Australia/New Zealand Weed Risk Assessment adapted for United States.

Data used for analysis published in: Gordon, D.R. and C.A. Gantz. 2008. Potential impacts on the horticultural industry of screening new plants for invasiveness. Conservation Letters 1: 227-235. Available at: http://www3.interscience.wiley.com/cgi-bin/fulltext/121448369/PDFSTART

Bambusa lako			
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 U.S. climates (USDA hardiness zones; 0-low, 1-intermediate, 2-high)	1	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	2	
2.03	Broad climate suitability (environmental versatility)	n	0
2.04	Native or naturalized in regions with an average of 11-60 inches of annual precipitation	n	0
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	n	-2
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	n	0
4.01	Produces spines, thorns or burrs	?	
4.02	Allelopathic		
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		
4.09	Is a shade tolerant plant at some stage of its life cycle	n	0
4.1	Grows on one or more of the following soil types: alfisols, entisols, or mollisols	y	1
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	?	

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	n	0
6.02	Produces viable seed		
6.03	Hybridizes naturally		
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators		
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		
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 U.S.		
Total Score			1

Outcome	Evaluate

section	# questions answered	satisfy minimum?
A	11	Yes
B	6	Yes
C	8	Yes
total	25	yes

Data collected 2008

Question number	Reference	Source data
1.01		used horticulturally, but no evidence of significant modification
1.02		
1.03		
2.01	1. PERAL NAPPFAST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFAST%20Global%20zones/10-year%20climate/PLANT_HARDINESS_10YR%20lgnd.tif). 2. Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon. 3. Clayton, WD, Harman, KT and Williamson, H (2006 onwards) GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-db.html. [accessed 06 May 2008]. 4. Widjaja, EA (1997) New Taxa in Indonesian Bamboos. Reinwardtia 11(2): 57-152.	1. Global plant hardiness zones 11-13. 2. "Indigenous habitat on the island of Timor". 3. "Distribution: Asia-tropical: Malesia". 4. "This species is only known from East Timor. It might be found on other islands of the Lesser Sunda Islands."
2.02		
2.03	1. Köppen-Geiger climate map (http://www.hydrol-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf). 2. Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon. 3. Clayton, WD, Harman, KT and Williamson, H (2006 onwards) GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-db.html. [accessed 06 May 2008]. 4. Widjaja, EA (1997) New Taxa in Indonesian Bamboos. Reinwardtia 11(2): 57-152.	1. One climatic region. 2. "Indigenous habitat on the island of Timor". 3. "Distribution: Asia-tropical: Malesia". 4. "This species is only known from East Timor. It might be found on other islands of the Lesser Sunda Islands."
2.04	Microsoft Encarta World Precipitation and Average Rainfall (http://uk.encarta.msn.com/encnet/RefPages/RefMedia.aspx?refid=461530746&artrefid=761554737&pn=3&sec=-1).	For Indonesia, average annual precipitation is over 80 inches/year.
2.05	Widjaja, EA (1997) New Taxa in Indonesian Bamboos. Reinwardtia 11(2): 57-152.	"Introduced to Australia in 1970 from Timor as an ornamental."
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05		no evidence
4.01	Xia, N, Jia, L-z, Li, D-Z and Stapleton, C (1994)	"Branchlets of lower branches

	Bambusa. p. 9. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 22. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	sometimes forming tough or weak thorns" [genus description].
4.02		
4.03	Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon.	no evidence
4.04		
4.05	Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon.	no evidence
4.06		
4.07	Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon.	"The shoots are edible." [no evidence of toxicity]
4.08		
4.09	Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon.	"Light: full sun".
4.1	USDA, National Resources Conservation Services (NRCS), Soil Survey Division, World Soil Resources (http://soils.usda.gov/use/worldsoils/mapindex/order.html).	East Timor has predominantly ultisols and inceptisols, some alfisols, and a relatively small amount of oxisols and entisols.
4.11	1. Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon. 2. Clayton, WD, Harman, KT and Williamson, H (2006 onwards) GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-db.html. [accessed 06 May 2008]. 3. Xia, N, Jia, L-z, Li, D-Z and Stapleton, C (1994) *Bambusa*. p. 9. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 22. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 4. Widjaja, EA (1997) New Taxa in Indonesian Bamboos. Reinwardtia 11(2): 57-152. 5. Hawaiian Tropical Plant Nursery (http://www.hawaiiantropicalplants.com/bamboo.html).	1. "Maximum height: 70 ft. (21 m)". 2. "Culms erect; drooping at the tip; 1500 cm long; 30-80 mm diam.; woody". 3. "Arborescent bamboos, occasionally shrubby or scrambling, 1-20 m."; "branches several to many, often 1-3 dominant" [genus description]. 4. "Culms 15 m high, straight; tips slightly pendulous; branches found at 1 m above the ground, 5-7 to a node". 5. "Clumping black species"; "reaches about 45 to 50 ft. tall and 4 inches in diameter...very straight growth habit".
4.12	1. Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon. 2. Clayton, WD, Harman, KT and Williamson, H (2006 onwards) GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-db.html. [accessed 06 May 2008]. 3. Xia, N, Jia, L-z, Li, D-Z and Stapleton, C (1994) *Bambusa*. p. 9. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 22. Science Press (Beijing) and Missouri Botanical Garden (St.	1. "Maximum height: 70 ft. (21 m)". 2. "Culms erect; drooping at the tip; 1500 cm long; 30-80 mm diam.; woody". 3. "Arborescent bamboos, occasionally shrubby or scrambling, 1-20 m."; "branches several to many, often 1-3 dominant" [genus description]. 4. "Culms 15 m high, straight; tips slightly pendulous;

	Louis). 4. Widjaja, EA (1997) New Taxa in Indonesian Bamboos. Reinwardtia 11(2): 57-152. 5. Hawaiian Tropical Plant Nursery (http://www.hawaiiantropicalplants.com/bamboo.html) .	branches found at 1 m above the ground, 5-7 to a node". 5. "Clumping black species"; "reaches about 45 to 50 ft. tall and 4 inches in diameter...very straight growth habit".
5.01	1. Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon. 2. Clayton, WD, Harman, KT and Williamson, H (2006 onwards) GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-db.html. [accessed 06 May 2008]. 3. Xia, N, Jia, L-z, Li, D-Z and Stapleton, C (1994) *Bambusa*. p. 9. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 22. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 4. Hawaiian Tropical Plant Nursery (http://www.hawaiiantropicalplants.com/bamboo.html) .	1. "Maximum height: 70 ft. (21 m)". 2. "Culms erect; drooping at the tip; 1500 cm long; 30-80 mm diam.; woody". 3. "Arborescent bamboos, occasionally shrubby or scrambling, 1-20 m."; "branches several to many, often 1-3 dominant" [genus description]. 4. "Clumping black species"; "reaches about 45 to 50 ft. tall and 4 inches in diameter...very straight growth habit". [terrestrial]
5.02		Poaceae
5.03		Poaceae
5.04	1. Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon. 2. Clayton, WD, Harman, KT and Williamson, H (2006 onwards) GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-db.html. [accessed 06 May 2008]. 3. Xia, N, Jia, L-z, Li, D-Z and Stapleton, C (1994) *Bambusa*. p. 9. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 22. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 4. Widjaja, EA (1997) New Taxa in Indonesian Bamboos. Reinwardtia 11(2): 57-152. 5. Hawaiian Tropical Plant Nursery (http://www.hawaiiantropicalplants.com/bamboo.html) .	1. "Maximum height: 70 ft. (21 m)". 2. "Culms erect; drooping at the tip; 1500 cm long; 30-80 mm diam.; woody". 3. "Arborescent bamboos, occasionally shrubby or scrambling, 1-20 m."; "branches several to many, often 1-3 dominant" [genus description]. 4. "Culms 15 m high, straight; tips slightly pendulous; branches found at 1 m above the ground, 5-7 to a node". 5. "Clumping black species"; "reaches about 45 to 50 ft. tall and 4 inches in diameter...very straight growth habit".
6.01	Meredith, TJ (2001) Bamboo for gardens. Timber Press, Portland, Oregon.	no evidence
6.02		
6.03		
6.04		
6.05		
6.06	1. Clayton, WD, Harman, KT and Williamson, H (2006 onwards) GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-	1. "Rhizomes short; pachymorph". 2. "Rhizomes short necked" [genus description]. 3. "New culms can

	db.html. [accessed 06 May 2008]. 2. Xia, N, Jia, L-z, Li, D-Z and Stapleton, C (1994) Bambusa. p. 9. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 22. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 3. Hawaiian Tropical Plant Nursery (http://www.hawaiiantropicalplants.com/bamboo.html) .	emerge as far as 2 ft. from the base".
6.07		
7.01		
7.02	Widjaja, EA (1997) New Taxa in Indonesian Bamboos. Reinwardtia 11(2): 57-152.	"Introduced to Australia in 1970 from Timor as an ornamental."
7.03		no evidence
7.04		
7.05		
7.06		
7.07		
7.08		
8.01		
8.02		
8.03		
8.04		
8.05		