

Family: *Euphorbiaceae*

Taxon: *Euphorbia neriifolia*

Synonym: *Elaeophorbia neriifolia* (L.) A.Chev.
Euphorbia ligularia Roxb. ex Buch.-Ham.
Tithymalus edulis (Lour.) H.Karst.
Euphorbia edulis Lour.

Common Name: Indian spurge tree
 hedge euphorbia
 milk spurge
 oleander spurge

Questionnaire :	current 20090513	Assessor:	Assessor	Designation:	EVALUATE
Status:	Assessor Approved	Data Entry Person:	Assessor	WRA Score	5
101	Is the species highly domesticated?		y=-3, n=0		n
102	Has the species become naturalized where grown?		y=1, n=-1		
103	Does the species have weedy races?		y=1, n=-1		
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"		(0-low; 1-intermediate; 2-high) (See Appendix 2)		High
202	Quality of climate match data		(0-low; 1-intermediate; 2-high) (See Appendix 2)		High
203	Broad climate suitability (environmental versatility)		y=1, n=0		n
204	Native or naturalized in regions with tropical or subtropical climates		y=1, n=0		y
205	Does the species have a history of repeated introductions outside its natural range?		y=-2, ?=-1, n=0		y
301	Naturalized beyond native range		y = 1*multiplier (see Appendix 2), n= question 205		y
302	Garden/amenity/disturbance weed		n=0, y = 1*multiplier (see Appendix 2)		n
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		y
402	Allelopathic		y=1, n=0		
403	Parasitic		y=1, n=0		n
404	Unpalatable to grazing animals		y=1, n=-1		y
405	Toxic to animals		y=1, n=0		y
406	Host for recognized pests and pathogens		y=1, n=0		
407	Causes allergies or is otherwise toxic to humans		y=1, n=0		y
408	Creates a fire hazard in natural ecosystems		y=1, n=0		n
409	Is a shade tolerant plant at some stage of its life cycle		y=1, n=0		

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0	y
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	n
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	n
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	
605	Requires specialist pollinators	y=-1, n=0	
606	Reproduction by vegetative fragmentation	y=1, n=-1	
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	n
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	
801	Prolific seed production (>1000/m ²)	y=1, n=-1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	
803	Well controlled by herbicides	y=-1, n=1	
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y=-1, n=1	

Designation: EVALUATE

WRA Score 5

Supporting Data:

101	2008. Wu, Z.Y./Raven,P.H./Hong, D.Y. (eds.). Flora of China. Vol. 11 (Oxalidaceae through Aceraceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	Is the species highly domesticated? No evidence]
101	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on <i>Euphorbia neriifolia</i> (Sehund). Spatula DD. 1(2): 107-111.	Is the species highly domesticated? No evidence]
102	2013. WRA Specialist. Personal Communication.	NA
103	2013. WRA Specialist. Personal Communication.	NA
201	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Species suited to tropical or subtropical climate(s) 2-High] "Native: ASIA-TEMPERATE China: China - Guangdong [s. & s.w.], Guangxi, Hainan, Yunnan ASIA-TROPICAL Indian Subcontinent: India - Daman and Diu, Goa, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tripura, Uttar Pradesh, West Bengal Indo-China: Myanmar Malesia: Malaysia; New Guinea"
202	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data 2-High]
203	2013. Dave's Garden. PlantFiles: PlantFiles: Hedge Euphorbia, Indian Spurge Tree, Oleander Spurge - <i>Euphorbia neriifolia</i> . http://davesgarden.com/guides/pf/go/54949/ [Accessed 26 Nov 2013]	[Broad climate suitability (environmental versatility)? No] "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)"
204	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Native: ASIA-TEMPERATE China: China - Guangdong [s. & s.w.], Guangxi, Hainan, Yunnan ASIA-TROPICAL Indian Subcontinent: India - Daman and Diu, Goa, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tripura, Uttar Pradesh, West Bengal Indo-China: Myanmar Malesia: Malaysia; New Guinea"
205	2008. Wu, Z.Y./Raven,P.H./Hong, D.Y. (eds.). Flora of China. Vol. 11 (Oxalidaceae through Aceraceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Does the species have a history of repeated introductions outside its natural range? Yes] "Cultivated. Guangdong, Guangxi, Hainan, Yunnan [native to India; widely cultivated in tropical Asia]."
301	2000. Liogier, A.H./ Martorell, L.F.. Flora of Puerto Rico and adjacent islands: a systematic synopsis. Second Edition Revised. La Editorial, UPR, San Juan, Puerto Rico	[Naturalized beyond native range? Persistent] "Occasionally planted for ornament and persistent in Puerto Rico"
301	2004. Mito, T./Uesugi, T.. Invasive Alien Species in Japan: The Status Quo and the New Regulation for Prevention of their Adverse Effects. Global Environmental Research. 8(2): 171-191.	[Naturalized beyond native range?] "Table 1 Alien species recognized to be established in Japan or found in the Japanese wild" [Includes <i>Euphorbia neriifolia</i>]
301	2007. McCormack, G.. Cook Islands Biodiversity Database, Version 2007.2.. Cook Islands Natural Heritage Trust, Rarotonga http://cookislands.bishopmuseum.org	[Naturalized beyond native range? Not in Cook Islands] "COOK ISLANDS STATUS: Introduced - Recent, Not naturalised; S. Group - rare; N. Group - absent; Land, lowlands, gardens"
301	2009. Hollowell, T.H.. Plant Community Structure, Fire Disturbance, and Recovery in Mangrove Swamps of the Waini Peninsula, Guyana. Contributions to the Study of Biological Diversity. 3: 1-166.	[Naturalized beyond native range? Yes] " <i>Euphorbia neriifolia</i> L. [naturalized]"

301	2010. Wu, S-H/Sun, H-T/Teng, Y-C/Rejmanek, M./Chaw, S-M/Yang, T.-Y.A./Hsieh, C-F. Patterns of plant invasions in China: Taxonomic, biogeographic, climatic approaches and anthropogenic effects. <i>Biological Invasions</i> . 12: 2179–2206.	[Naturalized beyond native range? Yes] "Table 4 List of naturalized species in China" [Includes <i>Euphorbia neriifolia</i>]
302	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Garden/amenity/disturbance weed? No evidence]
303	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Agricultural/forestry/horticultural weed? No evidence]
304	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Environmental weed? No evidence]
305	2003. Weber, E.. Invasive Plant Species of the World. A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	[Congeneric weed? Yes] " <i>Euphorbia esula</i> ...spreads by seeds and by vegetative growth from the rootstock. It rapidly expands and forms large and dense patches that displace native grasses and forbs."
401	2008. Kobayashi, K./Criley, R./Kaufman, A./Tsugawa, S./Ricordi, A./Clifford, P.. Barrier Plants. L-20. College of Tropical Agriculture and Human Resources (CTAHR, Honolulu, HI http://www.ctahr.hawaii.edu/freepubs	[Produces spines, thorns or burrs? Yes] "A slow-growing woody shrub that grows up to 12 feet high, it has glossy, bright green, stiff leaves with needle-sharp spines at each tip."
401	2008. Wu, Z.Y./Raven,P.H./Hong, D.Y. (eds.). Flora of China. Vol. 11 (Oxalidaceae through Aceraceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Produces spines, thorns or burrs? Yes] "Trees or shrubs, 3–5(–8) m tall, glabrous except for cyathia. Stems 6–15 cm thick, green, with 5 spiral ranks of tubercles, ascending, branching from upper parts. Leaves alternate, apically clustered, persistent, succulent; spine shields small, stipules pricklelike, 2–3 mm; petiole short, 2–4 mm; leaf blade obovate or obovate-oblong to spoon-shaped, 4.5–12 x 1.3–3.8 cm, fleshy, base attenuate, margin entire, apex obtuse, apiculate; veins inconspicuous."
402	2013. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on <i>Euphorbia neriifolia</i> (Sehund). <i>Spatula</i> DD. 1(2): 107-111.	[Parasitic? No] "Small erect fleshy glabrous shrub, branches ¾ in diam., jointed cylindrical or obscurely 5-angled with sharp stipular thorns arising from thick subconfluent tubercles in 5 irregular rows."
404	1990. Groenfeldt, D./Alcorn, J./Berwick, S./Flickinger, D./Hatzios, M.. Opportunities for Eco-Development in Buffer Zones: An Assessment of Two Cases in Western India. World Wildlife Fund, Washington, D.C.	[Unpalatable to grazing animals? Presumably Yes. Used as a "noxious" living fence] "Demonstration exclosures inside the park include trenching, stone fences, and noxious living fences (e.g., <i>Euphorbia neriifolia</i>)." ... "The ecological condition of village common lands contrasts sharply with the condition of parklands. Grazed heavily during and immediately after the summer monsoon, these areas sustain only a limited number of extremely hardy plants growing at very low densities. Species include: <i>Abutilon indicum</i> , <i>Acacia nilotica</i> , <i>Acacia leucophloea</i> , <i>Bauhinia racemosa</i> , <i>Cassia auriculata</i> , <i>Cassia fistula</i> , <i>Euphorbia neriifolia</i> ..."
405	1990. Groenfeldt, D./Alcorn, J./Berwick, S./Flickinger, D./Hatzios, M.. Opportunities for Eco-Development in Buffer Zones: An Assessment of Two Cases in Western India. World Wildlife Fund, Washington, D.C.	[Toxic to animals? Presumably Yes] "Demonstration exclosures inside the park include trenching, stone fences, and noxious living fences (e.g., <i>Euphorbia neriifolia</i>)." ... "The ecological condition of village common lands contrasts sharply with the condition of parklands. Grazed heavily during and immediately after the summer monsoon, these areas sustain only a limited number of extremely hardy plants growing at very low densities. Species include: <i>Abutilon indicum</i> , <i>Acacia nilotica</i> , <i>Acacia leucophloea</i> , <i>Bauhinia racemosa</i> , <i>Cassia auriculata</i> , <i>Cassia fistula</i> , <i>Euphorbia neriifolia</i> ..."
405	2008. Katewa, S.S./Galav, P.K./Nag, A./Jain, A.. Poisonous plants of the southern Aravalli hills of Rajasthan. <i>Indian Journal of Traditional Knowledge</i> . 7(2): 269-272.	[Toxic to animals? Presumably Yes] " <i>Euphorbia neriifolia</i> " ... "Latex is acrid, purgative and causes dermatitis. Latex is injurious to eyes. Root decoction is used as abortifacient."
406	2011. Ahmed, S.A./Nazim, S./ShaikhSiraj, P.M.S./Wahid, C.A.. <i>Euphorbia neriifolia</i> Linn: A Phytopharmacological Review. <i>International Research Journal of Pharmacy</i> . 2 (5): 41-48.	[Host for recognized pests and pathogens?] "It is reportedly very prone to mealy bugs, so it should be checked frequently in order that any infestation can be caught before heroic counter measures have to be taken. If you do have to resort to a bug spray, be forewarned that most of the leaves will probably drop. This can weaken the plant and might lead to rot."
407	2008. Katewa, S.S./Galav, P.K./Nag, A./Jain, A.. Poisonous plants of the southern Aravalli hills of Rajasthan. <i>Indian Journal of Traditional Knowledge</i> . 7(2): 269-272.	[Causes allergies or is otherwise toxic to humans? Yes] " <i>Euphorbia neriifolia</i> " ... "Latex is acrid, purgative and causes dermatitis. Latex is injurious to eyes. Root decoction is used as abortifacient."

407	2009. Sadananda, N.B.. Common Milk Hedge (Euphorbia neriiifolia) Juice Ingestion: A Clinical Case Report. Journal of the Indian Society of Toxicology. 5(2): 30-31.	[Causes allergies or is otherwise toxic to humans? Yes] "The latex of this plant, which is in the form of a white milky juice, has corrosive effect on contact with skin and mucous membrane. Cases of deliberate ingestion of this juice have rarely been reported in literature. One such rare case of ingestion of the latex with attendant clinical manifestations has been presented here." ... "When the stem or leaves is cut, a milky juice (latex) oozes out, which is known to have a corrosive effect on skin and mucosa. The plant has been used for various ailments in Ayurvedic medicine, and is popularly known as Snuhi.1Toxicity can result from ingestion of the milky juice of this plant."
407	2012. Queensland Government. Waterwise Plant Selector - Leafy Euphorbia (Euphorbia neriiifolia). http://www.nrm.qld.gov.au/waterwise/plantselector/details.php?plant_id=2014 [Accessed 27 Nov 2013]	[Causes allergies or is otherwise toxic to humans? Yes] "Harmful if eaten, skin & eye irritant"
408	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on Euphorbia neriiifolia (Sehund). Spatula DD. 1(2): 107-111.	[Creates a fire hazard in natural ecosystems? No evidence] "Leaves are succulent, deciduous, 6-12 inch long, terminal on the branches, waved narrowed into a very short petiole." ... "This plant is leafless for most part of the year, except during monsoon when fresh leaves appear." [Unlikely as succulent and leafless forms would probably not carry fire]
409	2012. Queensland Government. Waterwise Plant Selector - Leafy Euphorbia (Euphorbia neriiifolia). http://www.nrm.qld.gov.au/waterwise/plantselector/details.php?plant_id=2014 [Accessed 27 Nov 2013]	[Is a shade tolerant plant at some stage of its life cycle? Possibly] "Light requirements: Sun, semi-shade"
409	2013. Cactus King. Euphorbia neriiifolia variegata. http://www.thecactusking.com/plants/indiafar-east/euphorbia-neriiifolia-variegata [Accessed 27 Nov 2013]	[Is a shade tolerant plant at some stage of its life cycle? Possibly] "Ideal Light Conditions: Sun to Shade "
409	2013. Dave's Garden. PlantFiles: PlantFiles: Hedge Euphorbia, Indian Spurge Tree, Oleander Spurge - Euphorbia neriiifolia. http://davesgarden.com/guides/pf/go/54949/ [Accessed 26 Nov 2013]	[Is a shade tolerant plant at some stage of its life cycle?] "Sun Exposure: Sun to Partial Shade Light Shade"
410	2012. Queensland Government. Waterwise Plant Selector - Leafy Euphorbia (Euphorbia neriiifolia). http://www.nrm.qld.gov.au/waterwise/plantselector/details.php?plant_id=2014 [Accessed 27 Nov 2013]	[Tolerates a wide range of soil conditions? Yes] "Loam, sand"
410	2013. Dave's Garden. PlantFiles: PlantFiles: Hedge Euphorbia, Indian Spurge Tree, Oleander Spurge - Euphorbia neriiifolia. http://davesgarden.com/guides/pf/go/54949/ [Accessed 26 Nov 2013]	[Tolerates a wide range of soil conditions? Yes] "Soil pH requirements: 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral) 7.6 to 7.8 (mildly alkaline)"
411	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on Euphorbia neriiifolia (Sehund). Spatula DD. 1(2): 107-111.	[Climbing or smothering growth habit? No] "Small erect fleshy glabrous shrub, branches ¾ in diam., jointed cylindrical or obscurely 5 angled with sharp stipular thorns arising from thick subconfluent tubercles in 5 irregular rows. Leaves are succulent, deciduous, 6-12 inch long, terminal on the branches, waved narrowed into a very short petiole"
412	1949. Standley, P.C./Steyermark, J.A.. Flora of Guatemala. Part VI. Fieldiana, Botany Series. 24(6): 1-440.	[Forms dense thickets? No] "This is one of the commonest hedge plants in the Oriente of Guatemala. It is a very solid, cactus-like plant, and serves well for a hedge, although it has no pretensions to beauty."
412	2000. Liogier, A.H./ Martorell, L.F.. Flora of Puerto Rico and adjacent islands: a systematic synopsis. Second Edition Revised. La Editorial, UPR, San Juan, Puerto Rico	[Forms dense thickets? Not in Puerto Rico] "Occasionally planted for ornament and persistent in Puerto Rico"
412	2013. Sharma, M./Kumar, A.. Traditional medicinal plant of Rajasthan used in tribal medicine: A review. International Journal of Life Science and Pharma Research. 3(2): 38-42.	[Forms dense thickets? No evidence] "Majority of hills in Jaipur are almost barren. However Hills in the Amber region have Anogissus pendula, Boswellia serrata and Sterculia urens along with Butea monosperma. Their permanent vegetation comprises of Euphorbia neriiifolia clumps, which support some seasonal annual vegetation during rains."
412	2013. Tropicos.org. Flora of Pakistan - Euphorbia neriiifolia. Missouri Botanical Garden, http://www.tropicos.org/Name/12800043?projectid=32 [Accessed 27 Nov 2013]	[Forms dense thickets? Not in Pakistan] "In Pakistan only as a cultivated plant, being used for hedges."

501	1949. Standley, P.C./Steyermark., J.A.. Flora of Guatemala. Part VI. Fieldiana, Botany Series. 24(6): 1-440.	[Aquatic? No. Terrestrial shrub] "A stout shrub commonly 1-2 meters high, with few or numerous branches, these deeply 5-angulate, the angles bearing clusters of short sharp dark-colored spines, leaves, and inflorescences..."
502	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on <i>Euphorbia neriifolia</i> (Sehund). <i>Spatula</i> DD. 1(2): 107-111.	[Grass? No] "Sehund (<i>Euphorbia neriifolia</i> Linn.) popularly known as Indian Spurge Tree, Oleander Spurge, Hedge Euphorbia, Sehundah (Ayurveda) and Ilachevikalli (Siddha) belongs to the family Euphorbiaceae."
503	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Nitrogen fixing woody plant? No] Euphorbiaceae
504	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on <i>Euphorbia neriifolia</i> (Sehund). <i>Spatula</i> DD. 1(2): 107-111.	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Small erect fleshy glabrous shrub, branches ¾ in diam., jointed cylindric or obscurely 5-angled with sharp stipular thorns arising from thick subconfluent tubercles in 5 irregular rows."
601	2013. WRA Specialist. Personal Communication.	[Evidence of substantial reproductive failure in native habitat? No]
602	1946. Benthall, A.P.. The trees of Calcutta and its neighbourhood. Thacker Spink & Co., Calcutta	[Produces viable seed? Yes in native range] "The fruit is small with three pronounced lobes. each containing a single seed."
602	1992. Roy, G.P./Shukla, B.K./Datt, B.. Flora of Madhya Pradesh: Chhatarpur and Damoh. APH Publishing, New Delhi, India	[Produces viable seed? Yes within native range, but possibly not in cultivation] "Capsules c. 1 mm across, 3-lobed, smooth; seeds c. 5 mm across, smooth."
602	2008. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 11 (Oxalidaceae through Aceraceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Produces viable seed?] "Male flowers many, bracts linear. Female flowers rarely developed. Capsule and seeds not seen."
602	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on <i>Euphorbia neriifolia</i> (Sehund). <i>Spatula</i> DD. 1(2): 107-111.	[Produces viable seed?] "Female flowers consist of a trichambered ovary, which usually elongates in fruits. Male flowers many, bracts linear. Female flowers rarely developed."
603	2013. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2008. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 11 (Oxalidaceae through Aceraceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Self-compatible or apomictic? Unknown] "Cyathia in subterminal cymes, peduncle ca. 3 mm; cyathophylls membranous, caducous; involucre campanulate, ca. 4 x 5-6 mm, lobes 5, rounded; glands 5, succulent, thick and entire. Male flowers many, bracts linear. Female flowers rarely developed. Capsule and seeds not seen."
605	2013. WRA Specialist. Personal Communication.	[Requires specialist pollinators? Unknown] Possibly yes, due to apparently limited capsule formation and seed set in cultivation
606	2013. WRA Specialist. Personal Communication.	[Reproduction by vegetative fragmentation? Unknown]
607	2013. Cactus King. <i>Euphorbia neriifolia</i> variegata. http://www.thecactusking.com/plants/indiafar-east/euphorbia-neriifolia-variegata [Accessed 27 Nov 2013]	[Minimum generative time (years)? Unknown] "Speed of Growth: Slow"
701	1992. Roy, G.P./Shukla, B.K./Datt, B.. Flora of Madhya Pradesh: Chhatarpur and Damoh. APH Publishing, New Delhi, India	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Unlikely] "Capsules c. 1 mm across, 3-lobed, smooth; seeds c. 5 mm across, smooth." [Seeds, if produced, are small enough to possibly stick to shoes or vehicles in mud, but are apparently rare in cultivation]
702	2008. Kobayashi, K./Criley, R./Kaufman, A./Tsugawa, S./Ricordi, A./Clifford, P.. Barrier Plants. L-20. College of Tropical Agriculture and Human Resources (CTAHR, Honolulu, HI http://www.ctahr.hawaii.edu/freepubs	[Propagules dispersed intentionally by people? Yes. Barrier plant] "Indian spurge tree, hedge euphorbia - <i>Euphorbia neriifolia</i> , Euphorbiaceae. This erect branching shrub/tree grows to 12 feet high and is used as a hedge plant. The thick stems have five spiral ridges with short, paired spines and leaves or raised leaf scars."
703	2013. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No evidence] Grown as a hedge or barrier plant, with no evidence of produce contamination found in literature searches.
704	2013. WRA Specialist. Personal Communication.	[Propagules adapted to wind dispersal? No evidence] Capsules, if produced, presumably dehisce to expel seeds, which otherwise lack adaptations for wind dispersal.
705	2013. WRA Specialist. Personal Communication.	[Propagules water dispersed? No evidence] Terrestrial plant not know to be commonly distributed along riparian corridors, and with capsules and seeds rarely produced that lack any obvious adaptations for water dispersal

706	1992. Roy, G.P./Shukla, B.K./Datt, B.. Flora of Madhya Pradesh: Chhatarpur and Damoh. APH Publishing, New Delhi, India	[Propagules bird dispersed? No] "Capsules c. 1 mm across, 3-lobed, smooth; seeds c. 5 mm across, smooth."
707	2013. WRA Specialist. Personal Communication.	[Propagules dispersed by other animals (externally)? No evidence] Capsules and seeds, if produced, lack means of external attachment
708	2013. WRA Specialist. Personal Communication.	[Propagules survive passage through the gut? Unknown, but unlikely to be consumed]
801	2008. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 11 (Oxalidaceae through Aceraceae). Science Press & Missouri Botanical Garden Press, Beijing & St. Louis	[Prolific seed production (>1000/m ²)? Probably No] "Male flowers many, bracts linear. Female flowers rarely developed. Capsule and seeds not seen."
801	2011. Ahmed, S.A./Nazim, S./ShaikhSiraj, P.M.S./Wahid, C.A.. Euphorbia neriifolia Linn: A Phytopharmacological Review. International Research Journal of Pharmacy. 2 (5): 41-48.	[Prolific seed production (>1000/m ²)? No] "Cyathia not seen in Thailand, outside of Thailand arranged in axillary groups of 3, the central one subsessile, the lateral ones with a peduncle of 6-7 mm, bracts 4 mm long, cyathial glands 5, 1 by 3 mm. Flowers and fruits not seen1."
801	2011. Sharma, V./Janmeda, P./Singh, L.. A Review on Euphorbia neriifolia (Sehund). Spatula DD. 1(2): 107-111.	[Prolific seed production (>1000/m ²)? Probably No] "Female flowers consist of a trichambered ovary, which usually elongates in fruits. Male flowers many, bracts linear. Female flowers rarely developed."
802	2013. WRA Specialist. Personal Communication.	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown, but unlikely, if seeds are rarely produced]
803	2013. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species.
804	2013. WRA Specialist. Personal Communication.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Unknown] Other Euphorbia species are capable of resprouting when cut or pruned.
805	2013. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

Summary of Risk Traits

High Risk / Undesirable Traits

- Grows in tropical climates
- Reported to be naturalized in a number of locations
- Related Euphorbia species have become invasive
- Spine-tipped leaves
- Sap toxic and an irritant to people and possibly also animals
- Tolerates many soil types
- Seeds dispersed by dehiscent capsules & people (but possibly rarely produced)
- Limited ecological information from native and introduced ranges makes accurate risk predications difficult

Low Risk Traits

- Capsules and seeds rarely seen in introduced range. May limit potential for inadvertent dispersal
- Used medicinally and as a barrier plant