	Attalea speciosa [syn=Orbignya barbosiana, O. huebneri, O. martiana, O. oleifera, O. phalerata, O. speciosa] (Babassu, Babassu palm)	**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 US 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 11-60 inches.	y	1
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	?	
3.03	Weed of agriculture	?	
3.04	Environmental weed	?	
3.05	Congeneric weed		
4.01	Produces spines, thorns or burrs	n	0
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		
4.10	Grows on any soil order representing >5% cover in the US.	?	
4.11	Climbing or smothering growth habit		
4.12	Forms dense thickets	?	
5.01	Aquatic	n	0
5.02	Grass	n	0
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		
6.03	Hybridizes naturally		
6.04	Self-compatible or apomictic	?	
6.05	Requires specialist pollinators		
6.06	Reproduction by vegetative propagation		
6.07	Minimum generative time (years)	15	-1
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n	-1
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	n	-1
7.07	Propagules dispersed by other animals (externally)	n	-1
7.08	Propagules dispersed by other animals (internally)	y	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 the contiguous US and Alaska		
	Total Score	**-2**	
	Implemented Pacific Second Screening	**No**	
	Risk Assessment Results	**Accept**	
	Completed 1/6/2014		

	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%20lgnd.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 (16 January 2013). 3. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	No computer analysis was performed. 1. Global hardiness zone: 11-13; equivalent to USDA Hardiness zones 10a-11b (coastal central and south zones of Florida). 2. Native to South America: Boliva (Beni, Pando); Brazil (Acre, Amazonas, Bahia, Maranhao, Minas Gerais, Para, Rondonia, Tocantins), Guyana; Suriname. 3. Native to Brazil, Guyana, Mexico, Peru; found in rainforest regions throughout its distribution range.
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). 2. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Distribution in the native range occurs in at least 3 climatic groups (Af, Am, Aw, [BSh?]). 2. Found in rainforest regions throughout its distribution range; altitude 0-500 m.
2.04	1. World Climate Maps. http://www.climate-charts.com/World-Climate-Maps.html. Accessed 04 December 2013. 2. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Native areas: 975 mm-2474 mm (38.5"-97.4"). 2. Mean annual rainfall: 400-2500 mm (15.7"-98.4").
2.05		No evidence.
3.01		No evidence.
3.02	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Although it is somewhat slow going, taking 15 to 20 years to mature, once established in an area it is an extremely aggressive component of the ecosystem and could be introduced into many degraded sites.
3.03	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Although it is somewhat slow going, taking 15 to 20 years to mature, once established in an area it is an extremely aggressive component of the ecosystem and could be introduced into many degraded sites.
3.04	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Although it is somewhat slow going, taking 15 to 20 years to mature, once established in an area it is an extremely aggressive component of the ecosystem and could be introduced into many degraded sites.
3.05		
4.01		These structures are not included in the description of this species.

4.02	1. Gehring, C. et al. "Allelopathic Effects of the Babassu Palm on Crops, Pasture-Grasses and Key Soil Fungi " (poster). Tropentag International Research on Food Security, Natural Resources Management and Rural Development. Resilience of agricultural systems against crises, 2012, Georg-August-Universität Göttingen. Ed. Eric Tielkes. Göttingen: Cuvillier Verlag, 2012. Online.	1. It is concluded that babassu leaves and roots exert strong allelopathic effects on a wide range of indicator plants and soil fungi. Relationships are, however, extremely complex, with differences between indicator-species, growth-stages, concentration and type (aqueous/alcoholic) of extractant. Both positive and negative allelopathic impacts of babassu are to be expected. We are at the beginning of an understanding of babassu above- and belowground interactions.
4.03	1. USDA, NRCS. 2013. The PLANTS Database (http://plants.usda.gov, 16 December 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA.	1. Family: Arecaceae (not a parasitic family).
4.04	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Fodder: Tender leaves around the bud are used as forage. The fruit mesocarp is a source of starch for animal feeds. After the oil is extracted, the cakes are used as animal feeds.
4.05	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Fodder: Tender leaves around the bud are used as forage. The fruit mesocarp is a source of starch for animal feeds. After the oil is extracted, the cakes are used as animal feeds.
4.06	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. The larvae of the bruchid beetle (Pachymerus nuclearum and Carybruchus lipismatus). This beetle is a natural predator of the fruit and its larvae enter the fruit through its germination pores, usually after abcission.
4.07	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Pulp and seed are eaten fresh; extracted oil from nut is similar to coconut or palm oil (refined oil is used for margarine production and general food production); grounded mesocarp (pulp) is a source of starch for producing alcohol; terminal bud is edible; the crude oil is suitable for soap production and detergents.
4.08		
4.09		
4.10	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. It is suited in deep well drained fertile soils.
4.11	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Palm tree, with a straight, single and cylindrical trunk to 30 m high and a diameter of 20-45 cm.
4.12		1. Forming high-density stands.
5.01	1. USDA, NRCS. 2013. The PLANTS Database (http://plants.usda.gov, 16 December 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA. 2. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Family: Arecaceae. 2. Palm tree, with a straight, single and cylindrical trunk to 30 m high and a diameter of 20-45 cm.

5.02	1. USDA, NRCS. 2013. The PLANTS Database (http://plants.usda.gov, 16 December 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA. 2. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Family: Arecaceae. 2. Palm tree, with a straight, single and cylindrical trunk to 30 m high and a diameter of 20-45 cm.
5.03	1. USDA, NRCS. 2013. The PLANTS Database (http://plants.usda.gov, 16 December 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA. 2. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Family: Arecaceae. 2. Palm tree, with a straight, single and cylindrical trunk to 30 m high and a diameter of 20-45 cm.
5.04		
6.01		
6.02		
6.03		
6.04	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. An androdioecious (hermaphrodite and male flowers on separate plants) palm tree.
6.05		
6.06		
6.07	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. 15 to 20 years to mature. In a primary forest, it requires seven years to produce the first compound leaf and 42 years for other leaves. When cultivated without shade and in more favorable conditions, the plants take 10 years to mature.
7.01		
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 (16 January 2013).	1. Economic importance: human food (oil/fat, vegetable); fuels (petroleum substitute/alcohol).
7.03	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Fruits look like small coconuts elliptic to oblong; 6-12 x 4-10 cm, 40-440 g in dry weight.
7.04	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Fruits look like small coconuts elliptic to oblong; 6-12 x 4-10 cm, 40-440 g in dry weight.
7.05		
7.06	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. Fruits look like small coconuts elliptic to oblong; 6-12 x 4-10 cm, 40-440 g in dry weight.

7.07	1. Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp).	1. (Fruits do not possess the features that would attach externally.) Fruits look like small coconuts elliptic to oblong; 6-12 x 4-10 cm, 40-440 g in dry weight.
7.08	1. Kew Plants. http://www.kew.org/plants/palms/babassu.html. Accessed 16 December 2013.	1. Agoutis and other rodents eat the starchy outer layer of the fruit and are responsible for short-range dispersal of the seeds.
8.01		
8.02		
8.03		
8.04		
8.05		