be worn when handling spurge laurel, because of the toxins in the sap, leaves and berries, which can cause dermatitis.
- Hand pulling may be effective for small infestations, in removing seedlings and young plants. Seedlings are easiest to remove after rain, when the whole root system can be removed.
- Extraction with a weed wrench may successfully remove larger plants. Call the Weed Board (360-379-5610 ext 205) for information on the weed wrench
- Pulling or digging will disturb the ground and likely cause germination of seeds already in the ground. Monitoring for three to five years is essential. Planting a ground cover to compete with seedlings may help in the long term.

Mechanical

- Plants up to three years old can be controlled fairly effectively (up to 95% mortality) with a weed whip or similar tool by cutting the plant close to ground level.
- Older plants should be cut below the soil line to minimize resprouting.
- Volatile plant toxins may be released during cutting, so protective gear is recommended.
- Cutting, followed by painting the stump with herbicide is an effective control method—see the Chemical section.
- Cutting prior to seed-set will prevent seed spread and can help to contain populations, but should be followed up with some other treatment.
- If plants are cut after berries have formed, the berries should be cut off, bagged and disposed off at the landfill, to prevent spreading plants to new areas.

Biological

Biological control is the deliberate introduction of insects, mammals or other organisms that adversely affect the target weed species. Biological control is generally most effective when used in conjunction with other control techniques. No biocontrols are currently available for spurge laurel.

Chemical

- Effective chemical control of biennial and perennial weeds can be achieved only with *translocated* herbicides (ones that move through the plant and kill the roots).
- If desirable grasses or other monocots (sedges, rushes or cattails) are present, use a selective herbicide (one that affects only broadleaved plants), or carefully spot-spray only the spurge laurel. Or use the cut-stump method described below.
- Woody plants such as spurge laurel can be cut to 6 inches above the ground, and herbicide can be painted on the cut stump. This has to be done immediately after cutting.
- Herbicides are most effective on actively growing plants in warm, dry weather.
- Herbicides should only be applied at the rates and for the site conditions and/or land usage specified on the label. **Follow all label directions.**
- Treated areas should not be mowed or cut until after the herbicide has had a chance to work. This can be as long as 2-3 weeks.
- It is important to establish new vegetation after treating an area. Follow the label for the timing because some herbicides stay active longer than others.

For questions about herbicide use, and specific herbicide recommendations, contact the Jefferson County Noxious Weed Control Program at 360-379-0470 ext 205, or noxiousweeds@co.jefferson.wa.us.

SUMMARY OF BEST MANAGEMENT PRACTICES

Small Infestations in Native and/or Desirable Vegetation

- Manual control is very effective on seedlings and young plants. Pull plants by hand if soil is wet; if the soil is dry or compacted dig or extract with a weed wrench (call the Weed Board—360-379-5610 ext 205 for details on the weed wrench).
- If plants are pulled or dug after berries have formed, the berries should be cut off, bagged and disposed off at the landfill, to prevent spreading plants to new areas.
- OR apply appropriate herbicide—see Chemical section above. Spot spray or use cut-stump treatment, to minimize injury to other plants.
- Monitor site throughout growing season and remove any new plants.

Large Infestations/Monocultures

- If enough labor is available, even large infestations can be controlled manually. Use of a weed wrench is recommended—see above.
- **OR** large infestations can be controlled with herbicide. (See the Chemical section of this BMP).
- Spot spray or use cut-stump treatment, to minimize injury to other plants.

Riparian and Aquatic Area Control

- Manually remove small infestations if possible.
- If manual removal is not feasible, spot spray herbicide or apply using the cut-stump method—see guidelines above.
- When large areas of weeds are removed, the cleared area needs to be replanted with native vegetation and stabilized against erosion.
- **Any herbicide application over or near water can be done only by a specially-licensed applicator using an approved aquatic formulation, and may require a permit from the Washington State Department of Ecology.**

Road Right-of-Way Control

- Pull small infestations if possible.
- If manual removal is not feasible, spot spray herbicide or apply using the cut-stump method—see guidelines above.
- If bare spots are left, replant with low-growing native vegetation.

REFERENCES

- King County Noxious Weed Control Board—Spurge Laurel. Accessed, January 28th 2013 at <http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/weed-identification/spurge-laurel.aspx>
- Thurston County Noxious Weed Fact Sheet—Spurge Laurel. Access January 29th 2013 at http://www.co.thurston.wa.us/tcweeds/weeds/fact-sheets/Spurge%20Laurel_2011.pdf.
- Washington State Noxious Weed Control Board--Written Findings . Accessed January 28th 2013 at http://www.nwcb.wa.gov/siteFiles/Daphne_laureola.pdf.

This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement PO-00J08601 to Jefferson County Department of Community Development for the Watershed Stewardship Resource Center (now known as Square One). The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

