OSU Oregon State University Extension Service

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Invasive Weeds in Forest Land

English Ivy *Hedera helix*

English ivy is a trailing or climbing vine in the ginseng family, native to Europe and brought to America by early colonists. It is commonly cultivated as a groundcover and is widespread in the Pacific Northwest, where it has invaded many wild and unmanaged areas (Figure 3, next page). It is an aggressive invader that threatens most forest types in the Northwest.

Figure 1.—Ivy can kill large overstory trees.

Ivy invades and dominates forest understory vegetation. Climbing vines eventually can kill large overstory trees (Figure 1). Dominant ivy monocultures reduce wildife habitat and biodiversity. Ivy is particularly a problem in forests near residential areas and other sources of ivy. As a groundcover, ivy can protect soil from erosion, but it lacks the deeper soil stabilization capability of mature trees and shrubs.

Description

Ivy is an evergreen vine with thick, waxy leaves and distinct immature and mature growth stages. The immature, vegetative stage grows rapidly both along the ground or climbing, in shade or sun. Its leaves are dark green, with three to five lobes that often have white veins. The mature, fruiting stage grows in open sun and has heart-shape, unlobed leaves on upright stems bearing umbrellalike clusters of greenish white flowers in fall (Figure 2). Dark purple to black, berrylike fruits, with one to three stonelike seeds, develop in spring. Ivy reproduces from rootlike stems, sprouting fragments, or seeds. Seeds are spread by birds. The bird's digestive tract helps scarify seeds, which improves germination. Ivy grows in a wide variety of soils, and it tolerates drought, frost, and deep shade.

Figure 2.—Ivy in flower.

Management options

English ivy can be controlled or eradicated by mechanical and chemical methods or combinations of these, though eradication often requires persistent effort. If ivy mingles with desirable vegetation, careful, selective removal and treatments are beneficial but more labor intensive. Replace large monocultures of ivy with broadcast treatments to kill all ivy, then replant with desirable species.

Biological control

There are currently no effective biological control agents for English ivy.

Chemical control

Note: Before you apply herbicide on forest land, you must file a "notification of operations" with the Oregon Department of Forestry at least 15 days in advance. The following information about herbicides is only a brief summary; consult your local Extension agent or Oregon Department of Agriculture representative for specific recommendations for your situation. Read and follow the herbicide label carefully. Before spraying over or around seedlings, ensure the chemicals pose no hazard.

A waxy layer on ivy leaves is a barrier to foliar-applied herbicides, especially in the growing season. Young ivy leaves, which have not formed a thick waxy layer, absorb more than older leaves. Applying pelargonic acid before the herbicide may increase ivy's absorption of herbicide.

Recent tests with foliar application of a 2- to 5-percent solution of either glyphosate or triclopyr on sunny winter

days gave more effective control (up to 95 percent) than growing-season applications. Winter application reduces injury to dormant native plants. Cutting woody stems of ivy vines and applying a 2-percent concentration of 2,4-D or a 25-percent solution of glyphosate to the cut surfaces has also been effective. Both cutting climbing vines and treating cut stems, along with either foliar treatment or pulling up ivy ground cover, can be effective. Careful timing and application are key to effective ivy control while minimizing injury to desired plants.

Any herbicide treatment program should rotate among chemicals to prevent developing herbicide-resistant strains of the weed. For more detailed information on chemical control, refer to the current edition of the *PNW Weed Management Handbook* and to *Herbicide-resistant Weeds and Their Management*, PNW 437. Both are available from OSU Extension http://extension.oregonstate.edu/catalog/

Mechanical control

Manual treatments such as cutting, pulling, and digging can be effective. This is expensive in terms of hours or dollars—perhaps 300 to 1,300 hours of effort per acre for complete success.

Key steps are to remove as much ivy stem and root as possible, protect desirable plants, minimize soil disturbance, and thoroughly clear target areas. Cut large vines at the bases of trees. Pull vines from the soil and attempt to remove as much of the root as possible. Follow-up treatments likely will be needed for 1 year or more to pull resprouting ivy. Treatments during winter

Use pesticides safely!

- Wear protective clothing and safety devices as recommended on the label. Bathe or shower after each use.
- Read the pesticide label—even if you've used the pesticide before. Follow closely the instructions on the label (and any other directions you have).
- Be cautious when you apply pesticides. Know your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from pesticide use.

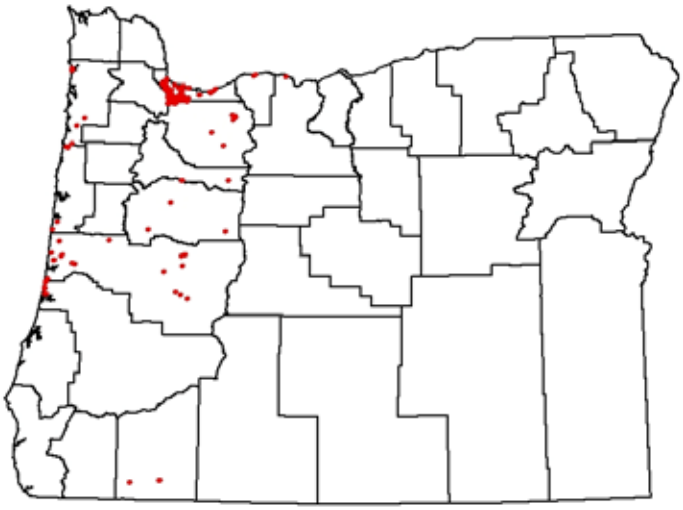

Figure 3.—English ivy distribution in Oregon. Map: Weedmapper.

can minimize disturbance to native plants. Dispose of ivy cuttings by transporting off-site for piling, drying, and burning or by carefully scattering pulled ivy to ensure that it dries, which prevents rooting and resprouting.

Grazing

Ivy leaves are somewhat toxic to herbivores. Goats will remove leaves, but the the leaves will resprout.

For more information

Oregon Department of Agriculture, Plant Division, Noxious Weed Control.
http://oregon.gov/ODA/PLANT/WEEDS/

Weedmapper, a collaborative project of Oregon Department of Agriculture, Oregon State University, U.S. Bureau of Land Management, and U.S. Forest Service.
http://www.weedmapper.org/

California Department of Food and Agriculture, Encycloweedia.
http://www.cdfa.ca.gov/phpps/ipc/weedinfo/

Ivy Removal Project, a partnership of Portland Parks and Recreation and Friends of Forest Park.
http://www.noivyleague.com/index.html

Nature Conservancy, Global Invasive Species Initiative.
http://tncweeds.ucdavis.edu/worst.html