

Family: *Arecaceae*

Taxon: *Attalea cohune*

Synonym: *Orbignya cohune* (Mart.) Dahlgren ex Standl. **Common Name:** cohune palm

Questionnaire Status:	current 20090513 Assessor Approved	Assessor: Data Entry Person:	Patti Clifford Patti Clifford	Designation: L WRA Score 0
101	Is the species highly domesticated?		y=-3, n=0	n
102	Has the species become naturalized where grown?		y=1, n=-1	
103	Does the species have weedy races?		y=1, n=-1	
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"		(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
202	Quality of climate match data		(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
203	Broad climate suitability (environmental versatility)		y=1, n=0	n
204	Native or naturalized in regions with tropical or subtropical climates		y=1, n=0	y
205	Does the species have a history of repeated introductions outside its natural range?		y=-2, ?=-1, n=0	y
301	Naturalized beyond native range		y = 1*multiplier (see Appendix 2), n= question 205	n
302	Garden/amenity/disturbance weed		n=0, y = 1*multiplier (see Appendix 2)	n
303	Agricultural/forestry/horticultural weed		n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental weed		n=0, y = 2*multiplier (see Appendix 2)	n
305	Congeneric weed		n=0, y = 1*multiplier (see Appendix 2)	n
401	Produces spines, thorns or burrs		y=1, n=0	n
402	Allelopathic		y=1, n=0	
403	Parasitic		y=1, n=0	n
404	Unpalatable to grazing animals		y=1, n=-1	
405	Toxic to animals		y=1, n=0	n
406	Host for recognized pests and pathogens		y=1, n=0	
407	Causes allergies or is otherwise toxic to humans		y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle		y=1, n=0	n
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)		y=1, n=0	y
411	Climbing or smothering growth habit		y=1, n=0	n

412	Forms dense thickets	y=1, n=0	n
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	n
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	>3
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	
706	Propagules bird dispersed	y=1, n=-1	y
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	y
801	Prolific seed production (>1000/m2)	y=1, n=-1	y
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	n
803	Well controlled by herbicides	y=-1, n=1	
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y=-1, n=1	

Designation: L

WRA Score 0

Supporting Data:

101	2012. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence of domestication that reduces invasive traits.
102	2012. WRA Specialist. Personal Communication.	[Has the species become naturalized where grown? NA]
103	2012. WRA Specialist. Personal Communication.	[Does the species have weedy races? NA]
201	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"? 2 - High] Native distribution: Mexico - Campeche, Chiapas, Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca, Quintana Roo, Tabasco; Belize; El Salvador; Guatemala; Honduras.
202	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data? 2- High] Native distribution: Mexico - Campeche, Chiapas, Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca, Quintana Roo, Tabasco; Belize; El Salvador; Guatemala; Honduras.
203	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Broad climate suitability (environmental versatility)? No] "The cohune palm occurs from sea level to 600 m on a variety of soil types from southern Mexico to Belize. It has a wide tolerance of soil pH.
203	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Broad climate suitability (environmental versatility)? No] Mature and established plants have been reported to tolerate temperatures down to -4 to -5°C, losing 10%-100% of their foliage but recovering during warmer months. Altitude: Sea-level - 500m.
204	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Native or naturalized in regions with tropical or subtropical climates? Yes] Native distribution: Mexico - Campeche, Chiapas, Colima, Guerrero, Jalisco, Michoacan, Nayarit, Oaxaca, Quintana Roo, Tabasco; Belize; El Salvador; Guatemala; Honduras.
205	1995. McSweeney, K.. <i>The cohune palm (Orbignya cohune, Arecaceae) in Belize: a survey of uses</i> . <i>Economic Botany</i> . 49: 162-171.	[Does the species have a history of repeated introductions outside its natural range? Yes] "One palm cultivator in the Cayo district has sent viable cohune seed around the world for cultivation by palm enthusiasts."
205	2000. McLendon, C.. <i>Floridata - Attalea cohune</i> . <i>Floridata</i> , http://www.floridata.com/ref/a/atta_coh.cfm	[Does the species have a history of repeated introductions outside its natural range? Yes] The adult cohune palm is considered one of nature's most majestic and dramatic palms and thus is quite popular with collectors.
301	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Naturalized beyond native range? No] No evidence.
302	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Garden/amenity/disturbance weed? No] No evidence.
303	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Agricultural/forestry/horticultural weed? No] No evidence.
304	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Environmental weed? No] No evidence.
305	2007. Randall, R.P.. Global Compendium of Weeds - Index. http://www.hear.org/gcw/	[Congeneric weed? No] No evidence of an invasive species in this genera. Although some species are considered weeds [no impact or control noted].
401	2008. Janick, J./Paull, R.E.. <i>The encyclopedia of fruit & nuts</i> . Cabi Publishing, Wallingford, UK	[Produces spines, thorns or burrs? No] "The cohune palm grows 16-20 m tall, producing a trunk up to 30 cm in diameter that is conspicuously ringed with old leaf scars after the persistent old leaf bases finally fall. The 15-30 leaves are as much as 10 m long and fairly erect, arching ultimately at their tip. Each leaf bears 30-50 leaflet pairs, each up to 45 cm long, rigid and dark green."
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	2010. Nickrent, D.. <i>The parasitic plant connection</i> . Department of Plant Biology, Southern Illinois University, Carbondale http://www.parasiticplants.siu.edu/index.html	[Parasitic? No] <i>Arecaceae</i> .
404	2001. Hanelt, P. (ed.). <i>Mansfeld's encyclopedia of agricultural and horticultural crops: (except ornamentals). Angiospermae - monocotyledones: orchidaceae - pandanaceae</i> , Volume 5. Springer-Verlag, Berlin, Heidelberg, New York	[Unpalatable to grazing animals?] The seeds are used as fodder. [not a significant reduction in aboveground biomass]

404	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Unpalatable to grazing animals?] The fruits are used as livestock feed. The bark can be fed to pigs and chickens.
405	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Toxic to animals? No] The fruits are used as livestock feed. The bark can be fed to pigs and chickens.
406	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Host for recognized pests and pathogens?] Fruit are often parasitized by the larvae of bruchid beetles. Fungal pathogens that have been reported include <i>Achorella attaleae</i> , <i>Gloeosporium palmigenum</i> and <i>Poria ravenale</i> .
406	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Host for recognized pests and pathogens?] Considered very disease and pest resistant.
407	1995. McSweeney, K.. The cohune palm (<i>Orbignya cohune</i> , <i>Arecaceae</i>) in Belize: a survey of uses. <i>Economic Botany</i> . 49: 162-171.	[Causes allergies or is otherwise toxic to humans? No] In Belize, <i>Attalea cohune</i> is used for a fly brush, palmito (food) dried inflorescence, thatch for walls, fans, field cover, trellis, and oil.
407	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Causes allergies or is otherwise toxic to humans? No] "The palm grows wild all over the rainforest in Belize. Their giant leaves are used for thatching houses or building shelters. The seeds are used to produce oil or are edible after collecting them from the ground. The most delicious part which is providing a lot of food is the heart of the palm found at the base of the leaves. The bark around that part is fed to pigs and chicken and the Mayan people even used to make palm wine from the heart left on the base of the tree." The most important tree in Mayan life.
408	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Creates a fire hazard in natural ecosystems? No] Not fire resistant.
409	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Is a shade tolerant plant at some stage of its life cycle? No] Full sun.
409	2012. Palmpedia. <i>Attalea cohune</i> . Palmpedia, http://www.palmpedia.net/wiki/Attalea_cohune	[Is a shade tolerant plant at some stage of its life cycle? No] Full sun.
410	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] "The cohune palm occurs from sea level to 600 m on a variety of soil types from southern Mexico to Belize. It has a wide tolerance of soil pH.
410	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)?] Moist, sandy soils with good drainage with a soil pH range of 4.5-7.5.
410	2012. Palmpedia. <i>Attalea cohune</i> . Palmpedia, http://www.palmpedia.net/wiki/Attalea_cohune	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)?] Consistently moist fast-draining soil.
411	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Climbing or smothering growth habit? No] Palm.
412	2012. WRA Specialist. Personal Communication.	[Forms dense thickets? No] No evidence of thicket formation.
501	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Aquatic? No] <i>Arecaceae</i> ; terrestrial.
502	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Grass? No] <i>Arecaceae</i> .
503	2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Nitrogen fixing woody plant? No] <i>Arecaceae</i> .

504	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] Palm.
601	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Evidence of substantial reproductive failure in native habitat? No] Rare in southern Mexico, not threatened elsewhere.
602	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Produces viable seed? Yes] Propagate by seed.
603	2012. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2012. WRA Specialist. Personal Communication.	[Self-compatible or apomictic? Unknown]
605	1900. Trinidad Department of Agriculture, Trinidad Botanical Departmen. Trinidad Botanical Department Bulletin 185 of miscellaneous information. U.S. Government Printing Office, http://books.google.com/books?id=vuFHAAAAYA&dq=attalea+cohune+%2B+%22years	[Requires specialist pollinators? No] Bee pollinated.
606	2012. WRA Specialist. Personal Communication.	[Reproduction by vegetative fragmentation? Unknown]
607	1900. Trinidad Department of Agriculture, Trinidad Botanical Departmen. Trinidad Botanical Department Bulletin 185 of miscellaneous information. U.S. Government Printing Office, http://books.google.com/books?id=vuFHAAAAYA&dq=attalea+cohune+%2B+%22years	[Minimum generative time (years)? 4+] "Two specimens of <i>Attalea cohune</i> were planted in 1888 commenced to flower in 1901, and as they were a year old when planted, it follows that flowers were produced at 14 years of age.
701	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No] The fruit is brown to brownish yellow, oval-elliptical in shape, 4-8 cm long and 3-4.5 cm in diameter.
702	1995. McSweeney, K.. <i>The cohune palm (Orbignya cohune, Arecaceae) in Belize: a survey of uses. Economic Botany.</i> 49: 162-171.	[Propagules dispersed intentionally by people? Yes] "One palm cultivator in the Cayo district has sent viable cohune seed around the world for cultivation by palm enthusiasts."
702	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Propagules dispersed intentionally by people? Yes] Popular ornamental.
703	2012. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No] No evidence.
704	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Propagules adapted to wind dispersal? No] The fruit is brown to brownish yellow, oval-elliptical in shape, 4-8 cm long and 3-4.5 cm in diameter.
705	2012. WRA Specialist. Personal Communication.	[Propagules water dispersed? Unknown]
706	2004. Rinker, H.B.. <i>Forest canopies.</i> Academic Press, http://books.google.com/books?hl=en&lr=&id=F47110uJv-8C&oi=fnd&pg=PA73&dq=attalea+cohune+%2B+%22pollination%22&ots=GUnD6Lp9TH&sig=22ZqJ5qmdgfL1RmR_y3it_5dBd4#v=onepage&q=attalea&f=false	[Propagules bird dispersed? Yes] Scarlet macaws feed on the Seeds of <i>Attalea cohune</i> and are known to carry them away from the parent tree, the seeds then germinate, grow and thrive. Many tropical mammals eat the fruits of the Cohune pal. And this dispersal mechanism plays an important role in maintaining a healthy forest landscape.
706	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Propagules bird dispersed?] The fruit is brown to brownish yellow, oval-elliptical in shape, 4-8 cm long and 3-4.5 cm in diameter.

707	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Propagules dispersed by other animals (externally)? No] The fruit is brown to brownish yellow, oval-elliptical in shape, 4-8 cm long and 3-4.5 cm in diameter. [no means of external attachment]
708	2004. Rinker, H.B.. Forest canopies. Academic Press, http://books.google.com/books?hl=en&lr=&id=F47110uJv-8C&oi=fnd&pg=PA73&dq=attalea+cohune+%2B+%22pollination%22&ots=GUnD6Lp9TH&sig=22ZqJ5qmdgfL1RmR_y3it_5dBd4#v=onepage&q=attalea&f=false	[Propagules survive passage through the gut? Yes] Scarlet macaws feed on the seeds of <i>Attalea cohune</i> and are known to carry them away from the parent tree, the seeds then germinate, grow and thrive. Many tropical mammals eat the fruits of the Cohune palm. And this dispersal mechanism plays an important role in maintaining a healthy forest landscape.
801	1995. McSweeney, K.. The cohune palm (<i>Orbignya cohune</i> , Arecaceae) in Belize: a survey of uses. <i>Economic Botany</i> . 49: 162-171.	[Prolific seed production (>1000/m ²)? Yes] A single mature cohune can produce from one to three panicles of 150-800 hard, ovoid drupes up to 7 cm long; the number of kernels per fruit varies from one to five.
802	2008. Janick, J./Paul, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Evidence that a persistent propagule bank is formed (>1 yr)? No] Seeds remain viable for 6 months.
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown]
804	1995. McSweeney, K.. The cohune palm (<i>Orbignya cohune</i> , Arecaceae) in Belize: a survey of uses. <i>Economic Botany</i> . 49: 162-171.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Because the palm's growing tip remains underground for seven to ten years, young, preexisting cohunes, whose above-ground portion may be entirely cut or burned away, will put up new leaves a few weeks after a clearing event.
804	2012. Food and Agriculture Organization of the United Nation. <i>Attalea cohune</i> - Ecocrop. http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=3560	[Tolerates, or benefits from, mutilation, cultivation, or fire?] Not fire resistant.
805	2012. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

Risk Factor Summary

Low Risk Traits:

- Not a weed elsewhere
- Limited environmental versatility
- Not toxic
- Not shade tolerant
- Slow growing
- No seed bank

High Risk Traits:

- Native to tropical climates
- Tolerates wide range of soil conditions
- Bird and animal dispersed
- Prolific seed production
- Tolerates mutilation (can recover from heavy pruning)