

Taxon: <i>Mimosa pudica</i> L.	Family: Fabaceae
Common Name(s): sensitive plant sensitive weed shameplant sleeping grass touch-me-not	Synonym(s): <i>M. p.</i> var. <i>unijuga</i> (Duchass. & Walp.) <i>...</i>

Assessor: Chuck Chimera	Status: Assessor Approved	End Date: 26 Dec 2017
WRA Score: 18.0	Designation: H(Hawai'i)	Rating: High Risk

Keywords: Naturalized Herb, Pasture Weed, Prickly, Prolific Seeder, Epizoochorous

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	y
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed	n=0, y = 1*multiplier (see Appendix 2)	y
303	Agricultural/forestry/horticultural weed	n=0, y = 2*multiplier (see Appendix 2)	y
304	Environmental weed		
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	y
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans		

Qsn #	Question	Answer Option	Answer
408	Creates a fire hazard in natural ecosystems		
409	Is a shade tolerant plant at some stage of its life cycle		
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		
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	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	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	y=1, n=-1	y
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	y=1, n=-1	y
801	Prolific seed production (>1000/m ²)	y=1, n=-1	y
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
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	[No evidence of domestication] "Common sensitive plant is a native of tropical America which has become widespread throughout the tropics of the world."

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
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant is a native of tropical America which has become widespread throughout the tropics of the world."
	Wu, Z. Y., P. H. Raven & D. Y. Hong, eds. 2010. Flora of China. Vol. 10 (Fabaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"native to tropical America; naturalized in tropical regions of the world"

202	Quality of climate match data	High
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant is a native of tropical America which has become widespread throughout the tropics of the world."

203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes
	Dave's Garden. 2017. Touch-me-not, Tickleme Plant, Tickle Me Plant, Sensitive Plant, Humble Plant - <i>Mimosa pudica</i> . https://davesgarden.com/guides/pf/go/2573/ . [Accessed 26 Dec 2017]	"USDA Zone 11: above 4.5 °C (40 °F)" [Tropical climates, but elevation range can exceed 1000 m]
	Wu, Z. Y., P. H. Raven & D. Y. Hong, eds. 2010. Flora of China. Vol. 10 (Fabaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Wilderness tracts, wastelands, or cultivated; sea level to 1500 m." [Elevation range exceeds 1000 m, demonstrating environmental versatility]

Qsn #	Question	Answer
204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant is a native of tropical America which has become widespread throughout the tropics of the world."

205	Does the species have a history of repeated introductions outside its natural range?	y
	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	"Mimosa pudica is native to South and Central America and the West Indies, and it has apparently been introduced in many parts of the tropics, presumably for the novelty of the sensitive leaves."

301	Naturalized beyond native range	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant is a native of tropical America which has become widespread throughout the tropics of the world. It is now considered to be a serious weed in South America, the Caribbean, parts of West Africa, Mauritius, Sri Lanka, India, and Southeast Asia, including Indonesia and the Philippines, as well as in Papua New Guinea, Hawaii and some islands of the south west Pacific."
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"in Hawai'i naturalized in open, dry to wet, disturbed areas, especially lawns, 5-700 m, on Kaua'i, O'ahu, Lana'i, Maui, and Hawai'i. First collected on O'ahu in 1864-1865 (Mann & Brigham 402, BISH), but since it was widespread prior to 1871 (Hillebrand, 1888), probably introduced considerably earlier than the 1860s."

Qsn #	Question	Answer
302	Garden/amenity/disturbance weed	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant, which is regarded more as a nuisance than a serious weed in Queensland, is considered very troublesome in several crops..."
	Dave's Garden. 2017. Touch-me-not, Tickleme Plant, Tickle Me Plant, Sensitive Plant, Humble Plant - <i>Mimosa pudica</i> . https://davesgarden.com/guides/pf/go/2573/ . [Accessed 26 Dec 2017]	[Weed of lawns & disturbed habitats] "On Apr 16, 2012, imelyod from Perry, FL wrote: I'm not sure how this plant invaded my front lawn but it has almost completely taken over. I smile here... for it used to be a conversation piece that was "cute". With the combination of annual seeds that mature between mowings and the viney growth that allows it to creep, it has become an intolerable nuisance." ... "On Feb 20, 2012, nedbenison from Cypress, TX wrote: Nasty, nasty, nasty invasive weed in St. Augustine lawns in the Houston area. Terribly difficult to get rid of, as any herbicide that kills it will also kill St. Augustine." ... "On Dec 30, 2004, klaude from Cairns, Australia (Zone 11) wrote: A very annoying weed in Northern Australia where it spreads in lawns - very 'ouch' if you walk on them barefooted. Any disturbed ground will become infested with them. Known here in Cairns as "Sensitive weed" - control in lawns is best achieved by being vigilant when mowing and pulling the plants out whenever you see them."

303	Agricultural/forestry/horticultural weed	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant, which is regarded more as a nuisance than a serious weed in Queensland, is considered very troublesome in several crops, including maize, sugarcane, rubber, tea, sorghum, soybeans and upland rice, in Malaysia, the Philippines, Indonesia, Papua New Guinea and parts of the South Pacific. It can also be a problem in tropical pastures reducing the area available for grazing and is suspected of poisoning cattle in Papua New Guinea."
	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	"Environmental impact: Cattle avoid hila hila in grazing unless accustomed to it. Prickles can injure bulls' genitals, which can lead to infections that disable the animals."

Qsn #	Question	Answer
304	Environmental weed	
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant, which is regarded more as a nuisance than a serious weed in Queensland, is considered very troublesome in several crops,..."
	Queensland Government. (2017). Weeds of Australia. <i>Mimosa pudica</i> . http://keyserver.lucidcentral.org . [Accessed 26 Dec 2017]	"Common sensitive plant (<i>Mimosa pudica</i>) is a significant environmental weed in Queensland and the Northern Territory, and was recently listed as a priority environmental weed in at least one Natural Resource Management region in Australia." [Although called an environmental weed, appears to primarily impact agriculture]
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	" <i>Mimosa pudica</i> ... Weed of: Bananas, Cereals, Orchards & Plantations, Pastures" [Also cited as an environmental weed in a number of references]

305	Congeneric weed	y
	Source(s)	Notes
	CABI, 2017. Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	[<i>Mimosa pigra</i> , <i>Mimosa casta</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. casta</i> 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)." ... " <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)."

Qsn #	Question	Answer
401	Produces spines, thorns or burrs	y
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Creeping annual or perennial herbs; stems 3-15 dm long, sparsely to densely prickly and sparsely hispid to glabrate."

402	Allelopathic	
	Source(s)	Notes
	Zhu, H., Ma, R., Li, Y., & Zhuang, L. (2009). Allelopathy of two kinds of invasive plants in Mimosaceae. Acta Agriculturae Boreali-Occidentalis Sinica, 4, 027	[Potentially. Allelopathy demonstrated in lab] "Effects of Mimosa pudica L. and Acacia farnesiana L. aqueous extracts on the three crops's seed germination and seedling growth were determined by laboratory bioassay method, such as cabbage (<i>Brassica campestris</i> L.), Radish (<i>Raphanus sativus</i> L.) and lettuce (<i>Lactuca sativa</i> L.).The results showed that the seed germination and seedling growth of three crops were inhibited in various degrees, and the allelopathic inhibitory effects strengthened as the mass concentration of aqueous extract increasing, physiological indexes were significantly different (P0.05) when concentration of aqueous extracts was increased to 0.20 g·mL ⁻¹ ,the synthetical allelopathic index of A. farnesiana was higher than the index of M. pudica. The identification test had proven that some phenolic allelochemicals existed in the aqueous extracts of M. pudica and A. farnesiana."

403	Parasitic	n
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Creeping annual or perennial herbs; stems 3-15 dm long, sparsely to densely prickly and sparsely hispid to glabrate." [Fabaceae. No evidence]

404	Unpalatable to grazing animals	n
	Source(s)	Notes
	Kumar, N., Kaur, P., Das, K., & Chakroborty, S. (2009). Mimosa pudica L. a sensitive plant. International Journal of Pharmacy and Pharmaceutical Sciences, 1(2), 1-7	"... sheep grazing is reported to control sensitive plant in pastures and plantations16."

405	Toxic to animals	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"It can also be a problem in tropical pastures reducing the area available for grazing and is suspected of poisoning cattle in Papua New Guinea. Mimosine, a toxic amino acid, has been isolated from the plant and, when fed to some animals, causes loss of hair or wool, although the toxin appears to be detoxicated in the rumen of sheep."

Qsn #	Question	Answer
	<p>Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL</p>	<p>"May be toxic when cut and dried; pods toxic to livestock, and leaves to chickens; swallowed roots emetic."</p>
	<p>Knight, A. 2007. A Guide to Poisonous House and Garden Plants. CRC Press, Boca Raton, FL</p>	<p>"Mimosine is the principle toxicant in both Mimosa and Leucaena species. Once the plant tissues are damaged through chewing, the mimosine is degraded by plant enzymes to its toxic form which is an analogue and inhibitor of pyridoxine, an essential enzyme for DNA and RNA synthesis. Interference with DNA synthesis through the action of mimosine can result in characteristic hair loss from the ears, mane, and tail of cattle and horses and fleece loss in sheep [1,2]." ... "Sensitive plant (<i>M. pudica</i>) is not of concern as a toxic house plant as household pets are unlikely to eat the plant in sufficient quantity to cause problems. The plant however can become an invasive weed when grown in tropical gardens and can escape to infest pastures grazed by livestock. Clinical Signs Hair loss from the ears, mane, and tail of cattle and horses and fleece loss in sheep is characteristic of mimosine toxicity. Weakness, loss of appetite, enlarged thyroid glands, and ridges in the hoof wall have also been associated with mimosine toxicity. Treatment is seldom necessary as the toxicity is self limiting once the animals are provided other forages."</p>

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	<p>Chauhan, B. S., & Johnson, D. E. (2009). Germination, emergence, and dormancy of <i>Mimosa pudica</i>. <i>Weed Biology and Management</i>, 9(1), 38-45</p>	<p>"The species is an alternate host of nematodes, such as <i>Meloidogyne</i> spp. (Bendixen 1986)." [Bendixen L.E. 1986. Weed hosts of <i>Meloidogyne</i>, the root-knot nematodes. In: <i>Weeds and the Environment in the Tropics</i> (ed. by Noda K. and Mercado B.L.). Asian-Pacific Weed Science Society, Chiang Mai, Thailand, 101–172]</p>

407	Causes allergies or is otherwise toxic to humans	
	Source(s)	Notes
	<p>Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL</p>	<p>[Potentially toxic. Also with medicinal uses] "May be toxic when cut and dried; pods toxic to livestock, and leaves to chickens; swallowed roots emetic. Flowers eaten for diarrhea. Young shoots paste hemostatic, applied on cuts and wounds."</p>

408	Creates a fire hazard in natural ecosystems	
	Source(s)	Notes
	<p>Francis, J. K. (ed.). 2004. Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO</p>	<p>"Thickets of sensitive plant may be a fire hazard when dry"</p>

Qsn #	Question	Answer
409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"... because it tolerates a considerable degree of shade, common sensitive plant is often a valuable component of pastures under coconuts and is highly regarded in the dairy pastures of Fiji."
	Francis, J. K. (ed.). 2004. Wildland shrubs of the United States and its Territories: thamnisc descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Sensitive plant is shade intolerant and does not compete with tall vegetation or grow under forest canopies." [In contrast to other Parson and Cuthbertson 2001]
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	Francis, J. K. (ed.). 2004. Wildland shrubs of the United States and its Territories: thamnisc descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Sensitive plant grows on most well-drained soils, even scalped or eroded subsoils and soils with low nutrient concentrations. It requires disturbed soils to establish itself."
411	Climbing or smothering growth habit	n
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Creeping annual or perennial herbs; stems 3-15 dm long, sparsely to densely prickly and sparsely hispid to glabrate."
412	Forms dense thickets	
	Source(s)	Notes
	Francis, J. K. (ed.). 2004. Wildland shrubs of the United States and its Territories: thamnisc descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"It may grow as a single plant or in tangled thickets." ... "Thickets of sensitive plant may be a fire hazard when dry" [Possibly. In Hawaiian Islands, grows as a creeping annual or perennial herbs]
501	Aquatic	n
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Terrestrial] "Creeping annual or perennial herbs ... in Hawai'i naturalized in open, dry to wet, disturbed areas, especially lawns, 5-700 m ..."

Qsn #	Question	Answer
	Wu, Z. Y., P. H. Raven & D. Y. Hong, eds. 2010. Flora of China. Vol. 10 (Fabaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[Terrestrial] "Herbs, diffuse, shrubby, to 1 m tall." ... "Wilderness tracts, wastelands, or cultivated; sea level to 1500 m."
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 20 Dec 2017]	Family: Fabaceae (alt.Leguminosae) Subfamily: Caesalpinioideae Tribe: Mimoseae
503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Creeping annual or perennial herbs; stems 3-15 dm long, sparsely to densely prickly and sparsely hispid to glabrate." [N-fixing herbaceous plant]
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Wu, Z. Y., P. H. Raven & D. Y. Hong, eds. 2010. Flora of China. Vol. 10 (Fabaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Herbs, diffuse, shrubby, to 1 m tall. Stems cylindric, branched, with reflexed bristles and scattered, curved prickles."
601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	[No evidence. Widespread in native and introduced ranges] "Common sensitive plant is a native of tropical America which has become widespread throughout the tropics of the world. It is now considered to be a serious weed in South America, the Caribbean, parts of West Africa, Mauritius, Sri Lanka, India, and Southeast Asia, including Indonesia and the Philippines, as well as in Papua New Guinea, Hawaii and some islands of the south west Pacific."
602	Produces viable seed	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant seeds prolifically, a single plant producing from 600 to 700 seeds in a season. Laboratory tests show that freshly harvested seed has an 80% germination capacity when exposed to alternating temperatures of 30°C:20°C."

Qsn #	Question	Answer
603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown. No evidence found

604	Self-compatible or apomictic	y
	Source(s)	Notes
	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] "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, Adenanthera."
	Hacker, J. B. 1990. A Guide to Herbaceous and Shrub Legumes of Queensland. University of Queensland Press, St. Lucia, Queensland, Australia	Mimosa pudica is "self-pollinating"

605	Requires specialist pollinators	n
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Flowers in globose or ovoid, pedunculate heads, these 1-5 in the leafaxils, 8-10 mm in diameter (excl. stamens), sparsely to densely hispid; corolla red in upper part, 2-2.5 mm long; stamens 4(-6); filaments pink to lavender, 4.5-6 mm long." [Flowers unspecialized]
	Francis, J. K. (ed.). 2004. Wildland shrubs of the United States and its Territories: thamnisc descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"The species is both wind (Chieng and Huang 1998) and bee-pollinated (Payawal and others 1991)."

606	Reproduction by vegetative fragmentation	n
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plane reproduces only by seed which may germinate at any time of the year provided moisture is available"

607	Minimum generative time (years)	1
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Annual life cycle] "Creeping annual or perennial herbs..."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y
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Qsn #	Question	Answer
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"The relatively small pod with its stiff marginal bristles adheres to wool, fur and clothing and may be transported considerable distances by these agents."

702	Propagules dispersed intentionally by people	n
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"It was probably introduced to Australia as an ornamental"
	Wagner, W.L., Herbst, D.R. & Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Possibly intentionally introduced in the past, but now widespread with no current evidence of intentional introduction] "in Hawai'i naturalized in open, dry to wet, disturbed areas, especially lawns, 5-700 m, on Kaua'i, O'ahu, Lana'i, Maui, and Hawai'i. First collected on O'ahu in 1864-1865 (Mann & Brigham 402, BISH), but since it was widespread prior to 1871 (Hillebrand, 1888), probably introduced considerably earlier than the 1860s."

703	Propagules likely to disperse as a produce contaminant	
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Some are moved in contaminated sand and gravel used in building and roadworks." [As a crop weed, also has the potential to become a crop contaminant]

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"The relatively small pod with its stiff marginal bristles adheres to wool, fur and clothing and may be transported considerable distances by these agents. The one-seeded segments which form later, leaving the bristles behind, move easily in flowing water, particularly flood waters. Some are moved in contaminated sand and gravel used in building and roadworks."

705	Propagules water dispersed	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"The one-seeded segments which form later, leaving the bristles behind, move easily in flowing water, particularly flood waters."

706	Propagules bird dispersed	n
	Source(s)	Notes

Qsn #	Question	Answer
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"The relatively small pod with its stiff marginal bristles adheres to wool, fur and clothing and may be transported considerable distances by these agents. The one-seeded segments which form later, leaving the bristles behind, move easily in flowing water, particularly flood waters. Some are moved in contaminated sand and gravel used in building and roadworks."

707	Propagules dispersed by other animals (externally)	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"The relatively small pod with its stiff marginal bristles adheres to wool, fur and clothing and may be transported considerable distances by these agents."

708	Propagules survive passage through the gut	y
	Source(s)	Notes
	Samansiri, K. A. P., & Weerakoon, D. K. (2008). A study on the seed dispersal capability of Asian elephants in the northwestern region of Sri Lanka. <i>Gajah</i> , 28, 19-24	"Table 1. List of non-cultivated plant species whose seeds were observed in elephant dung (n=145)." [Mimosa pudica seeds found in 6 dung piles]
	Chaturanga, W. G. D., & Ranawana, K. B. (2017). A preliminary investigation of seed dispersal by elephants (<i>Elephas maximus maximus</i>) in Kumaragala Forest Reserve, Matale District, Sri Lanka. <i>Ceylon Journal of Science</i> , 46(3), 39-46	"Table 2: List of non-cultivated plant seeds which were dispersed by the elephants in the study area." [Includes Mimosa pudica]

801	Prolific seed production (>1000/m2)	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Common sensitive plant seeds prolifically, a single plant producing from 600 to 700 seeds in a season."

802	Evidence that a persistent propagule bank is formed (>1 yr)	y
	Source(s)	Notes
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Laboratory tests show that freshly harvested seed has an 80% germination capacity when exposed to alternating temperatures of 30°C:20°C. The remaining 'hard' seed can be induced to germinate by physical or sulphuric acid scarification. Some laboratory stored seed has remained viable for 19 years."
	Elias, T. S. (1974). The genera of Mimosoideae (Leguminosae) in the southeastern United States. <i>Journal of the Arnold Arboretum</i> , 5 (1), 67-118	"Leguminous seeds, in general, are long lived, and those of a number of mimosoids have been shown to be remarkable in this respect. Seeds of Mimosa pudica have germinated 44 years after collection ..."

803	Well controlled by herbicides	y
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Qsn #	Question	Answer
	Source(s)	Notes
	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	"Management: Very sensitive to picloram (0.25 lb/ acre), sensitive to triclopyr (1lb/acre). Poor control with dicamba and 2,4-D. Soil-applied tebuthiuron effective."
	Parsons, W.T. & Cuthbertson, E.G. 2001. Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"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
	Plantwise. 2017. Plantwise Technical Factsheet. sensitive plant (<i>Mimosa pudica</i>). https://www.plantwise.org . [Accessed 26 Dec 2017]	"Very young plants can be uprooted by hand (Chadhokar, 1978), but older plants have woody stems and are difficult to pull up by hand (McConnell and Muniappan, 1991). Cuts caused by the sharp prickles when hand weeding can result in serious septic sores (Waterhouse and Norris, 1987). Hand weeding and hoeing are the practices commonly followed for weed control in upland rice areas in Kerala, India (Joseph and Bridgit, 1993)."

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	Wagner, W.L., Herbst, D.R. & Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"in Hawai'i naturalized in open, dry to wet, disturbed areas, especially lawns, 5-700 m, on Kaua'i, O'ahu, Lana'i, Maui, and Hawai'i." [Unknown, but widely distributed in Hawaiian Islands]

Summary of Risk Traits:

High Risk / Undesirable Traits

- Elevation range exceeds 1000 m, demonstrating environmental versatility
- Thrives in tropical climates
- Naturalized in the Hawaiian Islands & elsewhere
- Weed of lawns & landscaping
- Agricultural weed of several crops
- Possible environmental weed
- Other *Mimosa* species are invasive
- Sparsely to densely prickly
- Potentially allelopathic
- Contains mimosine, which may be toxic to livestock
- Alternate host of nematodes
- Tolerates many soil types
- May form dense cover
- Reproduces by seeds
- Able to reach maturity in <1 year
- Seeds dispersed externally on clothing & fur, as a contaminant in soil & sand, & also by water
- Seeds survive gut passage if consumed by animals
- Prolific seed production
- Seeds viable for years, with potential to form a persistent seed bank

Low Risk Traits

- Provides fodder for livestock (palatable despite reports of toxicity)
- Ornamental, medicinal & novelty uses