



R. Mueller

INVASIVE PLANT

Tansy ragwort

Senecio jacobaea

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BCINVASIVES.CA

ABOUT

Tansy ragwort is native to Europe, Asia, and Siberia. It was likely introduced to Canada in the 1850s through ships' ballast water and as a medicinal herb. Since then, it has spread primarily through contaminated hay.

DISTRIBUTION

In BC, tansy ragwort is found in the central Fraser Valley, central to southern Vancouver Island, the Gulf Islands, and the east side of the Okanagan Valley between Kelowna and Penticton.

LEGAL STATUS

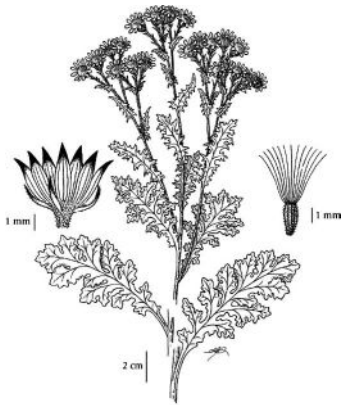
Tansy ragwort is classified provincially as a Noxious Weed under British Columbia's *Weed Control Act* and a regulated invasive plant under the *Forest and Range Practices Act*.

IDENTIFICATION

Flowers: Tansy ragwort produces bright yellow, daisy-like flower heads in dense, flat-topped clusters. Each flower head has 10-15 petal-like ray flowers surrounding yellow disk flowers. The black-tipped flower-head bracts are arranged in a single row.

Stems/Stalks: The plant stands between 0.2 to 1.2 metres tall, with one to several upright stems that branch near the top.

Leaves: In its first year, tansy ragwort forms a low rosette with dark green, lobed leaves on purplish stems. Second-year leaves on flowering stems are alternate, dark green on top, and whitish-green underneath, with deeply cut, blunt-toothed lobes giving a ruffled, ragged appearance. The basal leaves are stalked and range from 4 to 20 centimetres long and 2 to 6 centimetres wide.



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Fruits/Seeds: The seeds are ribbed, about 1 millimetre long, and have a tuft of white hairs around 3 millimetres long.

Similar Species: Dryland ragwort (*Seneca eremophilus*) has pointed leaf tips instead of rounded, and other native *Senecio* species (e.g. woolly groundsel) are typically smaller without unique dissected leaves.



Similar Non-Native Species: Common tansy (*Tanacetum vulgare*) has sharply toothed leaves and button-like yellow flowers. St. John's wort (*Hypericum perforatum*) has opposite leaves that are 1 to 3 centimetres long and oval-shaped. Other non-native *Senecio* species (e.g. common groundsel) are generally smaller, lack unique dissected leaves, and don't have ray-like flowers.

ECOLOGICAL CHARACTERISTICS

Habitat: Tansy ragwort thrives on bare ground and disturbed areas like grazed pastures, roadsides, vacant non-crop lands and forest clear-cuts. It prefers well-drained soils in full sun or partial shade and is usually absent from wet or acidic soils.

Reproduction: This plant is a biennial or short-lived perennial, mainly reproducing from seed. However, it can also regenerate from parts of its roots or stem. The seeds can stay alive in the soil for up to 15 years. Disturbances like tilling or grazing can trigger dormant seeds to grow. Plants that go to seed, die at the end of the season.

Dispersal: Although tansy ragwort seeds can spread by wind, water, people and livestock, most seeds fall within 10 metres of the parent plant. Seeds can be spread further by soil transported on equipment and vehicles.

IMPACTS

Economic: Tansy ragwort can reduce livestock productivity by reducing the quality of grazing land. Additionally, the plant's alkaloids can taint honey produced by bees, making it bitter and discoloured, which makes it difficult to sell.

Animal Health: The plant contains alkaloids toxic to cattle, deer, pigs, horses, and goats, causing cumulative liver damage.

INTEGRATED PEST MANAGEMENT

IPM is a decision-making process that involves identifying invasive plant populations, assessing their risks, and developing control strategies using multiple methods, site treatments, and ongoing monitoring.

Prevention:

- ▶ Monitor pastures, livestock areas, horse trails and roadsides for new populations, and eradicate small infestations early.
- ▶ Avoid unloading, parking, or storing equipment and vehicles in infested areas.
- ▶ Minimize soil disturbance during activities and re-vegetate exposed soil as soon as possible.
- ▶ Remove plants, plant parts, and seeds from personal gear, clothing, pets, vehicles, and equipment. Wash vehicles, including tires and undercarriage, and equipment at designated cleaning sites before leaving infested areas.
- ▶ Create and maintain a 'containment line' between infested and non-infested areas. Boundaries can be easily monitored and controlled to prevent the spread of tansy ragwort onto adjacent lands.

Mechanical Control:

- ▶ Mechanical control is only effective when the entire root system can be removed or when the area is frequently cultivated (tilled) to prevent new seedlings and sprouts from growing.
- ▶ Repeated mowing before flowering can prevent seed production.
- ▶ While light cultivation can encourage growth, repeated, heavy cultivation can be used as a control technique.
- ▶ Hand pulling is effective only for small infestations. Pull the plants when the soil is moist to ensure the entire root mass is removed. Periodic re-treatment will be needed.
- ▶ **CAUTION:** Mowing, grazing, or improper hand removal that leaves part of the root system can cause the plant to reproduce vegetatively.
- ▶ **Disposal:** Plants pulled or cut before flowering can be left to decompose on-site. After flowering, all plant parts should be bagged and incinerated or buried deeply in the landfill. Care should be taken to avoid spreading plant parts during disposal.
- ▶ While fire can stimulate regrowth from stumps, it can be effective for controlling large infestations.

Biological Control: Biological control involves using an invasive plant's natural enemies—such as insects, parasites, or diseases—to reduce its population to a manageable level.

A defoliating moth (*Tyria jacobaeae*), seedhead fly (*Hylemya seneciella* also known as *Botanophila seneciella*), root-feeding beetles (*Longitarsus flavicornis*, *Longitarsus jacobaeae*), and root crown feeding moth (*Cochylis atricapitana*) have been effective in controlling tansy ragwort in the Fraser Valley.

Chemical Control: Before selecting a herbicide, it is essential to evaluate the site-specific characteristics and consider the overall goals and objectives for the area as these will guide the choice of herbicide and application strategy. Always carefully follow the instructions provided on herbicide labels, and herbicide application should be conducted by certified pesticide applicators.

- ▶ The use of a wick or selective spot spraying is recommended to minimize non-target damage.
- ▶ Effective herbicides include dicamba, 2,4-D, picloram, and picloram + 2,4-D.
- ▶ Spring or mid-summer applications of 2,4-D are most effective at managing young seedlings and rosettes, while dicamba or dicamba + 2,4-D are more effective at advanced growth stages.
- ▶ Picloram is only recommended for use in dry interior zones; it is not recommended for use in high precipitation zones such as coastal areas.

On Crown land, pesticide application must be carried out following a confirmed Pest Management Plan (*Integrated Pest Management Act*) and under the supervision of a certified pesticide applicator. For more information, visit: <https://www2.gov.bc.ca/gov/content/environment/pesticides-pest-management>

REPORT

Report invasive species by using the mobile Report-Invasives-BC app for Apple and Android platforms, available for download at <https://bcinvasives.ca/take-action/report/>.

You can also report any invasive species through the ISCBC website, through info@bcinvasives.ca or at 1-888-933-3722.



D. Holden; CFIA 2018

REFERENCES/LINKS

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King Country Noxious Weed Control Program: Best Management Practices for Tansy Ragwort. King County, Washington. <https://your.kingcounty.gov/dnrp/library/water-and-land/weeds/BMPs/tansy-ragwort-control.pdf>

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ADDITIONAL CONTACT INFO