

Taxon: <i>Mimosa casta</i> L.	Family: Fabaceae
Common Name(s): graceful mimosa zarza zarza mimosa	Synonym(s): <i>Mimosa dominicana</i> Desv.

Assessor: Chuck Chimera	Status: Assessor Approved	End Date: 3 Dec 2021
WRA Score: 16.0	Designation: H(HPWRA)	Rating: High Risk

Keywords: Spiny Vine, Agricultural Weed, Environmental Weed, Smothering, Externally 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	n
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed		
303	Agricultural/forestry/horticultural weed	n=0, y = 2*multiplier (see Appendix 2)	y
304	Environmental weed	n=0, y = 2*multiplier (see Appendix 2)	y
305	Congeneric weed	n=0, y = 1*multiplier (see Appendix 2)	y
401	Produces spines, thorns or burrs	y=1, n=0	y
402	Allelopathic		
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		
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		
409	Is a shade tolerant plant at some stage of its life cycle		

Qsn #	Question	Answer Option	Answer
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)		
411	Climbing or smothering growth habit	y=1, n=0	y
412	Forms dense thickets	y=1, n=0	y
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	y
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		
604	Self-compatible or apomictic		
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	1
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	y
702	Propagules dispersed intentionally by people	y=1, n=-1	n
703	Propagules likely to disperse as a produce contaminant		
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed		
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	y
708	Propagules survive passage through the gut		
801	Prolific seed production (>1000/m ²)		
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	y
803	Well controlled by herbicides	y=-1, n=1	y
804	Tolerates, or benefits from, mutilation, cultivation, or fire		
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
	Allen, C.K. (1950). Flora of Panama. Part V. Fascicle II. Annals of the Missouri Botanical Garden 37(2): 121-314	"Panama and north coast of South America to Brazil; Lesser Antilles" [No evidence of domestication]

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2021). 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
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 3 Dec 2021]	"Native Southern America CARIBBEAN: Barbados, Dominica, Guadeloupe, Grenada, St. Lucia, Martinique, Trinidad and Tobago, St. Vincent and Grenadines [Saint Vincent] CENTRAL AMERICA: Panama NORTHERN SOUTH AMERICA: French Guiana, Venezuela (n.e.) BRAZIL: Brazil [Amazonas, Pará, Amapá] WESTERN SOUTH AMERICA: Colombia Naturalized Southern America CARIBBEAN: United States [Puerto Rico]"

202	Quality of climate match data	High
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 3 Dec 2021]	

Qsn #	Question	Answer
203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"Af - Tropical rainforest climate. Am - Tropical monsoon climate, Aw - Tropical wet and dry savanna climate"

Qsn #	Question	Answer
204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 3 Dec 2021]	"Native Southern America CARIBBEAN: Barbados, Dominica, Guadeloupe, Grenada, St. Lucia, Martinique, Trinidad and Tobago, St. Vincent and Grenadines [Saint Vincent] CENTRAL AMERICA: Panama NORTHERN SOUTH AMERICA: French Guiana, Venezuela (n.e.) BRAZIL: Brazil [Amazonas, Pará, Amapá] WESTERN SOUTH AMERICA: Colombia Naturalized Southern America CARIBBEAN: United States [Puerto Rico]"
	Imada, C. (2019). Hawaiian Naturalized Vascular Plants Checklist (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence

Qsn #	Question	Answer
205	Does the species have a history of repeated introductions outside its natural range?	n
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The timing and history of introduction of <i>M. casta</i> into its non-native range is unknown. In Puerto Rico, it was probably introduced as an ornamental, but the year of this introduction is unknown. The first Smithsonian Herbarium specimen for Puerto Rico was collected in 1982 and by 2005, this species is described as "locally common" on the island (Acevedo-Rodríguez, 2005)."

Qsn #	Question	Answer
301	Naturalized beyond native range	y
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 3 Dec 2021]	"Naturalized Southern America CARIBBEAN: United States [Puerto Rico]"
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The native distribution range of this species includes the Lesser Antilles (including Barbados, Dominica, Grenada, Guadeloupe, Martinique, St. Lucia, St. Vincent, and Trinidad and Tobago) and Latin America from Panamá to Brazil. <i>M. casta</i> is reported as an "exotic species" in Mexico, French Guyana, and Puerto Rico where it is common at lower and middle elevations (Acevedo-Rodríguez, 2005; Acevedo-Rodríguez and Strong, 2012)."

302	Garden/amenity/disturbance weed	
	Source(s)	Notes
	Nicolson, D.H. 1991. Flora of Dominica, Part 2: Dicotyledoneae. Smithsonian Contributions to Botany, Number 77, 274 pp.	"Neotropics, weed in Dominica"
	Reed, C. F. (1977). Economically Important Foreign Weeds. Agricultural Research Service, United States Department of Agriculture, Washington, D.C.	"Waste areas, often frequent."
	WRA Specialist. (2021). Personal Communication	A weed of disturbed areas with negative impacts to agriculture and the natural environment

303	Agricultural/forestry/horticultural weed	y
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"In Puerto Rico, this invasive weed reduces pasture grass growth, increases the costs of road maintenance and results in the increased use of herbicide (USDA-ARS, 2012). The species often forms compact, impenetrable clumps, mixed with tall grass, weeds, and shrubs. Areas dominated by this species are subject to mowing or burning by farmers, in one- to several-year cycles to protect livestock and plantations."

304	Environmental weed	y
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	" <i>M. casta</i> is able to cause environmental degradation by out-competing and replacing native vegetation. <i>M. casta</i> is a fast-growing vine that can climb and grow over native species forming a dense monospecific ground cover and limiting the growth of canopy species as well as reducing sunlight reaching the understory."

305	Congeneric weed	y
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Qsn #	Question	Answer
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	[<i>Mimosa pigra</i> & <i>Mimosa ceratonia</i> are invasive] " <i>M. pigra</i> is a small prickly shrub that infests wetlands and is also an agricultural weed in rice fields in many parts of the old world tropics. In natural wetlands the shrub alters open grasslands into dense thorny thickets and negatively impacts on native biodiversity. It is regarded as one of the worst alien invasive weeds of wetlands of tropical Africa, Asia and Australia, and the cost of control is often high." ... " <i>M. ceratonia</i> is a fastgrowing perennial multi-stemmed vine that is considered a weed in Puerto Rico (Vélez and Overbeek, 1950). The species is able to grow in a great range of habitats including fencelines, roadsides, pastures, brushy pastures, wooded drains, forest edges and openings in secondary forests. Consequently, it has the potential to spread much further than it has to date, both inside and outside its native range. Seeds are easily dispersed by the pods clinging to clothing or to the fur of animals, and they can remain viable for several years (Francis, 2000)."
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	[<i>Mimosa pudica</i>] "Common sensitive plane, which is regarded more as a nuisance than a serious weed in Queensland, is considered very troublesome in several crops,"
	Motooka, P., Castro, L., Nelson, D., Nagai, G. & Ching, L. (2003). Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. CTAHR, UH Manoa, Honolulu, HI	[<i>Mimosa pudica</i>] "Environmental impact: Cattle avoid hilahila in grazing unless accustomed to it. Prickles can injure bulls' genitals, which can lead to infections that disable the animals."

401	Produces spines, thorns or burrs	y
	Source(s)	Notes
	Allen, C.K. (1950). Flora of Panama. Part V. Fascicle II. Annals of the Missouri Botanical Garden 37(2): 121-314	"Scandent, suffruticose plants, the branchlets subterete but angled or ridged, glabrous or somewhat pubescent, densely armed with recurved, broad-based thorns. Leaves moderately large, bipinnate, the pinnae 1 pair, the leaflets mostly 3-4 pairs; petiole elongate, as much as 10 cm .. long, eglandular, callous basally, apiculate terminally, armed like the twigs;"
	Reed, C. F. (1977). Economically Important Foreign Weeds. Agricultural Research Service, United States Department of Agriculture, Washington, D.C.	"Sprawling prickly vine; stems weak, terete, glabrous or finely pubescent, armed as are the petioles and peduncles with copiously slightly recurved stinging hairs"

402	Allelopathic	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	Unknown. Allelopathy demonstrated in other members of the genus

403	Parasitic	n
	Source(s)	Notes
	Allen, C.K. (1950). Flora of Panama. Part V. Fascicle II. Annals of the Missouri Botanical Garden 37(2): 121-314	"Scandent, suffruticose plants, the branchlets subterete but angled or ridged, glabrous or somewhat pubescent, densely armed with recurved, broad-based thorns." [No evidence]

Qsn #	Question	Answer
404	Unpalatable to grazing animals	n
	Source(s)	Notes
	Muir, J. P., Valencia, E., Weiss, S., & Terrill, T. H. (2007). Small Ruminants for Biological Control of Invasive Weeds. Proceedings of the Caribbean Food Crops Society 43: 99-104	[Presumably palatable to goats and sheep, although prickles may deter other browsers] "Table 1. Invasive species targeted by intensive, short duration goat/sheep browsing (ISDGB) at cooperating research locations." [Includes <i>Mimosa pigra</i> ; <i>casta</i>]

405	Toxic to animals	n
	Source(s)	Notes
	Muir, J. P., Valencia, E., Weiss, S., & Terrill, T. H. (2007). Small Ruminants for Biological Control of Invasive Weeds. Proceedings of the Caribbean Food Crops Society 43: 99-104	[Presumably palatable to goats and sheep, although prickles may deter other browsers. No mention of toxicity] "Table 1. Invasive species targeted by intensive, short duration goat/sheep browsing (ISDGB) at cooperating research locations." [Includes <i>Mimosa pigra</i> ; <i>casta</i>]
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	No evidence
	Quattrocchi, U. (2012). CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	Unknown

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Quattrocchi, U. (2012). CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence
	Wagstaff, D.J. (2008). International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence

408	Creates a fire hazard in natural ecosystems	
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	Unknown. Fire risk not listed among potential impacts

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes

Qsn #	Question	Answer
	Reed, C. F. (1977). Economically Important Foreign Weeds. Agricultural Research Service, United States Department of Agriculture, Washington, D.C.	"Waste areas, often frequent." [Probably high light environments, with low stature vegetation and bare ground]
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	[Open habitats suggest high light environments] "On roadsides and in pastures at lower and middle elevations."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"Soil drainage free impeded seasonally waterlogged Soil reaction acid neutral Soil texture light medium Special soil tolerances shallow"

411	Climbing or smothering growth habit	y
	Source(s)	Notes
	Reed, C. F. (1977). Economically Important Foreign Weeds. Agricultural Research Service, United States Department of Agriculture, Washington, D.C.	"Sprawling prickly vine; stems weak, terete, glabrous or finely pubescent, armed as are the petioles and peduncles with copiously slightly recurved stinging hairs"
	Croat, T.B. (1978). Flora of Barro Colorado Island. Stanford University Press, Stanford, CA	"Vine, rarely to 5.5 m long, ± glabrous but sometimes with puberulent lower surface of leaflets, armed throughout with stout, recurved thorns"

412	Forms dense thickets	y
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"M. casta is a fast-growing vine that can climb and grow over native species forming a dense monospecific ground cover and limiting the growth of canopy species as well as reducing sunlight reaching the understory."

Qsn #	Question	Answer
501	Aquatic	n
	Source(s)	Notes
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	[Terrestrial habitats] "Distribution: On roadsides and in pastures at lower and middle elevations."

502	Grass	n
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 3 Dec 2021]	Family: Fabaceae (alt. Leguminosae) Subfamily: Caesalpinioideae Tribe: Mimoseae

503	Nitrogen fixing woody plant	y
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"As with many Mimosa species, <i>M. casta</i> is a nitrogen-fixing legume and possesses root nodules housing Rhizobium bacteria."
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Woody vine, climbing, scarcely branched, that supports itself on other plants by means of spines which are borne along the length of its stems and petioles, and attaining 1-2 m in length."

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Woody vine, climbing, scarcely branched, that supports itself on other plants by means of spines which are borne along the length of its stems and petioles, and attaining 1-2 m in length. Stems angular, glabrous, with numerous recurved spines."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	[No evidence] "The native distribution range of this species includes the Lesser Antilles (including Barbados, Dominica, Grenada, Guadeloupe, Martinique, St. Lucia, St. Vincent, and Trinidad and Tobago) and Latin America from Panamá to Brazil. <i>M. casta</i> is reported as an "exotic species" in Mexico, French Guyana, and Puerto Rico where it is common at lower and middle elevations (Acevedo-Rodríguez, 2005; Acevedo-Rodríguez and Strong, 2012)."

602	Produces viable seed	y
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Qsn #	Question	Answer
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The principal mechanism of reproduction in <i>M. casta</i> is the production of seeds."

603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	Unknown. No evidence found

604	Self-compatible or apomictic	
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"Based on the high pollen/ovule ratio characteristic of the genus <i>Mimosa</i> , a xenogamous breeding system is expected." [Xenogamy is the transfer of pollen grains from the anther to the stigma of a different plant.]
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Inflorescences of globose heads, axillary; peduncle 5-15 mm long. Calyx ca. 0.2 mm long, glabrous; corolla white, infundibuliform 1-2 mm long, glabrous, with 4 lobes; stamens 4, the filaments free, ca. 1 cm long."
	East, E. M. (1940). The distribution of self-sterility in the flowering plants. Proceedings of the American Philosophical Society 82: 449-518	[<i>Mimosa</i> genus has self-fertile species] "The record of genera in which self-fertile species were found is as follows. The order corresponds with Engler and Prantl, the numbers being those of the species investigated when more than one. Mimosoideae. Inga, Enterolobium, Pithecellobium, Albizzia- 2, Acacia-6, Mimosa-2, Desmanthus, Adenantha."

605	Requires specialist pollinators	n
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"Flowers in this species are arranged in an inflorescence. The inflorescence is a head of small flowers that typically bloom for one day. Flowers are visited by insects, and recorded visitors include members of Hymenoptera, Diptera and Coleoptera."

606	Reproduction by vegetative fragmentation	n
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The principal mechanism of reproduction in <i>M. casta</i> is the production of seeds."

607	Minimum generative time (years)	1
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	" <i>M. casta</i> is a perennial vine. Plants grow rapidly and produce abundant stems. Flowering starts about 3-6 months after germination, depending on resource availability."

Qsn #	Question	Answer
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The presence of spiny fruits means that the species can be easily dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles."
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	[Pods with spines likely aid in dispersal along roads and other heavily trafficked areas] "Legume flattened, oblong, 3- 4 × ca. 1.2 cm, glabrous, with 4-5 articulations, the margin with recurved spines." ... "Distribution: On roadsides and in pastures at lower and middle elevations."

702	Propagules dispersed intentionally by people	n
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Dispersed by: Humans, Escapee" [Not intentionally cultivated]
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The risk of introduction of <i>M. casta</i> is high. The presence of spiny fruits means that the species can be easily dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles. In additions, seeds may remain dormant and viable for several years waiting for suitable conditions to germinate." [Spread unintentionally]

703	Propagules likely to disperse as a produce contaminant	
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The risk of introduction of <i>M. casta</i> is high. The presence of spiny fruits means that the species can be easily dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles. In additions, seeds may remain dormant and viable for several years waiting for suitable conditions to germinate." [As a crop weed, also has the potential to become a crop contaminant]

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	Reed, C. F. (1977). Economically Important Foreign Weeds. Agricultural Research Service, United States Department of Agriculture, Washington, D.C.	"legume flat, 2-3.5 cm. long, 0.6-0.8 cm. broad, margins aculeate-setose, dividing into 3-5 parts."
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The presence of spiny fruits means that the species can be easily dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles."

Qsn #	Question	Answer
705	Propagules water dispersed	
	Source(s)	Notes
	Croat, T.B. (1978). Flora of Barro Colorado Island. Stanford University Press, Stanford, CA	[Possibly dispersed by water when in proximity to aquatic habitats] "Rare; seen only on the shore at the edge of Rear #8 Lighthouse Clearing. Locally abundant in the Canal Zone along roadsides, especially near water."
706	Propagules bird dispersed	n
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The presence of spiny fruits means that the species can be easily dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles."
707	Propagules dispersed by other animals (externally)	y
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The presence of spiny fruits means that the species can be easily dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles."
708	Propagules survive passage through the gut	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	Possibly. Other Mimosa species are dispersed internally by grazing animals
801	Prolific seed production (>1000/m2)	
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"Propagation of <i>M. casta</i> is mainly by seeds. Seeds can remain viable for several months waiting for suitable conditions to germinate." [Densities unspecified]
802	Evidence that a persistent propagule bank is formed (>1 yr)	y
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	"The presence of spiny fruits means that the species can be easily dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles. In additions, seeds may remain dormant and viable for several years waiting for suitable conditions to germinate."
803	Well controlled by herbicides	y
	Source(s)	Notes

Qsn #	Question	Answer
	Arocho, J. V., Rivera, J. C., Plass, E. O. V., Rojas, G. R., & Rojas, A. R. (2020). Restoring a degraded coastal wetland in the city of Carolina, Puerto Rico: A case study. WIT Transactions on Ecology and the Environment, 245, 235-246	[Controlled with herbicides] "At the beginning of the mitigation effort herbaceous vegetation within Mitigation Area A was 95% dominated by Mexican crown grass (<i>Paspalum fasciculatum</i>) and 5% by <i>Mimosa casta</i> (no common name). Although both species are considered native to the Antilles [9], [10] they are intensely invasive. Nevertheless, they have been controlled at this time by the application of herbicide and pruning."
	Motooka, P., Castro, L., Nelson, D., Nagai, G. & Ching, L. (2003). Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. CTAHR, UH Manoa, Honolulu, HI	[Herbicides used to control <i>Mimosa pudica</i> would likely be effective] "Management: Very sensitive to picloram (0.25 lb/ acre), sensitive to triclopyr (1lb/acre). Poor control with dicamba and 2,4-D. Soilapplied tebuthiuron effective."
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	[Herbicides used to control <i>Mimosa pudica</i> would likely be effective] "While normal farm practice keeps common sensitive plant under control on arable land, chemical control is more appropriate in grazing areas and some plantation crops. It is susceptible to several herbicides, including dicamba, glyphosate, picloram and triclopyr. In Fiji, post-emergence applications of propanil + oxadiazon control several weeds, including common sensitive plant, in upland rice."

804	Tolerates, or benefits from, mutilation, cultivation, or fire	
	Source(s)	Notes
	CABI. (2021). Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	[Does not recover from browsing] "A study performed in Puerto Rico evaluating the potential use of small ruminants (i.e., goats) to control the growth of invasive plant species including <i>M. casta</i> , has showed that goats consumed basal leaves of <i>M. casta</i> but did not damage the branches or stems. There was, however, 90% reduction on this species in areas subject to goats-browsing. Browsed plants did not recover, but new plants originated from existing seeds in the pasture (Muir, 2009). This study demonstrates that management strategies for the effective control of this invasive species should include active management of plants at different life-cycle stages."

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits

- Thrives in tropical climates
- Naturalized in Puerto Rico
- An agricultural and environmental weed with similar traits to other invasive *Mimosa* species
- Other *Mimosa* species are invasive weeds
- Densely armed with recurved, broad-based thorns
- Climbing and smothering habit
- Forms dense ground monocultures
- N-fixing (may modify soil nutrients)
- Reproduces by seeds
- Reaches maturity 3-6 months after seeds germinate
- Seeds dispersed by humans and animals in mud or by adhering to fur, clothing, and vehicles
- Seeds able to be stored for extended periods; May form a persistent seed bank
- Seeds may form a persistent seed bank

Low Risk Traits

- Palatable to goats and sheep (despite thorns)
- Non-toxic
- Not reported to spread vegetatively
- Herbicides may provide effective control