About Gorse:

Native to western and central Europe, gorse is a dense, spiny, evergreen shrub growing up to 10 ft. tall, with an extensive, lateral root system, and is capable of fixing nitrogen in the soil. Young plants have soft, grey-green, upright stems with trifoliate leaves. Mature shrubs appear leafless, with leaves modified into stiff spines up to 1 inch long. Stems terminate in a spine up to 2.5 inches long. Mature plants produce high volumes of dead, dry material that further increase fire risks.

Why control Gorse?

Mature gorse contains high amounts of flammable oils, creating a severe fire risk where infestations occur. Gorse also forms dense, impenetrable thickets that exclude wildlife and native vegetation. On slopes, gorse can increase erosion risks by creating bare ground between mature plants.



Gorse infestation, Olga, WA

Before you begin:

Create a plan for restoration before removing weeds or disturbing the soil. Gorse seeds germinate much more easily on disturbed soil. Determine if enough desirable vegetation is present to replace the thistle. If not, newly exposed soil can be sown with native or non-invasive perennial grasses to promote competition.

Gorse vs. Other Brooms:

Potentially mistaken for Scotch broom (*Cytisus scoparius*), a Class B noxious weed, or Spanish broom (*Spartium junceum*), a Class A noxious weed. The obvious spikes easily distinguish gorse from these species.

If you would like weed identification, site-specific control recommendations or additional noxious weed information, contact the San Juan County Noxious Weed Control Program.



San Juan County Noxious Weed Control Program 2020

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Special thanks to the Washington State Noxious Weed Control Board and Weed Busters, New Zealand.



Class B Noxious Weed

(Control required in San Juan County)



Photo credit: Rich Lee, SJC NWCB (retired)

Gorse Control

By law, herbicides must be used in strict accordance with label instructions.

Research on effective and safe herbicide use is on-going and often contradictory. For more recent information contact the San Juan County Noxious Weed Control Program.

Timing

Gorse control timing is dependent on the methods utilized, but control efforts are generally most effective when plants are forming buds prior to blooming, or while in bloom.

Tools for Gorse removal:

- Heavy-duty work gloves & eye protection
- Brush mower, brushcutter, or chainsaw
 proper protective equipment, if appropriate
- ➤ Herbicide & proper protective equipment, if appropriate

Apply a combination of methods (mechanical, cultural, biological or chemical) to increase the success of gorse control.

Manual & Mechanical Control

Pulling/Digging: Seedlings and very young plants may be hand-pulled, but this is not effective once plants have established. Gorse stems also tend to snap at ground level, which may complicate removal efforts.

Cutting/Mowing: Cutting at ground level just prior to flowering will provide the best control. Cutting alone will not eliminate gorse in most cases, unless followed with other mechanical, cultural, or chemical controls. Mowing and other mechanical cutting in dry weather may potentiate fire hazards.

Cultivation: Cultivation can be used to stimulate gorse seed germination, which can then be followed with additional manual or chemical methods. On appropriate sites, repeat cultivation and follow-up control can be used to exhaust seed banks after mature plants have been removed.

Cultural Control

Mulching: Sheet mulching bare ground areas will help to suppress seedling establishment in some cases.

Competition: If maintained, native conifers can eventually provide competition and shade, reducing stand density.

Burning: Burning may be used to eliminate biomass, but used alone will encourage stump-sprouting and does not destroy the root system. Fire does stimulate seed germination, however, and is useful for exhausting seed banks when used in combination with follow-up manual or chemical controls.

Gorse is extremely flammable. Wildfire risks are greatest in mature stands during dry weather. Please exercise utmost caution and seek professional advice before burning.

Biological Controls

The gorse seed weevil (*Exapion ulicis*) reduces seed production, but will not kill established plants. Gorse spider mites (*Tetranychus lintearius*) can reduce stand vigor, but may have difficulty establishing in Washington.

Targeted Grazing: Goats and sheep can provide excellent control of young plants and new regrowth following control efforts. Chickens will also consume and destroy gorse seeds.

Chemical Control

Always follow label instructions to find the correct herbicide concentration and timing for your site and the method you plan to use.

Timing: Systemic herbicide application is most effective from mid-summer through fall, when movement is from leaves to the crown. Avoid using herbicides when soil is dry and/or when plants are stressed. Adding a dye marker will reduce the amount of herbicide used.

Spot Spray: Apply triclopyr any time that plants are actively growing. Glyphosate applications are most effective from late summer through early fall. Cut larger plants in midsummer and allow to re-sprout to about 18 inches before applications.

Cut Stump Treatment: In late summer or fall, apply triclopyr or glyphosate directly to the cambial area around the edges of freshly cut stumps. Applications should be made immediately after cutting to ensure efficacy.

Basal/Stem Sprays: In fall, apply high label rates of an oil-based triclopyr (BEE) to the basal portion of selected stems. An additional surfactant may be necessary for the active ingredient to penetrate the bark and enter the vascular system.

Follow-up

Monitor and eradicate new populations while keeping established populations from spreading into non-infested or recently controlled areas.

Cultural: Bare-ground areas may be sheet mulched to prevent gorse establishment. Repeated torching can deplete the energy of small plants and re-sprouting stumps.

Biocontrol: Graze goats or sheep on young regrowth in areas where the mature plants have been removed.

Chemical: Spot spray regrowth following cutting, burning, or other removal method.

Debris Removal: The debris can be brushmown, chipped, burned (if safe and permissible), or left in place. Mowing and chipping material bearing mature seeds will further spread the infestation.

Site Restoration: Immediately re-seed bare areas with native or non-invasive perennial grasses, especially when dense gorse stands have created bare ground conditions, to reduce erosion and subsequent weed invasions.



Shoreline gorse infestation, Olga, WA