

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>Setaria setosa (West Indian bristlegrass)</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?	n	
3.01	Naturalized beyond native range	n	0
3.02	Garden/amenity/disturbance weed	n	0
3.03	Weed of agriculture	n	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		
4.05	Toxic to animals	n	0
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	n	0
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	n	0
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)	1	1
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
7.02	Propagules dispersed intentionally by people	n	-1
7.03	Propagules likely to disperse as a produce contaminant	n	-1
7.04	Propagules adapted to wind dispersal	?	
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		
8.02	Evidence that a persistent propagule bank is formed (>1 yr)		
8.03	Well controlled by herbicides		
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05	Effective natural enemies present in Florida, or east of the continental divide		
Total Score			1

Outcome	Accept*
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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	10	yes
C	14	yes
total	30	yes

Data collected 2006-2007

Question number	Reference	Source data
1.01		no evidence of cultivation
1.02		
1.03		
2.01		
2.02		
2.03		
2.04		
2.05	1. Hitchcock (1936) Manual of the Grasses of the West Indies. United States Department of Agriculture, Miscellaneous Publication No. 243. 2. Rominger, Manual of Grasses for North America project (http://herbarium.usu.edu/treatments/Setaria.htm).	Native to West Indies to Brazil (1) and possibly Mexico (2). Accidentally introduced into New Jersey (not established) (2). [only 1 documented introduction, not including FL]
3.01	Rominger, Manual of Grasses for North America project (http://herbarium.usu.edu/treatments/Setaria.htm).	Not established in New Jersey, where it was accidentally introduced. [and no other evidence of naturalization outside native range]
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05	Holm, Doll, Holm, Pancho, and Herberger (1997) World weeds: natural histories and distribution. John Wiley & Sons, New York.	<i>S. geniculata</i> , <i>S. glauca</i> , and <i>S. pallide-fusca</i> are all considered serious weeds.
4.01	Hitchcock (1936) Manual of the Grasses of the West Indies. United States Department of Agriculture, Miscellaneous Publication No. 243.	no description of these traits
4.02		no evidence
4.03	Hitchcock (1936) Manual of the Grasses of the West Indies. United States Department of Agriculture, Miscellaneous Publication No. 243.	no description of this
4.04		
4.05		no evidence
4.06		
4.07		no evidence
4.08		no evidence
4.09	1. Horticipia 4.0 2. Renvoize (1984) The Grasses of	1. exposure: full sun [<i>Setaria</i>

	Bahia. Kew Royal Botanic Gardens.	spp.] 2. "open places"
4.1	Renvoize (1984) The Grasses of Bahia. Kew Royal Botanic Gardens.	"on poor soils"
4.11	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). 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 (http://plants.usda.gov). 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 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	herbaceous Poaceae
5.04	Renvoize (1984) The Grasses of Bahia. Kew Royal Botanic Gardens.	roots of <i>S. setosa</i> appear fibrous in illustration
6.01		
6.02	Horticopia 4.0	"Propagation is from seeds." [<i>Setaria</i> spp.]
6.03		
6.04		
6.05		likely wind-pollinated (grass)
6.06	Hitchcock (1936) Manual of the Grasses of the West Indies. United States Department of Agriculture, Miscellaneous Publication No. 243.	"rooting at the nodes"
6.07	Renvoize (1984) The Grasses of Bahia. Kew Royal Botanic Gardens.	"Annual or short-lived, loosely tufted perennial"
7.01		
7.02		no evidence
7.03		no evidence
7.04		no evidence, but has bristles
7.05		no evidence
7.06		grass
7.07		no evidence of any means of attachment
7.08		grass
8.01		
8.02		
8.03		
8.04		
8.05		