

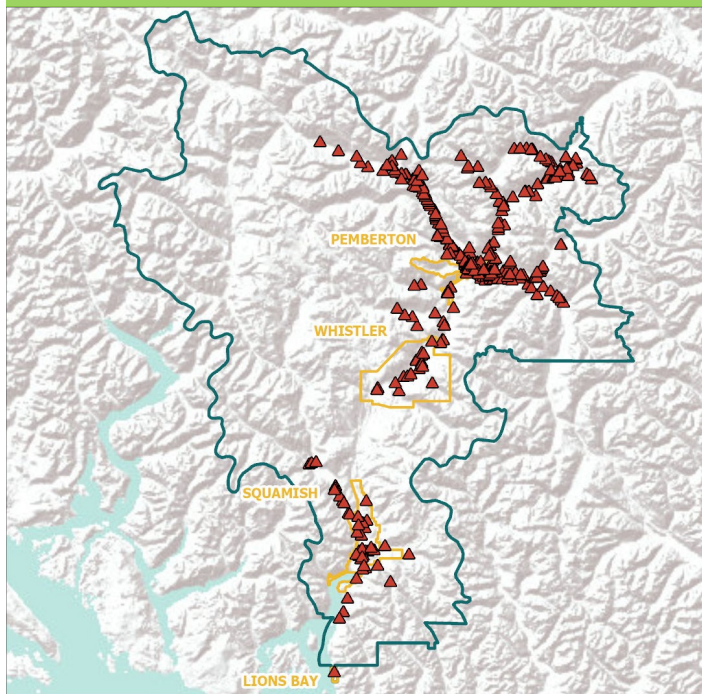
# Canada Thistle

*Cirsium arvense*

FACT SHEET

Squamish: Strategic Control | Whistler: Strategic Control | Pemberton: Strategic Control

## DISTRIBUTION



**Origin:** Eastern Mediterranean in origin, Canada Thistle is not from Canada but was one of the first weeds brought to North America by early European settlers.

**Habitat:** Canada Thistle is a versatile plant, capable of growing in a wide range of elevations and environments. It can be found in disturbed soil or where bare ground is exposed. Often seen in manmade plant communities (gardens, fields, roadsides), as well as in the margins of native plant communities (forests, meadows, wetlands).

**Reproduction:** Canada Thistle spreads by seeds and vegetative methods. One plant produces 1000 - 1500 seeds per flower shoot; the seeds germinate mid-spring or can lay dormant for up to 20 years. Roots can form new genetically-identical plants by creeping (via horizontal roots growing outwards from the main plant and sending up clones). New plants can also form from root fragments.

## DISTRIBUTION



**Flowers:** Small purple-pink to white spineless flower heads (1 - 2 cm tall). Flower heads are borne on clusters of 1 - 5 at branch tips, and have a sweet vanilla scent. Flower bracts are spineless.

**Stems:** Mature plants are 0.3—2 m tall. Shoots begin as a rosette and grow upright stems after 2 - 4 weeks.

**Leaves:** Dull, glossy, prickly, dark green with white hairs underneath, narrow and alternate on the stem with wrinkled, deeply lobed, and spiny edges. Base leaves are stalkless and clasping, or extended down the stem.

**Fruits:** One-seeded, pale yellow (straw) or light brown in colour; straight or slightly curved. Seeds have a pappus (cluster of fluffy hairs).

**Roots:** Wide-spreading roots and creeping rhizomes.

### Similar Species:

- **Native:** Wavy Leaf Thistle (*Cirsium undulatum*)
- **Non-native:** Musk Thistle (*Carduus nutans*)
- **Invasive:** Bull Thistle (*Cirsium vulgare*), Scotch Thistle (*Onopordum acanthium*), Plumeless Thistle (*Carduus acanthoides*), and Marsh Thistle (*Cirsium palustre*)

**Compared to other thistles, Canada Thistle has smaller flowers, lacks spines on the main stem, and tends to be shorter.**

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**Vectors of Spread:** Canada Thistle can spread locally by vegetative reproduction, but long-distance dispersal occurs through the transport of seeds. The abundant pappus (clusters of hairs) helps wind carry seeds, but water, animals, and humans (via clothing, equipment, vehicles) may also spread the seeds.

#### WHAT CAN I DO?

**Canada Thistle is found throughout the Sea to Sky region, so STRATEGIC CONTROL is key:**

- Regularly monitor properties for infestations.
- Ensure soil and gravel are free of Canada Thistle before transport.
- Don't unload, park, or store equipment or vehicles in infested areas; remove plant material from any equipment, vehicles, or clothing used in such areas and wash equipment and vehicles at designated cleaning sites before leaving infested areas.
- Minimize disturbances that cause exposed soil (e.g. use grazing plans that prevent soil exposure from overgrazing), and use seed mixes with dense, early colonization (e.g. alfalfa or barley) to re-vegetate soils and resist invasion.
- Ensure plants (particularly flowering heads or root fragments) are bagged or covered to prevent spread during transport to designated disposal sites (e.g. landfill). **Do NOT compost.**

#### Canada Thistle can be controlled by:

- **Mechanical Control:** Aggressive, long-term, repeated mowing can deplete the root reserves. Plant material can be left on site to decompose, but in post-flowering stage, all plant parts must be bagged and deeply buried at a landfill. This is most effective when plant is undergoing abiotic stress.
- **Chemical Control:** Numerous herbicides are registered for control or suppression of Canada Thistle. In pastures and idle areas, spring and autumn applications of clopyralid, glyphosate, or a dicamba/2,4-D mix have been effective when roots are actively growing. Spring applications should coincide with the rosette to bud stages. We recommend that any herbicide application is carried out by a person holding a valid BC Pesticide Applicator Certificate. Before selecting and applying herbicides, you must review and follow herbicide labels and application rates; municipal, regional, provincial and federal laws and regulations; species-specific treatment recommendations, and site-specific goals and objectives.
- **Biological Control:** Some biological agents are present in BC, including seed weevils (*Larinus planus*), stem gall flies (*Urophora cardui*), leaf-eating beetles (*Altica carduorum*), stem and root mining weevils (*Hardoplonotus litura*), thistle-head weevils (*Rhinocyllus conicus*), and lettuce fly (*Terellia ruficauda*). Success of any of these agents is limited.

**If you suspect you have found Canada Thistle anywhere in the Sea to Sky region:**

**Contact** the Sea to Sky Invasive Species Council to report and for the most recent, up to date control methods. All reports will be kept confidential.

**References:** Coastal Invasive Species Committee, Government of BC, Government of Ontario, Government of Saskatchewan, Invasive Species Council of BC, Invasive Species Council of Metro Vancouver, Nature Conservancy Canada, Okanagan Invasive Species Online, Oregon State University, Pacific Northwest Pest Management Handbooks, Washington State Noxious Weed Control Board.

## IMPACTS

#### Economic:

- Reduces crop yields due to dense colonies, crowding out forage fields and decreasing soil moisture and nutrients.

#### Ecological:

- Outcompetes native plants due to rapid spread and dense patches (up to 5.5 m per season from a single plant).
- Especially problematic in riparian areas.
- While decaying, may release toxic chemicals to inhibit germination of other plant species.
- Considered noxious under the *Weed Control Act*.



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## REPORT SIGHTINGS

Visit [ssisc.ca/report](https://ssisc.ca/report)

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