

Dr. Jatinder S. Aulakh Valley Laboratory, Windsor, CT The Connecticut Agricultural Experiment Station 153 Cook Hill Road, P. O. Box 248 Windsor, CT 06095

Founded in 1875 Putting science to work for society *Phone:* (860) 683-4984 *Fax:* (860) 683-4987 *Email:* <u>Jatinder.Aulakh@ct.gov</u> *Website:* <u>www.ct.gov/caes</u>

Giant Hogweed (*Heracleum mantegazzianum*) Identification and Management

Common name: Giant hogweed, giant cow parsnip, cartwheel-flower. **Scientific name:** *Heracleum mantegazzianum* Sommier & Levier. **Family name:** *Apiaceae* - Carrot family.



Pictures (left to right): Giant Hogweed plant (left) and leaf (right). Picture courtesy: New York State Department of Environmental Conservation.

US introduction and distribution: Giant hogweed is native to the southwestern Asia and Caucasus Mountains of Georgia, Azerbaijan, and southern Russia. It was introduced as an ornamental plant in the United States in 1917. It is present in many US states including Connecticut, Illinois, Maine, Massachusetts, Michigan, New York, Oregon, Pennsylvania, and Vermont, and Washington.

Distribution in Connecticut: Giant hogweed was first reported in Connecticut in 2001. Currently, this federal noxious weed is present in at least 25 towns in all 8 counties (UCONN 2009).



Habitat: Giant hogweed prefers moist and fertile soils. It is commonly found growing in vacant lots, floodplain forest, yards or gardens, and along forest edges, roadsides, streams, and riverbanks.

Identification: It is an herbaceous biennial or perennial that can grow up to 20 feet in height. Giant hogweed has a main taproot with fibrous lateral roots. Stems are hollow usually covered with hair and reddish-purple blotches. The stem can be 2- to 4-inch in diameter. Leaves are deeply lobed and can be up to 5 feet in diameter. Flowers are produced from June to July. The inflorescence has many white florets clustered in an umbrella shaped head that is up to 3 feet in diameter. The fruits are flattened structures, 3/8 inch long.

Often, cow parsnip, angelica, and Queen Ann's lace are misidentified for giant hogweed. For correct identification and differentiating giant hogweed from its look-alikes visit the following weblink: https://www.dec.ny.gov/animals/72766.html

Reproduction and spread: Giant hogweed plants reproduce via seed. Single giant hogweed plant can produce 20,000 to 100,000 seeds. Seeds are dispersed by wind or by water. Giant hogweed seeds can survive in the soil seed bank for more than 5 years.

Impacts: Giant hogweed outcompetes native plant species for habitat. Its presence along river and stream banks may intensify soil erosion. It is a federal noxious weed because of its poisonous sap. The sap of giant hogweed causes dermatitis; large painful blisters that may last for several months. Eye contact may result in blindness. Caution should be taken when handling this weed.

Management: Giant hogweed introduction into new areas occur mainly through wind or water dispersed seed. For effectiveness of any strategy for giant hogweed management, it is very critical to prevent the plant from flowering and setting seed to stop its further spread into new areas. Giant hogweed is highly resistant to chemical and non-chemical control; a well-established giant hogweed plant has a massive root system which makes it highly resistant to control. However, different control options exist which can yield satisfactory results when followed systematically.

Mechanical control: While repeated cutting and mowing several times a year and over multiple years may help prevent new seed formation and eventually result in depletion of stored reserves in the giant hogweed roots, these are not the recommended control methods due to the risk of contracting plant sap which can cause phyto-photo-dermatitis in sensitive individuals.

Biological control: Sheep and cattle like grazing young and tender hogweed plants. Early season grazing can help in the removal of the aboveground growth of this plant. Intensive grazing over multiple years may weaken the plant by depleting the stored energy reserves.

Chemical control: Giant hogweed is a highly difficult-to-control plant. Single herbicide application may not provide satisfactory control or eradication. Multiple applications of an herbicide such as glyphosate or triclopyr at 3 to 5% solution (12 to 20 fl oz per 3 gallon spray solution) are required, starting in spring between late-April and early June when hogweed leaves are green and actively growing followed by another application in July or August for the plants that escape control from the previous herbicide application. Giant hogweed may also be treated with herbicides later in the season (mid-August to end-October) as long as leaves are still green and plants are not dying back. Complete coverage of foliage and stem with herbicide spray is necessary for achieving satisfactory results. Alternatively, giant hogweed can also be controlled using cut stem or stem injection methods using concentrated herbicide. For giant hogweed growing along river or stream banks or other water bodies, use an appropriate formulation of glyphosate (Rodeo, Roundup Custom) or triclopyr (Garlon 3A) with an aquaticarea-use label. Before you decide on using an herbicide for giant hogweed control, contact Connecticut Agricultural Experiment Station.

The mentioning of trade names in this publication is solely for the purpose of providing specific information. The CAES does not guarantee or warranty the products named, and references to them in this publication do not signify our approval to the exclusion of other products of suitable composition.

Information sources:

- 1. New York State Department of Environmental Conservation- Giant Hogweed Identification: Available at: https://www.dec.ny.gov/animals/72766.html
- 2. United States Department of Agriculture-Giant Hogweed. Available at: https://www.invasivespeciesinfo.gov/profile/giant-hogweed#cit

- 3. Giant Hogweed in Connecticut. Available at: https://cipwg.uconn.edu/giant-hogweedin-connecticut/
- 4. Invasive Plant Atlas of New England. Available at: https://www.eddmaps.org/ipane/ipanespecies/herbs/Heracleum_mantegazzianum.htm
- New York Invasive Species Information-Giant Hogweed. Available at: http://nyis.info/invasive_species/giant-hogweed/
- 6. New York State Department of Environmental Conservation-How to Control Giant Hogweed: Available at: https://www.dec.ny.gov/animals/40961.html