

## Gorse *Ulex europaeus*

**G**orse is a spiny, evergreen shrub native to the Mediterranean region. It was introduced on the West Coast of the United States as an ornamental in the late 1800s. Gorse was first found in Oregon in Benton County in 1916. Gorse infestations are concentrated along the Oregon coast, particularly south of Florence (Figure 3, next page). Some infestations exist inland, in the Willamette Valley and elsewhere.



Figure 1.—Gorse infestation. Photo: Ken French, Oregon Department of Agriculture.

Gorse is a legume, a member of the pea family. Gorse produces abundant seed contained in hairy pods 0.5 to 0.75 inch long that are brown when ripe. Seed can remain viable in the soil for 30 years. Disturbances such as land clearing, timber harvesting, or fire stimulate germination of buried seed. Gorse also can spread vegetatively: if cut, it can resprout quickly. Thus, once established, gorse is very difficult to eradicate.

Gorse easily colonizes newly disturbed sites, poor sites, or sites without vegetation. It often is found along roadsides. On the southwest Oregon coast, gorse has taken over sand dunes, and its dense, impenetrable



Figure 2.—Gorse flowers and spines. Photo: Ken French, Oregon Department of Agriculture.

stands make the areas unusable for recreation. Gorse outcompetes native vegetation, reducing native plant diversity and degrading wildlife habitat. Dense gorse stands also pose a significant fire hazard because the foliage is highly flammable and dead foliage collects as litter within and at the base of the plant. Gorse contributed to the Bandon Fire of 1936, in which the entire town nearly burned to the ground.

## Description

Gorse can grow up to 15 feet tall and 10 to 30 feet in diameter, forming a dense, compact shrub (Figure 1). Gorse has bright yellow, pealike flowers 0.5 to 0.75 inch long at the end of branches (Figure 2). Branches are dark green with conspicuous spines. Juvenile leaves are trifoliate, and spines develop as the branch matures.

## Management options

### Prevention

Several methods will control gorse. Most effective is a combination of chemical, mechanical, and biological methods. Well-established gorse may be impossible to eradicate; however, it can be reduced significantly.

Prevention is key to reducing new gorse infestations. First, be sure to clean mechanical equipment to rid equipment of seed before using the equipment on other sites. If you spot new gorse plants on your property, immediate pull or treat to prevent a large infestation. Note the location on a map so that, after treatment, you can go back and monitor the area annually to determine whether control has been successful and to re-treat if necessary.

### Biological control

Two biological controls for gorse, approved for release in Oregon, are a seed weevil and a spider mite. The seed weevil consumes gorse flowers, seeds, and spines. The spider mite feeds on leaves, killing branches but rarely the entire shrub. Unfortunately, the seed weevil and the spider mite have not been effective for controlling gorse.

### 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.

In any herbicide treatment program, rotate among chemicals to prevent developing herbicide-resistant strains of the weed. For details on chemical control, refer to the current edition of the *PNW Weed Management Handbook*, available through OSU Extension <http://extension.oregonstate.edu/catalog/>

### Mechanical control

Hand pulling and digging are effective on individual or small groups of plants up to 3 feet tall. On steeper ground, cutting by hand may be necessary. Be sure to remove as much of the root system as you can, and wear protective clothing and gloves.

Chopping, cutting, and mowing can work in areas accessible to machinery. Tracked vehicles or four-wheel-drive tractors with a heavy-duty mower or masticating head are used typically. Several mowings or cuttings may be necessary to reduce plant reserves, the seed bank, and the overall density of plants. Once an area is mowed or cut, grazing with goats can further reduce gorse plants; or, after enough new plants have resprouted or germinated, herbicides can be used. To prevent spreading gorse seed, thoroughly clean equipment and vehicles **on site** before moving equipment to new areas.

### Grazing

Goats can graze small seedlings or sprouts if foliage is tender. On mature shrubs, goats will graze only branch tips. Continual grazing in an area reduces the number of plants and seed production. To eradicate gorse in localized areas, however, grazing needs to be combined with mechanical and chemical control measures.

### For more information

*Gorse*, PNW 379. Parker, R. and L. Burrill. 4 pp. 2001. Extension services of Washington State University, Oregon State University, and University of Idaho. <http://cru.cahe.wsu.edu/CEPublications/pnw0379/pnw0379.pdf>

**Table 1.—Herbicide recommendation for gorse.**

Chemical	Concentration	Timing
triclopyr ester	0.5 to 2% concentration; apply with handgun. Use higher rate for large shrubs.	Spring – after blooms fall off.
triclopyr amine	0.5 to 2% concentration; apply with handgun. Use higher rate for large shrubs. Add 0.25 to 0.5% of a suitable surfactant to improve results.	Spring – after blooms fall off.
triclopyr + 2,4-D ester	0.5 to 2% concentration; apply with a handgun. Use higher rate for large shrubs.	Spring – after blooms fall off.
picloram (restricted use)	0.5% concentration; apply with a handgun. Adding a surfactant at 0.25 to 0.5% improves results.	Spring – after blooms fall off.
glyphosate	5% concentration with suitable surfactant; apply with a hand wand.	Spring – after blooms fall off.
triclopyr ester	Basal spray of 15% concentration in an oil carrier. Thoroughly soak lower stems.	Winter/spring.
metsulfuron (Escort)	2 to 4 oz of product per 100 gal of water, with a suitable surfactant.	Spring – after blooms fall off.

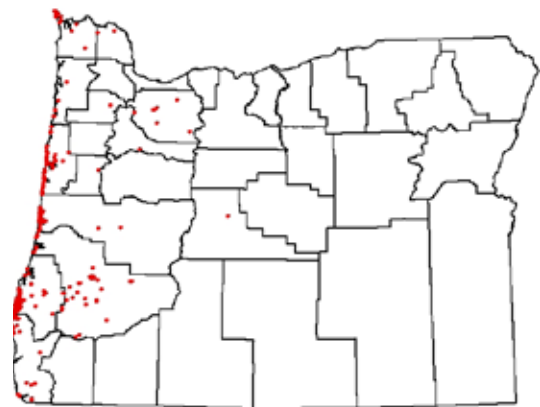


Figure 3.—Gorse distribution in Oregon. Map: Weedmapper.

### 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.

Trade-name products and services are mentioned as illustrations only. This does not mean that the Oregon State University Extension Service either endorses these products and services or intends to discriminate against products and services not mentioned.

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