

Assessment date 12 February 2015

<i>Bambusa beecheyana</i> (Beechey's bamboo, silk4ball bamboo) ALL ZONES		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) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10	2	
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 habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches	y	1
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		
3.03	Weed of agriculture	n	0
3.04	Environmental weed	n	0
3.05	Congeneric weed	y	2
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		
4.06	Host for recognised pests and pathogens	y	1
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
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.		
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		

6.03	Hybridizes naturally	n	-1
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)	>4	-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	n	-1
7.04	Propagules adapted to wind dispersal	n	-1
7.05	Propagules water dispersed		
7.06	Propagules bird dispersed		
7.07	Propagules dispersed by other animals (externally)	n	-1
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)	n	-1
8.03	Well controlled by herbicides		
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05			
Total Score			-1
Implemented Pacific Second Screening			no
Risk Assessment Results			Low

section	# questions answered	satisfy minimum?
A		10 yes
B		8 yes
C		12 yes
total		30 yes

	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%20lnd.tif). 2. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (12 March 2014).	No computer analysis was performed. 1. Global hardiness zone: 9-11; equivalent to USDA Hardiness zones 8a-11a(11b?). 2. Native to China (Guangdong, Guangxi, Hong Kong).
2.02		No computer analysis was performed. Native range is well 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. Distribution in the native range appears to only occur in 2 climatic groups.
2.04	1. World Climate Maps. http://www.climate-charts.com/World-Climates-Maps.html . Accessed 5 February 2014.	1. Native areas: 975 mm-1474 mm (38.5"-58.1").
2.05	1. Young, RA & JR Hawn. Bamboo in the United States: Description, Culture, and Utilization. Agriculture Handbook No. 193. Washington D.C.: Superintendent of Documents, U.S. Government Printing Office, June 1961. PDF. 2. Forestry Department, Food and Agriculture Organization of the United Nations. International Network for Bamboo and Rattan (INBAR). Country Report on Bamboo Resources in Brazil, May 2005. Global Forest Resources Assessment, Working Paper 113; Rome, 2006.	1. It was introduced into southern California at an unknown early date and into southern Florida first in 1926 and again at later dates. 2. One of the most commonly cultivated bamboo in Brazil.
3.01		No evidence found.
3.02	1. Dave's Garden. Gardners' Notes. Oct 17, 2004, palmbob from Acton, CA. Accessed: 18 March 2014. http://davesgarden.com/guides/pf/go/80879/#ixzz2z5Q5wiVO	"Not very invasive (stays put) but will eventually take out anything in it's path, so don't plant near construction/pipes etc."
3.03		No evidence found.
3.04		No evidence found.
3.05	1. Holm, L. et al. A Geographical Atlas of World Weeds. New York: John Wiley & Sons, 1979. Print. 2. Global Invasive Species Database, 2005. <i>Bambusa vulgaris</i> . Available from: http://www.issg.org/database/species/ecology.asp?si=1399&fr=1&sts=sss&lang=EN [Accessed 3 February 2014].	1. <i>Bambusa vulgaris</i> is listed as being present as a weed in Jamaica. 2. <i>Bambusa vulgaris</i> is the most widespread member of its genus, and has long been cultivated across the tropics and subtropics. It prefers lowland humid habitats, but tolerates a wide range of climatic conditions and soil types. It commonly naturalizes, forming monospecific stands along river banks, roadsides and open ground.
4.01		These structures are not included in the description of this species.
4.02		No evidence found.
4.03	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (12 March 2014).	1. Family: Poaceae (not a parasitic family).
4.04		No evidence found.
4.05		No evidence found.

4.06	1. Lin, NS, BY Lin, TY Yeh, YH Hsu. 1995. First report of bamboo mosaic virus and its associated satellite RNA on bamboo in the U.S. Plant Disease, 79(12).	1. Mosaic and yellowish streak symptoms observed on Bambusa beecheyana in California were established to have been caused by bamboo mosaic potexvirus and associated satellite RNA. This is claimed to be the first report of the virus in the USA.
4.07	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (12 March 2014). 2. American Bamboo Society. Bamboo Species List. ed. Chris Stapleton. Accessed: 19 March 2014. 3. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Economic importance: ornamental, human food. 2. Edible shoots are in much demand. 3. Commonly cultivated in S Guangdong for its slightly bitter shoots.
4.08	1. Bernard N. Kigomo (2007). Guidelines for Growing Bamboo. KEFRI Guideline Series: No. 4. Kenya Forestry Research Institute; Nairobi, Kenya KEFRI Guidelines Series: No. 4 – April 2007 Kenya Forestry Research Institute Printed by: Downtown Printing.	1. Fire is a major hazard to a bamboo plantation especially during the dry season and in drier areas. To safeguard the area, firebreaks should be established. A 10 m wide fire-line is enough to stop fire from spreading into the plantation. In some species, the amount of bamboo litter on the ground is too thick. During the dry seasons, this needs to be reduced by collecting it and thus improving the degree of success in fire control.
4.09	1. American Bamboo Society. Bamboo Species List. Accessed: 18 March 2014. http://www.bamboo.org/BambooSourceList/BambooPlants.php?G=All&M=1&Button=Find&U=I&S=1	1. Full sun.
4.10		
4.11	1. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Culms to 16 m, 9–10 cm in diameter.
4.12	1. Ecoplanet Bamboo, Central America. Bamboo Biology - an overview. http://ecoplanetbamboo.net/ Accessed: 26 March 2014.	1. Clumping/Sympodial (pachymorph rhizome system). New culms can only form at the very tip of the rhizome. It is this feature that causes them to curve upwards and exhibit the clumping behavior. An advanced pachymorph system is very compact near the base of the plant, making removal or transplant of the bamboo exceptionally difficult.
5.01	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (12 March 2014).	1. Family: Poaceae.
5.02	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (12 March 2014).	1. Family: Poaceae.
5.03	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (12 March 2014).	1. Family: Poaceae.
5.04	1. Ecoplanet Bamboo, Central America. Bamboo Biology - an overview. http://ecoplanetbamboo.net/ Accessed: 26 March 2014.	1. Clumping/Sympodial (pachymorph rhizome system). Rhizomes are generally short and thick in appearance. They curve upwards in close proximity to the domain plant. At the nodes, new rhizomes or roots can be produced.
6.01		No evidence found.
6.02		No evidence found.

6.03	1. John CK et al. 1994. Selection - A valuable method for bamboo improvement. Current science (Bangalore), 66(11): 822-824.	1. The peculiar flowering behaviour in bamboos make genetic improvement by hybridizations very difficult. The flowering and seeding at long intervals (7-120 years) render the overlapping of flowering in more than one species, in the same locality very difficult to obtain, making attempts at hybridizations impossible.
6.04		No evidence found.
6.05	1. Shor, B., Southern California Chapter. From Flowers to Seedlings. American Bamboo Society. Accessed: 18 March 2014. http://www.bamboo.org/GeneralInfoPages/FromFlowersToSeedlings.html	1. Most bamboos are wind-pollinated. Insects may be involved with some species.
6.06		No evidence found.
6.07		No evidence found.
7.01	1. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Caryopsis unknown.
7.02	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (12 March 2014). 2. American Bamboo Society. Bamboo Species List. ed. Chris Stapleton. Accessed: 19 March 2014. 3. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Economic importance: ornamental, human food. 2. Edible shoots are in much demand. 3. Commonly cultivated in S Guangdong for its slightly bitter shoots.
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7.05	1. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Caryopsis unknown.
7.06	1. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Caryopsis unknown.
7.07	1. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Caryopsis unknown.
7.08	1. A Checklist for the South China Botanical Garden. Flora of China. http://www.efloras.org . Accessed: 18 March 2014.	1. Caryopsis unknown.
8.01		No evidence found.
8.02		No evidence found.
8.03		No evidence found.
8.04		No evidence found.
8.05		No evidence found.