

MN NWAC Risk Assessment Worksheet (04-2011)	Common Name	Latin Name
	Japanese hops	<i>Humulus japonicus</i> Sieb. & Zucc. Synonym <i>Humulus scandens</i>
Reviewer	Affiliation/Organization	Date (mm/dd/yyyy)
Monika Chandler	Minnesota Department of Agriculture	05/15/2011

Box	Question	Answer	Outcome
1	Is the plant species or genotype non-native?	Yes	Go to box 3
3	Is the plant species, or a related species, documented as being a problem elsewhere?	Yes, <i>H. japonicus</i> is a noxious weed in CT and MA (1) and WI (2). The Midwest Invasive Plant Network lists <i>H. japonicus</i> as an early detection and rapid response target (3). It is considered a problem in MD (4) and IN (5). NY gave this species a high invasiveness rank (6).	Go to box 6
6	Does the plant species have the capacity to establish and survive in Minnesota?		
	A. Is the plant, or a close relative, currently established in Minnesota?	Yes. There is an established population in southeastern Minnesota along the Mississippi River.	Go to box 7
7	Does the plant species have the potential to reproduce and spread in Minnesota?		
	A. Does the plant reproduce by asexual/vegetative means?	No (7).	Go to question C
	C. Does the plant produce large amounts of viable, cold-hardy seeds?	Yes (7).	Go to question F
	F. Are sexual propagules – viable seeds – effectively dispersed to new areas?	Yes. Seeds are dispersed by animals, machinery, and water (7).	Go to question I
	I. Do natural controls exist, species native to Minnesota, that are documented to effectively prevent the spread of the plant in question?	No (7).	Go to box 8
8	Does the plant species pose significant human or livestock concerns or has the potential to significantly harm agricultural production, native ecosystems, or managed landscapes?		

Box	Question	Answer	Outcome
	A. Does the plant have toxic qualities, or other detrimental qualities, that pose a significant risk to livestock, wildlife, or people?	Stems and leaves have rough, hooked hairs than can cause dermatitis and blistering (8). Some people are allergic to the pollen (9).	If this meets the criteria of “significant risk” Go to box 9
	B. Does, or could, the plant cause significant financial losses associated with decreased yields, reduced crop quality, or increased production costs?	Unknown	
	C. Can the plant aggressively displace native species through competition (including allelopathic effects)?	Yes. Vines grow rapidly up to 10 ft and form mats up to 4 ft thick. The vines shade and smother grasses, forbs, shrubs, and trees to a height of 10 ft. (4)	Go to box 9
9	Does the plant species have clearly defined benefits that outweigh associated negative impacts?		
	A. Is the plant currently being used or produced and/or sold in Minnesota or native to Minnesota?	No. <i>Humulus japonicus</i> was introduced as an ornamental. There are some cultivars but the species and cultivars are not sold widely, if at all, in MN. Unlike its relative <i>H. lupulus</i> , <i>H. japonicus</i> cannot be used to make beer (9).	Go to box 10
10	Should the plant species be enforced as a noxious weed to prevent introduction &/or dispersal; designate as prohibited or restricted?		
	A. Is the plant currently established in Minnesota?	Yes. It is established in southeastern MN in the tri-state area. It is reported along the Root River.	Go to question B
	B. Does the plant pose a serious human health threat?	Maybe – see Box 8, question A	If yes, list as a prohibited/control noxious weed. If no, go to question C.

Box	Question	Answer	Outcome
	C. Can the plant be reliably eradicated (entire plant) or controlled (top growth only to prevent pollen dispersal and seed production as appropriate) on a statewide basis using existing practices and available resources?	Yes. Small populations can be removed manually. Large populations can be controlled with appropriate and repeated applications of products with glyphosate as the active ingredient. (4)	List the plant as a prohibited/eradicate noxious weed (eradication possible and reasonable) or prohibited/control noxious weed (eradication not possible or reasonable).
Final Results of Risk Assessment			
	Review Entity	Comments	Outcome
	NWAC Listing Subcommittee		Possible Eradicate Listing
	NWAC Full-group		List as a Prohibited – Eradicate Species
	MDA Commissioner	Approved and Listed as a Prohibited-Eradicate Species	Listed as a Prohibited – Eradicate Species
	File # MDARA00002JAHP_11_30_2011		

References:

1. USDA, NRCS. 2011. The PLANTS Database (<http://plants.usda.gov>, 17 May 2011). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
2. Chapter NR 40 Invasive Species Identification, Classification and Control (<http://legis.wisconsin.gov/rsb/code/nr/nr040.pdf> 17 May 2011).
3. Midwest Invasive Plants Network. Japanese Hops (*Humulus japonicus*) fact sheet (<http://mipn.org/Midwest%20Invasives%20Fact%20Sheets/PDF/jhops.pdf> 17 May 2011).
4. Pannill, P. and A. Cook. 2008. Management of Japanese Hops on Forest Regeneration Sites. Maryland Department of Natural Resources Forest Service (<http://www.dnr.state.md.us/forests/pdfs/jhopsreport.pdf> 17 May 2011).
5. Nice, G. 2006. Japanese Hops (*Humulus japonicus*) – One of Indiana’s Rising Problematic Weeds (<http://www.ppd.purdue.edu/PPDL/weeklypics/2-13-06.html> 17 May 2011).
6. Glenn, S. and G. Moore. 2009. *Humulus japonicus* (<http://nyis.info/PlantAssessments/Humulus.japonicus.NYS.pdf> 17 May 2011).
7. Plant Conservation Alliance’ Alien Plant Working Group. Japanese hop fact sheet (<http://www.nps.gov/plants/alien/fact/pdf/huja1.pdf> 17 May 2011).
8. Meyers-Rice, B. 1999. Weed Notes: *Humulus japonicus* Siebold & Zucc. The Nature Conservancy, Wildland Weeds Management and Research (<http://www.invasive.org/gist/moredocs/humjap01.pdf> 17 May 2011).

9. Kaufmann, S.R. and W. Kaufmann. 2007. Japanese Hop *In* Invasive Plants: Guide to Identification and the Impacts and Control of Common North American Species. Stackpole Books, pp 233-235.

Notes on *Humulus japonicus* distribution

Humulus japonicus is reported in Minnesota along the Mississippi in the tri-state area across from Dairyland Power (pictured below). The US Fish and Wildlife Service and Army Corps of Engineers jointly manage this area and are trying to control this infestation with glyphosate, but the infestation rebounds quickly after treatment. Most of the *H. japonicus* populations are in Iowa across the river from Blackhawk. Some of these infestations are on private land. The level of infestation control in Iowa is unknown at this time and these infestations could be a seed source for additional introductions in Minnesota. *Humulus japonicus* has been reported along the Root River as well. The extent of *H. japonicus* populations in Minnesota has not been assessed.

Japanese Hops coverage in Pool 9, 9/1/2009

