

**Taxon:** Hakonechloa macra (Munro) Makino

**Family:** Poaceae

**Common Name(s):** hakone grass  
Japanese forest grass

**Synonym(s):** Phragmites macer Munro

**Assessor:** Chuck Chimera

**Status:** Assessor Approved

**End Date:** 26 Jun 2019

**WRA Score:** 4.5

**Designation:** L

**Rating:** Low Risk

**Keywords:** Perennial Grass, Naturalizes, Mound-Forming, Shade-Tolerant, Rhizomatous

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y=-3, n=0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	(0-low; 1-intermediate; 2-high) (See Appendix 2)	Low
202	Quality of climate match data	(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
203	Broad climate suitability (environmental versatility)	y=1, n=0	y
204	Native or naturalized in regions with tropical or subtropical climates	y=1, n=0	y
205	Does the species have a history of repeated introductions outside its natural range?	y=-2, ?=-1, n=0	y
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed	n=0, y = 1*multiplier (see Appendix 2)	n
303	Agricultural/forestry/horticultural weed	n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental weed	n=0, y = 2*multiplier (see Appendix 2)	n
305	Congeneric weed	n=0, y = 1*multiplier (see Appendix 2)	n
401	Produces spines, thorns or burrs	y=1, n=0	n
402	Allelopathic		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	y
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens	y=1, n=0	n
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
408	Creates a fire hazard in natural ecosystems	y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	y

Qsn #	Question	Answer Option	Answer
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0	n
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	n
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	y
503	Nitrogen fixing woody plant	y=1, n=0	n
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	n
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	y
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal		
705	Propagules water dispersed	y=1, n=-1	y
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut		
801	Prolific seed production (>1000/m2)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides	y=-1, n=1	y
804	Tolerates, or benefits from, mutilation, cultivation, or fire		
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)		

**Supporting Data:**

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	[Cultivars bred for ornamental traits may be less vigorous than the parent species, but there I no evidence that the grass has been heavily domesticated] "Cultivars: <i>Hakonechloa macra</i> (Munro) Mak. ex Honda 'Albo-aurea' This cultivar is less vigorous than the parent species. The plants are 10-14 in. !2.5- 3.5 dm high; the arching, variegated leaves have longitudinal stripes of cream and yellow with very narrow bands of green or flushed bronze. The plant is excellent in group plantings as an accent plant in partial shade. <i>Hakonechloa macra</i> (Munro) Mak. ex Honda 'Albo-Variegata' This cultivar is about the same size as the parent species. The foliage color is very similar to that of the cultivar Albo-aurea, and it is used in the same manner in shaded locations. <i>Hakonechloa macra</i> (Munro) Mak. ex Honda 'Aureola' The plants are 12- 14 in. !3.0-3.5 dm high. The leaves are bright yellow with narrow, slender, green, longitudinal stripes. This cultivar is useful in group and massed plantings in partially shaded sites. The cultivars of <i>Hakonechloa macra</i> are adapted to zones 7-9. They are not as hardy as the parent species."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2019). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2019). Personal Communication	NA

201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	Low
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network. 2019. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 25 Jun 2019]	"Native Asia-Temperate EASTERN ASIA: Japan [Honshu (e.-c.)]"

Qsn #	Question	Answer
202	Quality of climate match data	High
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network. 2019. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 25 Jun 2019]	

203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"Hardiness: Zones 4 through 9" [Capable of being grown in 6 hardiness zones]

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	Jardim Botânico do Rio de Janeiro. (2019). <i>Hakonechloa</i> in Flora do Brasil 2020 under construction. <a href="http://www.reflora.jbrj.gov.br">http://www.reflora.jbrj.gov.br</a> . [Accessed 25 Jun 2019]	"Origin Naturalized ... Confirmed occurrences: Sudeste (São Paulo)"

205	Does the species have a history of repeated introductions outside its natural range?	y
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Dispersed by: Humans References: United States of America-N- 101, Brazil-N-1597."
	Dave's Garden. (2019). Hakone Grass, Japanese Forest Grass - <i>Hakonechloa macra</i> . <a href="https://davesgarden.com/guides/pf/go/76569/">https://davesgarden.com/guides/pf/go/76569/</a> . [Accessed 25 Jun 2019]	"This plant has been said to grow in the following regions: Clovis, California San Leandro, California Chicago, Illinois Plymouth, Massachusetts Portland, Oregon Petersburg, Virginia"

301	Naturalized beyond native range	y
	Source(s)	Notes
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"Habitat: Cultivated, escape from cultivation"
	Jardim Botânico do Rio de Janeiro. (2019). <i>Hakonechloa</i> in Flora do Brasil 2020 under construction. <a href="http://www.reflora.jbrj.gov.br">http://www.reflora.jbrj.gov.br</a> . [Accessed 25 Jun 2019]	"Origin Naturalized"

302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit."

Qsn #	Question	Answer
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit." [No evidence]
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Chace, T.D. 2013. How to Eradicate Invasive Plants. Timber Press, Portland, OR	"If you like a striped ornamental grass, consider instead Japanese forest grass ( <i>Hakonechloa macra</i> 'Albo Striata')." [Cultivar recommended as a non-invasive alternative to <i>Phalaris arundinacea</i> ]
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

305	Congeneric weed	n
	Source(s)	Notes
	Quattrocchi, U. 2006. CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"One species, Japan."

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Quattrocchi, U. 2006. CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"Arundinoideae, Arundineae, perennial, shortly rhizomatous, herbaceous, unarmed, unbranched"

402	Allelopathic	n
	Source(s)	Notes
	WRA Specialist. (2019). Personal Communication	Unknown. No evidence found

403	Parasitic	n
	Source(s)	Notes
	Quattrocchi, U. 2006. CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"Arundinoideae, Arundineae, perennial, shortly rhizomatous, herbaceous, unarmed, unbranched" [No evidence]

Qsn #	Question	Answer
404	<b>Unpalatable to grazing animals</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Florissa (2019). Dog Friendly Ornamental Grasses. <a href="https://www.florissa.com/dog-friendly-ornamental-grasses/">https://www.florissa.com/dog-friendly-ornamental-grasses/</a> . [Accessed 26 Jun 2019]	"Deer and rabbit resistant."
	Missouri Botanical Garden. (2019). <i>Hakonechloa macra</i> . <a href="http://www.missouribotanicalgarden.org">http://www.missouribotanicalgarden.org</a> . [Accessed 25 Jun 2019]	"Deer tend to avoid this plant."
	Wade, G.L. & Mengak, M.T. 2010. Deer-Tolerant Ornamental Plants. Circular 985. University of Georgia Cooperative Extension, Athens, Georgia	"Ornamental Grasses Deer Rarely Browse" [Includes <i>Hakonechloa macra</i> , suggesting it may be unpalatable]

405	<b>Toxic to animals</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Dave's Garden. (2019). Hakone Grass, Japanese Forest Grass - <i>Hakonechloa macra</i> . <a href="https://davesgarden.com/guides/pf/go/76569/">https://davesgarden.com/guides/pf/go/76569/</a> . [Accessed 25 Jun 2019]	"Danger: N/A"
	Florissa (2019). Dog Friendly Ornamental Grasses. <a href="https://www.florissa.com/dog-friendly-ornamental-grasses/">https://www.florissa.com/dog-friendly-ornamental-grasses/</a> . [Accessed 26 Jun 2019]	"Japanese forest grass, or <i>Hakonechloa</i> , is a low growing, soft and mounding grass that favors the shade. Pet friendly and non-toxic, both cats and dogs enjoy nipping at the foliage."
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

406	<b>Host for recognized pests and pathogens</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Missouri Botanical Garden. (2019). <i>Hakonechloa macra</i> . <a href="http://www.missouribotanicalgarden.org">http://www.missouribotanicalgarden.org</a> . [Accessed 25 Jun 2019]	"No serious insect or disease problems. Root heaving can be a problem in winter. "

407	<b>Causes allergies or is otherwise toxic to humans</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Dave's Garden. (2019). Hakone Grass, Japanese Forest Grass - <i>Hakonechloa macra</i> . <a href="https://davesgarden.com/guides/pf/go/76569/">https://davesgarden.com/guides/pf/go/76569/</a> . [Accessed 25 Jun 2019]	"Danger: N/A"
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

408	<b>Creates a fire hazard in natural ecosystems</b>	<b>n</b>
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Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	Missouri Botanical Garden. (2019). <i>Hakonechloa macra</i> . <a href="http://www.missouribotanicalgarden.org">http://www.missouribotanicalgarden.org</a> . [Accessed 26 Jun 2019]	" <i>Hakonechloa macra</i> , commonly called Japanese forest grass or Hakone grass, is a rhizomatous, shade-loving, deciduous perennial grass that is native both to moist mountain areas including wet rocky cliffs and to moist woodland areas in central Japan, including areas around Mt. Hakone from which both its genus name and common name are derived." [No evidence. A grass of shaded, moist environments. Unlikely to occur or be grown in fire-prone environments]

<b>409</b>	<b>Is a shade tolerant plant at some stage of its life cycle</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Nash, L. J., Witt, M. L., Tapp, L., & Powell Jr, A. J. (1994). <i>Ornamental Grasses for Kentucky Landscapes</i> . HO-79. Cooperative Extension Service, University of Kentucky College of Agriculture, Lexington, KY	"Grasses for Shade" [Includes <i>Hakonechloa macra</i> —Hakone Grass]
	Oakes, A. J. 1990. <i>Ornamental Grasses and Grasslike Plants</i> . Van Nostrand Reinhold, New York, New York	"These perennials are shade tolerant and are grown primarily for the attractiveness and beauty of their foliage. This shade-tolerant perennial may be used as a lawn substitute in wooded sites; the variegated forms are useful in multicolored lawns."
	Missouri Botanical Garden. (2019). <i>Hakonechloa macra</i> . <a href="http://www.missouribotanicalgarden.org">http://www.missouribotanicalgarden.org</a> . [Accessed 25 Jun 2019]	"Tolerates close to full shade, particularly in the hot summer climates of the deep South." ... "Excellent spreading ornamental grass for shady locations. Shade groundcover or accent for woodland gardens. Shaded areas of mixed borders. Along paths and walks. Rock gardens. Slopes. Sprawl over rocks. Containers."

<b>410</b>	<b>Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Gardenersworld.com. (2019). <i>Hakonechloa macra</i> . <a href="https://www.gardenersworld.com/plants/hakonechloa-macra/">https://www.gardenersworld.com/plants/hakonechloa-macra/</a> . [Accessed 26 Jun 2019]	"Soil type: Clay / heavy / moist"
	Oakes, A. J. 1990. <i>Ornamental Grasses and Grasslike Plants</i> . Van Nostrand Reinhold, New York, New York	"these grasses require fertile, moist, well-drained soil."
	Missouri Botanical Garden. (2019). <i>Hakonechloa macra</i> . <a href="http://www.missouribotanicalgarden.org">http://www.missouribotanicalgarden.org</a> . [Accessed 26 Jun 2019]	"well-drained soils in part shade."

<b>411</b>	<b>Climbing or smothering growth habit</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Quattrocchi, U. 2006. <i>CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology</i> . CRC Press, Boca Raton, FL	"perennial, shortly rhizomatous, herbaceous, unarmed, unbranched"

<b>412</b>	<b>Forms dense thickets</b>	<b>n</b>
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Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	Barkworth, M.E., Anderton, L.L., Capels, K.M., Long, S., Piep, M.B. (eds.). 2013. Manual of Grasses for North America. Utah State University Press, Logan, UT	"In Japan, <i>Hakonechloa macra</i> grows on rocks along rivers. Although rhizomatous, it is not an invasive species and is recommended for mass planting." [No evidence]
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit. It is beautiful in group plantings in foreground borders, even more so when grown in massed stands as ground cover in naturalized areas or in clumps in rock or water gardens." [No evidence]

501	Aquatic	n
	<b>Source(s)</b>	<b>Notes</b>
	Missouri Botanical Garden. (2019). <i>Hakonechloa macra</i> . <a href="http://www.missouribotanicalgarden.org">http://www.missouribotanicalgarden.org</a> . [Accessed 26 Jun 2019]	[Terrestrial] " <i>Hakonechloa macra</i> , commonly called Japanese forest grass or Hakone grass, is a rhizomatous, shade-loving, deciduous perennial grass that is native both to moist mountain areas including wet rocky cliffs and to moist woodland areas in central Japan, including areas around Mt. Hakone from which both its genus name and common name are derived."

502	Grass	y
	<b>Source(s)</b>	<b>Notes</b>
	USDA, ARS, Germplasm Resources Information Network. 2019. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 25 Jun 2019]	Family: Poaceae (alt.Gramineae) Subfamily: Arundinoideae Tribe: Molinieae

503	Nitrogen fixing woody plant	n
	<b>Source(s)</b>	<b>Notes</b>
	USDA, ARS, Germplasm Resources Information Network. 2019. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 25 Jun 2019]	Family: Poaceae (alt.Gramineae) Subfamily: Arundinoideae Tribe: Molinieae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit."

601	Evidence of substantial reproductive failure in native habitat	n
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"Habitat: Cultivated, escape from cultivation" [No evidence]



Qsn #	Question	Answer
602	<b>Produces viable seed</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"Cultivation: Propagation is by seeding and by plant division."
	Nash, L. J., Witt, M. L., Tapp, L., & Powell Jr, A. J. (1994). Ornamental Grasses for Kentucky Landscapes. HO-79. Cooperative Extension Service, University of Kentucky College of Agriculture, Lexington, KY	"Hakonechloa macra Hakone Grass" ... "Propagation: Division, seed."
	Missouri Botanical Garden. (2019). Hakonechloa macra. <a href="http://www.missouribotanicalgarden.org">http://www.missouribotanicalgarden.org</a> . [Accessed 25 Jun 2019]	"Propagation is easiest by division. Species plants (not cultivars thereof) may be grown by seed."

603	<b>Hybridizes naturally</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Quattrocchi, U. 2006. CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"One species, Japan."

604	<b>Self-compatible or apomictic</b>	
	<b>Source(s)</b>	<b>Notes</b>
	Quattrocchi, U. 2006. CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	[Unknown, but possibly yes, as plants are bisexual] "plants bisexual, small inflorescence paniculate, 2 glumes unequal to very unequal to very dissimilar, lemmas membranous with margins pilose, straight awn, palea 2-keeled 2-nerved, free and fleshy lodicules present, 3 stamens, ovary glabrous, 2 stigmas"

605	<b>Requires specialist pollinators</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Zomlefer, W.B. 1994. Guide to Flowering Plant Families. The University of North Carolina Press, Chapel Hill & London	[Family Description] "The reduced flowers are anemophilous, although pollen-gathering insects have been reported for some grass species (Soderstrom and Calderon 1971; Terrell and Batra 1984)."

606	<b>Reproduction by vegetative fragmentation</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit." [Spreads vegetatively, but apparently not aggressively]

607	<b>Minimum generative time (years)</b>	
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"A rhizomatous, upright-open, mound-forming perennial." [Unspecified. Probably from <1 to 2 years to maturity]

Qsn #	Question	Answer
701	<b>Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)</b>	
	<b>Source(s)</b>	<b>Notes</b>
	The National Gardening Association. (2019). Japanese Forest Grass ( <i>Hakonechloa macra</i> 'Aureola'). <a href="https://garden.org">https://garden.org</a> . [Accessed 26 Jun 2019]	"Uses: Groundcover Will Naturalize" [Unknown if seeds can be spread accidentally. Presumably naturalizes from seeds or rhizomes]
702	<b>Propagules dispersed intentionally by people</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit. It is beautiful in group plantings in foreground borders, even more so when grown in massed stands as ground cover in naturalized areas or in clumps in rock or water gardens."
703	<b>Propagules likely to disperse as a produce contaminant</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"Propagation is by seeding and by plant division. The less vigorous, variegated cultivars are best propagated by plant division" [No evidence that this grass is spread as a produce contaminant. Regularly cultivated ornamental grass]
704	<b>Propagules adapted to wind dispersal</b>	
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"Propagation is by seeding and by plant division." [Possibly for short distances]
705	<b>Propagules water dispersed</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Barkworth, M.E., Anderton, L.L., Capels, K.M., Long, S., Piep, M.B. (eds.). 2013. Manual of Grasses for North America. Utah State University Press, Logan, UT	[Grows along rivers. Likely spread by water] "In Japan, <i>Hakonechloa macra</i> grows on rocks along rivers. Although rhizomatous, it is not an invasive species and is recommended for mass planting."
706	<b>Propagules bird dispersed</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"Inflorescence an erect, branched, open panicle, 6-10 in.!1.5-2.5 dm long, about 2-3 in.! 5-8 cm wide; spikelets light green or pale. Flowering and fruiting occur from August through September." ... "Propagation is by seeding and by plant division." [No evidence of bird dispersal]
707	<b>Propagules dispersed by other animals (externally)</b>	<b>n</b>

Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit." ... "Propagation is by seeding and by plant division." [No evidence despite widespread cultivation]

708	Propagules survive passage through the gut	
	<b>Source(s)</b>	<b>Notes</b>
	WRA Specialist. (2019). Personal Communication	Unknown, but reported to be deer and rabbit resistant. Consumption by animals may be rare and potential for internal dispersal limited or non-existent

801	Prolific seed production (>1000/m2)	
	<b>Source(s)</b>	<b>Notes</b>
	Oakes, A. J. 1990. Ornamental Grasses and Grasslike Plants. Van Nostrand Reinhold, New York, New York	"This rhizomatous, slowly spreading, ornamental grass is noninvasive, despite its creeping growth habit." ... "Propagation is by seeding and by plant division." [Unknown, but unlikely given several observations that this plant is non-invasive. Prolific seed production would likely increase risk of spread and invasiveness]

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	<b>Source(s)</b>	<b>Notes</b>
	WRA Specialist. (2019). Personal Communication	Unknown

803	Well controlled by herbicides	y
	<b>Source(s)</b>	<b>Notes</b>
	Price, A., Kelton, J. and Sarunaite, L. (eds.). (2015). Herbicides, Physiology of Action, and Safety. AvE4EvA	"Glyphosate is a commonly used herbicide in agriculture because of low cost and effective control of grasses and broadleaf weeds." [Although there is no evidence that <i>Hakonechloa macra</i> has been controlled, glyphosate would likely be effective if necessary]
	WRA Specialist. (2019). Personal Communication	No evidence that this grass has been chemically controlled. However, a glyphosate-based, non-specific herbicide would likely be effective at controlling this grass if necessary

804	Tolerates, or benefits from, mutilation, cultivation, or fire	
	<b>Source(s)</b>	<b>Notes</b>
	North Coast Gardening. (2009). Ornamental Grasses: How to Prune Miscanthus, Stipa, and More. <a href="http://northcoastgardening.com/2009/01/pruning-ornamental-grasses/">http://northcoastgardening.com/2009/01/pruning-ornamental-grasses/</a> . [Accessed 26 Jun 2019]	" <i>Hakonechloa macra</i> 'Aureola' or Japanese forest grass can be cut back to 2" tall once they go fully brown, which happens pretty early (November-ish)." [Can be cut back once they brown, so probably could be cut back]

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	

Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	WRA Specialist. (2019). Personal Communication	Unknown

**Summary of Risk Traits:**

High Risk / Undesirable Traits

- Broad climate suitability (primarily temperate)
- Reported to be naturalized in Brazil
- Deer and rabbit resistant, indicating unpalatability
- Shade-tolerant (could potentially spread into intact forest)
- Reproduces by seeds and vegetatively by rhizomes
- Intentionally spread by people and likely by water
- Gaps in biological and ecological information may reduce accuracy or risk prediction

Low Risk Traits

- Widely cultivated ornamental, with no reports of negative impacts.
- Recommended as a non-invasive alternative to other weedy grasses
- Unarmed (no spines, thorns, or burrs)
- Non-toxic
- Herbicides would likely provide effective control if necessary

Second Screening Results for Herbs and Low-Stature Shrubby Life Forms

(A) Reported as a weed of cultivated lands? No

Outcome = Accept (Low Risk)