

Minnesota Noxious Weed Risk Assessment

Developed by the Minnesota Noxious Weed Advisory Committee

Assessment information

Common name: Giant hogweed

Scientific name: *Heracleum mantegazzianum* Sommier & Levier

Family name: Apiaceae

Current reviewer name and organizational affiliation: Laura Van Riper, Minnesota Department of Natural Resources

Date of current review: June 22, 2022

Previous reviewer name and organizational affiliation: Anthony Cortilet, Minnesota Department of Agriculture

Date of previous review: May 25, 2011

Species description

Photo



Photo caption: Giant hogweed plants in Canada. Photo credit: Fraser Valley Regional District.

Why the plant is being assessed

Giant hogweed is known to have negative human health and ecological impacts. It has not been found in Minnesota and has been regulated as a Prohibited Eradicate Noxious Weed since 2012. The plant is being reassessed in 2022 to update distribution data and to include new research or information that may have been published since the listing in 2012.

Impacts listed on the [Minnesota Department of Natural Resources giant hogweed webpage](#):

- Giant hogweed has the potential to impact human health. Giant hogweed sap has a chemical that can cause chemical burns when the sap is on skin and then skin is exposed to sunlight. Temporary and permanent blindness have been reported from sap in the eyes.
- It produces abundant seed and can form dense cover reducing habitat for native plants.

Impacts listed on the [Minnesota Department of Agriculture giant hogweed webpage](#):

- Contact with the sap and exposure to sunlight can produce painful, burning blisters that can leave scars. Sap coming into contact with the eyes can cause temporary or permanent blindness. Appropriate protective clothing including gloves, goggles and long sleeve shirts should be worn and contact with the stems should be avoided. If sap comes in contact with skin, avoid exposure to sunlight, immediately wash skin with soap and water, and seek medical attention.
- Giant hogweed is a serious public health hazard and can negatively impact soil dynamics, fisheries, and outcompete native plants. When giant hogweed displaces native riparian plants, stream bank erosion increases and streams can become overloaded with silt.

Identification, biology, and life cycle

Information below is quoted from the [Minnesota Department of Agriculture giant hogweed webpage](#).

- Identification:
 - Deeply cut leaves up to five feet across.
 - Produces a flowering stalk 10-15 feet tall with large clusters of tiny white flowers 2½ feet across.
 - Stalks are two inches in diameter and hollow with purple mottling.
 - Stems and leaves are covered in coarse white hairs.
 - Cow parsnip (*Heracleum maximum*) is a similar native look-alike. The leaves are less deeply cut and are between 2-2 ½ feet across. The flowers are also white but flat-topped and no larger than one foot wide. The stem is usually green, but it can have purple marks that are not spots.
- Biology and life cycle:
 - Giant hogweed is a perennial plant.
 - It spreads by seed that can be moved by wind, water, wildlife, and humans. Seeds can remain viable in the soil for up to 10 years.
 - Giant hogweed can be found growing in yards, ditches, disturbed areas, pastures, open wooded areas, and along stream banks. It thrives in sunny locations and is also somewhat shade tolerant.

Current distribution

The USDA Plants map shows giant hogweed as present in the US states of Washington, Oregon, Illinois, Michigan, North Carolina, Pennsylvania, New York, Massachusetts, Connecticut, and Maine as well as the Canadian provinces of British Columbia, Ontario, and Quebec. The EDDMapS map is similar, but also shows nine reports in Iron County, Wisconsin as well as reports in Alaska, New Jersey, and the District of Columbia. The 2011 NWAC noxious weed risk assessment had listed giant hogweed as being found in Pennsylvania, Maryland, Connecticut, District of Columbia, Maine, Massachusetts, Michigan, New York, Ohio, Oregon, Washington, and Wisconsin.



Figure caption: National level map of giant hogweed from USDA Plants. Date accessed: January 14, 2022.

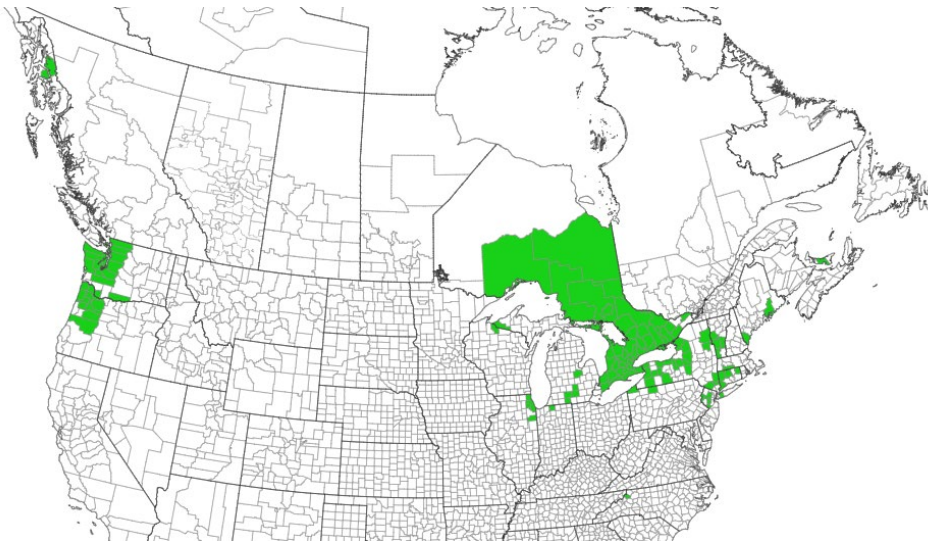


Figure caption: National level map of giant hogweed by county from EDDMapS. Date accessed: January 14, 2022.

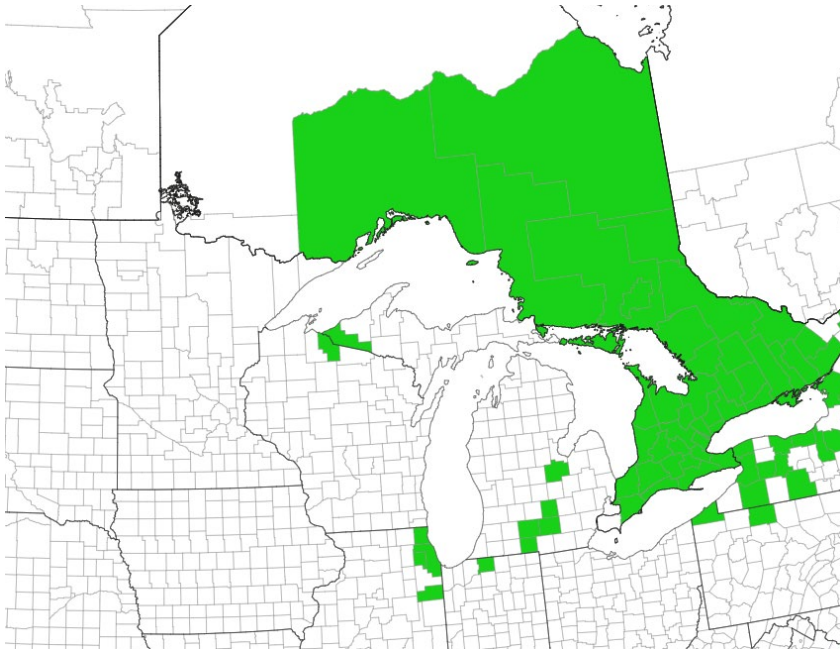


Figure caption: EDDMapS map of giant hogweed reports by county in states and provinces near Minnesota. Date accessed: January 14, 2022.

Current regulation

Giant hogweed is currently regulated in Minnesota as a Prohibited Eradicate Noxious Weed. Giant hogweed is regulated as a [federal noxious weed](#). The 2011 NWAC risk assessment noted that giant hogweed was regulated in 13 states but did not list the states. A 2022 search of [National Plant Board](#) records gave this list of 10 states in addition to Minnesota: Connecticut (prohibited plants list), Idaho (Early detection/rapid response), Illinois (Exotic weed), Massachusetts (Prohibited plant), Michigan (Prohibited plant species), New York (Prohibited), Ohio (Prohibited), Pennsylvania (Class A noxious weed), Washington (Class A noxious weed), and Wisconsin (Prohibited). Additionally, Georgia, Louisiana, and Rhode Island have state prohibitions against all federal noxious weeds which includes giant hogweed. Therefore, a total of 14 states have regulations relating to giant hogweed.

Risk assessment

Box 1:

Is the plant species or genotype non-native?

Answer: Yes.

Outcome: Go to Box 3.

Giant hogweed is native to the Caucasus region of central Asia (Page et al. 2006).

Box 2:

Does the species pose significant human or livestock concerns or have the potential to significantly harm agricultural production?

Question 2A: Does the plant have toxic qualities that pose a significant risk to livestock, wildlife, or people?

Outcome: Decision tree does not direct to this question.

Question 2B: Does the plant cause significant financial losses associated with decreased yields, reduced quality, or increased production costs?

Answer:

Outcome: Decision tree does not direct to this question.

Box 3:

Is the species, or a related species, documented as being a problem elsewhere?

Answer: Yes.

Outcome: Go to Box 6.

Giant hogweed is regulated as a [federal noxious weed](#) in the United States. Fourteen states have regulations related to giant hogweed. It has been documented as a problem in Canada (Page et al. 2006).

Box 4:

Are the species' life history and growth requirements understood?

Outcome: Decision tree does not direct to this question.

Box 5:

Gather and evaluate further information

Outcome: Decision tree does not direct to this question.

Box 6:

Does the species have the capacity to establish and survive in Minnesota?

Question 6A: Is the plant, or a close relative, currently established in Minnesota?

Answer: No, giant hogweed is not established, yes a close relative is established.

Outcome: Go to Question 6B.

As of the time of this writing, no giant hogweed plants have been documented in Minnesota. The close relative, cow parsnip (*Heracleum maximum*, formerly *Heracleum lanatum*) is native to Minnesota and is found throughout Minnesota.

Question 6B: Has the plant become established in areas having a climate and growing conditions similar to those found in Minnesota?

Answer: Yes.

Outcome: Go to Box 7.

Giant hogweed has been documented in Ontario, Wisconsin, Michigan (upper and lower peninsula), New York, Maine, and additional states in the northeastern United States (EDDMapS 2022). Giant hogweed is hardy in plant hardiness zones 3-9 which would cover Minnesota (Missouri Botanical Garden 2022).

In regard to climatic conditions, Page et al. (2006) state: "Although it grows in a wide range of climatic conditions, *H. mantegazzianum* is most invasive in regions with cool, moist climates that are similar to its native habitat. In Canada, its distribution is primarily in developed areas and the limiting effects of climate on its range are unknown. It does, however, occur as far north as Kapuskasing, Ontario." They also note: "Based on the climates in which this species grows, it is readily apparent that overwintering plant parts (e.g., roots and

stembud) can withstand cold conditions.” They also note that since giant hogweed occurs in northern Ontario and northern Europe it is likely tolerant of the “extremely cold, continental climates in Canada”.

In regard to preferred habitat, Page et al. (2006) state: “The pattern of *H. mantegazzianum* distribution in Canada suggests that initial establishment is usually in disturbed, nonforested habitats such as roadsides, forest edges, and stream margins and from these foci it can invade open woodlands, grasslands or wet meadows. *H. mantegazzianum* does not thrive and spread in dense coniferous forests, grasslands, or sedge meadows where competition from the existing community may preclude seedling establishment or growth. It is also intolerant of wetlands subject to long periods of inundation. On alluvial or fluvial sites, *H. mantegazzianum* often grows in mixed communities with herbs and grasses, but it can become dominant on drier, disturbed sites.”

Question 6C: Has the plant become established in areas having a climate and growing conditions similar to those projected to be present in Minnesota under future climate projections?

Answer: This information is supplemental and is not part of the flow chart pathway for this risk assessment.

EDDMapS (2022) developed maps of future distribution range for various invasive species by 2040-2060. They note: “Invasive species are expected to shift their ranges to track preferred environments as climate changes. This map indicates expected county-level range dynamics for the selected species by 2040 - 2060 based on currently available evidence. Assignment of range expansion, contraction, or no change is determined by the chosen number of models predicting. The higher the number selected, the more future climate models must agree.” The figure below shows how future range by the number of models that predict the counties will be acceptable for giant hogweed. The northeastern portion of Minnesota is widely agreed upon to have acceptable climate conditions.

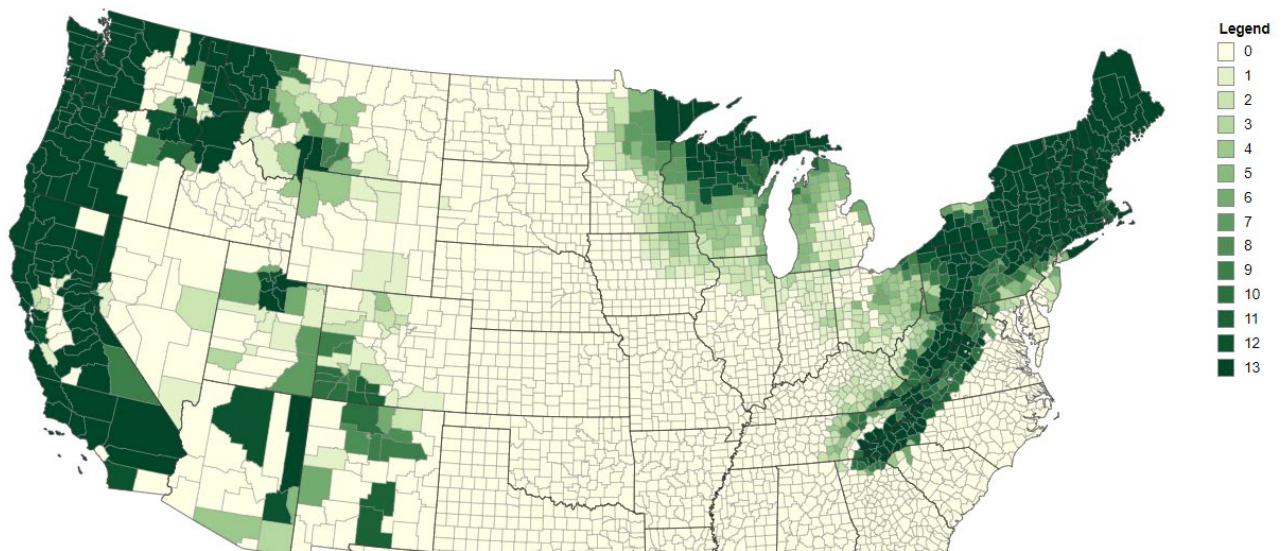


Figure caption: Future range of giant hogweed as predicted by 0-13 climate models (EDDMapS 2021). Northeastern Minnesota, northern Wisconsin, and the upper peninsula of Michigan are strongly indicated to have acceptable climate for giant hogweed.

Box 7:

Does the species have the potential to reproduce and spread in Minnesota?

Question 7A: Are there cultivars of the plant that are known to differ in reproductive properties from the species?

Answer: No.

Outcome: Go to Question 7B.

No information was found on cultivars of giant hogweed.

Question 7B: Does the plant reproduce by asexual/vegetative means?

Answer: No.

Outcome: Go to Question 7D.

No information was found indicating it is reproducing by vegetative means.

Question 7C: Are the asexual propagules - vegetative parts having the capacity to develop into new plants - effectively dispersed to new areas?

Outcome: Decision tree does not direct to this question.

Question 7D: Does the plant produce large amounts of viable, cold hardy seeds? For woody species, document the average age the species produces viable seed.

Answer: Yes.

Outcome: Go to Question 7G.

Giant hogweed has large flowers made of primary, secondary, and tertiary umbels. Giant hogweed has been reported to have more than 100,000 seeds per plant and seeds are cold hardy (Page et al. 2006). Giant hogweed is a monocarpic perennial (monocarpic perennials spend more than a year in a vegetative stage before flowering once and then dying) or occasional biennial (biennials spend one year in a vegetative stage and then flower once and die in the second year) (Page et al. 2006). Page et al. (2006) note: "Above-ground plant parts annually die back to the taproot each autumn until the year that flowering occurs, after which the whole plant senesces. Plants may flower in the 2nd, 3rd, 4th or 5th years but most flower in the 4th year in Ontario and the 3rd year in the United Kingdom."

Question 7E: For species that produce low numbers of viable seeds, do they have a high level of seed/seedling vigor or remain viable for an extended period (seed bank)?

Outcome: Decision tree does not direct to this question.

Question 7F: Is the plant self-fertile?

Answer: Yes.

Outcome: Go to Question 7G.

Page et al. (2006) state: "Stamens mature and dehisce before the pistils are receptive, although self-pollination is possible between flowers in umbels at different stages of maturity on the same plant."

Question 7G: Are sexual propagules – viable seeds – effectively dispersed to new areas? List and consider all vectors.

Answer: Yes.

Outcome: Go to Question 7I.

Seeds can be moved long distances by water (seeds can float for three days), by purposeful planting or transport by people, or non-purposeful transport by people such as movement of seed-contaminated soil (Page et al. 2006). Seeds can be moved shorter distances by air or mowing and there is no evidence for significant

movement by birds, mammals, or insects (Page et al. 2006). In Wisconsin, they note that one of the giant hogweed sites is along an ATV trail (Kollmansberger 2007).

Question 7H: Can the species hybridize with native species (or other introduced species) and produce viable seed and fertile offspring in the absence of human intervention?

Answer: This information is supplemental and is not part of the flow chart pathway for this risk assessment.

In Europe, occasional hybrids between *H. mantegazzianum* and *H. sphondylium* (native to Europe and Asia) have been reported and the hybrids have low fertility (Page et al. 2006). Cow parsnip (*H. maximum*) is native to the U.S. and Canada. No giant hogweed and cow parsnip hybrids have been reported in Canada, although there is concern that it is possible and would likely have negative effects on cow parsnip populations (Page et al. 2006).

Question 7I: Do natural controls, species native to Minnesota, which have been documented to effectively prevent the spread of the species in question?

Answer: No.

Outcome: Go to Box 8.

No evidence was found for there being natural controls in Minnesota that would prevent spread. Page et al. (2006) note: "Herbivory by mammals, insects and other organisms does occur in *H. mantegazzianum*, but it does not appear to be a limiting factor for populations in Canada."

Question 7J: Was the answer to Question 7A (Are there cultivars that differ in reproductive properties from the original species) "Yes"?

Outcome: Decision tree does not direct to this question.

Box 8:

Does the species pose significant human or livestock concerns or have the potential to significantly harm agricultural production, native ecosystems, or managed landscapes?

Question 8A: Does the plant have toxic qualities, or other detrimental qualities, that pose a significant risk to livestock, wildlife, or people?

Answer: Yes

Outcome: Go to Box 9.

Giant hogweed can cause phytophotodermatitis which is a chemical burn that occurs when the sap has contact with skin and the skin is exposed to sunlight. Page et al. (2006) describe it as "a serious skin inflammation resulting from the activation, under ultraviolet radiation, of compounds contained in the plant sap." Giant hogweed contains linear furanocoumarins or psoralens, mainly 5-methoxypsoralen and 8-methoxypsoralen which react in the presence of ultraviolet light (Page et al. 2006). The skin injury "typically consists of painful blisters that form within 48 hours and become pigmented scars that can last as long as 6 years, but more typically disappear after several months" and "long-term sensitivity of affected skin areas to sunlight may follow" (Page et al. 2006).

They phytophotodermatitis can come from contact with multiple parts of the plant including leaves, stems, seeds, and roots (Derraik 2007). Derraik (2007) notes that the chemical reactions lead to cell death and that "this is a phototoxic reaction, and not an allergic one so there is no immunological response. As a result, no prior sensitisation is necessary and anybody can be affected". Derraik (2007) state that "touching the plant or brushing against it appears to be enough to induce exposure to the sap." It is also possible to be burned through

indirect contact, such as contact with a cat or dog that had been interacting with the plant and then transfers the sap from fur to the person (Derraik 2007).

There is concern that children may be particularly vulnerable as there are cases of children playing with the large hollow stems and using them as telescopes and peashooters which brings the sap to the face and causes injury there (Drever 1970) or playing with the large leaves while wearing light summer clothing or swim suits (Pfurtscheller and Trop 2014). Both of these references contain graphic photos of injuries.

Furanocoumarins may also be mutagenic (Page et al. 2006).

There is a risk of temporary or permanent blindness from sap exposure to the eyes (Derraik 2007, Pfurtscheller and Trop 2014, Flanagan et al. 2021), but the reviewer could not find journal articles documenting if it has occurred.

Livestock and pets can also be susceptible to injuries from the furanocoumarins (Page et al. 2006).

The U.S. Department of Transportation (Moore 2021) included giant hogweed in its “Invasive Species Impacts on Transportation Infrastructure” report, noting that giant hogweed has negative impacts in the impact categories of “Blocks Sight Lines, Roads, & Sidewalks” and “Harmful to People”. Tall species like giant hogweed can “obscure visibility of sight line distance, edge of pavement, and roadway signs” and “block roads, sidewalks, and animal crossings”. Species that cause burns like giant hogweed are “harmful to DOT maintenance personnel working within the right-of-way and to travelers that need to pull over”.

Question 8B: Does, or could, the plant cause significant financial losses associated with decreased yields, reduced crop quality, or increased production costs?

Outcome: Decision tree does not direct to this question.

Question 8C: Can the plant aggressively displace native species through competition (including allelopathic effects)?

Answer: ***This information is supplemental and is not part of the flow chart pathway for this risk assessment.*** Page et al. (2006) summarize references noting that giant hogweed has established in a Europe in a variety of habitats, “particularly floodplains, riparian zones, forest edges, roadsides, meadows, open forest, and unmanaged urban areas” and “that it often forms monospecific stands where its tall stems and large leaves effectively compete for light against other plants”. Another concern is increased erosion of streambanks when native vegetation is displaced (Page et al. 2006). The shading from giant hogweed reduce red/far-red light ratios (Jandova et al. 2014). A study in the Slovak Republic (Renco et al. 2021) found that giant hogweed reduced the number and coverage of the native plant species.

Page et al. (2016) note that there is some evidence of allelopathy in other *Heracleum* species.

Question 8D: Can the plant hybridize with native species resulting in a modified gene pool and potentially negative impacts on native populations?

Answer: ***This information is supplemental and is not part of the flow chart pathway for this risk assessment.*** In Europe, occasional hybrids between *H. mantegazzianum* and *H. sphondylium* (native to Europe and Asia) have been reported and the hybrids have low fertility (Page et al. 2006). Cow parsnip (*H. maximum*) is native to the

U.S. and Canada. No giant hogweed and cow parsnip hybrids have been reported in Canada, although there is concern that it is possible and would likely have negative effects on cow parsnip populations (Page et al. 2006).

Question 8E: Does the plant have the potential to change native ecosystems (adds a vegetative layer, affects ground or surface water levels, etc.)?

Answer: ***This information is supplemental and is not part of the flow chart pathway for this risk assessment.*** There is concern about increased erosion of streambanks when native vegetation is displaced (Page et al. 2006).

Giant hogweed can impact soil composition. In a study in the Czech Republic (Jandova et al. 2014), they found that giant hogweed increased soil pH and that “longer invasion history was associated with increasing soil conductivity and content of extractable phosphorus”. A study in the Slovak Republic (Renko et al. 2021) found that giant hogweed “increased soil pH, decreased carbon and nitrogen content, reduced the number and coverage of the native plant species, and influenced nematode communities and their structures. Nematode species number was significantly lower in invaded than uninvaded plots, but nematode species diversity was not affected by invasion throughout the whole study.”

Question 8F: Does the plant have the potential to introduce or harbor another pest or serve as an alternate host?

Answer: ***This information is supplemental and is not part of the flow chart pathway for this risk assessment.*** Giant hogweed is a host of celery mosaic virus in the northeast United States (Zitter 2001).

Box 9:

Does the species have clearly defined benefits that outweigh associated negative impacts?

Question 9A: Is the plant currently being used or produced and/or sold in Minnesota or native to Minnesota?

Answer: No.

Outcome: Go to Box 10.

Giant hogweed is a federal noxious weed. In 2012, it was regulated in Minnesota as a Prohibited Noxious Weed on the Eradicate List making it illegal to sell in Minnesota. The 2011 Minnesota giant hogweed noxious weed risk assessment didn’t find any evidence that it was being sold in Minnesota at that time. Giant hogweed is not native to Minnesota.

Question 9B: Is the plant an introduced species and can its spread be effectively and easily prevented or controlled, or its negative impacts minimized, through carefully designed and executed management practices?

Outcome: Decision tree does not direct to this question.

Question 9C: Is the plant native to Minnesota?

Outcome: Decision tree does not direct to this question.

Question 9D: Is a non-invasive, alternative plant material or cultivar commercially available that could serve the same purpose as the plant of concern?

Outcome: Decision tree does not direct to this question.

Question 9E: Does the plant benefit Minnesota to a greater extent than the negative impacts identified at Box #8?

Outcome: Decision tree does not direct to this question.

Box 10:

Should the species be regulated as Prohibited/Eradicate, Prohibited/Control, or Restricted Noxious Weed?

Question 10A: Is the plant currently established in Minnesota?

Answer: No.

Outcome: Go to Question 10B.

There is no evidence for giant hogweed being established in Minnesota at this time.

Question 10B: Would prohibiting this species in trade prevent the likelihood of introduction and/or establishment?

Answer: Yes.

Outcome: Go to Question 10C.

Giant hogweed has been planted as an ornamental species (Page et al. 2006). In Wisconsin's giant hogweed risk assessment, they note that there are known locations of giant hogweed associated with old homesteads where the plant was likely planted (Kollmansberger 2007).

Question 10C: Does this risk assessment support this species being a top priority for statewide eradication if found in the state?

Answer: Yes.

Outcome: Go to Question 10D.

Giant hogweed would be a high priority for statewide eradication if found in Minnesota due to its human health impacts, its federal noxious weed status, and limited distribution.

Question 10D: Does the plant pose a serious human health threat?

Answer: Yes.

Outcome: Go to Question 10E.

Giant hogweed causes severe phytophotodermatitis. See the answer to Question 8A for more details.

Question 10E: Is the health threat posed by the plant serious enough, and is the plant distribution sufficiently small enough to be manageable, and are management tools available and effective enough to justify listing as Prohibited / Eradicate species?

Answer: Yes.

Outcome: **LIST THE PLANT AS A PROHIBITED / ERADICATE NOXIOUS WEED**

Giant hogweed is a serious human health threat, it has no known locations in Minnesota at this time, and there are management tools that can be used to control the plant.

The Minnesota Department of Transportation noxious weed guide (2020) lists these management techniques:

“Manual methods including cutting and removal by hand are effective on small infestations. The focus of this method is to prevent seed production. Preferably, propagating plant parts should be disposed of onsite or when necessary contained (e.g., bagged) and removed to an approved facility. For more information on these disposal options, please read MDA’s guide on removal and disposal. Root systems can be weakened by repeated cutting but consider removal for best results. After cutting, monitor sites for follow-up treatment needs. Herbicide applications of triclopyr or glyphosate are effective when applied early season to basal rosettes. If manual methods such as cutting are used early in the season, plan on returning to chemically treat re-sprouts.” The guide notes that people should “use protective clothing, consider goggles or a face mask”.

The Natural Resources Conservation Service (2022) job sheet lists these management techniques:

- “Mechanical Control Manual and mechanical control methods include different control techniques such as root cutting, cutting the plant, mowing, and umbel removal. Except for root cutting, mechanical control does not cause the immediate death of the plants. Death occurs after two to three treatments per year during several growing seasons through depletion of nutrient reserves. Plowing can control an infestation of tall invasive hogweeds on agricultural land. The best results are obtained if the established vegetation of invasive hogweed plants is controlled mechanically or chemically prior to plowing. Wear protective clothing when working around giant hogweed so the sap does not touch your skin.”
- “Results of numerous trials have demonstrated the susceptibility of invasive hogweeds to systematic herbicides such as glyphosate and triclopyr, and the application of chemicals is considered effective and cheap. Triclopyr has no effect on germinating grasses and is useful in controlling a range of broadleaved species such as giant hogweed. It is recommended that herbicides are applied early in spring when they have reached a few feet in height and access to the center of the colony is still possible for operators. A follow-up spraying is recommended prior to seed set in new sprouts. An overall spray with glyphosate at the dose recommended on the product label by the manufacturer is an effective treatment for invasive hogweed but only at the expense of all other vegetation, which however is sparse under tall invasive hogweed colonies. In amenity areas, areas with mixed vegetation and nature reserves, spraying should be carried out using a nozzle that constricts the spray, weed-wiper or a brush.”
- “Disposal: There are a few general rules of thumb that will ensure proper disposal. Be sure the plant is dead before placing in a mulch or compost pile. Either dry it out in the sun, or bag it in a heavy duty black plastic bag. If you have flowers and/or seeds on the plant, put the flowers and seed heads into the bag head first so that there is minimal risk in dispersing seed.”

Question 10F: Is the plant known to cause significant ecological or economic harm and can the plant be reliably eradicated (entire plant) on a statewide basis using existing practices and available resources considering the distribution, reproductive biology and potential for spread?

- *For distribution, note if the distribution is well documented, the number and acreage of known infestations and how widespread they are in the state. Note if there are infestations in border areas.*
- *For reproductive biology, note if there are reproductive biology factor that make the plant easier to control and eradication more likely (for example, long pre-reproductive period, self-incompatible pollination, short-lived seed bank).*
- *For potential for spread and re-invasion of controlled areas, note its potential to spread beyond places where it is being controlled such as deliberate planting by people, wildlife vectors, re-infestation from border states, or other factors that facilitate spread.*

- For known management tools, note what management tools are available, potential non-target impacts, and the reasonableness of state management or mandating that landowners throughout the state use the management tools to eradicate or control existing plants.
- For available resources, consider the capacity of state and local personnel and availability of funding to respond to new and existing infestations.

Outcome: Decision tree does not direct to this question.

Question 10G: Is the plant known to cause significant ecological or economic harm and can the plant be reliably controlled to limit spread on a statewide basis using existing practices and available resources? Would the economic impacts or other hardships incurred in implementing control measures be reasonable considering any ongoing or potential future increase of ecological or economic harm?

- Also consider all bullet points listed under 10F when evaluating 10G

Outcome: Decision tree does not direct to this question.

Question 10H: Would prohibiting this species in trade have any significant or measurable impact to limit or reduce the existing populations or future spread of the species in Minnesota?

Outcome: Decision tree does not direct to this question.

Question 10I: Are there any other measures that could be put in place as Special Regulations which could mitigate the impact of the species within Minnesota?

Outcome: Decision tree does not direct to this question.

Box 11:

The species is being proposed to be designated as a Specially Regulated Plant. What are the specific regulations proposed?

Answer: Decision tree does not direct to this question.

Final outcomes of risk assessment (2022)

NWAC Listing Subcommittee

Outcome: Remain listed as a Prohibited Eradicate Noxious Weed. (06/17/22)

Comments: The Listing Subcommittee agreed on this outcome.

NWAC Full Committee

Outcome: Remain listed as a Prohibited Eradicate Noxious Weed. (12/13/2022)

Comments: The vote was 16 in favor and 2 against.

MDA Commissioner

Outcome: Remain listed as a Prohibited Eradicate Noxious Weed.

Comments: No comments

Risk Assessment Current Summary (06-22-2022)

- Based on the impact severity to human health, the close proximity of infestations in Michigan and Wisconsin, the federal noxious weed designation, and the lack of documented infestations in Minnesota to date; this species should continue to be listed as a Prohibited Noxious Weed on the Eradicate List. This will help prevent it from being introduced and facilitate control if it is found in Minnesota.

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