Taxon: Sida acuta Burm. f.

Family: Malvaceae

Common Name(s): broomweed
common wireweed
southern sida
spiny-head sida
teaweed

Synonym(s): Sida carpinifolia L. f.

Assessor: Chuck Chimera **Status:** Approved **End Date:** 24 Sep 2025

WRA Score: 19.0 **Designation:** H(Hawai'i) **Rating:** High Risk

Keywords: Subshrub, Crop Weed, Dense Stands, Self-fertile, Seed Contaminant

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	y = 1*multiplier (see Appendix 2), n = 0	y
303	Agricultural/forestry/horticultural weed	y = 2*multiplier (see Appendix 2), n = 0	y
304	Environmental weed		
305	Congeneric weed	y = 1*multiplier (see Appendix 2), n = 0	y
401	Produces spines, thorns or burrs	y = 1, n = 0	n
402	Allelopathic		
403	Parasitic	y = 1, n = 0	n
404	Unpalatable to grazing animals		
405	Toxic to animals		
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		

Qsn #	Question	Answer Option	Answer
409	Is a shade tolerant plant at some stage of its life cycle	y = 1, n = 0	n
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y = 1, n = 0	y
411	Climbing or smothering growth habit	y = 1, n = 0	n
412	Forms dense thickets	y = 1, n = 0	y
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	y = 1, n = -1	y
704	Propagules adapted to wind dispersal	y = 1, n = -1	n
705	Propagules water dispersed	y = 1, n = -1	n
706	Propagules bird dispersed	y = 1, n = -1	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/m2)	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	y = 1, n = -1	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y = -1, n = 1	n

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	[Not domesticated] "Spinyhead sida is a native of Central America. This equatorial plant is now widely spread throughout the tropics and subtropics of the world, including the South West Pacific islands and Australia. It grows between sea level and 1500 meters altitude in Indonesia, is found in the foothills of the Peruvian Andes, and at medium and higher levels in Kenya."

102	**Has the species become naturalized where grown?**	
	Source(s)	**Notes**
	WRA Specialist. (2025). Personal Communication	NA

103	**Does the species have weedy races?**	
	Source(s)	**Notes**
	WRA Specialist. (2025). 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**
	POWO (2025). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 23 Sep 2025]	"Native to: Andaman Is., Aruba, Assam, Bahamas, Bangladesh, Belize, Benin, Brazil North, Brazil Northeast, Brazil South, Brazil Southeast, Brazil West-Central, Burkina, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, China South-Central, China Southeast, Christmas I., Cocos (Keeling) Is., Congo, Cuba, Dominican Republic, DR Congo, East Himalaya, El Salvador, Eswatini, Ethiopia, French Guiana, Gabon, Gambia, Ghana, Guatemala, Guinea, Guinea-Bissau, Gulf of Guinea Is., Guyana, Hainan, Haiti, Honduras, India, Ivory Coast, Jamaica, Kenya, KwaZulu-Natal, Laos, Leeward Is., Lesser Sunda Is., Liberia, Malawi, Malaya, Mali, Mexico Central, Mexico Gulf, Mexico Northeast, Mexico Northwest, Mexico Southeast, Mexico Southwest, Mozambique, Myanmar, Namibia, Nansei-shoto, Nepal, Netherlands Antilles, Nicaragua, Nicobar Is., Niger, Nigeria, Northern Provinces, Ogasawara-shoto, Panamá, Peru, Puerto Rico, Rwanda, Senegal, Sierra Leone, Socotra, Somalia, South China Sea, Southwest Caribbean, Sri Lanka, Sudan-South Sudan, Suriname, Taiwan, Tanzania, Thailand, Togo, Trinidad-Tobago, Turks-Caicos Is., Uganda, Venezuela, Venezuelan Antilles, Vietnam, Windward Is., Zimbabwe "

202	**Quality of climate match data**	**High**
	Source(s)	**Notes**

Qsn #	Question	Answer
	POWO (2025). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 23 Sep 2025]	"Native to: Andaman Is., Aruba, Assam, Bahamas, Bangladesh, Belize, Benin, Brazil North, Brazil Northeast, Brazil South, Brazil Southeast, Brazil West-Central, Burkina, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, China South-Central, China Southeast, Christmas I., Cocos (Keeling) Is., Congo, Cuba, Dominican Republic, DR Congo, East Himalaya, El Salvador, Eswatini, Ethiopia, French Guiana, Gabon, Gambia, Ghana, Guatemala, Guinea, Guinea-Bissau, Gulf of Guinea Is., Guyana, Hainan, Haiti, Honduras, India, Ivory Coast, Jamaica, Kenya, KwaZulu-Natal, Laos, Leeward Is., Lesser Sunda Is., Liberia, Malawi, Malaya, Mali, Mexico Central, Mexico Gulf, Mexico Northeast, Mexico Northwest, Mexico Southeast, Mexico Southwest, Mozambique, Myanmar, Namibia, Nansei-shoto, Nepal, Netherlands Antilles, Nicaragua, Nicobar Is., Niger, Nigeria, Northern Provinces, Ogasawara-shoto, Panamá, Peru, Puerto Rico, Rwanda, Senegal, Sierra Leone, Socotra, Somalia, South China Sea, Southwest Caribbean, Sri Lanka, Sudan-South Sudan, Suriname, Taiwan, Tanzania, Thailand, Togo, Trinidad-Tobago, Turks-Caicos Is., Uganda, Venezuela, Venezuelan Antilles, Vietnam, Windward Is., Zimbabwe "

203	Broad climate suitability (environmental versatility)	y
	Source(s)	**Notes**
	The National Gardening Association. (2025). Common Wireweed (Sida acuta). https://garden.org/plants/view/113237/Common-Wireweed-Sida-acuta/. [Accessed 23 Sep 2025]	"Minimum cold hardiness: Zone 9a -6.7 °C (20 °F) to -3.9 °C (25 °F) Maximum recommended zone: Zone 11"
	van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). (2001). Plant Resources of South-East Asia No 12(2): Medicinal and Poisonous Plants 2. PROSEA Foundation, Bogor, Indonesia	"S. ac uta grows on roadsides, dams, fields, lawns, waste places and teak-forests, common at sea-level but also up to 1500 m altitude."
	WRA Specialist. (2025). Personal Communication	Sida acuta exhibits broad climate suitability, thriving in diverse tropical and subtropical environments and an elevation range of 1500 meters

204	Native or naturalized in regions with tropical or subtropical climates	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.	"A polymorphic, pantropical weed; in Hawai'i naturalized in open and shaded sites, from near sea level up to ca. 790 m, on Kaua'i, O'ahu, Maui, and Hawai'i. First collected on Kaua'i in 1895 (Heller 2424, BISH, CU)."

205	Does the species have a history of repeated introductions outside its natural range?	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.	"A polymorphic, pantropical weed; in Hawai'i naturalized in open and shaded sites, from near sea level up to ca. 790 m, on Kaua'i, O'ahu, Maui, and Hawai'i. First collected on Kaua'i in 1895 (Heller 2424, BISH, CU)."
	POWO (2025). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/. [Accessed 23 Sep 2025]	"ntroduced into: Alabama, Aldabra, Bermuda, Canary Is., Caroline Is., Central American Pacific Is., Chagos Archipelago, Comoros, Cook Is., Egypt, Fiji, Galápagos, Maldives, Marianas, Marquesas, Marshall Is., Mauritius, Nauru, New Caledonia, Niue, Norfolk Is., Palestine, Rodrigues, Réunion, Samoa, Seychelles, Society Is., Solomon Is., Tonga, Tuamotu, Tubuai Is., Vanuatu, West Himalaya "

Qsn #	Question	Answer
301	Naturalized beyond native range	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.	"A polymorphic, pantropical weed; in Hawai'i naturalized in open and shaded sites, from near sea level up to ca. 790 m, on Kaua'i, O'ahu, Maui, and Hawai'i. First collected on Kaua'i in 1895 (Heller 2424, BISH, CU)."
	USDA, Agricultural Research Service, National Plant Germplasm System. (2025). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch. [Accessed 22 Sep 2025]	"Naturalized Africa MACARONESIA: Spain [Canarias] NORTHERN AFRICA: Egypt NORTHEAST TROPICAL AFRICA: Somalia EAST TROPICAL AFRICA: Kenya, Tanzania, Uganda WEST-CENTRAL TROPICAL AFRICA: Burundi, Cameroon, Democratic Republic of the Congo, Congo, Gabon, Rwanda WEST TROPICAL AFRICA: Côte D'Ivoire, Ghana, Liberia, Nigeria, Sierra Leone, Togo SOUTH TROPICAL AFRICA: Mozambique, Malawi, Zambia SOUTHERN AFRICA: Eswatini, South Africa WESTERN INDIAN OCEAN: British Indian Ocean Terr [Diego Garcia], Madagascar, Seychelles, Mayotte Asia-Temperate ARABIAN PENINSULA: Oman WESTERN ASIA: Israel, Jordan Asia-Tropical PAPUASIA: Papua New Guinea, Solomon Islands Australasia AUSTRALIA: Australia Pacific NORTH-CENTRAL PACIFIC: United States [Hawaii] NORTHWESTERN PACIFIC: Micronesia, Marshall Islands, Palau, United States [Guam, Northern Mariana Islands] SOUTH-CENTRAL PACIFIC: French Polynesia SOUTHWESTERN PACIFIC: Fiji, New Caledonia, Niue, Nauru, Vanuatu, Samoa Southern America WESTERN SOUTH AMERICA: Ecuador [Galápagos] Other (exact native range obscure)"

302	Garden/amenity/disturbance weed	y
	Source(s)	Notes
	Agyakwa, C.W. & Akobundu, I.O. (1998). A Handbook of West African Weeds. International Institute of Tropical Agriculture, Ibadan, Nigeria	"Habitat: A pan-tropical weed of cultivated crops, pastures, roadsides and waste areas. It is widespread in West Africa."
	Singh, S. & Walia, U.S. (2010). Identification of Weeds and Their Control Measures. Scientific Publishers, Jodhpur	"It is most common weed along road-sides, gardens, waste places and canals. It flowers and fruits from September to October. Propagation is through seeds."
	HerbiGuide. (2025). Spinyhead Sida. https://www.herbiguide.com.au/Descriptions/hg_Spinyhead_Sida.htm. [Accessed 23 Sep 2025]	"Weed of roadsides, plantations, pastures and cultivated fields, sugar cane, tropical crops and disturbed areas. It competes strongly with crops for light and nutrients. It is one of the most serious weeds of Northern Australia."

303	Agricultural/forestry/horticultural weed	y
	Source(s)	Notes

Qsn #	Question	Answer
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"In Australia, spinyhead sida is widespread as a weed of pasture and sugarcane in central and northern coastal Queensland. It is also prominent in the pastures and di curbed area of the Top End of the Northern Territory, extending from the Gulf of Carpentaria to the Victoria River district, especially north of Katherine, and al o into the Ord River district of Western Australia. It does not occur in any other State." ... "T his deep-rooted plant competes strongly with crops and pasture for light and nutrients. It is a serious weed of several crops, ranging from onions and beans in Brazil to coffee in Colombia, coconuts in Trinidad, rubber in Malaysia , pastures in the Markham Valley of Papua New Guinea, and sugarcane and pastures in Australia. Together with flannel weed (see page 511), spinyhead sida has become one of the most serious weed of crops and pastures in the Top End of the Northern Territory. Although it is grazed occasionally, infested area are usually ignored by stock. In consequence, the animals eating more of the remaining species, reduce their competitiveness and favour the spread and persistence of the weed."
	van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). (2001). Plant Resources of South-East Asia No 12(2): Medicinal and Poisonous Plants 2. PROSEA Foundation, Bogor, Indonesia	"Sida acuta, Sida cordifolia and Sida rhombifolia are considered noxious weeds in many crops and pastures, because of the tough stems and the ability to grow fast from seed. Overgrazing will cause a rapid increase of the weeds, as the stems are unpalatable to cattle. "
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Weed of: Bananas, Cereals, Cotton, Forestry, Nursery Production, Orchards & Plantations, Pastures"

304	Environmental weed	
	Source(s)	**Notes**
	Queensland Government. (2025). Weeds of Australia - Sida acuta. https://keyserver.lucidcentral.org/weeds/data/media/Html/sida_acuta.htm. [Accessed 23 Sep 2025]	[Possibly, although environmental impacts are unspecified, and other references refer to impacts in agricultural settings] "Spiny-head sida (Sida acuta) is regarded as an environmental weed in northern Australia (i.e. northern Queensland, the northern parts of the Northern Territory and northern Western Australia)."
	van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). (2001). Plant Resources of South-East Asia No 12(2): Medicinal and Poisonous Plants 2. PROSEA Foundation, Bogor, Indonesia	[Primarily a weed of agriculture] "Sida acuta, Sida cordifolia and Sida rhombifolia are considered noxious weeds in many crops and pastures, because of the tough stems and the ability to grow fast from seed. Overgrazing will cause a rapid increase of the weeds, as the stems are unpalatable to cattle. "

305	Congeneric weed	y
	Source(s)	**Notes**
	van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). (2001). Plant Resources of South-East Asia No 12(2): Medicinal and Poisonous Plants 2. PROSEA Foundation, Bogor, Indonesia	"Sida acuta, Sida cordifolia and Sida rhombifolia are considered noxious weeds in many crops and pastures, because of the tough stems and the ability to grow fast from seed. Overgrazing will cause a rapid increase of the weeds, as the stems are unpalatable to cattle."
	Vanangamudi, K., Bhaskaran, M., Balavidhya, S. & Arthanari, M. (2013). Weed Seed Biology. Scientific Publishers, Jodhpur	[Sida spinosa] "Effects on crop production : All agricultural cultivated land may be infested by Sida spinosa, especially cotton and soybean fields, as well as pastures, meadows and uncultivated land. Sida spinosa is an annual weed, reproducing by seeds, which strongly competes with crops for water and nutrients. It can seriously reduce the yield and quality of harvested cereals and other field crops. In pastures, the weed replaces other herbaceous plants, reducing the quality of pasturage."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	A number of Sida species area listed as invasive weeds

401	Produces spines, thorns or burrs	n

Qsn #	Question	Answer
	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.	[No evidence] "Erect or sometimes spreading herbs or subshrubs 0.5-1.5 m tall, glabrate to moderately pubescent with simple and stellulate hairs. Leaves 2-ranked, blades lanceolate to ovate, 3-10(-12) cm long, margins serrate to near the unequally sided base, petioles much shorter than blades, stipules narrowly falcate, ribbed, 5-8 mm long."

402	Allelopathic	
	Source(s)	**Notes**
	Kaliyadasa, E., & Jayasinghe, S. L. (2018). Screening of allelopathic activity of common weed species occurring in agricultural fields. African Journal of Agricultural Research, 13(47), 2708-2715	[Sida acuta exhibits allelopathic properties. Its leaf litter significantly inhibited the growth of lettuce seedlings under laboratory conditions, resulting in a 45.54% reduction in growth compared to the control. However, its allelopathic effect was moderate when compared to the other 26 weed species tested in this particular experiment. It was not ranked among the most strongly allelopathic species like Ageratum conyzoides or Cildemia hirta.] "The investigation of allelopathic effects of different plant species is important to prevent serious crop losses that would arise. The usage of such materials as mulch, cover crops or residues will be useful to implement in integrated weed management strategies of agricultural fields. Therefore, this study was conducted to screen the allelopathic effect of selected plant species using seedlings growth of lettuce (Lactuca sativa L.) as an indicator. The sandwich method was used and 20 mg of dried plant material, resembling the leaf litter, from 27 species were placed in petri dishes. Twenty-eight treatments including the control treatment were arranged in a Completely Randomized Design (CRD). On the fifth day after the establishment of lettuce seeds, hypocotyl length (cm), radicle length (cm) and total height (cm) of seedlings were measured. The inhibitory percentage was calculated and a dendrogram with single linkage was developed. Results revealed that the lowest hypocotyl and radicle lengths with the highest inhibitory percentage were recorded for Ageratum conyzoides, Cassia occidentals and Clidemia hirta when compared to the control treatment ($p<0.05$). Weed species expressed varying degree of inhibitory effects on growth performances of lettuce seedlings. Further studies need to be carried out to explore the effects of allelopathy on crop plants."

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.	"Erect or sometimes spreading herbs or subshrubs 0.5-1.5 m tall, glabrate to moderately pubescent with simple and stellulate hairs." [Malvaceae. No evidence in family]

404	Unpalatable to grazing animals	
	Source(s)	**Notes**
	Ekwe, O. O., Ali, O. O., Nwali, C. C., & Ukpanah, U. A. (2020). Forage species availability, food preference and grazing behavior of goats in southeastern Nigeria. Nigerian Journal of Animal Science, 22(2), 147-152	"Table 2: Breeds and overall preference for forage species" [The results in Table 2 show that Sida acuta was one of the least preferred forages overall. The palatability of Sida acuta is not absolute but depends heavily on the species and breed of the browsing animal. It is generally a low-preference forage shrub, but certain animals like Red Sokoto goats will consume it.]

Qsn #	Question	Answer
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	[Eaten, but not preferred] "Although it is grazed occasionally, infested areas are usually ignored by stock. In consequence, the animals eating more of the remaining species, reduce their competitiveness and favour the spread and persistence of the weed." ... "Although stock seemingly ignore spinyhead side, tests in Ecuador suggest that the plant is more digestible and has a higher crude protein content than guinea grass."

405	Toxic to animals	
	Source(s)	**Notes**
	HorseDVM. (2025). Common Wireweed Sida acuta. https://horsedvm.com/poisonous/sida-carpinifolia. [Accessed 23 Sep 2025]	"Sida acuta (Sida carpinifolia), also known as common wireweed, is a shrubby perennial flower which grows abundantly in the tropics. Sida acuta contains swainsonine. It is responsible for causing numerous cases of lysosomal storage disease and occasional reproductive problems in cattle, goats, horses, sheep, and deer. Symptoms Abdominal Distension Ataxia Death"
	HerbiGuide. (2025). Spinyhead Sida. https://www.herbiguide.com.au/Descriptions/hg_Spinyhead_Sida.htm. [Accessed 24 Sep 2025]	"Toxicity: Not recorded as toxic."
	WRA Specialist. (2025). Personal Communication	Reports of livestock poisoning attributed to Sida carpinifolia—a plant containing the neurotoxic alkaloid swainsonine—may be misattributed to Sida acuta, as the former is a recognized synonym of the latter. However, S. carpinifolia is also treated as a separate species in some taxonomic classifications. While Sida acuta and Sida carpinifolia are often considered the same species, the potential for misidentification exists due to taxonomic differences. Both plants contain swainsonine and can cause similar toxic effects in livestock. Therefore, it's essential to consider the possibility of S. acuta being the source of poisoning in regions where it is prevalent.

406	Host for recognized pests and pathogens	
	Source(s)	**Notes**
	Raju, A. J., & Rani, D. S. (2016). Pollination ecology of Sida acuta, S. cordata and S. cordifolia (Malvaceae). Phytologia Balcanica, 22 (3): 363 – 376	"The cotton mealy bug, Phenacoccus solenopsis, is polyphagous and uses a number of weeds as host plants. One such important weed is Sida acuta, which occurs on a wide range of soil types and reproduces by seeds (Vennila & al. 2013)."
	Wilson, C. G., & Flanagan, G. J. (1990). The phytophagous insect fauna of the introduced shrubs' Sida acuta'Burm. f. and'Sida cordifolia'L. in the Northern Territory, Australia. TheAustralian Entomologist, 17(1), 7-15	"The phytophagous insect fauna on the malvaceous weeds 'Sida acuta' Burm.f. and 'S. cordifolia' L. are recorded for the Northern Territory, Australia. Most of the 20 insect species on 'S. acuta' and the 23 insect species on 'S. cordifolia' are rarely or only occasionally encountered, are native or naturalized, polyphagous, ectophagous chewing or sucking species 'S. cordifolia' is more fully exploited by phytophagous insects than is 'S. acuta' but vacant niches exist on both plants for introduced insects for biological control of these weeds."

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	"Used in Ayurveda and Sidha. Roots tonic, astringent, cooling, stomachic, aphrodisiac, diaphoretic, laxative, used in urinary and nervous diseases, disorders of bile, liver and blood; crushed root infusion drunk to hasten birth; root paste applied on boils; roots chewed to relieve toothache and caries; root decoction given to get relief in physical weakness. A decoction of the leaves and roots against hemorrhoids, impotency and for expelling intestinal worms. Bark used as genital stimulant and/or depressant. Leaves or bark or roots macerated in water and the strained water given for dysentery of children; leaf juice mixed with leaf juice of Ficus gibbosa taken with water in dysuria; poultice of roots of Glycosmis pentaphylla and Sida acuta applied on mumps; poultice of cooked leaves of Malvastrum coromandelianum together with those of Sida acuta applied to abscesses; root juice of Derris robusta mixed with the juice of Sida acuta used for sore throat; leaves ground with red soil applied as plaster on the fractured bone; leaves pounded and applied to boils, blisters; leaf paste applied on skin diseases, boils, blisters, cuts and wounds; leaf extract taken for acidity. Mucilaginous leaves emollient, abortifacient, used for venomous stings, bites, sores, arthritis, rheumatism, fever, cutaneous and subcutaneous parasitic infection, diarrhea, dysentery; for snakebite, paste of chewed leaves applied on the incision. Seeds used to cure inflammatory swellings; seeds powder for leucorrhea, gonorrhea and spermatorrhea. Magico-religious beliefs, mystical. Veterinary medicine, leaves with Pedalium murex leaves given orally to induce ovulation."
	WRA Specialist. (2025). Personal Communication	Based on scientific research, Sida acuta is generally considered safe for human use at moderate doses, but it does contain bioactive compounds that require caution. Sida acuta has been used in traditional medicine in different parts of the world, but that doesn't mean it is safe or effective for everyone. Scientific studies on its safety and benefits are limited, and taking the wrong amount or preparation could be harmful. For your health and safety, please do not use this plant as medicine without professional guidance. Always check with a licensed healthcare provider before trying any herbal remedies, especially if you are pregnant, nursing, taking medications, or managing health conditions.

408	Creates a fire hazard in natural ecosystems	
	Source(s)	**Notes**
	Weeds Australia. (2025). Spinyhead Sida, Spiny-head Sida, Spiny-headed Sida, Sida Sida acuta Burm. f. https://weeds.org.au/profiles/spinyhead-sida-spiny/. [Accessed 24 Sep 2025]	[Fire risk not listed among impacts] "Spinyhead Sida was included in the list of 71 species that were nominated by state and territory governments for assessment as Weeds of National Significance (WONS). Following an assessment process, Spinyhead Sida was not included as one of the 20 WONS. However, it remains a weed of potential national significance."
	WRA Specialist. (2025). Personal Communication	Although direct evidence is lacking, Sida acuta can grow in dense patches and dry out during the dry season, creating extra fuel for wildfires. While not the most flammable plant, large infestations might increase fire intensity and spread. Managing or removing dense stands can help reduce this risk.
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	Not listed among impacts

409	Is a shade tolerant plant at some stage of its life cycle	n
	Source(s)	**Notes**
	HerbiGuide. (2025). Spinyhead Sida. https://www.herbiguide.com.au/Descriptions/hg_Spinyhead_Sida.htm. [Accessed 23 Sep 2025]	"Climate: Tropical regions with a distinct wet and dry season. Subtropics."

Qsn #	Question	Answer
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Seedlings are susceptible to shading and competition from other plants, especially ocher spinyhead sida plants."
	The National Gardening Association. (2025). Common Wireweed (Sida acuta). https://garden.org/plants/view/113237/Common-Wireweed-Sida-acuta/. [Accessed 23 Sep 2025]	"Sun Requirements: Full Sun to Partial Shade"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	**Notes**
	CABI. (2025). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 24 Sep 2025]	" ... found on most soil types, except seasonally flooded clays ... "
	Patil Vishwas, S., & Jadhav Prakash, S. (2013). A Survey of Weed Flora in Crop Fields of Satara Tahsil (MS), India. Universal Journal of Environmental Research & Technology, 3(2): 233-241	"Sida acuta has several positive attributes that include drought resistance and adaptability to a wide variety of soil conditions."
	Weeds Australia. (2025). Spinyhead Sida, Spiny-head Sida, Spiny-headed Sida, Sida Sida acuta Burm. f. https://weeds.org.au/profiles/spinyhead-sida-spiny/. [Accessed 24 Sep 2025]	"Spinyhead Sida tends to prefer open scrublands of the wet/dry tropics where it grows in an array of soil types in disturbed areas, such as roadside verges, campsites, degraded pastures, tree plantations and areas under cultivation (Navie 2004)."
	Raju, A. J., & Rani, D. S. (2016). Pollination ecology of Sida acuta, S. cordata and S. cordifolia (Malvaceae). Phytologia Balcanica, 22 (3): 363 – 376	"The cotton mealy bug, Phenacoccus solenopsis, is polyphagous and uses a number of weeds as host plants. One such important weed is Sida acuta, which occurs on a wide range of soil types and reproduces by seeds (Vennila & al. 2013)."

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.	"Erect or sometimes spreading herbs or subshrubs 0.5-1.5 m tall, glabrate to moderately pubescent with simple and stellulate hairs."

412	Forms dense thickets	y
	Source(s)	**Notes**
	Patil Vishwas, S., & Jadhav Prakash, S. (2013). A Survey of Weed Flora in Crop Fields of Satara Tahsil (MS), India. Universal Journal of Environmental Research & Technology, 3(2): 233-241	"Sida acuta grows in dense stands along highways, agricultural fields, and the edges of forested lands."

Qsn #	Question	Answer
	Grace, B., Paynter, J., van Klinken, R., & Wirt, L. (2006). Biocontrol of weeds in the Northern Territory: what has it achieved? In C. Preston, J. H. Watts, & N. D. Crossman (Eds.), Proceedings of the 15th Australian Weeds Conference (pp. 553-556). Weed Management Society of South Australia	[Forms dense stands in the absence of biocontrol agents] "Spinyhead sida colonises heavily grazed and disturbed areas such as roadsides, and is unpalatable to stock. Large stands of sida previously occurred throughout grazing land in northern Australia and it was a nuisance in small rural blocks around Darwin. Biocontrol of sida commenced in 1985 and the leaf-feeding beetle Calligrapha pantherina Stål was released in 1989. The beetle defoliates plants, reducing plant size, seed production and seedbanks (Lonsdale et al. 1995). A survey of land managers found reductions in the costs of herbicide and mechanical control since the introduction of the beetle, and some landholders considered that sida had been replaced by useful pasture species (Flanagan et al. 2000). Beetle numbers decline over the dry season, and redistribution is often required. Although it is not possible to measure economic impacts of the beetle from the survey, the fact that many landholders value the beetle, and will ensure its survival over the dry season, and the large number of requests that the NT Weeds Branch receives for shipments of this beetle suggests that the beetle has had a large impact on a highly visible problem weed."

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] "in Hawai'i naturalized in open and shaded sites, from near sea level up to ca. 790 m"

502	Grass	n
	Source(s)	**Notes**
	USDA, Agricultural Research Service, National Plant Germplasm System. (2025). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch. [Accessed 22 Sep 2025]	"Genus: Sida Family: Malvaceae Subfamily: Malvoideae Tribe: Malveae"

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.	Malvaceae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**
	Agyakwa, C.W. & Akobundu, I.O. (1998). A Handbook of West African Weeds. International Institute of Tropical Agriculture, Ibadan, Nigeria	"Description: An erect, branched, small perennial shrub with a woody tap root, and hairy branches up to 1 m high that reproduces from seeds."

601	Evidence of substantial reproductive failure in native habitat	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	[No evidence] "Spinyhead sida is a native of Central America. This equatorial plant is now widely spread throughout the tropics and subtropics of the world, including the South West Pacific islands and Australia. It grows between sea level and 1500 meters altitude in Indonesia, is found in the foothills of the Peruvian Andes, and at medium and higher levels in Kenya."

602	Produces viable seed	y
	Source(s)	**Notes**
	Singh, S. & Walia, U.S. (2010). Identification of Weeds and Their Control Measures. Scientific Publishers, Jodhpur	"It is most common weed along road-sides, gardens, waste places and canals. It flowers and fruits from September to October. Propagation is through seeds."
	van Valkenburg, J.L.C.H. and Bunyapraphatsara, N. (Editors). (2001). Plant Resources of South-East Asia No 12(2): Medicinal and Poisonous Plants 2. PROSEA Foundation, Bogor, Indonesia	"Sida produces large amounts of seed. Seeds from S. acuta have a germination rate of 54%, a month after harvesting."

603	Hybridizes naturally	
	Source(s)	**Notes**
	Raju, A. J., & Rani, D. S. (2016). Pollination ecology of Sida acuta, S. cordata and S. cordifolia (Malvaceae). Phytologia Balcanica, 22 (3): 363 – 376	[Unknown. Hybrids possible in genus] "Dawar & al. (1996) reported that natural hybridization takes place between S. ovata and S. tiagii. These authors showed supporting evidence for the data on morphology, phenolic chemistry, cytology, and pollen and seed fertility. Dawar & al. (1994) mentioned that S. ovata, S. tiagii and their hybrids are facultative autogamous and hybridization between the two species takes place in natural populations through the Cuckoo Wasp, Chrysis species."

604	Self-compatible or apomictic	y
	Source(s)	**Notes**
	Raju, A. J., & Rani, D. S. (2016). Pollination ecology of Sida acuta, S. cordata and S. cordifolia (Malvaceae). Phytologia Balcanica, 22 (3): 363 – 376	"The flowers facilitate the occurrence of delayed autonomous selfing by the curling of styles that enables the stigmas touch the anthers, and also by the bending of stamens upward late in flowers causing the anthers to collide with the stigmas. In autonomous pollination, fruit set is 63 % and seed set is 61 % (Table 4). The flowers close back within three hours and the petals and sex organs fall off on the morning of the next day. Furthermore, on rainy days, the rain drops falling on the flowers splash the dehisced anthers and in effect the pollen flies off and deposits on the stigmas, due to which self-pollination occurs."

605	Requires specialist pollinators	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	Raju, A. J., & Rani, D. S. (2016). Pollination ecology of Sida acuta, S. cordata and S. cordifolia (Malvaceae). Phytologia Balcanica, 22 (3): 363 – 376	"Flower visitors and pollination: The flowers were visited regularly during forenoon period from 08:00 to 11:00 h by bees for both pollen and nectar, and by wasps and butterflies for only nectar (Table 1; Figs 1-3). The bees were Apis dorsata, A. cerana, A. florae, and Trigona iridipennis (Apidae). The wasps were Scolia quadripustulata (Scoliidae) and one unidentified species. The butterflies included members of Pierid, Nymphalid, Lycaenid, and Hesperiid families. The pierids were Catopsilia pomona, C. pyranthe, Eurema hecabe, and Anaphaeis aurota. The nymphalids were Acraea violae, Phalanta phalantha, Junonia lemonias, and Danaus chrysippus. The lycaenids were Pseudozizeeria maha, Zizina otis, Chilades pandava, and Jamides celeno. The hesperiid was Borbo cinnara. Bees accounted for 39 %, wasps for 8 % and butterflies for 53 % of all visits made during the forenoon period. Among the butterflies, pierids accounted for 36 %, lycaenids for 30 %, nymphalids for 29 %, and hesperiids for 5 % of all visits."

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	"While the main germination period in northern Australia is the first one or two months of the wet season, seeds continue to germinate intermittently throughout the summer if condition remain suitable. Plants establish rapidly in the absence of competition, flower in mid- to late- summer and mature seed in autumn. Each flower is open for only one day, opening in the morning and wilting in the afternoon. In some areas stems and leaves die in the winter or dry season as soils dry out. new growth develops from the rootstock at the beginning of the following wet season. Where there is no marked dry season, spinyhead sida may continue to flower for most of the year." [Sida acuta does not reproduce by vegetative fragmentation. Its primary mode of reproduction is sexual via seeds.]

607	Minimum generative time (years)	1
	Source(s)	**Notes**
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"While the main germination period in northern Australia is the first one or two months of the wet season, seeds continue to germinate intermittently throughout the summer if condition remain suitable. Plants establish rapidly in the absence of competition, flower in mid- to late- summer and mature seed in autumn. Each flower is open for only one day, opening in the morning and wilting in the afternoon. In some areas stems and leaves die in the winter or dry season as soils dry out. new growth develops from the rootstock at the beginning of the following wet season. Where there is no marked dry season, spinyhead sida may continue to flower for most of the year."

Qsn #	Question	Answer
701	**Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)**	y
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Dispersed by: Humans, Animals, Cattle, Livestock, Vehicles"
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition."

702	**Propagules dispersed intentionally by people**	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.	"A polymorphic, pantropical weed; in Hawai'i naturalized in open and shaded sites, from near sea level up to ca. 790 m, on Kaua'i, O'ahu, Maui, and Hawai'i. First collected on Kaua'i in 1895 (Heller 2424, BISH, CU)."
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition."
	WRA Specialist. (2025). Personal Communication	Sida acuta is not intentionally spread by people in most regions. Its movement is usually accidental, tied to agriculture, transport, or contaminated material.

703	**Propagules likely to disperse as a produce contaminant**	y
	Source(s)	**Notes**
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition."

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	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition." [No evidence]

705	**Propagules water dispersed**	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Dispersed by: Humans, Animals, Cattle, Livestock, Vehicles"

Qsn #	Question	Answer
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition." [Water not identified as an important dispersal vector.]

706	Propagules bird dispersed	n
	Source(s)	**Notes**
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition." [Sida acuta is not primarily bird-dispersed, but birds may contribute occasionally by carrying seeds on their feathers.]

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	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition."

708	Propagules survive passage through the gut	y
	Source(s)	**Notes**
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Spinyhead sida is disseminated only by seed which, aided by the two awns at the apex, adhere to wool, fur, clothing and other fibrous materials. The seeds are also spread as impurities in agricultural produce such as hay and pasture seed, in mud sticking to hooves, footwear, farm machinery and other vehicles. It is also spread when seed ingested by stock is excreted in a viable condition."

801	Prolific seed production (>1000/m2)	y
	Source(s)	**Notes**
	Patil Vishwas, S., & Jadhav Prakash, S. (2013). A Survey of Weed Flora in Crop Fields of Satara Tahsil (MS), India. Universal Journal of Environmental Research & Technology, 3(2): 233-241	"One weed plant can produce hundreds of seeds throughout the growing season."

Qsn #	Question	Answer
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	"Spinyhead sida seeds prolifically. The deep root system extends the life of the plant beyond that of associated species, thus favouring the maturation of many seeds. Most are dormant when shed, providing a long-term seed pool which gives rise to seedlings over many years. Dormancy is induced by the hard impermeable seedcoat, and it can be broken by soaking the seed in sulphuric acid or by scarification. In the field, dormancy is broken when soil acids, bacterial action, and contraction and expansion of the seedcoat, brought about by extremes of temperatures at the soil surface, eventually crack the seedcoat and admit moisture. Even so, it has been shown experimentally chat about 30% of the seed produced in the Northern Territory during one wet season is still dormant at the beginning of the next wet season. The seeds also require high alternating temperatures to stimulate germination."

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	"Spinyhead sida seeds prolifically. The deep root system extends the life of the plant beyond that of associated species, thus favouring the maturation of many seeds. Most are dormant when shed, providing a long-term seed pool which gives rise to seedlings over many years. Dormancy is induced by the hard impermeable seedcoat, and it can be broken by soaking the seed in sulphuric acid or by scarification. In the field, dormancy is broken when soil acids, bacterial action, and contraction and expansion of the seedcoat, brought about by extremes of temperatures at the soil surface, eventually crack the seedcoat and admit moisture. Even so, it has been shown experimentally chat about 30% of the seed produced in the Northern Territory during one wet season is still dormant at the beginning of the next wet season. The seeds also require high alternating temperatures to stimulate germination."

803	Well controlled by herbicides	y
	Source(s)	**Notes**
	Singh, S. & Walia, U.S. (2010). Identification of Weeds and Their Control Measures. Scientific Publishers, Jodhpur	"Control Measures: Application of paraquat/glyphosate/2,4-D when growing in the uncultivated area. Uprooting also helps in its control."
	Parsons, W.T. & Cuthbertson, E.G. (2001). Noxious Weeds of Australia. Second Edition. CSIRO Publishing, Collingwood, Australia	[Certain herbicides are effective] "Seedling weeds in well established pastures can be controlled chemically, although older plants are resistant to most herbicides. Spray with amine 2,4-0 or flowable atrazine as seedlings appear. Control of the older plants is best obtained by slashing in the early part of the wet season and, 2 weeks later, spraying the regrowth with amine 2,4-0. If slashing is not possible, spray the older plants with amine 2,4-0 at the beginning of the wet season and again later. Good control of the older plants has also been obtained, experimentally, by applying glyphosate with a rope-wick applicator (see page 55), preferably using the double pass system, that is, crossing the area twice, at right angles. In maize and sorghum use flowable atrazine."

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

Qsn #	Question	Answer
	Weeds Australia. (2025). Spinyhead Sida, Spiny-head Sida, Spiny-headed Sida, Sida Sida acuta Burm. f. https://weeds.org.au/profiles/spinyhead-sida-spiny/. [Accessed 24 Sep 2025]	"Non-chemical control: Manual control: Small outbreaks of Spinyhead Sida can be grubbed out before flowering, with care being taken to cut the root well below the surface to prevent or minimise regrowth. Larger areas can be controlled through repeated cultivation but this may not be practical. The sowing of well-fertilised "improved" pastures results in a more dense pasture which inhibits the growth of the Sida, with such practices in use in the Northern Territory. However, care should be taken when deciding what to plant as pasture species such as Buffel Grass are also serious environmental weeds (Parsons & Cuthbertson 2001)."
	Patil Vishwas, S., & Jadhav Prakash, S. (2013). A Survey of Weed Flora in Crop Fields of Satara Tahsil (MS), India. Universal Journal of Environmental Research & Technology, 3(2): 233-241	"Sida acuta has several positive attributes that include drought resistance and adaptability to a wide variety of soil conditions. It is a native perennial plant that can tolerate heavy browsing by animals."
	HerbiGuide. (2025). Spinyhead Sida. https://www.herbiguide.com.au/Descriptions/hg_Spinyhead_Sida.htm. [Accessed 24 Sep 2025]	[Requires herbicide treatment or will regrow] "Isolated plants can be mechanically removed if the roots are cut well below the crown. Repeated cultivation provides good control and encourages dormant seed to germinate. Seedlings will need to be controlled for a number of years until the dormant seed bank in the soil is exhausted. Spraying the infested area with 4 L/ha of Atrazine 500g/L and planting triazine tolerant plants will help prevent seedlings establishing. "

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	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.	[No evidence of limiting factors present in the Hawaiian Islands] "A polymorphic, pantropical weed; in Hawai'i naturalized in open and shaded sites, from near sea level up to ca. 790 m, on Kaua'i, O'ahu, Maui, and Hawai'i. First collected on Kaua'i in 1895 (Heller 2424, BISH, CU)."

Summary of Risk Traits:

Sida acuta (spinyhead sida, common wireweed) is a fast-growing shrub that thrives in tropical and subtropical climates. Originally from Central America, it has spread widely across the world and is now established in Hawai'i. This species is highly adaptable, tolerating a broad range of soils and environments, and quickly forms dense thickets that crowd out native plants and pasture species. It produces abundant seeds that persist in the soil for years and spread easily on clothing, livestock, vehicles, and as contaminants in hay or seed. Self-pollination and rapid seed production ensure that populations can grow quickly once established.

As an invasive weed, Sida acuta is considered a serious agricultural and environmental threat. It competes aggressively with crops and pastures, reduces forage quality, and can host pests such as the cotton mealybug. Its dense stands can be difficult to remove, as the plant resprouts after cutting and tolerates heavy disturbance. Although effective herbicides are available, long-term control often requires persistent management to exhaust the seed bank. Preventing new introductions and controlling small populations early are the best ways to protect Hawai'i's landscapes and agriculture from this high-risk species.

High Risk / Undesirable Traits
• Broad climate tolerance (tropical & subtropical; survives in varied soils).
• Naturalized and invasive across many regions worldwide.
• Agricultural, forestry, and horticultural weed.
• Forms dense thickets that outcompete other vegetation.
• Produces large amounts of viable seed (>1000/m²).
• Persistent seed bank (dormant seeds remain viable for years).
• Seeds spread widely:
• Cling to fur, wool, clothing, and vehicles.
• Survive gut passage in livestock.
• Spread as contaminants in produce/hay.
• Self-compatible (can self-pollinate, ensuring reproduction).
• Fast reproductive cycle (flowers and sets seed in 1 year).
• Tolerates grazing, cultivation, and cutting (can regrow).
• Hosts agricultural pests (e.g., cotton mealybug).
• Allelopathic (leaf litter inhibits growth of other plants).
• Sometimes unpalatable or toxic to livestock (linked with swainsonine poisoning).

Low Risk Traits
• Does not produce spines, thorns, or burrs.
• No climbing/smothering growth habit (it's erect/shrubby, not a vine).
• Not strongly shade-tolerant (seedlings especially suffer under shade).
• No specialist pollinator required (pollinated by a wide range of insects).
• Does not reproduce vegetatively (no root fragments, tubers, etc.).
• Can be controlled by herbicides if treated properly.
• Limited evidence of fire hazard (though dense stands may add fuel).
• No consistent evidence of toxicity to humans (used in traditional medicine in some regions, but not broadly harmful).