

<i>Pennisetum purpureum</i> x <i>Pennisetum glaucum</i> Hybrid (Giant King Grass) -- FLORIDA		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 FL climates (USDA hardiness 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).	y	1
2.04	Native or naturalized with mean annual precipitation of 40-70 inches.		
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range.		
3.02	Garden/amenity/disturbance weed		
3.03	Weed of agriculture		
3.04	Environmental weed		
3.05	Congeneric weed	y	2
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic		
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	n	-1
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.		
4.08	Creates a fire hazard in natural ecosystems		
4.09	Is a shade tolerant plant at some stage of its life cycle		
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils).		
4.11	Climbing or smothering growth habit		
4.12	Forms dense thickets		
5.01	Aquatic	n	0
5.02	Grass	y	1
5.03	Nitrogen fixing woody plant		
5.04	Geophyte		
6.01	Evidence of substantial reproductive failure in native habitat		
6.02	Produces viable seed	n	-1
6.03	Hybridizes naturally	?	
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators		
6.06	Reproduction by vegetative propagation	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	y	1
7.03	Propagules likely to disperse as a produce contaminant		
7.04	Propagules adapted to wind dispersal		
7.05	Propagules water dispersed		
7.06	Propagules bird dispersed		
7.07	Propagules dispersed by other animals (externally)		
7.08	Propagules dispersed by other animals (internally)		
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		5
	Implemented Pacific Second Screening		Yes
	Risk Assessment Results		Evaluate

	Reference	Source data
1.01		Cultivated but no evidence of selection for reduced weediness.
1.02		Skip to 2.01
1.03		Skip to 2.01
2.01	1. PERAL NAPPFAST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFAST%20Global%20zones/10-year%20climate/PLANT_HARDINESS_10YR%20lgnnd.tif) & USDA Plant Hardiness Zone Map, 2012. Agricultural Research Service, U.S. Department of Agriculture. Accessed from http://planthardiness.ars.usda.gov . 2. Andrews, D.J. & Kumar, K.A., 2006. <i>Pennisetum glaucum</i> (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	No computer analysis was performed. 1. Global plant hardiness zones 9-11; equivalent to USDA Hardiness zones 8b-10b (north, central, & south zones of Florida). 2. In South-East Asia, East and southern Africa and South America.
2.02		No computer analysis was performed. 1. Native range is somewhat known; refer to 2.01 source data.
2.03	1. Köppen-Geiger climate map (http://www.hydrol-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf).	1. Cultivated distribution occurs in more than three climatic groups.
2.04		
2.05	1. Andrews, D.J. & Kumar, K.A., 2006. <i>Pennisetum glaucum</i> (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	1. Used as a persistent perennial forage by small farmers in South-East Asia, East and southern Africa and South America.
3.01		
3.02		
3.03		
3.04		
3.05	1. Pacific Island Ecosystems at Risk (PIER). http://www.hear.org . Accessed 11 July 2012.	1. <i>P. purpureum</i> is an invasive plant and received a WRA score of 18 (high risk for invasion) in Florida.
4.01		No description of these traits.
4.02		
4.03		1. Family: <i>Poaceae</i> (not a parasitic family).

4.04	1. Andrews, D.J. & Kumar, K.A., 2006. Pennisetum glaucum (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	1. Used as a persistent perennial forage by small farmers in South-East Asia, East and southern Africa and South America.
4.05	1. Andrews, D.J. & Kumar, K.A., 2006. Pennisetum glaucum (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	1. Used as a persistent perennial forage by small farmers in South-East Asia, East and southern Africa and South America.
4.06		
4.07		
4.08		
4.09		
4.10		
4.11		
4.12		
5.01		
5.02		1. Family: <i>Poaceae</i> .
5.03		
5.04		
6.01		
6.02	1. Andrews, D.J. & Kumar, K.A., 2006. Pennisetum glaucum (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	1. Triploid and sterile.
6.03	1. Andrews, D.J. & Kumar, K.A., 2006. Pennisetum glaucum (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	1. Interspecific hybrids between pearl millet (<i>P. glaucum</i>) and elephant grass (<i>P. purpureum</i>) are available.
6.04		
6.05		

6.06	1. Andrews, D.J. & Kumar, K.A., 2006. Pennisetum glaucum (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	1. Selections are easily vegetatively propagated.
6.07	1. Andrews, D.J. & Kumar, K.A., 2006. Pennisetum glaucum (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	1. Pearl millet (<i>P. glaucum</i>) cultivars vary in time to maturity from 55–280 days, but mostly from 75–180 days.
7.01		
7.02	1. Andrews, D.J. & Kumar, K.A., 2006. Pennisetum glaucum (L.) R.Br. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. http://database.prota.org/search.htm . Accessed 11 July 2012.	Species is being considered for introduction as a biomass crop. 1. Used as a persistent perennial forage by small farmers in South-East Asia, East and southern Africa and South America.
7.03		
7.04		
7.05		
7.06		
7.07		
7.08		
8.01		
8.02		
8.03		
8.04		
8.05		