

**Family:** *Fabaceae*

**Taxon:** *Saraca thaipingensis*

**Synonym:** **Common Name** Yellow Saraca  
Yellow Ashoka

**Questionnaire :** current 20090513 **Assessor:** Chuck Chimera **Designation:** L  
**Status:** Assessor Approved **Data Entry Person:** Chuck Chimera **WRA Score** 2

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	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	n
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	n
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)	n
401	Produces spines, thorns or burrs	y=1, n=0	n
402	Allelopathic	y=1, n=0	
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens	y=1, n=0	
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
408	Creates a fire hazard in natural ecosystems	y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	y
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0	n
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	y
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	
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	3
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	y
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/m2)	y=1, n=-1	
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	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y=-1, n=1	

Designation: L

WRA Score 2

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**Supporting Data:**

101	2010. WRA Specialist. Personal Communication.	No evidence that <i>Saraca thaipingensis</i> is highly domesticated
201	1979. National Academy of Sciences. Tropical Legumes: Resources for the Future. NAS, Washington, D.C.	"A native of Taiping, Malaysia"
202	2010. USDA, ARS, National Genetic Resources Program.. <i>Saraca thaipingensis</i> - Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon</a>	ASIA-TROPICAL: Indo-China: Myanmar [s.]; Thailand; Malesia: Indonesia - Java; Malaysia [Malaya]
203	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpinaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Habitat & Ecology —In forest, mostly along streams or rivers, once recorded on limestone, up to 1 100 m altitude." [elevation range >1000 m; exhibiting environmental versatility]
203	2010. Dave's Garden. PlantFiles: Yellow Saraca. Dave's Garden, <a href="http://davesgarden.com/guides/pf/go/165899/">http://davesgarden.com/guides/pf/go/165899/</a>	Hardiness: 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	2010. USDA, ARS, National Genetic Resources Program.. <i>Saraca thaipingensis</i> - Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon</a>	ASIA-TROPICAL: Indo-China: Myanmar [s.]; Thailand; Malesia: Indonesia - Java; Malaysia [Malaya] [Native in regions with tropical or subtropical climates]
205	2010. Dave's Garden. PlantFiles: Yellow Saraca. Dave's Garden, <a href="http://davesgarden.com/guides/pf/go/165899/">http://davesgarden.com/guides/pf/go/165899/</a>	This plant has been said to grow in the following regions: Boca Raton, Florida Mulberry, Florida
205	2010. WRA Specialist. Personal Communication.	No evidence that <i>S. thaipingensis</i> has been repeatedly introduced outside its native range
301	2007. Randall, R.. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/">http://www.hear.org/gcw/</a>	No evidence of naturalization beyond native range
302	2007. Randall, R.. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/">http://www.hear.org/gcw/</a>	No evidence as a garden, amenity, or disturbance weed
303	2010. WRA Specialist. Personal Communication.	No evidence as a weed of Agriculture, forestry or horticulture
304	2007. Randall, R.. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/">http://www.hear.org/gcw/</a>	No evidence as an environmental weed
305	2007. Randall, R.. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/">http://www.hear.org/gcw/</a>	No evidence of <i>Saraca</i> species becoming invasive or weedy outside of their native ranges.
401	1998. Riffle, R. L.. The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	No spines, thorns or burrs
402	2010. WRA Specialist. Personal Communication.	Unknown if allelopathic [poorly studies species]
403	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpinaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Tree to 24 m tall and 38 cm in diam." [not parasitic]
404	2010. WRA Specialist. Personal Communication.	Palatability to animals unknown
405	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpinaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	No evidence of toxicity mentioned for genus

406	2010. WRA Specialist. Personal Communication.	Unknown [no information found on pests or pathogens]
407	2007. Thitprasert, W./Ratanasatien, C./Chitrakon, S./Watanesk, O./Chotechuen, S./Forrer, V.S./Sommut, W./Somsri, S./Samitaman, P./Changtragoon. S.. Country Report on the State of Plant Genetic Resources for Food and Agriculture in Thailand (1997-2004). D	"Annex 4a Edible plants in limestone areas in Thailand (Cont.)...Saraca thaipingensis...Plant part used: young apical, young leaf" [edible, with no evidence of toxicity]
408	1996. Seufert, P./Fiedler, K.. The Influence of Ants on Patterns of Colonization and Establishment within a Set of Coexisting Lycaenid Butterflies in a South-East Asian Tropical Rain Forest. <i>Oecologia</i> . 106 (1): 127-136.	"The legume tree <i>Saraca thaipingensis</i> (Caesalpiniaceae) is one of the most characteristic riverside trees of Peninsular Malaysia, giving rise to the term "Saraca streams" for mountain rivers like the Sungai Gombak." [habitat suggests fire is unlikely]
409	2003. Pienaar, K.. South African "What Flower Is That?". Struik, Cape Town, South Africa	"These trees grow beneath taller trees in their natural habitat and therefore require shade, preferably that of taller trees."
410	2010. Dave's Garden. PlantFiles: Yellow Saraca. Dave's Garden, <a href="http://davesgarden.com/guides/pf/go/165899/">http://davesgarden.com/guides/pf/go/165899/</a>	Soil pH requirements: 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral)
411	1996. Kalkman, C. et al. (eds.). <i>Flora Malesiana</i> . Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Tree to 24 m tall and 38 cm in diam." [no climbing or smothering species in genus]
412	1996. Seufert, P./Fiedler, K.. The Influence of Ants on Patterns of Colonization and Establishment within a Set of Coexisting Lycaenid Butterflies in a South-East Asian Tropical Rain Forest. <i>Oecologia</i> . 106 (1): 127-136.	"one of the most characteristic riverside trees of Peninsular Malaysia, giving rise to the term "Saraca streams" [but no evidence of forming dense thickets]
501	1996. Kalkman, C. et al. (eds.). <i>Flora Malesiana</i> . Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	Not aquatic
502	1979. National Academy of Sciences. <i>Tropical Legumes: Resources for the Future</i> . NAS, Washington, D.C.	Fabaceae [not a grass]
503	1979. National Academy of Sciences. <i>Tropical Legumes: Resources for the Future</i> . NAS, Washington, D.C.	Fabaceae [Nitrogen fixing woody plant]
504	1979. National Academy of Sciences. <i>Tropical Legumes: Resources for the Future</i> . NAS, Washington, D.C.	Not a geophyte
601	1996. Kalkman, C. et al. (eds.). <i>Flora Malesiana</i> . Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	No evidence of substantial reproductive failure in native habitat
602	2010. Dave's Garden. PlantFiles: Yellow Saraca. Dave's Garden, <a href="http://davesgarden.com/guides/pf/go/165899/">http://davesgarden.com/guides/pf/go/165899/</a>	Propagation Methods: Scarify seed before sowing
603	2010. WRA Specialist. Personal Communication.	Unknown if able to hybridize naturally
604	1996. Kalkman, C. et al. (eds.). <i>Flora Malesiana</i> . Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Most species have maintained self incompatibility but observations are scarce." [description for Caesalpiniaceae; but Unknown for <i>Saraca thaipingensis</i> ]

605	2010. Dave's Garden. PlantFiles: Yellow Saraca. Dave's Garden, <a href="http://davesgarden.com/guides/pf/go/165899/">http://davesgarden.com/guides/pf/go/165899/</a>	Other details: This plant is attractive to bees, butterflies and/or birds Flowers are fragrant [presumably does not require specialist pollinators]
606	1998. Riffle, R. L.. The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	"Propagation by seed and air-layering" [no evidence that this tree reproduces by vegetative fragmentation]
607	1998. Riffle, R. L.. The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	"A genus of eight slow-growing evergreen shrubs and trees" [assumed that tree will not flower until at least 3 years]
701	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Pods pink, purple red. narrowly oblong, rather curved, 15 45(50) by 3.5-10 cm, up to 1.5 cm thick, woody. 6-8-seeded, with usually curved, up to c. 1.5 cm long beaked apex, and cuneate or obliquely rounded base, valves coiling. Seeds ellipsoid, 3.6-3.8 by 2-2.4 cm." [seeds and pods without any means of external attachment]
702	2003. Pienaar, K.. South African 'What Flower Is That?'. Struik, Cape Town, South Africa	Planted as an ornamental
703	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Pods pink, purple red. narrowly oblong, rather curved, 15 45(50) by 3.5-10 cm, up to 1.5 cm thick, woody. 6-8-seeded, with usually curved, up to c. 1.5 cm long beaked apex, and cuneate or obliquely rounded base, valves coiling. Seeds ellipsoid, 3.6-3.8 by 2-2.4 cm." [no evidence that seeds ever contaminate produce]
704	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Pods pink, purple red. narrowly oblong, rather curved, 15 45(50) by 3.5-10 cm, up to 1.5 cm thick, woody. 6-8-seeded, with usually curved, up to c. 1.5 cm long beaked apex, and cuneate or obliquely rounded base, valves coiling. Seeds ellipsoid, 3.6-3.8 by 2-2.4 cm." [no obvious adaptations for wind dispersal]
705	1996. Seufert, P./Fiedler, K.. The Influence of Ants on Patterns of Colonization and Establishment within a Set of Coexisting Lycaenid Butterflies in a South-East Asian Tropical Rain Forest. Oecologia. 106 (1): 127-136.	"The legume tree <i>Saraca thaipingensis</i> (Caesalpiniaceae) is one of the most characteristic riverside trees of Peninsular Malaysia, giving rise to the term "Saraca streams" for mountain rivers like the Sungai Gombak." [distribution suggests water dispersal]
706	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Pods pink, purple red. narrowly oblong, rather curved, 15 45(50) by 3.5-10 cm, up to 1.5 cm thick, woody. 6-8-seeded, with usually curved, up to c. 1.5 cm long beaked apex, and cuneate or obliquely rounded base, valves coiling. Seeds ellipsoid, 3.6-3.8 by 2-2.4 cm." [no adaptations for bird dispersal]
706	1998. Riffle, R. L.. The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	"The fruit is a linear-oblong tough red or purple-red pod which is, itself, quite attractive." [not fleshy-fruited or otherwise adapted for bird dispersal]
707	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Pods pink, purple red. narrowly oblong, rather curved, 15 45(50) by 3.5-10 cm, up to 1.5 cm thick, woody. 6-8-seeded, with usually curved, up to c. 1.5 cm long beaked apex, and cuneate or obliquely rounded base, valves coiling. Seeds ellipsoid, 3.6-3.8 by 2-2.4 cm." [no means of external attachment on animals]
708	2010. WRA Specialist. Personal Communication.	Unknown if seeds survive passage through gut
801	1996. Kalkman, C. et al. (eds.). Flora Malesiana. Series I, Spermatophyta: Flowering plants. Volume 12, part 2. Caesalpiniaceae, Geitonoplesiaceae, Hernandiaceae, Lowiaceae. Rijksherbarium / Hortus Botanicus, Leiden, The Netherlands	"Pods pink, purple red. Narrowly oblong, rather curved, 15 45(50) by 3.5-10 cm, up to 1.5 cm thick, woody. 6-8-seeded, with usually curved, up to c. 1.5 cm long beaked apex, and cuneate or obliquely rounded base, valves coiling. Seeds ellipsoid, 3.6-3.8 by 2-2.4 cm." [unknown if <i>S. thaipingensis</i> produces seed densities >1000/m <sup>2</sup> ]
802	2008. Liu, K./Eastwood, R. J./Flynn, S./Turner, R. M./Stuppy, W. H.. Seed Information Database (release 7.1, May 2008). <a href="http://www.kew.org/data/sid">http://www.kew.org/data/sid</a>	Storage Behaviour: Recalcitrant Storage Conditions: (Khare et al., 1989) Viability is lost within 30 days in hermetic storage at room temperature with 13±2% mc (Kaul, 1979) [description is for related <i>S. indica</i> , unknown for <i>S. thaipingensis</i> ]
803	2010. WRA Specialist. Personal Communication.	Unknown if herbicide effectively controls this species [no information or evidence of control]

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- 804 1996. Seufert, P./Fiedler, K.. The Influence of Ants on Patterns of Colonization and Establishment within a Set of Coexisting Lycaenid Butterflies in a South-East Asian Tropical Rain Forest. *Oecologia*. 106 (1): 127-136. "Trees grow up to 15 m height, but due to occasional coppicing by native people and the natural tendency of *S. thaipingensis* to produce young adventive sprouts, accessible leaf flushes (0.5-4 m above ground) were available in fluctuating numbers year-round."
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- 805 2010. WRA Specialist. Personal Communication. Unknown if any effective natural enemies are present
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