Giant Hogweed

MSU Extension Bulletin E-2935
June 2012
Please destroy previous editions

An attractive but dangerous federal noxious weed. Have you seen this plant in Michigan?

USDA APHIS PPQ Archive, USDA APHIS PPQ, Bugwood.org

It's a tall majestic plant, but DON'T TOUCH IT!

USDA APHIS PPQ, Bugwood.org

Arm burn from giant hogweed.

Hogweed is hazardous

Giant hogweed is a majestic plant that can grow over 15 feet. Although attractive, giant hogweed is a public health hazard because it can cause severe skin irritation in susceptible people. The plant exudes a clear, watery sap that causes photodermatitis, a severe skin reaction. Skin contact followed by exposure to sunlight may result in painful, burning blisters and red blotches that later develop into purplish or blackened scars. The reaction can happen within 24 to 48 hours after contact with sap, and scars may persist for several years. Contact with the eyes can lead to temporary or permanent blindness.

Wash immediately with soap and water if skin exposure occurs. If possible, keep the contacted area covered with clothing for several days to reduce light exposure. Giant hogweed (*Heracleum mantegazzianum*) is a federal noxious weed, so it is unlawful to propagate, sell or transport this plant in the United States. The U.S. Department of Agriculture (USDA) has been surveying for this weed since 1998 and several infestations have been identified in Michigan. For more information about giant hogweed, visit the Michigan Department of Agriculture and Rural Development at www.michigan.gov/exoticpests.

Use common sense around giant hogweed

Don't touch or handle plants using your bare hands.

Don't allow children to play in giant hogweed. They may sometimes use the long, hollow stems for telescopes or peashooters.

Don't transplant or give away giant hogweed plants or seeds. These actions are illegal.

Do wash immediately with soap and water if giant hogweed sap gets on your skin.

How to recognize giant hogweed

Terry English, USDA APHIS PPQ, Bugwood.org

Giant hogweed is a biennial or perennial herb capable of reaching 6 to 12 feet in height in Michigan. The best time to identify giant hogweed is during flowering. Plants sprout in early spring from seed or tuberous rootstocks. Plants can quickly form a solid canopy and displace native vegetation.

- **Stems** are 2 to 4 inches in diameter, hollow, stout and ridged with purple blotches and coarse, white hairs. Stems may approach 12 feet in height in Michigan.
- **Leaf petioles (leaf stems)** are hollow, purple-blotched and sometimes nearly solid purple near the base. Coarse, white hairs are especially prominent circling the stem at the bases of the petioles.

Wearing gloves, a technician holds a giant hogweed stem.

- **Leaves** are very large — up to 5 feet across. Lower leaves are compound with three large, deeply cut leaflets. Each leaflet has deep, irregular lobes and coarse, sharp teeth on the margins. Upper leaves are similar in shape, smaller, often not divided but simply deeply three-lobed. Hairs on the underside are stiff, stubby and approximately 0.25 mm long, and they may not be visible to the naked eye. The leaf underside looks smooth and scaly.
- **Flowers** are white, clustered into a large, compound umbel with a flat bottom and gently rounded top. Umbels can be 2.5 feet wide. The plant flowers from June to August in Michigan.

Terry English, USDA APHIS PPQ, Bugwood.org

This giant hogweed leaf is 3 feet long. At right, a flower.

Growth stages

1) Dead stems. After producing seeds in late summer, the plants die and leave stems standing into winter. At this point seeds have been dispersed to germinate the following spring or in future years.

2) Fruit. Mature fruit consist of two sections. Each section is oval in outline, 7 to 13 mm long, 6 to 10 mm wide, flattened and tan-colored with usually four prominent dark lines (oil tubes).

3) Seedlings. Seeds germinate from early spring throughout the growing season. Seedlings form a vegetative rosette pattern of growth the first season.

4) Rosette of leaves. Leaf clusters sprout from overwintering roots each year for two to five years until the plant flowers.

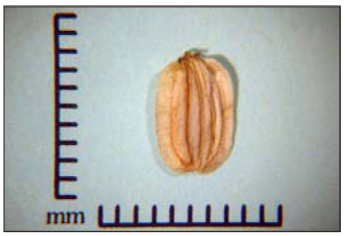
5) Flowering stems (see picture at top right of page). Plants bolt and flower in midsummer after rosette plants accumulate enough energy reserves. This may take from two to five years.

Look-a-likes: Similar plants commonly mistaken for giant hogweed

Cow Parsnip

[*Heracleum maximum* (aka *H. lanatum*)] is a native plant very similar to giant hogweed. Cow parsnip is smaller, reaching a maximum height of 6 to 8 feet in Michigan. Unlike giant hogweed, the stem may be entirely green or have only a slight purplish cast. Stems are deeply ridged, often hairy below the nodes, often hairy throughout and no greater than 2 inches in diameter. Hairs on cow parsnip are fine – soft and fuzzy – rather than coarse as on giant hogweed. Leaves are compound, up to 2.5 feet across, and contain three large, broad leaflets. Leaflets are deeply lobed with coarsely toothed margins. Stem leaves are smaller and their leaf stalks almost circle the stem at the node. Although present on both leaf surfaces, the soft hairs are primarily confined to the lower leaf surface and have a velvety appearance. These lower leaf hairs are about 1 mm long and are often the best distinguishing characteristic from giant hogweed. Cow parsnip has white flower clusters similar to those of giant hogweed, but these are flat-topped and smaller at 6 to 10 inches across. Cow parsnip generally flowers from early June through early July in Michigan, typically several weeks before giant hogweed. Mature fruits have two eggshaped sections. Each section is 7 to14 mm long and tan to pale tawny in color with four vertical purple lines (oil tubes).

Angelica (*Angelica atropurpurea*) can be easily distinguished from giant hogweed by several features. Stems are uniformly waxy green to purple, smooth, hollow and up to 2 inches in diameter. Mature leaves are double or triple compound with numerous leaflets and are capable of reaching 2



feet in width. The globular, softball-sized clusters of greenish white flowers are up to 12 inches in diameter.

Angelica seldom reaches 8 feet in height and typically flowers from mid-May through mid-June in Michigan. Mature fruit have two oblong-oval sections that are ribbed, 4 to 6.5 mm long and usually flattened.

Poison hemlock *(Conium maculatum)* is a multibranched, non-native biennial plant ranging from 4 to 9 feet tall. The waxy stem has purple blotches and the entire plant is smooth. The fernlike leaves are bright green and may appear glossy. Small, white flowers are arranged in numerous, small, flat-topped clusters on all the branches.

Eric Coombs, OR Dpt Ag, Bugwood.org

Leaves and flowers resemble those of wild carrot. Poison hemlock has a disagreeable "mousy" odor, and the entire plant is poisonous if ingested. It generally flowers in late May through late June in Michigan. Mature fruit have two sections that are oval, flattened on one side, and yellowish to gray-brown. Each fruit section is 2 to 3.5 mm in length with prominent, wavy, somewhat knotty lengthwise ribs.

Wild carrot *(Daucus carota)*, also known as Queen Anne's lace, is a common biennial weed in Michigan that forms a basal rosette of leaves the first year followed by an erect, 3- to 4-foot flowering stalk the following year. Stems are erect, branched, hollow, rather thin and covered with short, coarse hairs. Leaves are very finely dissected, lacy to fernlike and virtually

identical to those of cultivated carrot. Lower leaves are considerably larger than the upper stem leaves. White to sometimes pinkish flowers form a flat-topped cluster, often with a single, purple flower in the cluster center. Wild carrot flowers from July to September. Mature fruits have two egg-shaped sections. Each section is flattened on one side, yellowish to grayish brown, 2 to 4 mm in length and ridged with barbed spines.

Wild parsnip (*Pastinaca sativa*) is a non-native species easily distinguished from the above species by its yellow flowers. Wild parsnip may cause photodermatitis similar to that caused by giant hogweed.

Identify

Accurate identification is the first step toward eradicating this invasive, hazardous weed. Review the "Look-a-likes" section of this bulletin, and if you believe you have a giant hogweed plant, e-mail photographs of the plant, leaves, flower head and stem where the leaf joins the stem, to Michigan State University Diagnostic Services at pestid@msu.edu for confirmation. You will receive a response letting you know whether the plant is giant hogweed.

Control

If you want to remove giant hogweed, be sure to take appropriate precautions to prevent exposure to giant hogweed's sap by wearing protective coveralls, rubber gloves, eye protection and sturdy shoes. Place plant parts in heavy duty garbage bags. Do not mow, cut or weed-whack to try to control the plant mechanically. Its large perennial root system will soon send up new growth. Also, these tactics are risky because they increase the opportunities for you to come in contact with the plant's sap.

Small seedlings can be controlled with a labeled herbicide containing glyphosate, but most references state that a mature giant hogweed plant will not succumb to a single application. Controlling with a herbicide will require close attention, reapplication to basal sprouts and a keen eye for germinating seedlings, which can germinate for several seasons. Anyone using a herbicide to control giant hogweed must do so according to pesticide label directions.

Prevent

Giant hogweed is spread naturally by seeds, which can be wind-blown and scattered several feet from the parental plant or may be carried by water to invade new areas. People are usually responsible for spreading giant hogweed over long distances. Seeds or young plants from a friend's garden, planted in new locations, help spread this weed quickly over distances much greater than the plant would spread naturally. The dried fruit clusters are sometimes used in decorative arrangements and, when discarded outdoors, can start a new infestation.

About giant hogweed – Where did it come from?

Giant hogweed, native to the Caucasus region of Eurasia, is a member of the carrot or parsley family (Apiaceae) that was introduced into Europe and North America in the early 1900s. Its massive, majestic size and imposing appearance made it desirable for arboretums and gardens. Because of its persistent and invasive habit, giant hogweed soon escaped cultivation and became established in rich, moist soils along roadside ditches and stream banks, and in waste ground, tree lines and open wooded areas. The plant's name, *Heracleum mantegazzianum,* comes from Hercules, of ancient mythological fame, and giant hogweed is aptly described as robust.

Additional resources

- ohioline.osu.edu/anr-fact/hogweed.html
- www.dec.ny.gov/docs/lands_forests_pdf/ghcontrol.pdf
- www.maine.gov/agriculture/pi/pestsurvey/pestinfo/documents/ghcontrolbrochure.pdf

Report it!

If you receive confirmation from MSU Diagnostic Services that your plant is giant hogweed, you can report the plant's location to the **Midwest Invasive Species Information Network** (MISIN) at: www.misin.msu.edu.

The MISIN web site lets you mark on a map the location of an invasive species such as giant hogweed so that collectively, communities can identify and address these concerns.

MICHIGAN STATE UNIVERSITY | Extension

www.msue.msu.edu

Michigan Department of AGRICULTURE & Rural Development

www.michigan.gov/mdard

MSU Integrated Pest Management Program. www.ipm.msu.edu

This bulletin is based on a 2005 version by Steven A. Gower and Robert J. Richardson.

This material is based upon works supported by the Cooperative State Research, Education and Extension Service, U.S. Department of Agriculture, under agreement number 2001-41530-01102. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture. This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement or bias against those not mentioned. Reprinting cannot be used to endorse or advertise a commercial product or company.

MSU is an affirmative-action, equal-opportunity employer. MSU Extension programs and materials are open to all without regard to race, color, national origin, gender identity, religion, age, disability, political beliefs, sexual orientation, marital status, family status, height, weight or veteran status. Issued in furtherance of Extension work in agriculture and home economics, acts of May 8 and June 20, 1914, in cooperation with the U.S. Dept. of Agriculture. Thomas G. Coon, Extension director, Michigan State University, E. Lansing, MI 48824.

© Michigan State University