

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 2014

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Canada Thistle

(*Cirsium arvense*)

Class C noxious weed

(Control encouraged but not
required by law)



Credit: King County Noxious Weed Control Program

Why control Canada thistle?

Canada thistle reduces crop yield by competing for light, moisture and nutrients. It threatens natural areas by out-competing and replacing native vegetation, and it reduces quality forage for animals.

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 vegetatively. New plants can generate from fragments only 1/8 inch long. New shoots can mature in as little as seven weeks.

Canada vs. bull thistle:

Canada thistle's less noticeably spiny stems and small flower heads help to differentiate it from the spiny-winged stems and larger flower heads of the bull thistle.

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 germinating on undisturbed soil. Determine if enough desirable vegetation is present to replace thistle. If not, newly exposed soil can be sown with rapidly growing, non-invasive plants that will help shade out thistle seedlings.

Tools for thistle removal:

- Work gloves
- Mower, string trimmer, or scythe
- Pruning shears and plastic bag, if needed
- Herbicide if appropriate

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

Canada Thistle Control

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

Mechanical: Since most of its biomass is below the ground, starving the underground roots and stems is the most effective non-toxic control method. Mow or cut at the tight bud stage when food reserves are at a seasonal low, usually in June. Repeated cutting at each successive tight bud stage (about every 21 days) will 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.

Mulching: Small area of thistles can be treated with sheet mulch in some cases.

Cultural: 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 the following spring.

Biological: 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. Goats and sheep may help in controlling thistle. However, poor pasture management and over-grazing will lead to greater thistle infestation.

Chemical: 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. If using glyphosate, use a low concentration (2.5%) since higher concentrations may kill the leaves before the herbicide is translocated to the roots. Herbicide treatment may be enhanced when thistle is cut or cultivated in late summer, then spot spray or wick treated a few weeks later in the fall, when plants are again in the rosette stage. Adding a dye marker to the mixture will reduce the amount of herbicide used. Milestone™ can be spot sprayed in pastures. The herbicides 2,4D and triclopyr are also effective in spot treating thistle. Follow label instructions.

What to do with the remains:

If cut before flowering, dry and then compost the entire plant. If flowering, remove and bag the flower heads, and dispose of them in the trash. The rest of the plant can be composted after it has desiccated.

Site Restoration:

Establish dense, competitive native or other non-invasive vegetation. Request weed-free seed and top soil for restoration.

Follow-up:

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

Purchase weed-free hay. For best pasture management practices contact the San Juan Islands Conservation District. (378-6621) or WSU Extension Office (378-4414).



Credit: WSDA