

Australia/New Zealand Weed Risk Assessment adapted for Florida.

Data used for analysis published in: Gordon, D.R., D.A. Onderdonk, A.M. Fox, R.K. Stocker, and C. Gantz. 2008. Predicting Invasive Plants in Florida using the Australian Weed Risk Assessment. *Invasive Plant Science and Management* 1: 178-195.

<i>Urochloa subquadriflora (tropical signalgrass)</i>			
Question number	Question	Answer	Score
1.01	Is the species highly domesticated?	n	0
1.02	Has the species become naturalised where grown?		
1.03	Does the species have weedy races?		
2.01	Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high)	2	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	2	
2.03	Broad climate suitability (environmental versatility)		
2.04	Native or naturalized in habitats with periodic inundation		
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	y	0
3.02	Garden/amenity/disturbance weed	y	0
3.03	Weed of agriculture	y	0
3.04	Environmental weed	n	0
3.05	Congeneric weed	y	0
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic	n	0
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	n	-1
4.05	Toxic to animals	y	1
4.06	Host for recognised pests and pathogens		
4.07	Causes allergies or is otherwise toxic to humans	n	0
4.08	Creates a fire hazard in natural ecosystems	n	0
4.09	Is a shade tolerant plant at some stage of its life cycle	y	1
4.1	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils)	y	1
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	n	0
5.01	Aquatic	n	0

5.02	Grass	y	1
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte		
6.01	Evidence of substantial reproductive failure in native habitat		
6.02	Produces viable seed	y	1
6.03	Hybridizes naturally		
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative fragmentation	y	1
6.07	Minimum generative time (years)		
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
7.02	Propagules dispersed intentionally by people	y	1
7.03	Propagules likely to disperse as a produce contaminant	n	-1
7.04	Propagules adapted to wind dispersal	n	-1
7.05	Propagules water dispersed	n	-1
7.06	Propagules bird dispersed	n	-1
7.07	Propagules dispersed by other animals (externally)	n	-1
7.08	Propagules dispersed by other animals (internally)	n	-1
8.01	Prolific seed production	n	-1
8.02	Evidence that a persistent propagule bank is formed (>1 yr)		
8.03	Well controlled by herbicides	y	-1
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05	Effective natural enemies present in Florida, or east of the continental divide		
<b>Total Score</b>			<b>8</b>

<b>Outcome</b>	<b>Reject*</b>
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\*Used secondary screen from: Daehler, C. C., J.L. Denslow, S. Ansari, and H. Kuo. 2004. A risk assessment system for screening out harmful invasive pest plants from Hawaii's and other Pacific islands. *Conserv. Biol.* 18: 360-368.

section	# questions answered	satisfy minimum?
A	6	yes
B	11	yes
C	15	yes
total	32	yes

Data collected 2006-2007

Question number	Reference	Source data
1.01		no evidence of selection for reduced weediness
1.02		
1.03		
2.01		
2.02		
2.03		
2.04		
2.05	1. Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum. 2. Wagner, Herbst, and Sohmer (1999) Manual of the flowering plants of Hawai'i. University of Hawai'i Press/Bishop Museum Press, Honolulu. 3. Whistler (1995) Wayside Plants of the Islands. Isle Botanica, Honolulu.	Introduced as a forage species in Brazil (1); naturalized in many Pacific islands (2,3).
3.01	1. Wagner, Herbst, and Sohmer (1999) Manual of the flowering plants of Hawai'i. University of Hawai'i Press/Bishop Museum Press, Honolulu. 2. Whistler (1995) Wayside Plants of the Islands. Isle Botanica, Honolulu.	1. "escaped and perhaps naturalized in Oahu, Molokai, and Maui in pastures and along roadsides" 2. common throughout many islands of the Pacific
3.02	Waterhouse (1997) The major invertebrate pests and weeds of agriculture and plantation forestry in the southern and western Pacific. ACIAR Monograph No. 44, 99p.	lawn and roadside weed in the Pacific
3.03	Waterhouse (1997) The major invertebrate pests and weeds of agriculture and plantation forestry in the southern and western Pacific. ACIAR Monograph No. 44, 99p.	weed of vegetable crops in the Pacific
3.04		no evidence
3.05	Kairo, Ali, Cheesman, Haysom, and Murphy (2003) Invasive Species Threats in the Caribbean Region. Report to the Nature Conservancy.	<i>Urochloa maxima</i> considered invasive in Jamaica, Puerto Rico, and the Dominican Republic.
4.01	Whistler (1995) Wayside Plants of the Islands. Isle Botanica, Honolulu.	no description of these traits
4.02		no evidence
4.03	Whistler (1995) Wayside Plants of the Islands. Isle Botanica, Honolulu.	no description of this
4.04	FAO, Grassland Index	highly palatable

	( <a href="http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm">http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm</a> )	
4.05	Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	"when ingested over several days it produces severe intoxications in cows"
4.06		
4.07		no evidence
4.08		no evidence
4.09	FAO, Grassland Index ( <a href="http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm">http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm</a> )	"It stands a good deal of shade"
4.1	FAO, Grassland Index ( <a href="http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm">http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm</a> )	"It will grow on a variety of soils, especially sandy ones."
4.11	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	growth habit: graminoid
4.12		no evidence
5.01		terrestrial
5.02	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	Poaceae
5.03	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	herbaceous Poaceae
5.04		
6.01		
6.02	FAO, Grassland Index ( <a href="http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm">http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm</a> )	sets a small amount of seed
6.03		
6.04		
6.05		most grasses wind pollinated
6.06	FAO, Grassland Index ( <a href="http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm">http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm</a> )	"it spreads well by stolons"
6.07		
7.01		
7.02	Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	used as a forage species
7.03		no evidence
7.04		no pappus on seeds
7.05		no evidence
7.06		grass
7.07		no evidence of any means of attachment
7.08		grass

8.01	FAO, Grassland Index ( <a href="http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm">http://www.fao.org/ag/AGP/AGPC/doc/GBASE/data/pf000194.htm</a> )	"It sets only a small amount of seed"
8.02		
8.03	Teuton, Unruh, Brecke, MacDonald, Miller, and Ducar (2004) Tropical signalgrass ( <i>Urochloa subquadrifera</i> ) control with preemergence- and postemergence-applied herbicides. Weed Technology 18: 419-425.	"Asulam and CGA 362622 provided 89% tropical signalgrass control at all application timings. Imazaquin controlled tropical signalgrass 98% when applied before the eight-leaf stage. However, in field trials with mature tropical signalgrass (>20 cm stolons), none of the 20 herbicide treatments applied postemergence provided acceptable control."
8.04		
8.05		