

T.I.P.S.

Targeted Invasive Plant Solutions

13 Giant Hogweed



Giant Hogweed • *Heracleum mantegazzianum* • Synonyms - Giant cow-parsnip, hogweed

Legal Status

✓ Community Charter

Distribution

Currently distributed in the Lower Mainland, Fraser Valley, Gulf Islands, and central to southern Vancouver Island.

Identification

Flowers: Numerous small white flowers clustered in a large umbrella-shaped head (inflorescence); up to 1.5 m in diameter.

Stems: Hollow, ridged, and green; 5-10 cm in diameter; may have conspicuous dark reddish-purple spots. Plants can grow up to 5 m in height when in flower.

Leaves: Dark green, coarsely toothed, deeply incised into 3 large segments; hairs on underside are stiff, dense, and stubby. Lower leaves can exceed 2.5 m in length.

Fruits: Green, elliptical-shaped fruits are about 10 mm in diameter and 6-8 mm wide; form in June and July turning dry and brown when ripe. Fruits have wings and swollen brown resin canals.

Similar Native Species: (i) Cow parsnip (*Heracleum lanatum*) is much smaller (1.5-2.5 m in height), has coarse hairs at the base of leaf stalks, and hairy leaves. Reddish-purple spots are not present on stems and leaves are not as incised or sharply toothed. (ii) Palmate coltsfoot (*Petasites frigidus* var. *palmatus*) only grows to a height of 10-50 cm (low-lying ground cover) with no real umbel and leaves that are lobed.

Ecological Characteristics

Habitat: Prefers rich, damp soil and can grow in varied light conditions. May colonize a wide variety of habitats, but is most common along roadsides, right-of-ways, ditch-lines, vacant lots, river and stream banks, wetlands, riparian areas, agricultural areas, wooded ravines, and other disturbed sites.

Reproduction: A perennial herb that requires 2 to 4 years from germination to develop a flower stem. Most plants sprout in late winter or early spring from seed and perennial buds that form on the crown and tuberous rootstock. Additional crowns may develop on individual plants. Plants generally die after flowering.

Dispersal: Each plant can produce up to 100,000 winged seeds (typically 50,000) that can float for 3 days before becoming water logged and sinking. Seeds can remain viable in the soil for up to 15 years.



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Current Distribution in BC



Dots indicate species presence as recorded in IAPP (accessed March 15, 2008).

Impacts

Ecological: A highly competitive plant due to vigorous early-season growth, tolerance of full shade and seasonal flooding, and ability to co-exist with other widespread and aggressive invasive plant species. Relatively shallow roots do not hold the soil as well as a healthy complex of native species; consequently, infestations can result in increased erosion hazard on steep terrain or along stream banks, particularly when winter dieback exposes soil to erosive rains common to coastal BC.

Impacts (cont'd)

Health Hazard: Leaves and stems contain a clear, watery, highly toxic sap that can cause hypersensitivity to sunlight resulting in burns, blisters, and scarring when coming into contact with skin. **WorkSafe BC** has issued a **Toxic Plant Warning** for Giant hogweed and requires all workers to wear heavy, water-resistant gloves and water-resistant coveralls or clothing that leaves no skin exposed when handling the plants. Eye protection is also recommended.

Integrated Pest Management

IPM is a decision making process that includes identification and inventory of invasive plant populations, assessment of the risks that they pose, development of well-informed control options that may include a number of methods, site treatment, and monitoring.

Prevention

- Monitor for Giant hogweed on both disturbed and undisturbed sites.
- Do not purchase, trade, or grow Giant hogweed in your garden. Instead, grow regional native plants as they are naturally adapted to the local environment and are non-invasive.
- Remove plants, plant parts, and seeds from personal gear, clothing, pets, vehicles, and equipment.
- Avoid unloading, parking, or storing equipment and vehicles in infested areas.
- Bag or tarp plants, plant parts, and seeds before transporting to a designated disposal site (e.g. landfill) and take special care when controlling Giant hogweed near streams, or ditch lines, to prevent the movement of plant parts downstream.

Mechanical Control

- Suit up with waterproof gloves, a rubber raincoat and pants, and eye protection to ensure that skin and eyes are protected from the sap of the plant. Refer to www.worksafebc.com for more information.
- **Mature Plants:** Manually remove the first 8-12 cm of the central root. Minimize soil disturbance by cutting and prying versus digging.
- **Immature Plants:** Mow every two weeks to exhaust the seed bank in the soil. This may take 3-5 years. For small confined infestations, cut plants at ground level and cover the soil with black plastic. Monitor to ensure seedlings don't poke through the black plastic.
- **Disposal:** Place plant material in a large heavy duty plastic or mesh bag and landfill. Alternatively, dry and incinerate plant material away from any people-frequented areas. If umbels have formed, carefully cut them off, place them in sealed plastic garbage bags, and landfill. **Do not compost this plant!**
- Monitor sites throughout the growing season to ensure new infestations do not grow.

Biocontrol

There are no biocontrol agents available for giant hogweed.

Chemical Control

Herbicide recommendations and use must first consider site characteristics and be prescribed based on site goals and objectives. Herbicide labels and other sources of information must be reviewed before selecting and applying herbicides.

- Effective herbicides include glyphosate and triclopyr. Foliar herbicide applications are



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Ministry of Agriculture & Lands

most effective in spring on actively growing plants, followed with a subsequent summer application for late sprouts.

- Stem injections or "cut stem and inject" methods are effective after heavy sap flow in the spring.
- Application of herbicides on Crown land must be carried out following a confirmed Pest Management Plan (*Integrated Pest Management Act*) and under the supervision of a certified pesticide applicator. www.env.gov.bc.ca/epd/epdpa/ipmp/index.html

References and Links to Further Information

- *Aggressive Ornamentals - Giant Hogweed*. BC Ministry of Agriculture and Lands. www.agf.gov.bc.ca/cropprot/gianthogweed.htm
- BC Ministry of Forests and Range, Invasive Alien Plant Program. www.for.gov.bc.ca/hra/Plants/application.htm
- E-Flora BC, an Electronic Atlas of the Plants of BC. www.eflora.bc.ca
- *Field Guide to Noxious Weeds and Other Selected Invasive Plants of British Columbia*. BC Ministry of Agriculture and Lands. www.agf.gov.bc.ca/cropprot/weedguid/ghogweed.htm
- *King Country Noxious Weed Control Program: Best Management Practices for Giant Hogweed*. King County, Washington. <http://dnr.metrokc.gov/wlr/lands/weeds/pdf/hogweed-control.pdf>
- *Toxic Plant Warning for Giant Hogweed*. WorkSafeBC. http://worksafebc.com/publications/health_and_safety/bulletins/toxic_plants/assets/pdf/tp0602.pdf