



# Gorse

(*Ulex europaeus*)

**Description:** Gorse is a spiny evergreen shrub, dense and stiff, forming impenetrable thickets. Its erect angular stems have spreading branches ending in thorns. Green leaves take the form of branching spines. Flowers are yellow and shaped like pea blossoms, clustered near the ends of the branches. Fruit pods (legumes) resemble pea pods that burst expelling seeds. Gorse flowers resemble those of Scotch broom, to which it is closely related. Control of gorse is difficult due to its thick stands, and its production of large amounts of seed. Seeds are reported to stay viable in the soil for 40 years or more.



**Impacts:** Vigorous stands of gorse grow outward, crowding out all other vegetation. It forms a center of dry dead vegetation. This, in combination with the oil content of the plant, presents a major fire hazard. In 1936, the town of Bandon, Oregon, was burned to the ground; 14 people died and only 16 buildings remained unburned. The disaster was fueled by extensive infestations of gorse.

**Control Options:** Thurston County's Integrated Pest Management emphasizes cultural, biological, and manual control methods to keep pests and vegetation problems low enough to prevent damage. The goal of Thurston County's Integrated Pest Management is to minimize the use of pesticides by utilizing and providing information about the most effective control options that are available and practical.

## ► Cultural / Habitat

Gorse control has two stages. Controlling established plants first and monitoring and controlling new plants that emerge from seeds that may last more than 40 years in the soil. The most effective control programs often include a combination of herbicides, burning, and cultivation or mowing. Establishing competitive pasture species, forest trees, or other crops helps resist gorse invasion as well as other weeds. Wash down equipment after working in known infestation areas and don't remove soil or other materials from the site in order to prevent spreading into un-infested areas.

## ► Manual / Mechanical

For small sites with few plants, dig up plants and remove as much root as possible so the plants will not re-sprout. This method can be highly labor intensive and to be fully effective all mature plants in the site need to be pulled so that no new seeds are produced. Mechanical control techniques alone, such as mowing or brush cutting, is not effective on gorse as the plants simply re-grow at all times of the year.



## ► Biological

Biocontrol agents such as *Exapion ulicis* (a seed weevil) and *Tetranychus lintearius* (a spider mite) have been used in Washington with varying degrees of success. However, biocontrols are dependent on fairly heavy densities of host plants (gorse) to survive. Thurston County no longer has enough gorse to support biocontrols for this species.

► **Chemical**

Spot spraying with **glyphosate** (example: Roundup Pro®, Glyfos®, etc.) is effective in controlling gorse. Currently, products containing the active ingredient glyphosate are the only herbicides for the control of gorse considered “low in hazard” by Thurston County’s pesticide review process for the potential for chemical mobility and persistence.



Forest & Kim Starr  
U.S. Geological Survey, Bugwood.org

**Thurston County has observed that most ready-to-use, pre-mixed products do not contain sufficient active ingredients to be as effective as concentrated products that are then mixed with water to create a specific finished concentration. The following instructions are for products containing 41% glyphosate which will be mixed down to a specified dilution rate. Be sure to read your label carefully, and make adjustments to rates accordingly.**

Application methods vary for the type and size of the infestation; foliar applications (spraying leaves and stems) are recommended for large infestations. Cut stem applications (applying product to cut stems after removing a section) work when upper portions of plants are removed. The table below shows label recommendations for glyphosate applications.

**Foliar applications of glyphosate (ROUNDUP PRO™):**

- Spot applications with glyphosate products are effective. Spot application means the herbicide is applied only to the plants and not on the surrounding plants or soil. Spray each plant thoroughly on the stems and leaves enough to be wet but not dripping.
- Glyphosate is non-selective, and will injure any plants that it comes in contact with, including grass.
- Keep people and pets off treated areas until spray solution has dried.

Treatment method	Rates	Mix
RoundUp Pro® Spot/Foliar	2%	To 1 gallon of water add 2.66 oz. RoundUp Pro®
Basal Bark application Cut stem application	50 to 100%	For more tender, greener stems, dilute 50/50 with water. For older, mature stalks, use full strength. *treat immediately following cutting

For selective control of gorse in agricultural settings (pastures, hayfields, etc.), an herbicide containing the active ingredient **aminopyralid** (example: Milestone™, Milestone VM™, etc.) may be a preferred choice. Aminopyralid products will not harm grass and can be used around livestock (provided all label precautions are followed). **Do not use plant material or hay from treated areas for mulch. Likewise, do not use manure from animals that have grazed or eaten hay from treated areas.** Aminopyralid is currently sold in agricultural labeled herbicides that are only to be used in areas listed on the label, and are available in farm supply stores. Aminopyralid products are considered moderate in hazard by Thurston County’s review process for the potential for chemical mobility and persistence.

**Timing:** Best chemical control is achieved when temperatures are above 50° F for several days. Shielding or covering neighboring plants is always a good idea to protect them from herbicidal injury.

**READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS.** Obey all label precautions and safety measures. Always use personal protective equipment that includes coveralls, waterproof gloves, shoes plus socks, and protective eyewear. Use of brand names does not connote endorsement and is for reference only; other formulations of the same herbicides may be available under other names. Information provided is current as of the date of the fact sheet. Pesticide product registration is renewed annually and product names and formulations may vary from year to year.

**REFERENCES:**

Written Findings of the Washington State Noxious Weed Control Board, December, 2000: [http://www.nwcb.wa.gov/weed\\_info/written\\_findings/CLASS%20B%20PDFs/Ulex%20europaeus%202000.pdf](http://www.nwcb.wa.gov/weed_info/written_findings/CLASS%20B%20PDFs/Ulex%20europaeus%202000.pdf)

2010 Pacific Northwest Weed Management Handbook, [http://pnwpest.org/pnw/weeds?33W\\_PROB.pdf](http://pnwpest.org/pnw/weeds?33W_PROB.pdf)

**Biological Control,** Jennifer Andreas, Eric M. Coombs, Gary L. Piper, Mark Schwarzländer, and Joseph Milan, 2009.



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