Taxon: Syagrus coronata (Mart.) Becc.

Family: Arecaceae

Common Name(s): aricuri palm
licuri palm
ouricury palm

Synonym(s): Arecastrum romanzoffianum (Cham.) Becc. var. ensifolium (Drude) Becc.
Cocos coronata Mart.
Glaziova treubiana Becc.
Syagrus coronata (Mart.) Becc. var. coronata
Syagrus coronata (Mart.) Becc. var. todari Becc.
Syagrus quinquefaria (Barb. Rodr.) Becc.
Syagrus treubiana (Becc.) Becc.

Assessor: Chuck Chimera **Status:** Assessor Approved **End Date:** 20 Jun 2023

WRA Score: 3.0 **Designation:** L **Rating:** Low Risk

Keywords: Solitary Palm, Edible Fruit, Self-Fertile, Slow Growing, Bird-Dispersed

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y = -3, n = 0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
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	y = 1*multiplier (see Appendix 2), n = 0	n
303	Agricultural/forestry/horticultural weed	y = 2*multiplier (see Appendix 2), n = 0	n
304	Environmental weed	y = 2*multiplier (see Appendix 2), n = 0	n
305	Congeneric weed	y = 1*multiplier (see Appendix 2), n = 0	y
401	Produces spines, thorns or burrs	y = 1, n = 0	n
402	Allelopathic	y = 1, n = 0	n
403	Parasitic	y = 1, n = 0	n
404	Unpalatable to grazing animals	y = 1, n = -1	n
405	Toxic to animals	y = 1, n = 0	n
406	Host for recognized pests and pathogens		

Qsn #	Question	Answer Option	Answer
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	y
604	Self-compatible or apomictic	y = 1, n = -1	y
605	Requires specialist pollinators	y = -1, n = 0	n
606	Reproduction by vegetative fragmentation	y = 1, n = -1	n
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	n
706	Propagules bird dispersed	y = 1, n = -1	y
707	Propagules dispersed by other animals (externally)	y = 1, n = -1	y
708	Propagules survive passage through the gut	y = 1, n = -1	y
801	Prolific seed production (>1000/m2)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides		
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)		

Supporting Data:

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[No evidence of domestication] "Uses. This is an extremely useful palm. The palm heart, sweet-tasting mesocarp, and seeds are edible; ground-up leaves are fed to cattle; ground-up seeds are fed to fowl; oil from the seeds is used for making soaps; and wax from the undersurface of leaflets is used for making torches and was formerly an item of trade."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2023). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2023). Personal Communication	NA

201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	High
	Source(s)	Notes
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	"Range and habitat. Eastern Brazil, east of the Rio Sao Francisco (Alagoas, Bahia, northern Minas Gerais, southern Pernambuco, Sergipe);"

202	Quality of climate match data	High
	Source(s)	Notes
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	"Range and habitat. Eastern Brazil, east of the Rio Sao Francisco (Alagoas, Bahia, northern Minas Gerais, southern Pernambuco, Sergipe);"

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Syagrus coronata is one of the few palms that can survive the aridness of Bahia's caatinga vegetation. It does even better in areas of transition between the caatinga and the campo rupestre, caatinga and more mesic forests etc."
	Missouri Botanical Garden. (2023). Syagrus coronata. https://www.missouribotanicalgarden.org. [Accessed 19 Jun 2023]	"Zone: 9 to 12"

204	Native or naturalized in regions with tropical or subtropical climates	y

Qsn #	Question	Answer
	Source(s)	**Notes**
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2023). Plants of Hawai'i. http://www.plantsofhawaii.org.. [Accessed 17 Jun 2023]	"Only found in cultivation"
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	"Range and habitat. Eastern Brazil, east of the Rio Sao Francisco (Alagoas, Bahia, northern Minas Gerais, southern Pernambuco, Sergipe);"

205	**Does the species have a history of repeated introductions outside its natural range?**	**y**
	Source(s)	**Notes**
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2023). Plants of Hawai'i. http://www.plantsofhawaii.org.. [Accessed 19 Jun 2023]	"Only found in cultivation "
	GBIF Secretariat (2023). Syagrus coronata (Mart.) Becc. GBIF Backbone Taxonomy. Checklist dataset. https://www.gbif.org/species/5293875. [Accessed]	Distribution map displays introductions to the Hawaiian Islands, India, and outside its native range within Brazil
	WRA Specialist. (2023). Personal Communication	Outside its native range, Syagrus coronata has been planted in various regions with suitable climates and conditions. These plantings are often done for ornamental purposes or to enhance local landscapes. Other parts of Brazil: The licuri palm is commonly planted in other regions of Brazil, particularly in urban and suburban areas, parks, and gardens. It is appreciated for its aesthetic value and ability to adapt to different growing conditions. South Florida, United States: Syagrus coronata has been introduced and planted in certain areas of South Florida due to its resemblance to the native Florida royal palm (Roystonea regia). It has been used in landscaping projects to provide a similar visual appeal. Other tropical and subtropical regions: In regions with similar climates and suitable growing conditions, Syagrus coronata may have been planted for decorative purposes. These regions could include parts of the Caribbean, Central America, and other countries with tropical or subtropical climates.

301	**Naturalized beyond native range**	**n**
	Source(s)	**Notes**
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2023). Plants of Hawai'i. http://www.plantsofhawaii.org.. [Accessed 19 Jun 2023]	"Only found in cultivation "
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	[No evidence] "Found in Brazil, mostly east of the Rio São Francisco, most of eastern and central Bahia, northern Minas Gerais to southern Pernambuco, including Sergipe and Alagoas. In northern Bahia, populations of this species are distributed to the coastline; but below Salvador, Bahia, the populations stop in the drier transitional areas and do not invade the wetter coastal rain forest to the east. In addition, none have been found west of the Rio São Francisco, nor south of the Rio Jequitinhonha."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2023). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 19 Jun 2023]	No evidence

302	**Garden/amenity/disturbance weed**	**n**

Qsn #	Question	Answer
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2023). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 19 Jun 2023]	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2023). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 19 Jun 2023]	No evidence

304	Environmental weed	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	CABI. (2023). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 19 Jun 2023]	No evidence

305	Congeneric weed	y
	Source(s)	**Notes**
	NSW WeedWise. (2023). Cocos palm (Syagrus romanzoffiana). https://weeds.dpi.nsw.gov.au/Weeds/Cocospalm. [Accessed 19 Jun 2023]	"Cocos palms grow quickly and produce lots of seeds. They invade eucalypt forests, rainforests and along stream banks and waterways where they compete with native plants."
	CABI. (2023). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 19 Jun 2023]	No evidence

401	Produces spines, thorns or burrs	n
	Source(s)	**Notes**
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Moderate-sized, solitary, unarmed, palms. Stem (1.5-)3-12 m × (15-)20-25 cm, angular in appearance, light to dark gray, caulescent, erect, often concealed by persistent leaf bases, ultimately replaced by distinctive closely-spaced leaf scars, arranged in rows, internodes nearly absent. Leaves (10-)15-28(-30), arranged in five ranks or rows, usually spiraled to the left or to the right but rarely in five perfectly vertical rows, spreading; sheathing leaf base 102–160 cm long, usually persisting just beneath the crown, rarely persisting to the base, with wide woody flattened fibers;"

Qsn #	Question	Answer
402	Allelopathic	n
	Source(s)	Notes
	Lima, V. V. F. d., Scariot, A., & Sevilha, A. C. (2020). Predicting the distribution of Syagrus coronata palm: challenges for the conservation of an important resource in northeastern Brazil. Flora, 269, 151607	[No evidence] "This palm acts as a nurse plant, facilitating the growth and development of several species of araceae, cactaceae, bromeliads and orchids (Castro et al., 2016)."

403	Parasitic	n
	Source(s)	Notes
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	"Field characters. Stems solitary, 3-12 m tall and 20-25 cm diameter, covered along the upper half or more with persistent petiole remains arranged in 5 slightly twisted vertical rows."

404	Unpalatable to grazing animals	n
	Source(s)	Notes
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	"This is an extremely useful palm. The palm heart, sweet-tasting mesocarp, and seeds are edible; ground-up leaves are fed to cattle; ground-up seeds are fed to fowl"

405	Toxic to animals	n
	Source(s)	Notes
	Quattrocchi, U. (2017). CRC World Dictionary of Palms: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	[No evidence] "Human food. Slightly bitter edible starch from the pith. Edible fruits, fleshy mesocarp, the pulp is food for both humans and animals; used as maize substitute for poultry feeding, also licuri cake in the diet of goats."
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[No evidence] "This is an extremely useful palm. The palm heart, sweet-tasting mesocarp, and seeds are edible; ground-up leaves are fed to cattle; ground-up seeds are fed to fowl; oil from the seeds is used for making soaps; and wax from the undersurface of leaflets is used for making torches and was formerly an item of trade."

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	Howard, F.W., Moore, D., Giblin-Davis, R.M. & Abad, R.G. (2001). Insects on Palms. CABI, Wallingford, UK	"Coraliomela brunnea (Fig. 2.19) is one of the eight most important arthropod pests of coconut palm in Brazil. It is distributed from Argentina and Paraguay to throughout most of Brazil." ... "Host plants in addition to coconut palm include Allagoptera arenaria, Polyandrococos caudescens, Syagrus coronata, S. romanzoffiana, Syagrus schizophylla and Syagrus vagans, all native to Brazil (Bondar, 1940; Ferreira et al., 1994). Dense populations may destroy the youngest fronds of young palms and thus undoubtedly retard their growth. Serious attacks of this beetle have not been observed on mature palms." ... "Delocrania cossyphoides, a tortoise beetle, attacks African oil palm and coconut palm in tropical South America to Panama." ... "Host plants additional to the above include Attalea funifera, P. caudescens and S. coronata (Lepesme, 1947)." ... "Two other genera in the Cholinae are associated with palms; (i) Ameris ynca (syn. Amerrhinus ynca), which attacks the inflorescences and petioles of coconut palm, Copernicia cerifera (the economically important carnaúba wax palm), Syagrus coronata, Syagrus picrophylla, D. candescens and other species of palms and is distributed in Brazil, Peru, Argentina, Paraguay and Bolivia (Bondar, 1940; Vaurie, 1975)"

Qsn #	Question	Answer
	Missouri Botanical Garden. (2023). Syagrus coronata. https://www.missouribotanicalgarden.org. [Accessed 19 Jun 2023]	"Reportedly susceptible to toganoderma butt rot. No other pest or disease issues of note."

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	**Notes**
	Quattrocchi, U. (2017). CRC World Dictionary of Palms: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	[No evidence] "Human food. Slightly bitter edible starch from the pith. Edible fruits, fleshy mesocarp, the pulp is food for both humans and animals; used as maize substitute for poultry feeding, also licuri cake in the diet of goats."
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[No evidence] "This is an extremely useful palm. The palm heart, sweet-tasting mesocarp, and seeds are edible; ground-up leaves are fed to cattle; ground-up seeds are fed to fowl; oil from the seeds is used for making soaps; and wax from the undersurface of leaflets is used for making torches and was formerly an item of trade."

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	**Notes**
	Noblick, L., Wintergerst, S., Noblick, D., & Lima, J. T. (2020). Syagrus coronata (Arecaceae) phenology and the impact of fire on survival and reproduction of the licuri palm. Sitientibus série Ciências Biológicas, 20: 10.13102/scb4908	[Occurs in habitat subject to anthropogenic fires, and tolerates fire, but not demonstrated to increase fire risk] "During our phenological study of Syagrus coronata, unplanned and unexpected wildfires burned through portions of the study population in Bahia, and many of the palms under observation were damaged. Fire is a natural phenomenon in many tropical ecosystems around the world (Morellato et al. 2016). Wildfires can have natural or anthropogenic origins. Natural fires are rare in the caatinga vegetation (Sampaio 1995; Althoff et al. 2016), but anthropogenic wild fires are common due to slash and burn itinerate agriculture, cattle production on native pasture and firewood production (Sampaio 2003)."

409	Is a shade tolerant plant at some stage of its life cycle	n
	Source(s)	**Notes**
	Lima, V. V. F. d., Scariot, A., & Sevilha, A. C. (2020). Predicting the distribution of Syagrus coronata palm: challenges for the conservation of an important resource in northeastern Brazil. Flora, 269, 151607	"Although S. coronata is a heliophyte species, growing preferentially in open environments, phylogeographic analyzes indicate that there is a trend to expand its geographical distribution towards the Atlantic Forest domains, a more stable climatic region with higher rainfall (Souza et al., 2018)." [Heliophytes are the plants that require high sunlight intensity to grow]
	Plants for a Future. (2023). Syagrus coronata. https://pfaf.org/user/Plant.aspx?LatinName=Syagrus+coronata. [Accessed 20 Jun 2023]	"It cannot grow in the shade."
	Palmpedia. (2023). Syagrus coronata. https://www.palmpedia.net/wiki/Syagrus_coronata. [Accessed 20 Jun 2023]	"Seed - best sown as soon as it is ripe in a deeply shaded position in a nursery seedbed."
	Missouri Botanical Garden. (2023). Syagrus coronata. https://www.missouribotanicalgarden.org. [Accessed 20 Jun 2023]	"Sun: Full sun"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	**Notes**

Qsn #	Question	Answer
	Lima, V. V. F. d., Scariot, A., & Sevilha, A. C. (2020). Predicting the distribution of Syagrus coronata palm: challenges for the conservation of an important resource in northeastern Brazil. Flora, 269, 151607	"For S. coronata, however, edaphic factors do not seem to have much influence on species distribution, found in fertile and deep soils, as well as shallow, sandy, well-drained and low fertility soils" [Apparently not substrate limited]
	Missouri Botanical Garden. (2023). Syagrus coronata. https://www.missouribotanicalgarden.org. [Accessed 20 Jun 2023]	"Tolerant of a wide range of soil types including dry, rocky soils, calcareous soils and clay as long as they are fertile. Intolerant of salty spray."

411	Climbing or smothering growth habit	n
	Source(s)	**Notes**
	Ellison, D. & Ellison, A. (2001). Cultivated Palms of the World. UNSW Press, Sydney, Australia	"Eastern Brazil is the natural habitat of this tall, single-trunk palm with a large crown of feathery leaves. It grows quickly in warm-temperate to tropica1 climates. It has many uses: palm heart is a food; the seeds are edible; and seed oi is use in many ways. Seed is freely available and germinates in 2 to 4 months."

412	Forms dense thickets	n
	Source(s)	**Notes**
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	"It is a very common species; the number of trees in the state of Bahia alone was once estimated as approximately one-half billion (Bondar, 1942)." [Common, but no evidence of dense stands provided]
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	[Common, but no evidence of dense stand formation] "Found in Brazil, mostly east of the Rio São Francisco, most of eastern and central Bahia, northern Minas Gerais to southern Pernambuco, including Sergipe and Alagoas. In northern Bahia, populations of this species are distributed to the coastline; but below Salvador, Bahia, the populations stop in the drier transitional areas and do not invade the wetter coastal rain forest to the east. In addition, none have been found west of the Rio São Francisco, nor south of the Rio Jequitinhonha. Syagrus coronata is one of the few palms that can survive the aridness of Bahia's caatinga vegetation. It does even better in areas of transition between the caatinga and the campo rupestre, caatinga and more mesic forests etc. It is a major component of some of the seasonal semideciduous forests east of the São Francisco. North of Salvador, S. coronata populations extend into the restinga (coastal) vegetation zone."

501	Aquatic	n
	Source(s)	**Notes**
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	[Terrestrial] "very abundant in caatinga and seasonal semideciduous forests, extending also into the restinga and into transitional vegetation between the caatinga and other vegetation types."

502	Grass	n
	Source(s)	**Notes**
	USDA, Agricultural Research Service, National Plant Germplasm System. (2023). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/. [Accessed 19 Jun 2023]	"Family: Arecaceae (alt. Palmae) Subfamily: Arecoideae Tribe: Cocoseae Subtribe: Attaleinae"

503	Nitrogen fixing woody plant	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	USDA, Agricultural Research Service, National Plant Germplasm System. (2023). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/. [Accessed 19 Jun 2023]	"Family: Arecaceae (alt. Palmae) Subfamily: Arecoideae Tribe: Cocoseae Subtribe: Attaleinae"

504	**Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)**	**n**
	Source(s)	**Notes**
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Moderate-sized, solitary, unarmed, palms. Stem (1.5–)3–12 m × (15–)20–25 cm, angular in appearance, light to dark gray, caulescent, erect, often concealed by persistent leaf bases, ultimately replaced by distinctive closely-spaced leaf scars, arranged in rows, internodes nearly absent."

601	**Evidence of substantial reproductive failure in native habitat**	**n**
	Source(s)	**Notes**
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Conservation:—Because of its wide distribution, its ability to grow in areas that are not valuable for agriculture and its tenacity to persist in pastures, this species is not considered threatened. Truck-loads of them are cleared from fields each year to provide traditional annual Christmas decorations along the streets of Feira de Santana, Bahia. Other farmers are planting them to provide food for the native Lear's macaw (Anodorhynchus leari), and also for emergency forage for cattle in times of drought. It is classified as least concern, LC."

602	**Produces viable seed**	**y**
	Source(s)	**Notes**
	Ellison, D. & Ellison, A. (2001). Cultivated Palms of the World. UNSW Press, Sydney, Australia	"Eastern Brazil is the natural habitat of this tall, single-trunk palm with a large crown of feathery leaves. It grows quickly in warm-temperate to tropica1 climates. It has many uses: palm heart is a food; the seeds are edible; and seed oi is use in many ways. Seed is freely available and germinates in 2 to 4 months."
	Palmpedia. (2023). Syagrus coronata. https://www.palmpedia.net/wiki/Syagrus_coronata. [Accessed 19 Jun 2023]	"Seed - best sown as soon as it is ripe in a deeply shaded position in a nursery seedbed. Germination can be very slow and can take 12 months. When the seedlings are 8 - 12 cm tall, pot them up into individual containers. They grow away slowly and can take a year or more before they are ready to plant out. "

603	**Hybridizes naturally**	**y**
	Source(s)	**Notes**
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Syagrus coronata forms hybrids with several other species of Syagrus, including S. vagans, S. microphylla, S. schizophylla, S. botryophora and S. romanzoffiana."

Qsn #	Question	Answer
	Henderson, A., Galeano, G. & Bernal, R. (1995). Field Guide to the Palms of the Americas. Princeton University Press, Princeton, NJ	"Syagrus coronata hybridizes with several co-occurring species (Glassman, 1987; Nob-lick, 1991). At least five hybrids have been recognized (Table 4), most represented by a few trees in any particular area. Syagrus x costae, which grows in cerrado in Pernambuco, is ap-parently the only one forming large stands. It differs from S. coronata in its leaves, which usually are not arranged in rows (although individuals with leaves in five rows are sometimes found), in the softer petiole fibers, and in the short internodes. The only hybrid Syagrus with leaves always in five rows is S. x camposportoana, which differs in its more robust size and in its fruit cavity being irregular instead of smooth."

604	Self-compatible or apomictic	y
	Source(s)	**Notes**
	Rocha, K. M. R. D. (2009). Biologia Reprodutiva da Palmeira Licuri (Syagrus coronata)(Mart.) Becc. (Arecaceae) na Ecorregião do Raso da Catarina, Bahia. MSc Thesis. Universidade Federal Rural de Pernambuco, Pernambuco, Brazil	"Although it is self-compatible, there is a high tendency of cross-pollination, due to the existence of accentuated dichogamy (protandry). The formation of apomitic fruits was not verified."

605	Requires specialist pollinators	n
	Source(s)	**Notes**
	Rocha, K. M. R. D. (2009). Biologia Reprodutiva da Palmeira Licuri (Syagrus coronata)(Mart.) Becc. (Arecaceae) na Ecorregião do Raso da Catarina, Bahia. MSc Thesis. Universidade Federal Rural de Pernambuco, Pernambuco, Brazil	"It was observed that entomophily is responsible for 67,2%, while the wind pollination is responsible for 32,8% of the pollination of flowers. The main floral visitors in the inflorescences and flowers were the bees Trigona spinipes and Apis mellifera (Apideae) and the beetle Microstrates ypsilon (Curculionideae). T. spinipes is the main pollinator agent."

606	Reproduction by vegetative fragmentation	n
	Source(s)	**Notes**
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Moderate-sized, solitary, unarmed, palms." [Solitary. No evidence of vegetative spread]
	Janick, J.& Paull, R.E. (2008). The Encyclopedia of Fruit and Nuts. CABI Publishing, Wallingford, UK	"Solitary-stemmed Syagrus spp. are propagated exclusively by seed"

607	Minimum generative time (years)	>3
	Source(s)	**Notes**
	Pereira, C. J., Silva, J. O., Rodrigues, P. M., & Cavalcanti, A. C. (2021). Consequences of land use changes on seed fate and demography in the palm tree Syagrus coronata (Mart.) Becc.(Arecaceae). Folia Geobotanica, 56(4), 227-239	"On average, S. coronata individuals can start to produce fruits approximately six years after planting and are able to hold about 1,350 fruits in each cluster (Aroucha and Aroucha 2013; Noblick 2017)."
	Missouri Botanical Garden. (2023). Syagrus coronata. https://www.missouribotanicalgarden.org. [Accessed 20 Jun 2023]	"This slow-growing, single-stemmed palm will reach up to 30' tall with a 15' spread."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Fruit ellipsoid, 2.5-3 × 1.7-2 cm, yellow-green, persistent perianth (cupule) beige to brown, 1.5-2 cm wide, 0.8-1 cm deep, ring 1.5-2 mm in height, epicarp yellow-green to orange, fairly smooth, fibrous, sometimes with a little brown tomentum, less than 0.5 mm thick, mesocarp fibrous, mucilaginous, sweet tasting, 1-2(-3) mm thick; endocarp 2.7-3.5 × 1.5-2.0 cm, 2-3.5 mm thick on the sides but 4-6(-8) mm thick at the tip, bony, cavity trivittate, smooth, slightly truncate at base, with no clusters of fibers; seed (13-)15-18(-23) × 9-12 mm, endosperm homogeneous." [No evidence. Fruits and seeds relatively large and lack means of external attachment.]

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	Palmpedia. (2023). Syagrus coronata. https://www.palmpedia.net/wiki/Syagrus_coronata. [Accessed 19 Jun 2023]	"Grown as both an ornamental, and for the oil which can be extracted from its seeds, and the wax from its leaves. Easily grown in a sunny position in the tropics and sub-tropics, even on calcarous soils. A plant for the humid tropics and subtropics, growing naturally in areas of seasonal rainfall. Easily grown in a sunny position. Succeeds even in calcareous soils. Found mainly in very fertile soils, even if they are dry and gravelly. A very slow-growing tree. Plants can flower through most of the year. "
	Gallaher, T.J., Brock, K., Kennedy, B.H., Imada, C.T., Imada, K., & Walvoord, N. (2023). Plants of Hawai'i. http://www.plantsofhawaii.org.. [Accessed 19 Jun 2023]	"Only found in cultivation "

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Fruit ellipsoid, 2.5-3 × 1.7-2 cm, yellow-green, persistent perianth (cupule) beige to brown, 1.5-2 cm wide, 0.8-1 cm deep, ring 1.5-2 mm in height, epicarp yellow-green to orange, fairly smooth, fibrous, sometimes with a little brown tomentum, less than 0.5 mm thick, mesocarp fibrous, mucilaginous, sweet tasting, 1-2(-3) mm thick; endocarp 2.7-3.5 × 1.5-2.0 cm, 2-3.5 mm thick on the sides but 4-6(-8) mm thick at the tip, bony, cavity trivittate, smooth, slightly truncate at base, with no clusters of fibers; seed (13-)15-18(-23) × 9-12 mm, endosperm homogeneous." [No evidence. Fruits and seeds relatively large unlikely to become a seed contaminant.]

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	Noblick, L. R. (2017). A revision of the genus Syagrus (Arecaceae). Phytotaxa, 294(1), 1-262	"Fruit ellipsoid, 2.5-3 × 1.7-2 cm, yellow-green, persistent perianth (cupule) beige to brown, 1.5-2 cm wide, 0.8-1 cm deep, ring 1.5-2 mm in height, epicarp yellow-green to orange, fairly smooth, fibrous, sometimes with a little brown tomentum, less than 0.5 mm thick, mesocarp fibrous, mucilaginous, sweet tasting, 1-2(-3) mm thick; endocarp 2.7-3.5 × 1.5-2.0 cm, 2-3.5 mm thick on the sides but 4-6(-8) mm thick at the tip, bony, cavity trivittate, smooth, slightly truncate at base, with no clusters of fibers; seed (13-)15-18(-23) × 9-12 mm, endosperm homogeneous." [Fleshy-fruited]

705	Propagules water dispersed	n
	Source(s)	Notes

Qsn #	Question	Answer
	Pereira, C. J., Silva, J. O., Rodrigues, P. M., & Cavalcanti, A. C. (2021). Consequences of land use changes on seed fate and demography in the palm tree Syagrus coronata (Mart.) Becc.(Arecaceae). Folia Geobotanica, 56(4), 227-239	[Possibly secondarily dispersed by water, but presumably not an important dispersal method] "In natural habitats, the main primary frugivores/dispersers of this palm are the birds Anodorhynchus leari Bonaparte (Psittacidae) and Penelope sp. (Rocha 2009). The former, known as Lear's macaw, is an endemic and threatened bird from the Caatinga, in which S. coronata fruit is its main food (Andrade et al. 2015). After being primarily dispersed, fruits are consumed by medium and small rodent mammals such as agouti (Dasyprocta sp. div.), Brazilian guinea pig (Cavia sp. div.), rock cavy (Kerodon sp. div..) and common punaré (Thrichomys sp. div.), which may also act as seed dispersers (Aroucha and Aroucha 2013). These small mammals consume both fruits that were previously handled by primary frugivores and intact fruits that fall beneath the parent plant."

706	Propagules bird dispersed	y
	Source(s)	**Notes**
	Ferreira, J. R., Silva, J. O., Morgado, M. V., Macêdo, J. D., & Rodrigues, P. M. (2022). Direct seeding as a recruitment alternative for the threatened tropical palm Syagrus coronata (Mart.) Beccari in Brazilian dry forest. Brazilian Journal of Biology, 82, e264348	"It bears fruit throughout all months of the year (Barbosa et al., 2021; Noblick et al., 2020) and the fruit can be consumed by frugivorous animals both pre- and post-dispersal (Drumond, 2007). The Lear's Macaw, Anodorhynchus leari (Bonaparte 1856) (family Psittacidae), an endangered bird of the Caatinga, is the main primary consumer of licuri fruits (Martins et al., 2015). After dispersal, secondary consumers are rodents, especially Dasyproctidae (such as Dasyprocta and Myoprocta) and Equimyidae (Proechimys) (Guimarães et al., 2005; Jansen et al., 2010; Aroucha and Aroucha, 2013; Fedriani and Delibes, 2013)."
	Rocha, K. M. R. D. (2009). Biologia Reprodutiva da Palmeira Licuri (Syagrus coronata)(Mart.) Becc. (Arecaceae) na Ecorregião do Raso da Catarina, Bahia. MSc Thesis. Universidade Federal Rural de Pernambuco, Pernambuco, Brazil	"The seed dispersal is strictly zoochoric, thus could act as disperser agents the birds Anodorhynchus leari and Penelope sp. and the mammals Dasyprocta sp., Thrichomys sp. and Tayassu sp., as well as, species of cattle from the genus Bos sp., Capra sp. and Ovinis sp. in disturbed areas subject to the pasturage."

707	Propagules dispersed by other animals (externally)	y
	Source(s)	**Notes**
	Ferreira, J. R., Silva, J. O., Morgado, M. V., Macêdo, J. D., & Rodrigues, P. M. (2022). Direct seeding as a recruitment alternative for the threatened tropical palm Syagrus coronata (Mart.) Beccari in Brazilian dry forest. Brazilian Journal of Biology, 82, e264348	[In the Hawaiian Islands, introduced rodents may serve a similar role] "During the consumption of licuri fruits by rodents, it is common to manipulate the fruit, removing the exocarp and mesocarp, which is followed by burying of the seeds (Aroucha and Aroucha, 2013)."

708	Propagules survive passage through the gut	y
	Source(s)	**Notes**
	de Paula, A. S., Sfair, J. C., Trindade, D. P. F., Rito, K. F., Tabarelli, M., & Barros, M. F. (2023). The role of seed rain and soil seed bank in the regeneration of a Caatinga dry forest following slash-and-burn agriculture. Journal of Arid Environments, 211, 104948.	"Goats are eager for fleshy fruits such as those from the palm species Syagrus coronata, with immense seed piles frequently observed across husbandries via goat regurgitation (Sena et al., 2021) as we have seen in our focal landscape (M. Tabarelli unpublished)."

Qsn #	Question	Answer
	Pereira, C. J., Silva, J. O., Rodrigues, P. M., & Cavalcanti, A. C. (2021). Consequences of land use changes on seed fate and demography in the palm tree Syagrus coronata (Mart.) Becc.(Arecaceae). Folia Geobotanica, 56(4), 227-239	"In natural habitats, the main primary frugivores/dispersers of this palm are the birds Anodorhynchus leari Bonaparte (Psittacidae) and Penelope sp. (Rocha 2009). The former, known as Lear's macaw, is an endemic and threatened bird from the Caatinga, in which S. coronata fruit is its main food (Andrade et al. 2015). After being primarily dispersed, fruits are consumed by medium and small rodent mammals such as agouti (Dasyprocta sp. div.), Brazilian guinea pig (Cavia sp. div.), rock cavy (Kerodon sp. div..) and common punaré (Thrichomys sp. div.), which may also act as seed dispersers (Aroucha and Aroucha 2013). These small mammals consume both fruits that were previously handled by primary frugivores and intact fruits that fall beneath the parent plant."

801	Prolific seed production (>1000/m2)	
	Source(s)	Notes
	Pereira, C. J., Silva, J. O., Rodrigues, P. M., & Cavalcanti, A. C. (2021). Consequences of land use changes on seed fate and demography in the palm tree Syagrus coronata (Mart.) Becc.(Arecaceae). Folia Geobotanica, 56(4), 227-239	[Possibly. Produces large numbers of fruit per cluster annually] "On average, S. coronata individuals can start to produce fruits approximately six years after planting and are able to hold about 1,350 fruits in each cluster (Aroucha and Aroucha 2013; Noblick 2017). Although fruiting is more abundant during the rainy season, S. coronata produces fruit throughout the year, playing a key role for fruit-eating vertebrates during the dry season, because it is the main food resource for frugivores during food scarcity (Aroucha and Aroucha 2013; Carvalho et al. 2016)."

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	Palmpedia. (2023). Syagrus coronata. https://www.palmpedia.net/wiki/Syagrus_coronata. [Accessed 20 Jun 2023]	"Germination can be very slow and can take 12 months." [Delayed germination could potentially result in a seed bank that persists for up to one year]
	Ferreira, J. R., Silva, J. O., Morgado, M. V., Macêdo, J. D., & Rodrigues, P. M. (2022). Direct seeding as a recruitment alternative for the threatened tropical palm Syagrus coronata (Mart.) Beccari in Brazilian dry forest. Brazilian Journal of Biology, 82, e264348	"Its seeds are considered recalcitrant, are highly sensitive to desiccation (Rodrigues, 2004), in which the burying is recommended (Pereira et al., 2021)."

803	Well controlled by herbicides	
	Source(s)	Notes
	NSW WeedWise. (2023). Cocos palm (Syagrus romanzoffiana). https://weeds.dpi.nsw.gov.au/Weeds/Cocospalm. [Accessed 20 Jun 2023]	[Herbicide used to control invasive relative] "Glyphosate 360 g/L (Various products) Rate: 10 mL per 1 L water Comments: Spot spray (for smaller plants). For general weed control in Domestic areas (Home gardens), Commercial, Industrial and Public Service areas, Agricultural buildings and other farm situations. Withholding period: Nil. Herbicide group: 9 (previously group M), Inhibition of 5-enolpyruvyl shikimate-3 phosphate synthase (EPSP inhibition) Resistance risk: Moderate"

804	Tolerates, or benefits from, mutilation, cultivation, or fire	y
	Source(s)	Notes

Qsn #	Question	Answer
	Noblick, L., Wintergerst, S., Noblick, D., & Lima, J. T. (2020). Syagrus coronata (Arecaceae) phenology and the impact of fire on survival and reproduction of the licuri palm. Sitientibus série Ciências Biológicas, 20: 10.13102/scb4908	"Abstract - Three years of reproductive phenological data (1983-1986) were analyzed for 331 licuri palms (Syagrus coronata) in a natural population in Feira de Santana, Bahia, Brazil. Using a one-year subset of the data, we also compared the phenologies of 83 individuals burned by wildfires and 248 unburned individuals to examine the impact of fire on S. coronata. Burned specimens showed slightly delayed fruiting compared to non-burned specimens, but a randomization test showed no significant difference between the two groups, suggesting that licuri palms are capable of surviving wildfires with almost no interruption to their phenological cycles."

805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	WRA Specialist. (2023). Personal Communication	Unknown

Summary of Risk Traits:

Syagrus coronata, commonly known as the licuri palm, is native to Brazil. This palm species is characterized by its slender trunk, reaching heights of up to 10-15 meters (33-49 feet). One of the notable features is its edible fruit, known as licuri nuts. The nuts are small and round, about 1-2 centimeters (0.4-0.8 inches) in diameter, and have a hard shell. They are commonly consumed by local communities and wildlife in the region.
There are no reports that it has naturalized or become invasive worldwide. In addition, its slow growth rate, affinity for full sun, and relatively large fruit and seeds that may limit bird dispersal, suggest it poses a low risk of invasiveness in the Hawaiian Islands.

High Risk / Undesirable Traits
• Thrives and could spread in regions with tropical climates
• Other Syagrus species have become invasive.
• Tolerates many soil types (not substrate limited)
• Reproduces by seeds.
• Hybridizes with other Syagrus species.
• Self-fertile, but typically outcrossing.
• Seeds dispersed by birds, other frugivorous animals, secondarily by seed predators, and through intentional cultivation.
• Able to produce large numbers of seeds annually.
• Tolerates fire.

Low Risk Traits
• No reports of naturalization or invasiveness.
• Unarmed (no spines, thorns, or burrs)
• Fruit and foliage are palatable to animals.
• Non-toxic
• Grows best in high light environments (dense shade may inhibit spread).
• Reaches maturity in 6+ years.
• Relatively large fruit and seeds are unlikely to be accidentally dispersed.
• Fruit-eating birds in the Hawaiian Islands may be too small to effectively disperse the relatively large seeds.

Second Screening Results for Trees/tree-like shrubs

(A) Shade tolerant or known to form dense stands? No. Grows in full sun and not reported to form dense stands.
(B) Bird- Or clearly wind- dispersed?> Yes. Bird-dispersed, but effective avian dispersers may be absent in the Hawaiian Islands.
(C) Life cycle <4 years? No. Reaches maturity in 6+ years