

About Bull Thistle:

Bull thistle is a spiny, upright biennial or short-lived perennial with a deep taproot. In the first year it forms a large, spiny-leaved rosette. This rosette overwinters then bolts, up to seven feet tall, to produce one to several flowering stems the following year. Some individuals, however, may bolt, flower, and set seed in one year while others may not bolt for three or more years. Plants reproduce solely by seed, which is dispersed by wind, wildlife, and human disturbance.

Why control Bull Thistle?

Bull thistle degrades agricultural, forestry, and range lands by competing for light, moisture, and nutrients with desirable species. It can threaten natural areas and wildlife by out-competing and replacing native vegetation in a wide range of habitats.

Before you begin:

Create a plan for restoration before removing weeds or disturbing the soil. Thistle 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.

Bull Thistle vs. Canada Thistle:

Bull thistle's spiny-winged stems and large globe-shaped flower heads (up to 2 in. wide) help to differentiate it from Canada thistle, which has less-spiny stems and smaller flower heads (up to 3/4 in. wide). Proper identification of the species you are trying to control will help you choose the best management practices.



Bull Thistle



Canada Thistle

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 Dr. Eugene Kozloff.

Bull Thistle

(*Cirsium vulgare*)

Class C Noxious Weed

(Control encouraged, but not required by law)

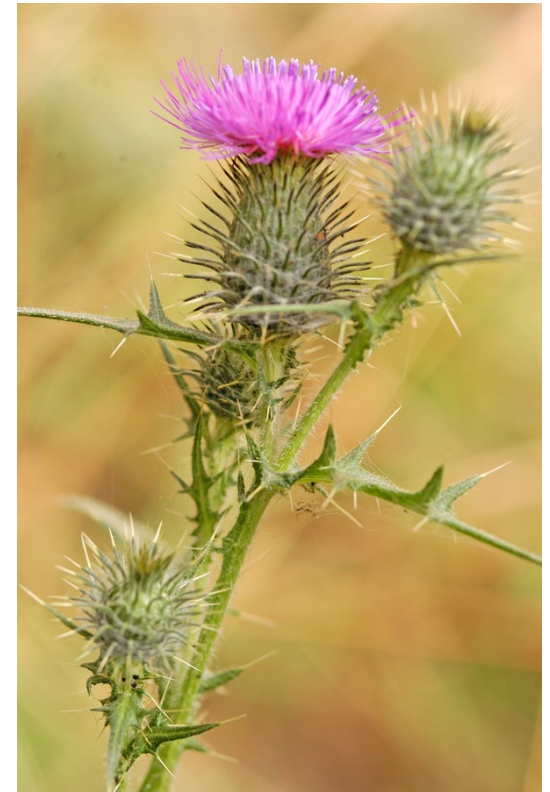


Photo credit: SJC NWCP

Bull Thistle 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

Bull thistle control is most effective when done in early summer, when plants are forming tight buds prior to blooming.

Tools for thistle removal:

- Work gloves
- Shovel, spade, hori-hori, or hoe
- Mower, string trimmer, or scythe
- Pruning shears & plastic bag or bucket
- Herbicide & proper protective equipment, if appropriate

Bull thistle can be controlled year-round and at any growth stage by digging or cutting just below the root crown underground. Buds and flowers of mature plants should be bagged and disposed of as waste.

Manual & Mechanical Control

Pulling / Digging: Seedlings can be hand-pulled, dug out, or hoed into the soil. Rosettes can be pulled, dug, or cut beneath the root crown just below the soil surface. Mature, bolting plants can be pulled, but may need to be dug out.

Cutting / Mowing: Mow close to, or preferably cut below, the soil surface at the tight bud stage. A second mowing a month later should kill most plants and prevent the rest from flowering. If cut too early, plants will re-sprout and flower. If cut too late, viable seeds may be released from cut flower heads. Repeat mowing throughout the growing season to improve success.

Cultivation: Cultivation and hoeing are very effective if done before plants flower.

Cultural Control

Sheet Mulching: Seedlings and rosettes can be controlled with sheet mulching in many cases. A thick cover of mulch (at least 3 inches) can help suppress germination of new plants, if done soon after ground disturbance

Burning: Flushes of bull thistle seedlings can be controlled by torching. Rosettes may require repeat applications.

Biological Control

The bull thistle gall fly (*Urophora stylata*) may be available for biological control, but is not especially effective. They will not kill the plant, but can reduce seed production. Not compatible with other controls.

Targeted Grazing: Goats, sheep, and horses may help in controlling thistle seed production. However, poor pasture management and over-grazing will lead to greater thistle infestation.

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: The best time to treat bull thistle is in the fall or early spring while in the rosette form, the soil is moist and the plant is not drought-stressed. Avoid treating old or stressed leaves, or when the soil is dry. Herbicide treatment may be enhanced when thistle is cut or cultivated in late summer, and then spot sprayed later in the fall when plants are again in the rosette stage.

Spot Spray: Small patches of seedlings, rosettes, and individual plants can be sprayed with glyphosate. Spring and fall applications are most effective.

Aminopyralid, clopyralid, triclopyr, and 2,4-D are all effective broadleaf selective herbicides that can be used in pasture settings without damaging grasses. Adding a dye marker to the mixture can help reduce the amount of herbicide used. Always follow all label instructions.

Cut Stem: When in the tight bud stage or earlier, cut bolting plants a few inches from the ground and apply aminopyralid, triclopyr, or glyphosate to the freshly cut stems.

Follow-up

Monitor and eradicate new populations while keeping established populations from spreading into non-infested or recently controlled areas. Always purchase weed-free hay and soil.

For help with best pasture management practices, please contact San Juan Islands Conservation District at (360) 378-6621, or WSU Extension at (360) 378-4414.

Debris Removal: If cut or pulled before flowering, plants may be left in place. If flowering, first remove and bag the flower heads and dispose of them in the trash. The remaining debris may be composted, burned (if permissible), or left in place. Pulled rosettes may have seed attached and should be piled separately.

Site Restoration: Apply sheet mulch and/or establish dense, competitive native or other non-invasive vegetation. Re-seed bare ground areas with native or non-invasive perennial grasses as soon as possible after removing thistle stands to reduce risk of subsequent weed establishment.

Native Thistles

More than 140 thistle species are indigenous to North America. One of these, our locally native short-style thistle (*Cirsium brevistylum*), can be confused with bull thistle. Both have large flower heads and can reach over six feet in height. The native thistle, however, lacks the spiny wings on the upper stems and the leaves are much less deeply incised. The native thistle is more shade tolerant than bull thistle and plays a vital role in the ecosystem, providing food and habitat for native butterflies and birds.



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Canada Thistle



Native Thistle