Description

- Perennial, evergreen shrub ranging from 3 feet to over 10 feet tall.
- Gorse has bright yellow pea-like flowers, ½ to ¾-inch, at the end of its branches.
- Seedlings are compact, with trifoliate leaves typical of legumes.
- Sharp spiny thorns develop as the plant ages.
- Plants grow increasingly shrub-like with age, sprouting outward from the root crowns and leaving a center of dead vegetation.
- Blooms in late February and March.

Habitat

- Can tolerate a range of moisture conditions, though it does best with high levels of soil moisture and adequate drainage.
- Grows well in areas ranging from full sun to moderate shade, and tolerates relatively acidic soils.
- Can fix atmospheric nitrogen and can tolerate a wide range of conditions. It tends to take up nutrients and further degrade soils, and displaces native vegetation.
- Sites are often disturbed areas with poor, infertile soils such as along roadsides and fencerows.

Reproduction and Spread

- Perennial that reproduces primarily by seed but it can also spread vegetatively.
- Typically flowers in late winter to early spring (Feb – Mar), but can flower throughout the year depending on site conditions.
- Seeds are hard and water-impermeable. Seeds remain viable for up to 30 years.
- Can resprout from stumps and root cuttings and can produce flowers 6 months after rooting.

Local Distribution

Three or four small gorse infestations have been found in Port Townsend and controlled. There is a large patch on the Pacific coast, north of Kalaloch

CONTROL INFORMATION

Integrated Pest Management

- The preferred approach for weed control is Integrated Pest Management (IPM). IPM involves selecting from a range of possible control methods to match the management requirements of each specific site. The goal is to maximize effective control and to minimize negative environmental, economic and social impacts.
- Use a multifaceted and adaptive approach. Select control methods which reflect the available time, funding, and labor of the participants, the land use goals, and the values of the community and landowners. Management will require dedication over a number of years, and should allow for flexibility in method as appropriate.

Planning Considerations

- Survey area for weeds, set priorities and select best control method(s) for the site conditions. Small infestations can be effectively dug up. Isolated plants should be carefully removed in order to stop them from infesting a larger area.
- For larger infestations, the strategy will depend on the land use of the site.
- Generally work first in least infested areas, moving towards more heavily infested areas.
- Control practices in critical areas should be selected to minimize soil disturbance or efforts should be taken to mitigate or reduce impacts of disturbance. Any disturbed areas need to be stabilized to control erosion and sediment deposition. Minimizing disturbance also avoids creating more opportunities for germination of giant hogweed and other weeds.
- If the control site requires extensive clearing or grading, or is located near a shoreline, steep slope, stream, or wetland, contact the Jefferson County Department of Community Development to find out whether or not a permit may be necessary.
- Because gorse is a state-listed noxious weed, control (both manual and chemical) in critical areas is allowed as long as the landowner consults with the Jefferson County Noxious Weed Control Board and follows their guidelines.

Early Detection and Prevention

- Look for gorse in disturbed areas with poor, infertile soils such as, vacant lands, roadsides, fencerows and railroad rights-of-way. Plants are most noticeable when flowering, in February and March.
- Isolated small populations can be dug but the site should be monitored for several years for plants growing from root fragments and from the seed bank.
- Prevent plants from spreading from existing populations by washing equipment, vehicles, and boots that have been in infested areas.
- Cover all noxious weed loads when transporting to a landfill.

Manual

- Wear protective clothing and gloves when working with this plant.
- Hand pulling may be effective for small infestations, in removing seedlings and young plants up to about three feet tall. Seedlings are easiest to remove after rain, when the whole root system can be removed.
- Extraction with a weed wrench may remove larger plants. Gorse tends to spread at the base, and effectiveness of this tool may be limited by the size of the trunk system.
- Cutting stems will remove aboveground growth only and is a temporary treatment. The roots remain in the ground and will re-sprout. This method can be appropriate to increase the accessibility to the plants and to prevent seed-set for a growing season.

Mechanical

- Mowing is an option for flat and low to moderate slope areas but is non-selective. Several mowings may be necessary to deplete root reserves. If utilizing only one cut during the season, it is recommended to cut before flower production.
- Mowing may be used as an initial brush removal step when confronting a large infestation, but will need to be combined with other control methods for full effectiveness.
- Cutting is recommended only before herbicide application. A cut gorse plant will re-sprout from the crown in greater density without a follow-up herbicide application.
- Follow up control methods will need to be incorporated following initial mechanical control.

Biological

Biological control is the deliberate introduction of insects, mammals or other organisms that adversely affect the target weed species. Biological control is generally most effective when used in conjunction with other control techniques.

- Goats may be effective in controlling seedlings or on re- growth less than 4 inches high.
- Chickens are reportedly effective in reducing the seed bank in mature stands. The seeds are digested and destroyed, and chickens grazed back the vegetation in areas of one acre or less.
- The gorse weevil (*Apion ulicis*) was released in Washington in the mid-1960's. The weevil eats the seeds, spines and flowers. The weevil is only partially successful, as the root reserves enable gorse to recover.

Chemical

- Effective chemical control of biennial and perennial weeds can be achieved only with ***translocated*** herbicides (ones that move through the plant and kill the roots).
- If desirable grasses or other monocots (sedges, rushes or cattails) are present, use a selective herbicide (one that affects only broadleaved plants), or carefully spot-spray only the gorse. Or use the cut-stump method described below.
- Woody plants such as gorse can be cut to 6 inches above the ground, and herbicide can be painted on the cut stump. This has to be done immediately after cutting.
- Herbicides are most effective on actively growing plants in warm, dry weather.
- Herbicides should only be applied at the rates and for the site conditions and/or land usage specified on the label. **Follow all label directions**.
- Treated areas should not be mowed or cut until after the herbicide has had a chance to work. This can be as long as 2-3 weeks.
- It is important to establish new vegetation after treating an area. Follow the label for the timing because some herbicides stay active longer than others.

For questions about herbicide use, and specific herbicide recommendations, contact the Jefferson County Noxious Weed Control Program at 360-379-0470 ext 205, or noxiousweeds@co.jefferson.wa.us.

SUMMARY OF BEST MANAGEMENT PRACTICES

Small Infestations in Desirable Vegetation

- Pull plants by hand if soil is wet; the plants may need to be dug out in dry compacted soil. This method is very effective on seedlings.
- OR apply appropriate herbicide by spot spray or the cut-stem method to minimize off target injury.
- Monitor site throughout growing season and remove any new plants.

Large Infestations \Monocultures

- Even large infestations can be controlled manually if enough labor is available—follow guidelines given above.
- Mowing, if conducted multiple times per season for several seasons can control gorse.
- If manual control is not feasible, spot spray using an appropriate herbicide.
- Lower amounts of herbicide need to be used if the plants are first cut. Allow new shoots to emerge before applying herbicide. Do not cut plants unless cutting is to be followed with herbicide application, because cut gorse plants will re-sprout from the crown in greater density than before.
- Suppression of large infestations of gorse with a selective herbicide will greatly increase grass production, which in turn increases the suppression of gorse.

Riparian and Aquatic Area Control

- Focus on manual removal for small infestations if possible.
- If manual control is not feasible, spot spray using an appropriate herbicide.
- When large areas of weeds are removed, the cleared area needs to be replanted with native or non-invasive vegetation and stabilized against erosion.
- **Any herbicide application over or near water can be done only by a specially-licensed applicator using an approved aquatic formulation, and may require a permit from the Washington State Department of Ecology.**

Road Right-of-Way Control

- Manually remove infestations if possible.
- If manual control is not feasible, spot spray using an appropriate herbicide.
- If bare spots are left, replant with low-growing native plants.

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