

Taxon: Rytidosperma semiannulare	Family: Poaceae
Common Name(s): Tasmanian wallaby grass	Synonym(s): Arundo semiannulare Labill. Danthonia semiannularis (Labill.) R. Notodanthonia semiannularis (Labill.)

Assessor: Chuck Chimera	Status: Assessor Approved	End Date: 18 Dec 2015
WRA Score: 2.5	Designation: L	Rating: Low Risk

Keywords: Perennial Grass, Caespitose, Naturalized, Temperate, Palatable

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)		
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	n
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		
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	n
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		
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	y
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets		
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	n
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
702	Propagules dispersed intentionally by people		
703	Propagules likely to disperse as a produce contaminant		
704	Propagules adapted to wind dispersal	y=1, n=-1	y
705	Propagules water dispersed		
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)		
708	Propagules survive passage through the gut		
801	Prolific seed production (>1000/m ²)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides		
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
	Quattrocchi, U. 2006. CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	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
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	"Widespread in south-eastern Australia. generally from Sydney (with a few outliers N and W). N.S.W., to Adelaide, S.A .. and in Tas., in clearings in rainforest. and generally in wet, often shady habitats; also in tall woodland." [Occurs in temperate Australia]

202	Quality of climate match data	High
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	

203	Broad climate suitability (environmental versatility)	
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	Probably No. Native to temperate regions of Australia, Tasmania, and New Zealand & naturalized in middle to upper elevations in the Hawaiian Islands

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes

Qsn #	Question	Answer
	Starr, F., Starr, K. & Loope, L.L.2004. New plant records from the Hawaiian Archipelago. Bishop Museum Occasional Papers 79: 20-30	[A temperate grass naturalized at middle to higher elevations of the Hawaiian Islands] "Material examined: MAUI: East Maui, Polipoli, Waiakoa Loop Trail, growing at margin of disturbed forest comprised of Eucalyptus spp., Pinus radiata, and Morella faya, 6000 ft [1828 m], 8 Aug 2002, Starr & Starr 020808-9. West Maui, Hana'ula Iki, 3500 ft [1066 m], May 1985, Hobdy 2389. Pu'u Nianiau, Haleakalā, common in open pasture, 6000 ft [1828 m], 28 Jan 1937, Hosaka 1767. Makawao, Haleakalā, common in grassy slope among Styphelia, 5000 ft [1524 m], 12 Apr 1939, Hosaka 2427."

205	Does the species have a history of repeated introductions outside its natural range?	n
	Source(s)	Notes
	AusGrass2. 2015. Rytidosperma semiannulare. http://ausgrass2.myspecies.info/content/rytidosperma-semiannulare . [Accessed 18 Dec 2015]	"Distribution: Australasia, Pacific, and North America."
	Wagner, W.L., Herbst, D.R.& Lorence, D.H. 2015. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/pacificislandbiodiversity/hawaiianflora/index.htm . [Accessed 18 Dec 2015]	"Status: Naturalized Distribution: Mo/ M"

301	Naturalized beyond native range	y
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Danthonia semiannularis R. Br. is adventive on Maui, where it was first collected in 1937 (Hosaka 1767, BISH). According to Whitney et al. (1939), it was introduced to Moloka'i in 1903. It is distinguished from <i>D. pilosa</i> by leaf blades and sheaths usually glabrous rather than pilose, and lemmas with 2 dense transverse rings rather than 2 tufts of silky hairs."
	Starr, F., Starr, K. & Loope, L.L.2004. New plant records from the Hawaiian Archipelago. Bishop Museum Occasional Papers 79: 20-30	"Previously known to be adventive on Maui under the name <i>Danthonia semiannularis</i> (Wagner et al., 1990), <i>R. semiannulare</i> (Tasmanian wallaby grass) is known from BISH specimens to have been first collected on Maui in 1937 and was described by previous collectors as "common". This pasture grass is indeed naturalized and locally common on both East and West Maui. These collections represent a new naturalized record for the Hawaiian Islands. Material examined: MAUI: East Maui, Polipoli, Waiakoa Loop Trail, growing at margin of disturbed forest comprised of Eucalyptus spp., Pinus radiata, and Morella faya, 6000 ft [1828 m], 8 Aug 2002, Starr & Starr 020808-9. West Maui, Hana'ula Iki, 3500 ft [1066 m], May 1985, Hobdy 2389. Pu'u Nianiau, Haleakalā, common in open pasture, 6000 ft [1828 m], 28 Jan 1937, Hosaka 1767. Makawao, Haleakalā, common in grassy slope among Styphelia, 5000 ft [1524 m], 12 Apr 1939, Hosaka 2427."
	Wagner, W.L., Herbst, D.R.& Lorence, D.H. 2015. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/pacificislandbiodiversity/hawaiianflora/index.htm . [Accessed 17 Dec 2015]	" <i>Rytidosperma semiannulare</i> (Labill.) Connor & Edgar Status: Naturalized Distribution: Mo/ M Specimens Synonyms: <i>Danthonia semiannularis</i> Labill."

Qsn #	Question	Answer
	Vanderwoude, C., Klasner, F., Kirkpatrick, J. & Kaye, S. 2015. Maunakea Invasive Species Management Plan. Technical Report 191. Pacific Cooperative Studies Unit, University of Hawaii, Honolulu, HI	"Table 3.1. List of introduced plant species present on the Management Area" [Includes <i>Rytidosperma semiannulare</i>]
	Medeiros, A.C., Loope, L.L. & Chimera, C.G. 1998. Flowering Plants and Gymnosperms of Haleakala National Park. Technical Report 120. Pacific Cooperative Studies Unit, Honolulu, HI	"West slope, near Hosmer Grove (6800 ft) and service trail junction (7800 ft). Wispy, annual grass in moist disturbed sites with developed soils at 6800-7500 ft. Less common than <i>D. pilosa</i> , superficially resembling <i>Festuca rubra</i> . This species first collected near the Park in 1937, noted as "common" in pasture near Pu'u-nianiau (E.Y. Hosaka 1767, BISH). This species may be recognized in the future as <i>Rytidosperma semiannulare</i> (Labill.) Connor & Edgar (BISH herbarium note by W.D. Clayton, 1994)."

302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence
	Stone, C.P., Smith, C.W., & Tunison, J.T. (eds.). 1992. Alien Plant Invasions in Native Ecosystems of Hawai'i: Management and Research. Cooperative National Park Resources Studies Unit, University of Hawaii, Manoa, Honolulu, HI	No evidence

305	Congeneric weed	n
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R. & Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[<i>Danthonia pilosa</i> = <i>Rytidosperma pilosum</i> . No negative impacts specified] "Native to Australia, where it is an important pasture grass; in Hawai'i naturalized in dry, open pastures and grasslands, 1,980-2,500 m, on Hawai'i. First collected in 1932"
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	A number of species are listed as naturalized

Qsn #	Question	Answer
401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Royal Botanic Gardens Victoria. 2015. VicFlora Flora of Victoria - <i>Rytidosperma semiannulare</i> . http://data.rbv.vic.gov.au/vicflora/ . [Accessed 17 Dec 2015]	[No evidence] "Tufted perennial. Culms to 60 cm(-1 m) high, 2-4-noded. Leaves glabrous or nearly so; blade finely inrolled or rarely channelled, to 20 cm long and c. 1 mm wide. Panicle linear to narrow lanceolate in outline, 5-12 cm long, the base often remaining enclosed by upper sheath. Spikelets purplish when young, mostly 6-8-flowered; glumes subequal, narrow, acuminate, 7-1 (-18) mm long; lemma 2-3 mm long, evenly covered by hairs up to c. 0.5 mm long, with a conspicuously longer upper series c. 3 mm long; lateral lobes erect, very fine, not or barely exceeding the upper series of hairs (rarely exceeding hairs by as much as 4 mm); central awn brown and distinctly twisted in the lower third, exceeding lateral lobes by 3-7 mm; palea lanceolate, exceeding sinus by 1-2 mm."

402	Allelopathic	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown

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	"Perennial, erect and slender, caespitose, clustered in tussocks" [Poaceae. No evidence]

404	Unpalatable to grazing animals	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	"palatable"
	Maiden, J. H. 1898. A Manual of the Grasses of New South Wales. W. A. Gullick, Sydney	"Value as a fodder.—A valuable grass when young, but in arid country it becomes very harsh when old."

405	Toxic to animals	n
	Source(s)	Notes
	Lamson-Scribner, F. 1896. Useful and Ornamental Grasses. Washington, D.C.	"It is a perennial and is said to be one of the most nutritious grasses of Australia, stock of all kinds being remarkably fond of it."
	Wagstaff, D.J. 2008. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	
	Source(s)	Notes

Qsn #	Question	Answer
	Rosenkranz, E. 1978. Grasses native or adventive to the United States as new hosts of maize dwarf mosaic and sugarcane mosaic viruses. <i>Phytopathology</i> 68: 175-179	"One hundred gramineous species, comprising 51 native and 49 adventive grasses, were tested for reaction to inoculation with maize dwarf mosaic virus strains A (MDMV-A) and B (MDMV-B) and sugarcane mosaic virus strain B (SCMV-B)." ... "Conversely, two of the <i>Danthonia</i> species, immune to MDMV-A, were susceptible to MDMV-B and SCMV-B." [R. <i>semiannulare</i> susceptible and a potential host]

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Wagstaff, D.J. 2008. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence of toxicity to humans

408	Creates a fire hazard in natural ecosystems	
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	[Unknown, but possibly not if occurring in wetter habitats] "in clearings in rainforest. and generally in wet. often shady habitats: also in tall woodland."

409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	"in clearings in rainforest. and generally in wet, often shady habitats; also in tall woodland."
	AusGrass2. 2015. <i>Rytidosperma semiannulare</i> . http://ausgrass2.myspecies.info/content/rytidosperma-semiannulare . [Accessed 18 Dec 2015]	"often shady habitats"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	Lamson-Scribner, F. 1896. Useful and Ornamental Grasses. Washington, D.C.	"It grows on a great variety of soils, but is most productive on moderately rich, strong loams."
	Royal Botanic Gardens Victoria. 2015. VicFlora Flora of Victoria - <i>Rytidosperma semiannulare</i> . http://data.rbg.vic.gov.au/vicflora/ . [Accessed 18 Dec 2015]	"Occurs in damp sites on alluvial soils, occasionally semi-aquatic, and in light sandy soil mostly near the coast."

411	Climbing or smothering growth habit	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	"Perennial, erect and slender, caespitose, clustered in tussocks"

Qsn #	Question	Answer
412	Forms dense thickets	
	Source(s)	Notes
	Starr, F., Starr, K. & Loope, L.L. 2004. New plant records from the Hawaiian Archipelago. Bishop Museum Occasional Papers 79: 20-30	"This pasture grass is indeed naturalized and locally common on both East and West Maui. These collections represent a new naturalized record for the Hawaiian Islands." [No descriptions of dense or pure stands]
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	"Widespread in south-eastern Australia. generally from Sydney (with a few outliers and W). N.S.W., to Adelaide, S.A. and in Tas., in clearings in rainforest. and generally in wet. often shady habitats: also in tall woodland."
	Medeiros, A.C., Loope, L.L. & Chimera, C.G. 1998. Flowering Plants and Gymnosperms of Haleakala National Park. Technical Report 120. Pacific Cooperative Studies Unit, Honolulu, HI	[No evidence] "West slope, near Hosmer Grove (6800 ft) and service trail junction (7800 ft). Wispy, annual grass in moist disturbed sites with developed soils at 6800-7500 ft. Less common than <i>Q. pilosa</i> , superficially resembling <i>Festuca rubra</i> . This species first collected near the Park in 1937, noted as "common" in pasture near Pu'u-nianiau (E.Y. Hosaka 1767, BISH). This species may be recognized in the future as <i>Rytidosperma semiannularis</i> (Labill.) Connor & Edgar (BISH herbarium note by W.D. Clayton, 1994)."

501	Aquatic	n
	Source(s)	Notes
	Royal Botanic Gardens Victoria. 2015. VicFlora Flora of Victoria - <i>Rytidosperma semiannulare</i> . http://data.rbv.vic.gov.au/vicflora/ . [Accessed 17 Dec 2015]	[Semi-aquatic] "Occurs in damp sites on alluvial soils, occasionally semi-aquatic, and in light sandy soil mostly near the coast."

502	Grass	n
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2015. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html . [Accessed 17 Dec 2015]	"Family: Poaceae (alt. Gramineae) Tribe: Danthoieae"

503	Nitrogen fixing woody plant	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	Poaceae

Qsn #	Question	Answer
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Royal Botanic Gardens Victoria. 2015. VicFlora Flora of Victoria - <i>Rytidosperma semiannulare</i> . http://data.rbhv.vic.gov.au/vicflora/ . [Accessed 17 Dec 2015]	"Tufted perennial. Culms to 60 cm(–1 m) high, 2–4-noded."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	"Widespread in south-eastern Australia" [No evidence]

602	Produces viable seed	y
	Source(s)	Notes
	Lamson-Scribner, F. 1896. Useful and Ornamental Grasses. Washington, D.C.	"It seeds freely, and the grain is easily harvested."

603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown

604	Self-compatible or apomictic	
	Source(s)	Notes
	Wright, K. L. T. (1984). Studies in the Danthoneae (Poaceae), PhD Dissertation. The University of Oklahoma, Norman, OK	[Possibly] "Cleistogamous spikelets. Highly modified cleistogamous spikelets produced in the lower axils are reported for nearly all <i>Danthonia</i> s. str., and apparently do not occur in other taxa. Chase (1918) reported such cleistogenes from <i>Rytidosperma semiannulare</i> from New Zealand, but this has never been substantiated, though the New Zealand species have been thoroughly investigated (Connor and Edgar, 1979)."

605	Requires specialist pollinators	n
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Poaceae - wind pollinated

Qsn #	Question	Answer
606	Reproduction by vegetative fragmentation	n
	Source(s)	Notes
	Benson, D., & McDougall, L. (2005). Ecology of Sydney plant species: part 10, Monocotyledon families Lemnaceae to Zosteraceae. <i>Cunninghamia</i> 9(1): 16-204	"VEGETATIVE SPREAD: No"

607	Minimum generative time (years)	
	Source(s)	Notes
	AusGrass2. 2015. <i>Rytidosperma semiannulare</i> . http://ausgrass2.myspecies.info/content/rytidosperma-semiannulare . [Accessed 18 Dec 2015]	[Unknown] "Habit. Perennial. Culms erect, 20–45 cm tall, 3 -noded. Mid-culm nodes glabrous. Leaf-sheaths glabrous on surface. Ligule a fringe of hairs, 0.5 mm long. Leaf-blades straight, involute, 7–15 cm long, 1–2 mm wide. Leaf-blade surface glabrous."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown if seeds are accidentally dispersed by adherence to clothing, equipment or machinery

702	Propagules dispersed intentionally by people	
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Intentionally introduced in the past] " <i>Danthonia semiannularis</i> R. Br. is adventive on Maui, where it was first collected in 1937 (Hosaka 1767, BISH). According to Whitney et al. (1939), it was introduced to Moloka'i in 1903."

703	Propagules likely to disperse as a produce contaminant	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown. May have potential to become a seed contaminant

704	Propagules adapted to wind dispersal	y
	Source(s)	Notes
	AusGrass2. 2015. <i>Rytidosperma semiannulare</i> . http://ausgrass2.myspecies.info/content/rytidosperma-semiannulare . [Accessed]	"Caryopsis 1.2-1.8 mm long." [Small seeds probably wind & gravity dispersed]

705	Propagules water dispersed	
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	"Caryopsis 1.2-1.8 mm long." ... "in clearings in rainforest, and generally in wet, often shady habitats" [Water may move seeds in wet habitats]

Qsn #	Question	Answer
706	Propagules bird dispersed	n
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	[No evidence. Not fleshy-fruited] "Caryopsis 1.2-1.8 mm long"

707	Propagules dispersed by other animals (externally)	
	Source(s)	Notes
	Australian Biological Resources Study. 2005. Flora of Australia: Poaceae 3, Volume 44B. CSIRO Publishing, Melbourne	"Caryopsis 1.2-1.8 mm long" [Unknown. Small size may aid in adherence to animals grazing on grass]

708	Propagules survive passage through the gut	
	Source(s)	Notes
	Quattrocchi, U. 2006. CRC World Dictionary of Grasses: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"palatable" [Unknown if seeds survive gut passage after consumption by grazing animals]

801	Prolific seed production (>1000/m2)	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown

803	Well controlled by herbicides	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown. No information on herbicide efficacy or chemical control of this species

804	Tolerates, or benefits from, mutilation, cultivation, or fire	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown

Qsn #	Question	Answer
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. 2015. Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits

- Grows in mid-to upper elevation areas with subtropical climates
- Naturalized in Hawaiian Islands (Molokai, Maui, Hawaii)
- Tolerates many soil types
- Shade-tolerant
- Reproduces by seeds
- Limited ecological information reduces accuracy of risk prediction

Low Risk Traits

- No reports of negative impacts in native or introduced range
- Unarmed (no spines, thorns or burrs)
- Palatable to grazing animals
- Not reported to spread vegetatively

Second Screening Results for Herbs & low stature shrubby life forms

(A) Reported as a weed of cultivated lands? No evidence
Outcome = Accept (Low Risk)