



JEFFERSON COUNTY NOXIOUS WEED CONTROL BOARD

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BEST MANAGEMENT PRACTICES

Himalayan blackberry (*Rubus discolor* syn. *Rubus armeniacus*) and Evergreen blackberry (*Rubus laciniatus*)

(Family—*Rosaceae*—Rose Family)

Legal Status in Jefferson County: Class C--there is no legal requirement for controlling Himalayan blackberry and evergreen blackberry. The County Weed Board provides education on their impacts, recommends control and containment of existing populations and discourages new plantings.

BACKGROUND INFORMATION

Impacts and History

- Both species are highly invasive and can be found throughout Jefferson County.
- Can be very difficult to control.
- Outcompete native understory vegetation and prevent the establishment of desirable native trees such as Pacific madrone, Douglas fir and Western white pine.
- Can limit movement of large animals by forming large impenetrable thickets.
- Himalayan blackberry was intentionally introduced to North America on the east coast in 1885, for its tasty berries. It became established on the west coast by 1945.

Description

- **Himalayan blackberry** is a robust, sprawling perennial with stems having large stiff thorns.
- Main canes up to 10 feet long with trailing canes reaching up to 40 feet.
- Trailing canes typically take root at the tips.
- Leaves are large, round to oblong and toothed. Typically come in sets of three (trailing canes) or five (main stems).



Himalayan blackberry

- Individual canes can reach a density of 520 canes per square meter.
- Flowers are white to pink about one inch in diameter and borne in clusters of about 5 to 20.
- Develops edible black fruit that clings to the center core when picked.

- **Evergreen blackberry** is a robust trailing evergreen shrub that grows into impenetrable thickets.
- Ribbed reddish stems up to 10 feet in length with large curved thorns.
- Young canes arch as they grow longer, eventually reaching the ground and rooting at the nodes.
- Palmately compound leaves with 3 to 5 deeply lacerated leaflets.
- Flowers are white to pink about one inch in diameter borne in clusters.
- Develops edible black fruit that clings to the center core when picked.



Evergreen blackberry

Habitat

- Blackberry can be found in many different habitats such as vacant lands, pastures, forest plantations, roadsides, creek gullies, river flats, riparian areas, fence lines, and rights-of-way.
- Does not usually grow well in wetland areas, but will grow if the cane tip roots.

Reproduction and Spread

- Reproduces by seed and vegetatively by root and stem fragments.
- Plants begin flowering in spring with fruit ripening in midsummer to early August.
- Daughter plants can form where cane tips touch the ground.
- Seeds can remain viable in the soil for several years.

Local Distribution

Both are common throughout Jefferson County—Himalayan blackberry prefers the drier east side and evergreen blackberry thrives in the wetter west end.

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 blackberry (both Himalayan and evergreen) are state-listed noxious weeds, 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

- Blackberry is easily identifiable throughout the year.
- Manually control new infestations as early as possible .
- Monitor the control site and remove any plants returning from root fragments

Manual

- Hand pull the stem close to the ground and uproot the root ball. This method is most effective with first year plants.
- Manual control works best after rain or in loose soils, or where the canes are suppressed because the blackberries are growing in a forest understory.
- Recheck work area because large root fragments left can re-sprout.
- If removing dense patches, area should be replanted with native plants and mulched, or reseeded with a suitable grass.

Mechanical

- Mowing, including the use of riding mowers and tractor mounted mowers, can be very effective in controlling blackberries but also may harm desirable plants.
- Mowing should not be used where soils are highly susceptible to compaction or erosion, or where soils are very wet.
- Several cuttings a year over several years may exhaust the roots of their reserve food supply.
- If only one cutting is done per year, cut when the plants begin to flower. If no follow-up is done, the blackberry may re-sprout from the root crown at a greater density, and could overgrow any vegetation planted.
- Cultivation in agricultural areas can be effective in controlling blackberry either alone or in conjunction with mowing but is not selective and may require specific sediment and erosion control measures.

Biological

Biological control is the deliberate introduction of insects, mammals or other organisms which adversely affect the target weed species. Biological control is generally most effective when used in conjunction with other control techniques.

- Goats and pigs may be effective on clearing or controlling blackberry re-growth from a year to four years old. On mature stands, goats tend to only strip leaves off of the canes. Animals may prefer alternative forage available, so reduce opportunities for selective browsing. Grazing must be continuous or else regrowth will occur. Care needs to be taken to fence off or protect any native or other valuable vegetation. The Jefferson County Noxious Weed Control Board can provide further information of the use and management of goats for weed control.
- Chickens can potentially decrease the seed bank in cleared areas by grazing on the seeds.

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 blackberry. Or use the cut-stump method described below.
- Woody plants such as blackberry 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.
- NOTE: Since blackberries are frequently picked and eaten by people it is especially important not to spray when berries are on the plants.

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 Desirable Vegetation

- Small infestations can be effectively hand-pulled or dug. This is easier when the soil is moist, usually in the spring.
- Cut above ground portion of blackberry with loppers or pruners. Dig or pull the remaining root ball.
- OR apply appropriate herbicide by spot spray or use the cut stump method(see above) to minimize off target injury.
- Monitor site throughout growing season and remove any new plants.

Large Infestations\Monocultures

- Mow the blackberry with weed-eaters, brush mowers or machetes.
- Following mowing, either dig up the root-ball if labor is available or treat regrowth with an appropriate herbicide.
- Mechanical cultivation is also an option for controlling invasive blackberries in agricultural areas. After initially mowing down the above ground vegetation, deep cultivation of the land can control root balls if done multiple times.
- For large areas, it may be more cost-effective to apply herbicide to the mature blackberry plants.
- When large dense areas of blackberry are removed, the bare areas created need to be re-vegetated with native or non-invasive vegetation to prevent erosion and re-invasion of blackberries and other weeds.
- Infested areas will require follow-up management lasting for several years to control plants re-growing from the seed bank and rhizomes.

Riparian and Aquatic Area Control

- Focus on manual removal for small infestations if possible. Follow procedures listed above.
- In areas where manual control is not feasible, use an appropriate herbicide and spot spray or use the cut-stump method to minimize injury to non-target plants.
- Blackberry shrubs can be found growing along wetland margins but are typically daughter plants off of a main cane. Control can be achieved by cutting the canes down to the ground. The roots cannot withstand the anaerobic soil conditions without the supporting canes.
- **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

- Manually remove infestations if possible.
- If manual control is not feasible, use an appropriate herbicide and spot spray or use the cut-stump method to minimize injury to non-target plants.
- If bare spots are left, replant with low-growing native plants.

REFERENCES

- San Juan County Noxious Weed Control Program—Himalayan and Evergreen Blackberries. Accessed 2\4\12 at <http://sanjuan.wsu.edu/noxious/documents/BlackberryControl508.pdf>
- The Nature Conservancy Element Stewardship Abstract—Himalayan Blackberry. Authored by Marc Hoshovsky.
- King County Noxious Weed Control Program—Best Management Practices—Blackberry
- Rees, N.E., P. Quimby Jr., G. Piper, E. Coombs, C. Turner, N. Spencer and L.Knutson, editors. 1996. Biological Control of Weeds in the West. Western Society of Weed Science.

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.

