Taxon: Mimosa strigillosa Torr. & A. Gray **Family:** Fabaceae

Common Name(s): powderpuff
sunshine mimosa

Synonym(s): Mimosa dolichocephala Kuntze
Mimosa sabulicola Chodat & Hassl.
Mimosa strigillosa Micheli

Assessor: Chuck Chimera **Status:** Assessor Approved **End Date:** 28 Apr 2017

WRA Score: 9.0 **Designation:** H(HPWRA) **Rating:** High Risk

Keywords: Mat-Forming, Thornless, Groundcover, N-Fixing, Rhizomatous

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	y
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	?
301	Naturalized beyond native range		
302	Garden/amenity/disturbance weed		
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)	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		
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		

Qsn #	Question	Answer Option	Answer
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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	y
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)		
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant		
704	Propagules adapted to wind dispersal	y=1, n=-1	y
705	Propagules water dispersed		
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)		
708	Propagules survive passage through the gut		
801	Prolific seed production (>1000/m2)		
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	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**
	Dickinson, R. & Royer, F. (2014). Weeds of North America. University of Chicago Press, Chicago	[No evidence of domestication] "Native to tropical North America; perennial; rhizomes present; stems prostrate, 10–100 cm long; leaves alternate, bipinnately compound with three to six pairs of pinnae, each with 11–21 leaflets, collapsing when touched; inflorescence a cylindrical to globe-shaped head; flowers pink; five petals, free; 10 stamens, free; fruit a loment, hairy. Weed designation: none."

102	Has the species become naturalized where grown?	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	**Notes**
	WRA Specialist. 2017. 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, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 27 Apr 2017]	"Native: Northern America Northern Mexico: Mexico - Tamaulipas South-Central U.S.A.: United States - Texas Southeastern U.S.A.: United States - Arkansas, - Florida, - Georgia, - Louisiana, - Mississippi Southern America Southern South America: Argentina - Chaco, - Corrientes, - Entre Rios, - Formosa, - Tucuman; Paraguay; Uruguay"

202	Quality of climate match data	High
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 27 Apr 2017]	

203	Broad climate suitability (environmental versatility)	y

Qsn #	Question	Answer
	Source(s)	**Notes**
	Dave's Garden. 2017. Sunshine Mimosa, Powderpuff, Sensitive Plant. Mimosa strigillosa. http://davesgarden.com/guides/pf/go/1873/. [Accessed 27 Apr 2017]	"Hardiness: USDA Zone 8a: to -12.2 °C (10 °F) USDA Zone 8b: to -9.4 °C (15 °F) USDA Zone 9a: to -6.6 °C (20 °F) USDA Zone 9b: to -3.8 °C (25 °F) USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)"
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"USDA Zone: 8B-11 (leaf damage at 15°F)"

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	**Notes**
	Isely, D. (1971). Legumes of the United States. IV. Mimosa. The American Midland Naturalist, 85(2), 410-424	"Peninsular Florida north to southeastern Georgia; southern and eastern Texas to eastern Mississippi, north to southern Arkansas. American tropics."

205	Does the species have a history of repeated introductions outside its natural range?	?
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Uses ... Livestock: ... Wildlife ... Reclamation/Revegetation ... Landscape" [Cultivated within native range. History of introduction outside native range unknown]

301	Naturalized beyond native range	
	Source(s)	**Notes**
	Basinger, M. A. (2003). Mimosa strigillosa Torrey & A. Gray (Mimosaceae) in Illinois. Transactions of the Illinois State Academy of Science 96(3): 177-178	[Adventive] "Mimosa strigillosa Torrey & A. Gray, powderpuff, is reported as an addition to the flora of Illinois. This species has been found growing along the Ohio River in Massac County and at the confluence of the Ohio and Mississippi Rivers in Alexander County." ... "The status of powderpuff in Illinois as native or adventitve is problematic. At the Massac County station, this species has survived severe drought and flooding since its initial discovery in 2000." ... "John Schwegman (personal communication) feels that powerpuff is native to this site and that it has moved north in response to a warming climate. At the second station in Alexander County, powerpuff occurs at the top of a rip rap zone with a mixture of native and non-native taxa. There is a substantial amount of barge traffic at both sites, therefore, powerpuff may be adventitve at this site. Since the center of the distribution of this species lies in the lower Mississippi River floodplain region of Mississippi and Louisiana and these reports are range extensions over 200 miles north of the primary distribution (Isley 1998), powerpuff may best be considered adventitve in Illinois."

Qsn #	Question	Answer
	Wagner, W.L., Herbst, D.R.& Lorence, D.H. 2017. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/. [Accessed 27 Apr 2017]	No evidence in Hawaiian Islands to date

302	Garden/amenity/disturbance weed	
	Source(s)	**Notes**
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	"Despite its rapidly spreading nature, Sunshine Mimosa is not overly competitive and can be interplanted with turf. Grasses will grow through it and aggressive weeds can out compete it. However, grasses and weeds can be mowed back without affecting Sunshine Mimosa."
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"It often occurs in disturbed areas, along roadsides and at the edge of pine flatwoods with well-drained, sandy soils." ... "Mimosa is difficult to control in restricted areas and is best grown with definite boundaries, such as pavement or sidewalks, where it can be more easily edged."
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Powderpuff is not an overly aggressive plant and other plants will eventually come into the stand."
	Tveten, J., 1997. Wildflowers of Houston and Southeast Texas. University of Texas Press, Austin, TX	"The perennial base sends out sprawling annual stems up to six feet long that form tangled mats on the ground along roadsides and bayou banks and in vacant lots across the city."
	Dickinson, R. & Royer, F. (2014). Weeds of North America. University of Chicago Press, Chicago	"Weed designation: none."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	Cited as a weed. Impacts unspecified

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

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

305	Congeneric weed	y
	Source(s)	**Notes**
	Haselwood, E.L., Motter, G.G., & Hirano, R.T. (eds.). 1983. Handbook of Hawaiian Weeds. University of Hawaii Press, Honolulu, HI	"Mimosa pudica ... A troublesome weed in cultivated areas, lawns, and wastelands."

Qsn #	Question	Answer
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	[Mimosa pigra, Mimosa casta & Mimosa ceratonia are invasive] "M. pigra 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." ... "M. casta is a fast-growing perennial vine that is included in the Global Compendium of Weeds (Randall, 2012). The ability of this species to tolerate a wide range of habitats including disturbed areas, roadsides, pastures, semi waterlogged areas, as well as natural forests means that it has the potential to spread much further than it has to date. Additionally, the species is able to climb over other species and supports itself on other plants by means of spines which are borne along the length of its stems and petioles, forming a dense cover and presumably competing for resources (i.e., sunlight) with native species. In Puerto Rico, this species is classified as a “noxious weed” (USDA-ARS, 2012)." ... "M. ceratonia is a fast-growing 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)."

401	Produces spines, thorns or burrs	n
	Source(s)	**Notes**
	Tveten, J., 1997. Wildflowers of Houston and Southeast Texas. University of Texas Press, Austin, TX	"Powderpuff stems may have stiff bristles, but they are not noxious to the touch."
	Isely, D. (1971). Legumes of the United States. IV. Mimosa. The American Midland Naturalist, 85(2), 410-424	"Stems not prickly; leaflets 6-15 pairs, 6 mm or less in length"
	Hammer, R. L. (2014). Everglades Wildflowers: A Field Guide to Wildflowers of the Historic Everglades, including Big Cypress, Corkscrew, and Fakahatchee Swamps. Rowman & Littlefield, Lanham, MD	"This thornless. hairy, mat-forming species spreads by rhizomes and bears alternate, bipinnate leaves that are divided into as many as 21 pairs of small. linear leaflets."

402	Allelopathic	n
	Source(s)	**Notes**
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"Mimosa strigillosa is a legume whose roots can produce nodules (small knots) in association with nitrogen fixing bacteria, thus adding nitrogen to the soil." [No evidence]

Qsn #	Question	Answer
403	**Parasitic**	**n**
	Source(s)	**Notes**
	Correll, D.S. & Correll, H.B. 1975. Aquatic and Wetland Plants of Southwestern United States, Volume 1. Stanford University Press, Stanford, CA	""Perennial herb with sprawling annual stems 1 -2 (-4) m" [No evidence]

404	Unpalatable to grazing animals	n
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Livestock: Cattle will graze the leaves (Everitt and Lonard, 1999)."
	Sheffield, W. J. (1983). Food habits of nilgai antelope in Texas. Journal of Range Management, 36(3): 316-322	"Species prominent in the diet of deer and not nilgai were copperleaf(Acalypha radians), phlox (Phlox, spp.), herbaceous mimosa (Mimosa strigillosa), sensitivebriar (Schrankia latidens), pricklypear, tasajillo, and lime pricklyash (Zunthoxylum fugara)."
	Chamrad, A. D., & Box, T. W. (1968). Food habits of white-tailed deer in south Texas. Journal of Range Management, 21(3): 158-164	"Table 2. High priority forage plants for white-tailed deer from sandy and sandy loam sites." [Includes Herbaceous mimosa (Mimosa strigillosa)]

405	Toxic to animals	n
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	[No evidence] "Powderpuff is utilized by both domestic livestock and wildlife. It serves as a food source for cattle, goats sheep and deer."
	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**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Pests and Potential Problems. The caterpillar of the little sulphur butterfly (Pyristia lisa) feeds on powderpuff foliage. Due to the low growth form of this species, fire ant mounds are a problem for commercial harvest and result in large quantities of ants in the seed hopper of the combine. To avoid this problem, the East Texas Plant Material Center treats production fields to control fire ants and damage to the combine header from hitting mounds."
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"Potential Pests: None serious"

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	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	n
	Source(s)	**Notes**
	Correll, D.S. & Correll, H.B. 1975. Aquatic and Wetland Plants of Southwestern United States, Volume 1. Stanford University Press, Stanford, CA	[Unlikely given habit and habitat] "Perennial herb with sprawling annual stems 1 -2 (-4) m." ... "In marshes, wet grasslands and openings in forests on sandy loam"

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"It grows best in full sun, but will tolerate some shade."
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"It is well adapted to growing in full sun to high pine shade."
	Dave's Garden. 2017. Sunshine Mimosa, Powderpuff, Sensitive Plant. Mimosa strigillosa. http://davesgarden.com/guides/pf/go/1873/. [Accessed 27 Apr 2017]	"Sun Exposure: Full Sun"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Powderpuff is adapted to a wide range of soils and soil textures, but favors sandy loams." ... "Powderpuff is adapted to well-drained sandy soils with a pH greater than 4.1."
	Lady Bird Johnson Wildflower Center. 2017. Native Plant Database - Mimosa strigillosa. http://www.wildflower.org/plants/result.php?id_plant=mist2. [Accessed 27 Apr 2017]	"Soil Moisture: Dry , Moist Drought Tolerance: High Soil Description: Grows in most well-drained soil and is highly drought tolerant once established, making it suitable for dry, sandy areas. "
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"Soil: Moist; dry once established" ... "It often occurs in disturbed areas, along roadsides and at the edge of pine flatwoods with well-drained, sandy soils." ... "Mimosa strigillosa is a legume whose roots can produce nodules (small knots) in association with nitrogen fixing bacteria, thus adding nitrogen to the soil." ... "It grows in most well-drained soil and is highly drought tolerant once established, making it also suitable for dry, sandy areas."

411	Climbing or smothering growth habit	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	"Despite its rapidly spreading nature, Sunshine Mimosa is not overly competitive and can be interplanted with turf. Grasses will grow through it and aggressive weeds can out compete it. However, grasses and weeds can be mowed back without affecting Sunshine Mimosa."
	Hammer, R. L. (2014). Everglades Wildflowers: A Field Guide to Wildflowers of the Historic Everglades, including Big Cypress, Corkscrew, and Fakahatchee Swamps. Rowman & Littlefield, Lanham, MD	"This plant is becoming a popular ground cover because it spreads rapidly by rhizomes that criss-cross to form a dense. ground-hugging mat."

412	Forms dense thickets	n
	Source(s)	**Notes**
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	[No evidence] "Despite its rapidly spreading nature, Sunshine Mimosa is not overly competitive and can be interplanted with turf. Grasses will grow through it and aggressive weeds can out compete it.However, grasses and weeds can be mowed back without affecting Sunshine Mimosa."

501	Aquatic	n
	Source(s)	**Notes**
	Isely, D. (1971). Legumes of the United States. IV. Mimosa. The American Midland Naturalist, 85(2), 410-424	[Terrestrial] "Open woodlands, creek bottoms, roadsides, disturbed areas, occasionally semiweedy, moist or dry, clay to sandy soils, widely distributed but infrequent"

502	Grass	n
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 27 Apr 2017]	Family: Fabaceae (alt.Leguminosae) Subfamily: Caesalpinioideae Tribe: Mimoseae

503	Nitrogen fixing woody plant	n
	Source(s)	**Notes**
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"Mimosa strigillosa is a legume whose roots can produce nodules (small knots) in association with nitrogen fixing bacteria, thus adding nitrogen to the soil." [Non-woody nitrogen fixer]
	Correll, D.S. & Correll, H.B. 1975. Aquatic and Wetland Plants of Southwestern United States, Volume 1. Stanford University Press, Stanford, CA	"Perennial herb with sprawling annual stems 1 -2 (-4) m. long" [Non-woody legume]

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	Correll, D.S. & Correll, H.B. 1975. Aquatic and Wetland Plants of Southwestern United States, Volume 1. Stanford University Press, Stanford, CA	"Perennial herb with sprawling annual stems 1 -2 (-4) m. long, usually copiously furnished with stiff spreading bristlelike emergences, but these not noxious; pinnae 4 to 6 pairs, more or less; leaflets usually 10 to 15 pairs per pinna, linear, usually 3-6 mm. long, 0.5-1 mm. broad; flowers in pink or purple globes"

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed]	[No evidence. Widespread distribution] "Native: Northern America Northern Mexico: Mexico - Tamaulipas South-Central U.S.A.: United States - Texas Southeastern U.S.A.: United States - Arkansas, - Florida, - Georgia, - Louisiana, - Mississippi Southern America Southern South America: Argentina - Chaco, - Corrientes, - Entre Rios, - Formosa, - Tucuman; Paraguay; Uruguay"

602	Produces viable seed	y
	Source(s)	**Notes**
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"Propagation: Rooted cuttings; seeds" ... "Mature pods are brown and they open to expel seeds." ... "Seeds have a hard seedcoat and need to be scarified to allow quick germination. Unscarified seeds can take up to one year to germinate. Sow seeds 1/4 inch deep in late summer or early fall for flowers the following summer. Irrigate seedlings for two to four weeks to prevent soil from drying out. Plantings can also be established from rooted sprigs."

603	Hybridizes naturally	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Unknown. No evidence found

604	Self-compatible or apomictic	
	Source(s)	**Notes**
	Elias, T. S. (1974). The genera of Mimosoideae (Leguminosae) in the southeastern United States. Journal of the Arnold Arboretum, 5 (1), 67-118	"Very little is known about the floral biology and breeding systems of species of Mimosa. Although outbreeding is suspected because the pollen is in polyads, self pollination apparently occurs in several species. Circumstantial evidence for self pollination is the lack of floral nectaries in species investigated by Ancibor (1969). Unlike certain species of Albizia, Calliandra, and Neptunia, most or all of the flowers of an inflorescence are generally perfect and capable of producing fruit."

Qsn #	Question	Answer
	East, E. M. 1940. The distribution of self-sterility in the flowering plants. Proceedings of the American Philosophical Society 82: 449-518	[Mimosa genus has self-fertile species. Unknown if strigillosa is self-fertile] "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, Enterolobiumn, Pithecellolobium, Albizzia-2, Acacia-6, Mimosa-2, Desmanthus, Adenanthera."

605	Requires specialist pollinators	n
	Source(s)	**Notes**
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	"Honey bees are the only documented pollinator (8) of Sunshine Mimosa (Fig. 8). Based on anecdotal observations in Florida (15), they seem to be the main pollinator, although “bottle bees” also have been observed (15)."
	Hammer, R. L. (2014). Everglades Wildflowers: A Field Guide to Wildflowers of the Historic Everglades, including Big Cypress, Corkscrew, and Fakahatchee Swamps. Rowman & Littlefield, Lanham, MD	"The flower heads are oblong in outline (taller than wide) and consist mostly of pink stamens." ... "The flowers attract bees and the leaves serve as larval food for the little yellow butterfly."

606	Reproduction by vegetative fragmentation	y
	Source(s)	**Notes**
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"Mimosa spread by rhizomes that produce long tap roots at the nodes."
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Powderpuff reproduces by seed and stolons which root to the ground along their length as they spread from the mother plant (Norcini and Aldrich, 2009)."
	Hammer, R. L. (2014). Everglades Wildflowers: A Field Guide to Wildflowers of the Historic Everglades, including Big Cypress, Corkscrew, and Fakahatchee Swamps. Rowman & Littlefield, Lanham, MD	"This plant is becoming a popular ground cover because it spreads rapidly by rhizomes that criss-cross to form a dense. ground-hugging mat."

607	Minimum generative time (years)	1
	Source(s)	**Notes**
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 28 Apr 2017]	"Growth Rate: Fast" ... "Mimosa is a thornless, mat-forming, perennial plant usually growing 3 to 4 inches tall." [Likely flowers or spreads vegetatively in first year]

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	
	Source(s)	**Notes**
	Hammer, R. L. (2014). Everglades Wildflowers: A Field Guide to Wildflowers of the Historic Everglades, including Big Cypress, Corkscrew, and Fakahatchee Swamps. Rowman & Littlefield, Lanham, MD	"Sandy habitats and roadsides of Florida and Texas south into Mexico."

Qsn #	Question	Answer
	Basinger, M. A. (2003). Mimosa strigillosa Torrey & A. Gray (Mimosaceae) in Illinois. Transactions of the Illinois State Academy of Science 96(3): 177-178	"The fruit is an oblong legume from 1.5 to 2.0 cm long that is segmented and is usually covered with bristle-like hairs." [Morphology similar to M. pudica (see Haselwood & Motter 1966). Likely able to cling to fur or clothing]
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	[Hairy pods might aid in adherence prior to shattering. Occurrence in heavily trafficked areas may facilitate inadvertent dispersal] "Bottlebrush-like flowers (Fig. 4), about an inch long, occur mainly in the spring. The showy purplish flowers give way to small, flattened pods (Fig. 5) that ripen about 4 to 5 weeks after flowering. The hairy pods typically are three-segmented, with each segment usually containing a seed. When seed have fully ripened, the pod shatters and the seed fall to the ground."

702	Propagules dispersed intentionally by people	y
	Source(s)	**Notes**
	Hammer, R. L. (2014). Everglades Wildflowers: A Field Guide to Wildflowers of the Historic Everglades, including Big Cypress, Corkscrew, and Fakahatchee Swamps. Rowman & Littlefield, Lanham, MD	"It is sometimes used in road medians and parking lot islands because it can tolerate foot traffic and drought."
	Richardson, A. 2011. Plants of Deep South Texas: A Field Guide to the Woody and Flowering Species. Texas A&M University Press, College Station, TX	"This is a very attractive ground cover and a source of entertainment for children (as well as adults) with its sensitive leaves which fold up upon being touched."

703	Propagules likely to disperse as a produce contaminant	
	Source(s)	**Notes**
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 28 Apr 2017]	"The olive brown to brown seed of Sunshine Mimosa are 5-6 mm long and 2-3 mm wide." ... "Sunshine Mimosa is a good groundcover for residential and commercial landscapes" [No evidence, but possible that seeds could be moved in soil or landscaping material when grown with other plants]

704	Propagules adapted to wind dispersal	y
	Source(s)	**Notes**
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed]	"Many of these inflorescence give way to small, flattened, oblong pods with minute bristles. Mature pods are brown and they open to expel seeds." [Wind might facilitate dispersal over short distances]
	Basinger, M. A. (2003). Mimosa strigillosa Torrey & A. Gray (Mimosaceae) in Illinois. Transactions of the Illinois State Academy of Science 96(3): 177-178	"The fruit is an oblong legume from 1.5 to 2.0 cm long that is segmented and is usually covered with bristle-like hairs. The fruit splits at each segment, which is typically 5 mm in length."

Qsn #	Question	Answer
705	**Propagules water dispersed**	
	Source(s)	**Notes**
	Correll, D.S. & Correll, H.B. 1975. Aquatic and Wetland Plants of Southwestern United States, Volume 1. Stanford University Press, Stanford, CA	"In marshes, wet grasslands and openings in forests on sandy loam" [Possibly dispersed by water in marshes]
	McCarty, L.B., Everest, J.W., Hall, D.W., Murphy, T.R. & Yelverton, F. 2001. Color Atlas of Turfgrass Weeds. Sleeping Bear Press, Chelsea, MI	"Occurs in turf, along streams and in hammocks." [Possibly yes]

706	**Propagules bird dispersed**	**n**
	Source(s)	**Notes**
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	"The hairy pods typically are three-segmented, with each segment usually containing a seed. When seed have fully ripened, the pod shatters and the seed fall to the ground."

707	**Propagules dispersed by other animals (externally)**	
	Source(s)	**Notes**
	Haselwood, E.L., Motter, G.G., & Hirano, R.T. (eds.). 1983. Handbook of Hawaiian Weeds. University of Hawaii Press, Honolulu, HI	"Mimosa pudica ... Bristles on seed pod cling to fur of animals and to clothing."
	Basinger, M. A. (2003). Mimosa strigillosa Torrey & A. Gray (Mimosaceae) in Illinois. Transactions of the Illinois State Academy of Science 96(3): 177-178	"The fruit is an oblong legume from 1.5 to 2.0 cm long that is segmented and is usually covered with bristle-like hairs." [Morphology similar to M. pudica (see Haselwood & Motter 1966). Likely able to cling to fur or clothing]

708	**Propagules survive passage through the gut**	
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Powderpuff is utilized by both domestic livestock and wildlife. It serves as a food source for cattle, goats sheep and deer." [Unknown. It may be possible that hard seeds consumed inadvertently with foliage may survive gut passage]

Qsn #	Question	Answer
	Giordani, L., Baraza, E., Camargo-Ricalde, S. L., & Moe, S. R. (2015). The domestic goat as a potential seed disperser of Mimosa luisana (Leguminosae, Mimosoideae) in the Tehuacán-Cuicatlán Valley, Mexico. Journal of Tropical Ecology, 31(01), 91-94	[Related taxon survives gut passage] "Mimosa luisana is functionally important in the Tehuac´an-Cuicatl´an Valley, Mexico, since it is able to create favourable microsites for the establishment of other plant species. The endozoochory of M. luisana seeds by goats was evaluated in terms of excrement deposition pattern, seed survival and germination. The excrement deposition pattern was evaluated by collecting pellets in four plots of 25 × 2 m randomly placed in a grazing area and recording the microhabitat where pellets were found. Seed survival and germination were evaluated by feeding the goats with seeds and collecting dung pellets at 8-h intervals for 80 h. Seeds from goat pellets (treatment) and seeds collected from pods (control) were placed in a germination chamber for 24 d. Goats mainly deposited M. luisana seeds in viable sites (open areas) for growth. Mimosa luisana seeds survived the goat digestive treatment (5.91% ± 2.86%) and most of them (67% ± 25.9%) were recovered 8–32 h after ingestion. Goat gut treatment increased M. luisana final germination (47.5% ingested, 5.83% control) and shortened initial and mean time of germination. Our results indicate that goats may be an efficient disperser of M. luisana seeds."

801	Prolific seed production (>1000/m2)	
	Source(s)	**Notes**
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	[Unknown in natural settings] "The olive brown to brown seed (Fig. 6), on average, are 5-6 mm long and 2-3 mm wide, about the same size as the seed of the Crockett selection of Sun-shine Mimosa (12). There are 50,000 to 60,000 seed per pound (15),"

Qsn #	Question	Answer
802	**Evidence that a persistent propagule bank is formed (>1 yr)**	**y**
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Scarify and inoculate seed with strophostyles spec.1 before planting. Scarifying (nicking or roughing the seed coat) seed greatly improves germination, and establishment time after planting. Walker (2005) found that mechanically scarified seed ranged in germination from 74 to 85 percent. Pitman (2009) used sandpaper to scarify powderpuff seed and had similar results. The average percent germination of unscarified seed was 14 while the scarified was 96. In both experiments, physically roughing the seed coat resulted in better seed germination than unscarified, chemical or heat treatments. If scarified seed is unavailable, plant in the fall, and allow seed to over winter in the soil."
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"Seeds have a hard seedcoat and need to be scarified to allow quick germination. Unscarified seeds can take up to one year to germinate. Sow seeds 1/4 inch deep in late summer or early fall for flowers the following summer."
	Royal Botanic Gardens Kew. (2017) Seed Information Database (SID). Version 7.1. Available from: http://data.kew.org/sid/. [Accessed 27 Apr 2017]	"Storage Behaviour: Orthodox"
	Wildflower Seed & Plant Growers Association. 2013. Sunshine Mimosa. Mimosa strigillosa. http://www.floridanativenurseries.org. [Accessed 27 Apr 2017]	"The hard seed coat imposes a physical dormancy. While the hard seed coat is impervious to water and helps to prolong shelf-life, seed must be scarified to ensure germination."

803	**Well controlled by herbicides**	**y**
	Source(s)	**Notes**
	Brakie, M. 2011. Plant Guide for powderpuff (Mimosa strigillosa). USDA-Natural Resources Conservation Service, East Texas Plant Materials Center. Nacogdoches, TX	"Powderpuff is not an overly aggressive plant and other plants will eventually come into the stand. Unwanted plants can be controlled by mowing or use of an herbicide wick. Glyphosate can be applied to treat cool season weeds after powderpuff goes dormant in the fall; however, care should be taken as powderpuff may not become dormant in the most southern portions of its range."
	McCarty, L.B., Everest, J.W., Hall, D.W., Murphy, T.R. & Yelverton, F. 2001. Color Atlas of Turfgrass Weeds. Sleeping Bear Press, Chelsea, MI	"Repeat applications of two- or three-way mixtures of 2,4-D, dicamba, MCPP, or MCPA. Other suggested options include atrazine/simazine, metribuzin, triclopyr alone or combined with clopyralid or 2,4-D, atrazinc plus bcntazon, imazaquin, and metsulfuron."

804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**y**
	Source(s)	**Notes**
	Brown, S. H. (2010). Mimosa strigillosa. University of Florida IFAS Extension. Fort Myers, FL. http://lee.ifas.ufl.edu/. [Accessed 27 Apr 2017]	"A mat-forming groundcover that withstands foot traffic and mowing" ... "Carefully select the area for planting. Well established plants may be difficult to eradicate because of the mimosa deep growing roots."

Qsn #	Question	Answer
805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits
• Broad climate suitability
• Capable of growing in tropical and temperate climates
• Possibly naturalized or adventive on mainland US
• Thrives in disturbed habitats (& regarded by some as a weed)
• Other Mimosa species are invasive weeds
• Tolerates many soil types
• Reproduces by seeds and vegetatively by rhizomes
• Reaches maturity in one growing season
• Seeds dispersed by gravity, intentionally by people & possibly aided by wind, water, and animals
• Seeds with a hard coat, and capable of forming a persistent seed band (at least 1 year)
• Tolerates mowing & able to resprout from taproots

Low Risk Traits
• Although sometimes regarded as a weed, generally considered not overly aggressive
• Thornless
• Provides forage for livestock and wildlife
• Non-toxic
• Ornamental
• Herbicides may provide effective control