Woody Weeds of Clackamas County

Identification and Management

This guide is intended to build awareness about common woody weeds affecting Clackamas County and provide options for managing them. Some woody weeds are notoriously aggressive while others grow under the radar, slowly impacting a property. Some are desirable species that only occasionally escape cultivation to become weedy. Due to the significant investment often required to control these plants, it can be helpful to identify and manage them early, before they take hold and spread.

Accurate identification is crucial but can be difficult. This guide provides a starting place for familiarizing yourself with the more common woody weeds that you may encounter when managing property in Clackamas County. Similarly, we only highlight commonly recommended management options. This guide is not intended to be your sole identification and management resource. Please see the additional resources section for more information.

What is a woody weed?

This weed guide covers plants that are woody, non-native, and are either invasive or naturalized in Clackamas County. We also include invasive species likely to be introduced here that would present a high economic or environmental risk to the county.

Plants like these are sometimes sold commercially. **Their inclusion here is not intended as a judgment of their horticultural value** but is provided as a means to help landowners avoid potential problems.

Most non-native plants introduced for landscape or agricultural purposes do not naturalize or become weedy. However, some do. We recommend that you research any weedy tendencies before introducing plants onto your property.

Woody plants have a prominent above-ground stem that persists through time. This includes shrubs, vines, and trees. Some large plants, such as Japanese knotweed (*Fallopia japonica*), appear woody, but actually die back every year.

Woody weeds often require significant effort to manage. Here, gorse (*Ulex europeus*) is removed with a chainsaw and herbicides as part of a WeedWise eradication project.

Non-native refers to plants that are found in areas where they historically did not occur. We do not cover *native* species that are often described as weeds, such as poison oak (*Toxicodendron diversilobum*).

Naturalized refers to non-native plants that reproduce consistently and sustain populations in the wild over many life cycles without direct intervention by humans (or in spite of human intervention). These species are not necessarily weedy in all settings.

Invasive plants are non-native, naturalized species whose aggressive growth displaces native or desirable vegetation and has a negative impact on our community.

Noxious plants have a special designation by a state or municipality that prohibits their sale or cultivation. Species designated by the Oregon State Weed Board as noxious in Oregon are noted in bold red text.

Many thanks to WeedWise Specialist, Jeff Lesh whose hard work made this publication possible.

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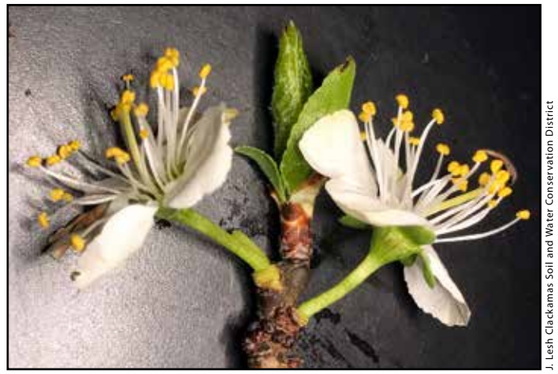


J. Lesh Clackamas Soil and Water Conservation District

Identification can require detailed knowledge of plant parts. The WeedWise Program is available to help!

Identification Tips

Identifying your weeds allows you to access helpful information, including effective control methods, and helps to avoid impacting desirable species. To increase your plant identification abilities, practice noticing the plants that surround you. Pay attention to all aspects of the plant.

Key identification features for woody weeds:

Plant height and form

Single stem vs. multi-stemmed

Leaf color, size, and shape

Flower color, size, and shape

Fruit color, size, and shape

Bark texture and color

Habitat and location

Woody plants can sometimes be difficult to identify if some of these features are not present. At times, you may need to consult an expert or wait until the plants are mature and the necessary features are present.

This guide helps with identification but is not intended to be your sole identification resource. Please see the additional resources section for introductory and advanced identification guides.

Weed Reporting

For priority invasive species new to our area, we recommend that you report what you find to the WeedWise program (weeds@conservationdistrict.org, 503-210-6000) or the Oregon Invasive Species Hotline (https://oregoninvasiveshotline.org/).

Impacts

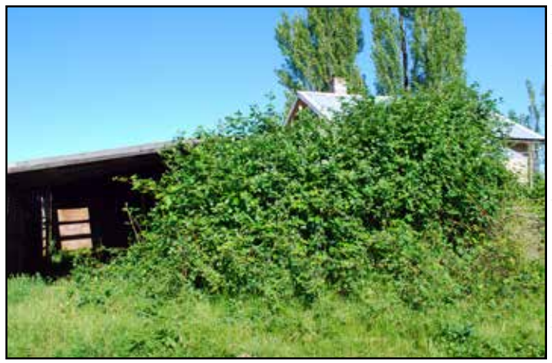
In Clackamas County, woody weeds vary from well-known species like Scotch broom (*Cytisus scoparius*) to less impactful species like European mountain-ash (*Sorbus aucuparia*) which can still come to dominate and displace native vegetation in some settings. Considering observed and potential impacts of occurring species helps you to prioritize which woody plants warrant management on your property.

Potential impacts of these weeds include:

- displacing native vegetation

  reducing crop yields

  harming fish and wildlife
- harming human health
- damaging property and infrastructure
- reducing forage for livestock and wildlife
- decreasing property values
- increasing erosion
- decreasing water quality and quantity
- limiting land use
- disrupting ecological processes



Himalayan blackberry (*Rubus armeniacus*) bushes impact farm infrastructure and reduce available pasture for forage.

English Ivy (*Hedera hibernica*) affecting tree canopy.

Management

We recommend that you consider a range of preventative and control options to help maximize your effectiveness and reduce costs and environmental impacts. Please see the additional resources section for detailed control options, timing, and precautions.

Preventative Methods

How you manage your property can help considerably toward preventing weed invasions. First, avoid planting woody plants that are likely to spread in your setting. Second, promote healthy competing vegetation to help resist weed establishment. In pastures, for example, management techniques can encourage highly competitive forage that reduces weed invasions considerably. Address preventative measures in concert with control measures. Be sure to minimize soil disturbance, soil compaction, and other impacts to desirable vegetation during management work.

Mechanical Control

Digging with a shovel or excavator and/or pulling the plants by hand or with a weed wrench can effectively control some species by removing the roots. This work is best done when soils are moist in winter and spring. Plants with extensive root systems and rhizomes will likey not be controlled effectively by this method. Mowing can be effective on some species at certain stages of growth, but often needs to be combined with other methods or repeated regularly to manage resprouting.

Biological Control

Introduced biological controls, including insects and pathogens, are active on a few invasive species.

Cultural Control

Goats and other livestock browse woody vegetation but often need to return several times to manage resprouting plants. Fencing and intensive grazing management is often necessary. Contract grazers are available for consultation and hire in our region.

Herbicides

Herbicides are also commonly used for control, especially on large infestations or with certain problematic species. Common active ingredients registered for woody plant control in Oregon include 2,4-D, triclopyr, glyphosate, dicamba, and imazapyr.

The label is the law and contains approved requirements for use, application methods, rates, and other conditions for use. It is important to read the label several times prior to purchasing and using the product. Be sure to selectively target the weed and avoid desirable plants. Consider hiring a licensed applicator when appropriate.

Foliar applications are made to plant leaves (and are most effective) when applied to a plant that is fully covered with foliage, actively growing, and not drought stressed. Late summer or early fall are often the best times to apply. Small-scale foliar applications are typically made using a hand-held or backpack sprayer, while large-scale broadcast applications are made with boom or boomless nozzle sprayers mounted on large equipment.

Applications of herbicides to cut stumps are made by using a lopper, handsaw, or chainsaw to fully cut away the above-ground stem and immediately apply a concentrated herbicide to the outside ring of living tissue on the stump. This method is typically effective throughout the year and is often done in fall and winter.

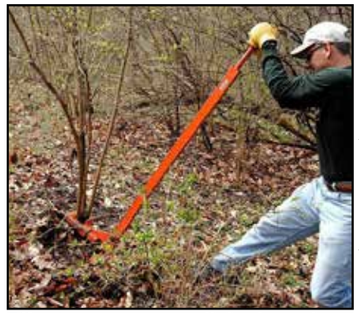
Basal bark applications are made to the lower portions of the stem and are absorbed through the bark. This method avoids the need to cut the plant.

Hack and squirt applications (also known as frilling) are made using a hatchet or knife to strike the plant stem and immediately apply concentrated herbicide to the small opening created.

Hand Pull

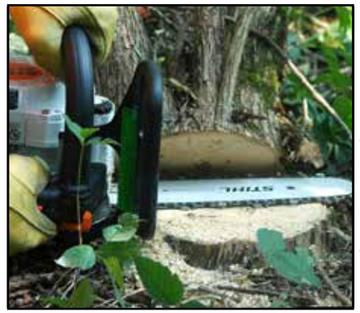
Effective on young plants and/or those with shallow roots.

Weed Wrench



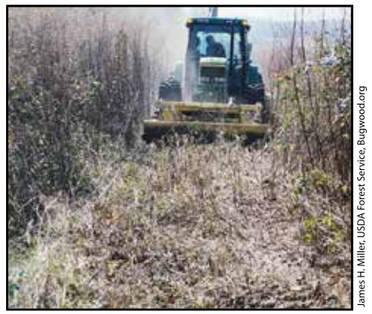
Effective on many small shrubs and tree saplings that lack rhizomes.

Chainsaw



Effective on some plants and often combined with other methods.

Brush Mow



James H. Miller, USDA Forest Service, Bugwood.org

Effective on some plants and often combined with other methods.

Herbicide - Cut Stump

James H. Miller, USDA Forest Service, Bugwood.org

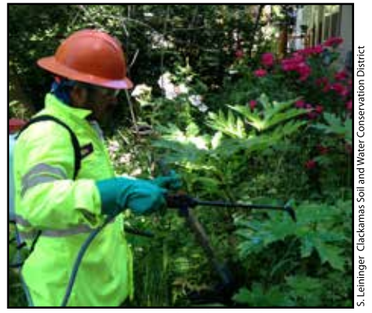
Effective on most woody weeds.

Herbicide - Basal Bark

David R. Jackson, Penn State Extension

Effective on some woody weeds, but not allowed in some settings.

Herbicide - Backpack



S. Leininger Clackamas Soil and Water Conservation District

Effective on many shrubs and young trees.

Cultural - Goats

Scott Bauer, USDA Agricultural Research Service, Bugwood.org

Effective on some weeds. May browse desirable plants as well.

Biological - Insects

S. Leininger Clackamas Soil and Water Conservation District

Effective against some weeds and can help reduce rates of spread and infestation.

Norway maple

Acer platanoides

Deciduous tree to 65 feet

Introduced from Europe and **invasive** in disturbed forests, woodlands, and forest edges.

Similar to native and non-native *Acer* species.

Sycamore maple

Acer pseudoplatanus

Deciduous tree to 100 feet

Introduced from Europe and occasionally found in disturbed forests, woodlands, and forest edges.

Similar to native and non-native *Acer* species

Silver maple

Acer saccharinum

Deciduous tree to 100 feet

Introduced from the eastern US and occasionally found in riparian areas.

Similar to native and non-native *Acer* species

Horse chestnut

Aesculus hippocastanum

Deciduous tree to 120 feet

Introduced from Europe and occasionally found in forest edges, roadsides, and wastelots.

Tree-of-heaven

Ailanthus altissima

Noxious weed

Deciduous tree to 85 feet

Introduced from Europe and **invasive** in wastelots, roadsides, and urban areas.

European white birch

Betula pendula

Deciduous tree to 100 feet

Introduced from Europe and **invasive** in forest edges, fields, riparian areas, and wetlands.

Similar to the less common and regionally native *Betula papyrifera*

English hawthorn

Crataegus monogyna

Deciduous tree to 30 feet

Introduced from Europe and **invasive** in forest edges, thickets, woodlands, and fields.

Similar to native and non-native *Crataegus* species

Hybridizes with the native *C. gaylussacia*

English holly

Ilex aquifolium

Evergreen tree to 65 feet

Introduced from Europe and **invasive** in forests, fields, roadsides, and forest edges.

Saplings somewhat similar to the native *Mahonia aquifolium*

Cherry plum

Prunus cerasifera

Deciduous tree to 30 feet

Introduced from Eurasia and **invasive** in thickets, woodlands, and forest edges.

Similar to native and non-native *Prunus* species

Bronze and green leaf varieties present.

European plum

Prunus domestica

Deciduous tree to 30 feet

Introduced from Europe and commonly found in forest edges, riparian areas, and roadsides.

Similar to the native and non-native *Prunus* species

English walnut

Juglans regia

Deciduous tree to 80 feet

Introduced from Asia and occasionally found in thickets and forest edges.

Similar to the non-native *Julgans nigra*

Cultivated apple

Malus pumila

Deciduous tree to 30 feet

Introduced from Asia and occasionally found in thickets, forest edges, fields, and roadsides.

Similar to native and non-native *Malus* species

English laurel

Prunus laurocerasus

Evergreen tree or large shrub to 30 feet

Introduced from Europe and **invasive** in forests, woodlands, and forest edges.

Similar to the non-native *Prunus lusitanica*

Portugal laurel

Prunus lusitanica

Evergreen tree to 40 feet

Introduced from Europe and invasive in forests, roadsides, thickets, and forest edges.

Similar to the non-native *Prunus laurocerasus*

Empress tree

Paulownia tomentosa

Deciduous tree to 50 feet

Introduced from Eurasia and **invasive** in wastelots, roadsides, and disturbed areas.

Sweet cherry

Prunus avium

Deciduous tree to 120 feet

Introduced from Eurasia and **invasive** in forests, thickets, fields, woodlands, and disturbed forests.

Similar to native and non-native *Prunus* species

Common pear

Pyrus communis

Deciduous tree to 30 feet

Introduced from Europe and occasionally found in roadsides, thickets, fields, and forest edges.

Similar to non-native *Malus pumila.*

English oak

Quercus robur

Deciduous tree to 130 feet

Introduced from Europe and occasionally found in forest edges, wastelots, and disturbed forests.

Similar to the native *Quercus garryana*

TREES

Red oak

Quercus rubra

Deciduous tree to 110 feet

Introduced from Europe and occasionally found in forest edges, fields, and wastelots.

Similar to the occasionally naturalizing non-native *Quercus palustris*

Black locust

Robinia psuedoacacia

Deciduous tree to 95 feet

Introduced from the eastern US and occasionally found in disturbed areas and wastelots.

European mountain-ash

Sorbus aucuparia

Deciduous tree to 60 feet

Introduced from Europe and Asia and occasionally found in forests, thickets, and forest edges.

Similar to native *Sorbus* species

American elm

Ulmus americana

Deciduous tree to 100 feet

Introduced from the eastern US and occasionally found in forest edges, riparian areas, and roadsides.

Similar to the non-native *Ulmus procera* and *Ulmus pumila*

English elm

Ulmus procera

Deciduous tree to 130 feet

Introduced from Europe and occasionally found in forest edges, riparian areas, and roadsides.

Similar to the non-native *Ulmus americana* and *Ulmus pumila*

Siberian elm

Ulmus pumila

Deciduous tree to 65 feet

Introduced from Asia and occasionally found in forest edges, riparian areas, and roadsides.

Similar to the non-native *Ulmus americana* and *Ulmus procera*

Indigo bush

Amorpha fruticosa

Noxious weed
Deciduous shrub to 12 feet

Introduced from the eastern and central US and **invasive** in riparian areas, roadsides, wastelots and fields.

Not known in Clackamas County

Butterfly bush

Buddleja davidii

Noxious weed
Deciduous shrub to 15 feet

Introduced from China and **invasive** in riparian areas, roadsides, rights-of-way, and wastelots.

Seedless, approved cultivars not noxious

Common filbert

Corylus avellana

Deciduous shrub or small tree to 25 feet

Introduced from Europe and commonly found in thickets, open forests, and forest edges.

Similar to the native *Corylus cornuta*

Diels' cotoneaster

Cotoneaster dielsianus

Evergreen shrub to 10 feet

Introduced from China and occasionally found in forest edges, riparian areas, fields, and roadsides.

Similar to numerous other non-native *cotoneaster* species

Orange cotoneaster

Cotoneaster franchetii

Evergreen shrub to 10 feet

Introduced from China and occasionally found in thickets, open forests, fields, and riparian areas.

Similar to numerous other non-native *Cotoneaster* species

Milkflower cotoneaster

Cotoneaster lacteus

Evergreen shrub to 10 feet

Introduced from Europe and occasionally found in forest edges, roadsides, and fields.

Similar to numerous other non-native *Cotoneaster* species

Simons' cotoneaster

Cotoneaster simonsii

Deciduous shrub to 10 feet

Introduced from Europe and occasionally found in forest edges, roadsides, and fields.

Similar to numerous other non-native *Cotoneaster* species

Scotch broom

Cytisus scoparius

Noxious weed
Deciduous shrub to 10 feet

Introduced from Europe and **invasive** in disturbed areas, forest edges, roadsides, and fields.

Similar to other non-native brooms

Portugese broom

Cytisus striatus

Noxious weed
Deciduous shrub to 10 feet

Introduced from Europe and **invasive** in disturbed areas, roadsides, and fields.
Similar to other non-native brooms

Not known in Clackamas County

Spurge laurel

Daphne laureola

Noxious weed

Evergreen shrub to 6 feet

Introduced from Europe and **invasive** in forests, forest edges, and woodlands.

French broom

Genista monspessulana

Noxious weed
Deciduous shrub to 10 feet

Introduced from Europe and **invasive** in disturbed areas, roadsides, and fields.

Similar to other non-native brooms

Not known in Clackamas County

Tutsan

Hypericum androsaemum

Deciduous shrub to 4 feet

Introduced from Europe and occasionally found in thickets, forest edges, and streambanks.

Similar to the non-native *Hypericum calycinum*

European privet

Ligustrum vulgare

Deciduous shrub to 12 feet

Introduced from Europe and commonly found in roadsides, thickets, wastelots, riparian areas, and forest areas.

Blackthorn

Prunus spinosa

Deciduous shrub to 15 feet

Introduced from Europe and occasionally found in roadsides, fields, thickets, and forest edges.

Similar to native and non-native *Prunus* species

Dog rose

Rosa canina

Deciduous shrub to 12 feet

Introduced from Europe and occasionally found in thickets, fields, riparian areas, and forest edges.

Similar to native and non-native *Rosa* species

Regina Johnson

Multiflora rose

Rosa multiflora

Deciduous shrub to 16 feet

Introduced from E. Asia and **invasive** in thickets, forest edges, riparian areas, and fields.

Similar to native and non-native *Rosa* species

Chris Evans, Bugwood.org

Sweetbrier rose

Rosa rubiginosa

Deciduous shrub to 6 feet

Introduced from Europe and **invasive** in thickets, riparian areas, fields, and forest edges.

Similar to native and non-native *Rosa* species

Zoya Akulova/CC BY-SA 3.0

Himalayan blackberry

Rubus armeniacus

Noxious weed
Deciduous shrub to 15 feet
Introduced from Europe and **invasive** in roadsides, wastelots, fields, riparian areas, and forest edges.

Similar to other non-native *Rubus* species and the native *R. ursinus*

Pancrat/CC BY-SA 3.0

Evergreen blackberry

Rubus laciniatus

Evergreen shrub to 15 feet

Introduced from Europe and **invasive** in roadsides, thickets, wastelots, fields, riparian areas, and forest edges.

Michael Wolf/CC BY SA 3.0

European blackberry

Rubus praecox

Deciduous shrub to 15 feet
Introduced from Europe and **invasive** in roadsides, wastelots, fields, riparian areas, and forest edges.

Similar to other non-native *Rubus* species and the native *R. ursinus.*

William L. Bruckart III

Spanish broom

Spartium junceum

Noxious weed
Deciduous shrub to 15 feet

Introduced from Europe and **invasive** in forest edges, roadsides, and fields.

Not known in Clackamas County

Saltcedar

Tamarix ramosissima

Noxious weed
Deciduous shrub to 20 feet

Introduced from the Middle East and **invasive** in riparian areas.

Not known in Clackamas County

Gorse

Ulex europaeus

Noxious weed

Deciduous shrub to 15 feet

Introduced from Europe and **invasive** in thickets, fields, and forest edges.

Guelder rose

Viburnum opulus var. *opulus*

Deciduous shrub to 12 feet

Introduced from Europe and occasionally found in thickets, woodlands, forest edges, and riparian forests.

Similar to native *Viburnum edule*

Old man's beard

Clematis vitalba

Noxious weed

Deciduous vine

Introduced from the eastern and central US and **invasive** in riparian areas, roadsides, wastelots, and fields.

Similar to the native *Clematis ligusticifolia*

English ivy

Hedera helix

Noxious weed

Evergreen vine

Introduced from Europe and **invasive** in forests, riparian areas, and forest edges.

Very similar to the non-native *Hedera hibernica*

Irish ivy

Hedera hibernica

Noxious weed

Evergreen vine

Introduced from Europe and **invasive** in forests, riparian areas, and forest edges.

Very similar to the non-native *Hedera helix*

Kudzu

Pueraria montana var. *lobata*

Noxious weed

Deciduous vine

Introduced from Asia and **invasive**

Eradicated, not currently known in Clackamas County

Periwinkle

Vinca major & Vinca minor

Evergreen vine

Introduced from Europe and **invasive** in forests, riparian areas, and forest edges.

Similar to each other

European Grape

Vitis vinifera

Deciduous vine

Introduced from Europe and occasionally found in roadsides, riparian areas, and forest edges.

Similar to other non-native *Vitis* species

Additional Resources

Identification Resources

Introductory

WeedWise weed identification web post - https://bit.ly/2OPuqXZ

Field Guide to Priority Invasive Weeds in Clackamas County, S. Leininger - https://bit.ly/2O3jnp0

Plants of the Pacific Northwest Coast, J. Pojar & A. MacKinnon

Trees & Shrubs of the Pacific Northwest, M. Turner & E. Kuhlmann

Field Guide to Weeds of the Willamette Valley, L. Wisehart, T. Kaye, & M. Kirkland - https://bit.ly/2MaUV9j

Northwest Weeds: The Ugly and Beautiful Villains of Fields, Gardens, and Roadsides, R. Taylor

Advanced

Flora of Oregon, S. Meyers, K. Mitchell, & L. Hardison, Eds. - http://www.oregonflora.org

Flora of the Pacific Northwest: An Illustrated Manual C.L. Hitchcock and A. Cronquist, 2nd Edition, D. Giblin, B. Legler, P.Zika, & R. Olmstead, Eds. - http://www.pnwherbaria.org/florapnw.php

Urbanizing Flora of Portland, Oregon, 1806-2008 J. Christy, Pl Gaddis, A. Kimpo, V. Martalla, & N. Christy -http://bit.ly/2lJWdLm

Oregon Flora Project Photo Gallery - http://www.oregonflora.org/gallery.php

University of Washington Herbarium Images Collection - https://bit.ly/2z7JC70

Weed Management Resources

WeedWise weed profiles and Best managemetn Practices (BMP) documents - https://weedwise.conservationdistrict.org

WeedWise equipment library - https://bit.ly/2yzY4pY

Oregon Department of Agriculture noxious weed profiles - http://bit.ly/2gXGT8H

Pacific Northwest Weed Management Handbook [online], E. Peachey, Ed. - https://pnwhandbooks.org/weed

4 County Cooperative Weed Management Area fact sheets and BMPs - https://4countycwma.org

King County Best Management Practices - http://bit.ly/2A6rqvo

Weed Control in Natural Areas in the Western United States, J. DiTomaso & G. Kyser, et al. - https://bit.ly/2D2JXxm

Biological Control of Invasive Plants in the Untied States, E. Coombs, J. Clark, G. Piper, & A. Confrancesco, Jr., Eds.

Woody Weed Invaders in Gardens and landscapes, J. DiTomaso & G. Kyser - https://bit.ly/2Jjnlcq

Reporting Resources

Oregon Invasive Species Hotline, https://oregoninvasiveshotline.org/ and 1-866-INVADER

Clackamas SWCD WeedWise Program, https://weedwise.conservationdistrict.org/contact or 503-210-6000

Oregon Department of Agriculture County Weed Contacts - https://bit.ly/2PlAAid

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WeedWise
A conservation program of the *Clackamas SWCD*

CLACKAMAS SOIL AND WATER CONSERVATION DISTRICT
Good dirt. Clean water.