About Canada Thistle:

Canada thistle is an upright perennial that has extensive creeping underground stems and grows on all but waterlogged, poorly aerated soils. It forms dense clonal infestations and reproduces primarily by expansion of underground rhizomes. New plants can generate from fragments only 1/8 inch long. New shoots can mature in as little as seven weeks.

Why control Canada Thistle?

Canada thistle degrades agricultural and range lands by competing for light, moisture, and nutrients with desirable crop and forage species, reducing crop yields. It threatens 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 easily on disturbed soil, but have a difficult time on undisturbed 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.

Canada Thistle vs. Bull Thistle:

Canada thistle's noticeably less spiny stems and small flower heads help to differentiate it from the spiny-winged stems and larger flower heads of bull thistle. Although similar in appearance, they have significantly different growth habits. Proper identification of which species you are trying to control will help you choose the best management practices.

Canada Thistle

Bull 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

P.O. Box 1634
or
62 Henry Road #26
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Special thanks to the Washington State Noxious Weed Control Board and University of California, Davis.

Canada Thistle

(*Cirsium arvense)*

Class C Noxious Weed

(Control encouraged, but not required by law)

Credit: King County Noxious Weed Control Program

Canada 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

Canada 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
- Mower , string trimmer, or scythe,
- Pruning shears & plastic bag or bucket
- Herbicide & proper protective equipment, if appropriate

Repeatedly removing or treating all plants within a site will help prevent re-sprouting from the roots. Apply a combination of methods (mechanical, cultural, biological or chemical) to increase the success of Canada thistle control.

Manual & Mechanical Control

Since most of its biomass is below the ground, starving the underground roots and stems is the most effective non-chemical control method. Mow, cut, or pull at the tight bud stage when energy reserves are at a seasonal low, usually in June. Repeated removal at each successive tight bud stage (about every 21 days) may eventually starve the plant. This method is most effective when conditions are dry and the plant is drought-stressed. It will be necessary to prevent shoot growth for *at least* two years to deplete roots. This method may be less effective if plants have ample supply of water.

Cultural Control

Cultivation: Cultivate three or four inches deep every 21 days beginning in spring when shoots first appear. Plant a dense cover crop in the fall. This process may need to be repeated for multiple years.

***Mulching*:** Small areas of thistles can be controlled with sheet mulch in some cases.

Biological Control

Stem gall flies (*Urophora cardui*) may be available for biological control. They will not kill the plant but can reduce seed production and plant vigor. Not compatible with mowing or herbicide.

Targeted Grazing: Goats and sheep 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: Fall treatments are generally more effective since the roots are smaller and most herbicides move more efficiently into roots when the days are shorter, the soil is moist, and temperatures cooler. Avoid treating old or drought-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: If using glyphosate, use lower concentrations, since higher concentrations may burn the leaves before the herbicide is translocated to the roots.

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: For small patches and individual plants. In either the tight bud stage or in early fall, apply aminopyralid, triclopyr, or glyphosate directly to the freshly cut stems. Applications should be made within 5 minutes of cutting to ensure effectiveness.

Pre-emergent: For pre-emergent and early post-emergence control, sulfometuron can be applied when Canada thistle is actively germinating. Sulfometuron has mixed selectivity and may damage some native perennial grasses. Higher rates are more effective, but will also create longer-lasting bare ground areas.

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 before flowering, dry and then compost, or leave onsite. If flowering, first remove and bag the flower heads and dispose of them in the trash. Burning is also an option if material is dry.

Site Restoration: Establish dense, competitive native or other non-invasive vegetation. Immediately re-seed bare ground areas with native or non-invasive perennial grasses after removing dense thistle stands to reduce erosion and subsequent weed establishment.

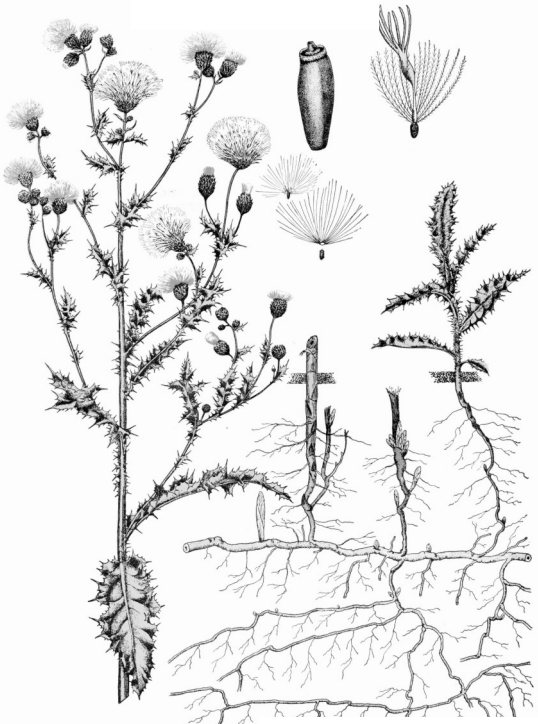

Illustration credit: WSDA