Key Words: Evaluate, Naturalized, Tropical Tree, Edible Fruit, Animal Dispersed, Slow Growing

Family: ***Sapindaceae***

Taxon: ***Schleichera oleosa***

Synonym: *Schleichera trijuga Willd.*

Common Name: Ceylon oak
lactree
Macassar oiltree
Malay lactree

Questionaire : current 20090513 **Assessor:** HPWRA OrgData **Designation:** EVALUATE
Status: Assessor Approved **Data Entry Person:** HPWRA OrgData **WRA Score 1**

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**	**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)**	**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**	**n**
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**	**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**	**n**
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**	**y**
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**	**n**
706	**Propagules bird dispersed**	**y=1, n=-1**	**y**
707	**Propagules dispersed by other animals (externally)**	**y=1, n=-1**	**n**
708	**Propagules survive passage through the gut**	**y=1, n=-1**	**y**
801	**Prolific seed production (>1000/m2)**	**y=1, n=-1**	**n**
802	**Evidence that a persistent propagule bank is formed (>1 yr)**	**y=1, n=-1**	**n**
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: EVALUATE **WRA Score** **1**

Supporting Data:

101	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[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-TROPICAL Indian Subcontinent: India; Nepal; Sri Lanka Indo-China: Indochina; Myanmar; Thailand Malesia: Indonesia; Malaysia"
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	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Broad climate suitability (environmental versatility)? Yes. Elevation range exceeds 1000 m]"- Altitude range: 0 - 1200 m - Mean annual rainfall: 500 - 2800 mm - Rainfall regime: summer; bimodal - Dry season duration: 4 - 6 months - Mean annual temperature: 14 - 27ºC - Mean maximum temperature of hottest month: 30 - 34ºC - Mean minimum temperature of coldest month: 9 - 20ºC - Absolute minimum temperature: > -3ºC"
204	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Native or naturalized in regions with tropical or subtropical climates? Yes] "It is widely distributed throughout the Indian subcontinent and has become naturalized in Indonesia. "
205	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Does the species have a history of repeated introductions outside its natural range? No evidence]
301	2001. Hanelt, P. (ed.). Mansfeld's encyclopedia of agricultural and horticultural crops: (except ornamentals). Vol. 1. Springer-Verlag, Berlin, Heidelberg, New York	[Naturalized beyond native range? Possibly Central America] "elsewhere (e.g. in Central America) escaped from cultivation."
301	2011. Kundu, M.. Schleichera oleosa (Lou.) Oken. Seed Leaflet No. 153. Forest & Landscape Denmark, University of Copenhagen,	[Naturalized beyond native range? Yes] "It occurs naturally from the foothills of the Himalayas and the western Deccan to Sri Lanka and China. It was probably introduced to Malaysia and has naturalized in Indonesia."
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	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Congeneric weed? No evidence]
401	2006. Sasidharan, N.. Illustrated Manual on Tree Flora of Kerala Supplemented with Computer-aided Identification. Kerala Forest Research Institute, Kerala, India	[Produces spines, thorns or burrs? No evidence] "Deciduous trees, to 20 m high, bole fluted; bark 10-12 mm thick, surface grey, smooth, brittle; blaze reddish-brown. Leaves paripinnate, alternate, exstipulate; rachis 5.5-11.5 cm, stout, glabrous, swollen at base; leaflets 4-6, opposite or subopposite; petiolule up to 3 mm, slender, glabrous; lamina 5-15 x 1.8-4.5 cm, elliptic-oblong, ovate or obovate, base oblique or rarely obtuse, apex acute or obtuse, margin entire, coriaceous, glabrous; lateral nerves 10-23, parallel, prominent, intercostae reticulate, faint."
402	2003. Fujii, Y./Parvez, S. S./Parvez, M.M./Ohmae, Y./Iida, O.. Screening of 239 medicinal plant species for allelopathic activity using the sandwich method. Weed Biology and Management. 3: 233–241.	[Allelopathic? Possibly Yes, using concentrated extracts] "Table 1. Screening of leaf litter of 239 medicinal plant species under different families using the sandwich method" [Schleichera oleosa - *** indicates increasingly strong inhibitory activity.]

403	2006. Sasidharan, N.. Illustrated Manual on Tree Flora of Kerala Supplemented with Computer-aided Identification. Kerala Forest Research Institute, Kerala, India	[Parasitic? No] "Deciduous trees, to 20 m high,…" [Sapindaceae]
403	2013. USDA APHIS. Parasitic plant genera list. http://www.aphis.usda.gov/plant_health/permits/organism/downloads/parasitic_plant_genera.pdf	[Parasitic? No]
404	1997. Mandal, L.. Nutritive values of tree leaves of some tropical species for goats. Small Ruminant Research. 24(2): 95-105.	[Unpalatable to grazing animals? No] "The leaves are lopped for fodder almost throughout the natural range of its distribution (Laurie, 1945). It's seedlings and saplings are readily browsed by cattle (Troup, 1921)."
404	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Unpalatable to grazing animals? No] "The leaves, twigs and seeds are used as cattle fodder."
405	1997. Mandal, L.. Nutritive values of tree leaves of some tropical species for goats. Small Ruminant Research. 24(2): 95-105.	[Toxic to animals? No evidence] "The leaves are lopped for fodder almost throughout the natural range of its distribution (Laurie, 1945). It's seedlings and saplings are readily browsed by cattle (Troup, 1921)."
405	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Toxic to animals? No evidence] "The leaves, twigs and seeds are used as cattle fodder."
406	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Host for recognized pests and pathogens?] "A number of defoliators, sap-suckers and borers are pests of the species." "Pests recorded Insects: Aonidiella orientalis (oriental yellow scale) Cricula trifenestrata (tea flush worm) Euwallacea fornicatus (tea shot-hole borer) Kerria lacca (lac, insect) Xylosandrus morigerus (brown twig beetle) Fungus diseases: Daedalea flavida [1] Hexagonia apiaria Irpex flavus Polyporus weberianus Rosellinia bunodes (black root rot) [1]"
406	2011. Kundu, M.. Schleichera oleosa (Lou.) Oken. Seed Leaflet No. 153. Forest & Landscape Denmark, University of Copenhagen,	[Host for recognized pests and pathogens?] "Phytosanitary problem 39 insect species have been recorded on this species; these are defoliators, borers, sap-suckers etc. A bug, Serinetha augur Fabr., pierces the testa of the seed and feeds upon the oily cotyledons. The most important insect attacking the tree is the lac insect, Laccifer lacca, the larvae of which suck the sap from the succulent twigs. Two parasitic fungi, Rosellinia bunodes and Polyporus weberianus are known to cause blight and whiterot diseases respectively on living trees. Daedalea flavida and Hexagonia apiaria cause white spongy rot and Irpex flavus Koltz causes white fibrous rot on felled timber."
407	2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Causes allergies or is otherwise toxic to humans? No evidence]
407	2013. World Agroforestry Centre. Agroforestry tree database - Schleichera oleosa. PROSEA, http://www.worldagroforestrycentre.org/sea/products/afdbases/af/asp/SpeciesInfo.asp?SpID=18132 [Accessed 07 Feb 2013]	[Causes allergies or is otherwise toxic to humans? No evidence] "Fodder: Leaves, twigs and seed-cake are used to feed cattle. Food: The pleasantly acid arillodes of the ripe seeds are eaten, whereas immature fruit is pickled. Cooked young leaves make a side dish. Fuel: The wood is suitable as firewood and makes excellent charcoal. Lipids: Oil extracted from the seed, called 'kusum oil', is a valuable component of true Macassar oil used in hairdressing; it is also used for culinary and lighting purpose and in traditional medicine it is applied to cure itching, acne and other skin afflictions. Unguents are made of the harder fraction of the oil. In Madura and Java the oil is used in the batik industry, and in southern India as a cooling bath oil. Medicine: Powdered seeds are applied to wounds and ulcers of cattle to remove maggots. The bark is astringent and used against skin imflammations and ulcers, while an infusion is taken against malaria. Tannin or dyestuff: A dye and tannin are obtained from the bark. Tannin used to be utilised occasionally for tanning leather. Timber: The pinkish-brown heartwood is very hard and durable, execellent to make pestles, cartwheels, axles, ploughs, tool handles and rollers of sugar mills and oil presses. Other products: In India, it is used as host for the lac insect (Laccifer lacca). The product is called kusum lac and is the best in quality and in yield."
408	2013. World Agroforestry Centre. Agroforestry tree database - Schleichera oleosa. PROSEA, http://www.worldagroforestrycentre.org/sea/products/afdbases/af/asp/SpeciesInfo.asp?SpID=18132 [Accessed 07 Feb 2013]	[Creates a fire hazard in natural ecosystems? No evidence] "S. oleosa is fire-resistant."

409	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Is a shade tolerant plant at some stage of its life cycle? Yes] "The species is slow growing and is tolerant of shade, drought and frost."
410	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Tolerates a wide range of soil conditions? No] "Soil descriptors - Soil texture: light; medium - Soil drainage: free - Soil reaction: neutral - Special soil tolerances: infertile"
411	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Climbing or smothering growth habit? No] "S. oleosa is a large, decidous tree, up to 40 m tall and 200 cm in diameter."
412	1977. Dittus, W.P.J.. The Ecology of a Semi-Evergreen Forest Community in Sri Lanka. Biotropica. 9(4): 268-286.	[Forms dense thickets? No evidence] "TABLE 1. The number and density of tree species." [Schleichera oleosa - Density per hectare = 7.8]
412	2011. Kundu, M.. Schleichera oleosa (Lou.) Oken. Seed Leaflet No. 153. Forest & Landscape Denmark, University of Copenhagen,	[Forms dense thickets? No evidence] "The tree occurs sporadically, seldom gregariously in dry, mixed deciduous forest."
501	2011. Kundu, M.. Schleichera oleosa (Lou.) Oken. Seed Leaflet No. 153. Forest & Landscape Denmark, University of Copenhagen,	[Aquatic? No] "It grows on rather dry to occasionally swampy locations on various, often rocky, gravelly or loamy, well drained, preferable slightly acidic soil."
502	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Grass? No] Sapindaceae
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] Sapindaceae
504	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "S. oleosa is a large, decidous tree, up to 40 m tall and 200 cm in diameter."
601	2011. Reddy, C.S./Babar, S./Amarnath, G./Pattanaik, C.. Structure and floristic composition of tree stand in tropical forest in the Eastern Ghats of northern Andhra Pradesh, India. Journal of Forestry Research. 22(4): 491−500.	[Evidence of substantial reproductive failure in native habitat? No] "Population structure of the four dominant species revealed that Xylia xylocarpa, Pterocarpus marsupium, Schleichera oleosa and Grewia tiliaefolia had a clear expanding population structure occupying majority of space, with greater representation in all size classes."
602	2013. World Agroforestry Centre. Agroforestry tree database - Schleichera oleosa. PROSEA, http://www.worldagroforestrycentre.org/sea/products/afdbases/af/asp/SpeciesInfo.asp?SpID=18132 [Accessed 07 Feb 2013]	[Produces viable seed? Yes] "Natural regeneration is by seed and root suckers. Propagation is by direct sowing in thoroughly prepared soil or by stump planting. In nurseries in West Bengal (India), seed is sown 7.5 cm apart immediately after collection."
603	2009. Gautam, M.V./Tandon, R.. Sexual System in Schleichera oleosa (Lour.) Oken (Sapindaceae). The Journal of Plant Reproductive Biology. 1(1): 73-80.	[Hybridizes naturally? No evidence] "Schleichera oleosa (Lour.) Oken (Sapindaceae) is a monotypic genus that occurs naturally in the greater part of India (Mabberley 1997)."
604	2009. Gautam, M.V./Tandon, R.. Sexual System in Schleichera oleosa (Lour.) Oken (Sapindaceae). The Journal of Plant Reproductive Biology. 1(1): 73-80.	[Self-compatible or apomictic? Possibly] "Although occurrence of protandrous condition in S. oleosa suggests avoidance of autogamy, the species is unlikely to escape from selfing because geitonogamy may prevail. This aspect has to be verified with controlled breeding experiments."
605	1994. Murali, K.S./Sukumar, R.. Reproductive Phenology of a Tropical Dry Forest in Mudumalai, Southern India. Journal of Ecology 82(4): 759-767. 82(4): 759-767.	[Requires specialist pollinators? No] "Appendix I List of species studied, occurrence, pollination and dispersal modes" [Schleichera oleosa - Pollination Mode - B = Bee]
606	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Reproduction by vegetative fragmentation? Yes] "- Ability to sucker; pollard"
607	2013. Hawaiian Tropical Plant Nursery. Edible Plants. http://www.hawaiiantropicalplants.com/fruit.html [Accessed 07 Feb 2013]	[Minimum generative time (years)? 6+] "Takes about 6 to 8 years to begin blooming."
701	2006. Sasidharan, N.. Illustrated Manual on Tree Flora of Kerala Supplemented with Computer-aided Identification. Kerala Forest Research Institute, Kerala, India	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No evidence] "Fruit a drupe, 16-18 mm across, subcrustaceous, pointed, often echinate with stout rather blunt prickles; seed 1 or 2, enclosed in a pulpy aril which has a pleasant acid taste; testa smooth, brown." [Unlikely, as fruit & seeds relatively large and lack means of external attachment]

702	2013. Hawaiian Tropical Plant Nursery. Edible Plants. http://www.hawaiiantropicalplants.com/fruit.html [Accessed 07 Feb 2013]	[Propagules dispersed intentionally by people? Yes. Sold commercially in Hawaii]
702	2013. World Agroforestry Centre. Agroforestry tree database - Schleichera oleosa. PROSEA, http://www.worldagroforestrycentre.org/sea/products/afdbases/af/asp/SpeciesInfo.asp?SpID=18132 [Accessed 07 Feb 2013]	[Propagules dispersed intentionally by people? Yes] "Ornamental: In Central India, it is much planted as a wayside tree."
703	2006. Sasidharan, N.. Illustrated Manual on Tree Flora of Kerala Supplemented with Computer-aided Identification. Kerala Forest Research Institute, Kerala, India	[Propagules likely to disperse as a produce contaminant? No evidence] "Fruit a drupe, 16-18 mm across, subcrustaceous, pointed, often echinate with stout rather blunt prickles; seed 1 or 2, enclosed in a pulpy aril which has a pleasant acid taste; testa smooth, brown." [Fruit & seeds relatively large and unlikely to become a contaminant of produce]
704	1998. Dassanayake, M.D./Clayton, W.D. (eds.). A Revised handbook to the flora of Ceylon, Volume 12. A.A. Balkema, Rotterdam, Netherlands	[Propagules adapted to wind dispersal? No] "Drupes ovoid, 2-2.5 x 1.5 cm, sharply pointed, sometimes spiny. Seeds 1 or 2, ± ovoid or sub-globular, 1-1.5 cm long; aril fleshy, pulpy, nearly covering the seed, with a pleasant acidic taste." [No adaptations for wind dispersal]
705	2011. Kundu, M.. Schleichera oleosa (Lou.) Oken. Seed Leaflet No. 153. Forest & Landscape Denmark, University of Copenhagen,	[Propagules water dispersed? No evidence] "It grows on rather dry to occasionally swampy locations on various, often rocky, gravelly or loamy, well drained, preferable slightly acidic soil." … "Fruit: Broadly ovoid, ellipsoid to subglobular berry, 1-2 seeded, dry indehiscent 1.5-2.5 cm x 1-2 cm, base narrowed, apex pointed, yellow, hard-crustaceous, smooth or slightly spiny. Number of fruits per kg varies from 77 to 286." [Distribution and fruit morphology suggest no adaptations for water dispersal]
706	1989. Becking, J. H.. Diets of Javanese Birds. In Henri Jacob Victor Sody, 1892-1959: His Life and Work. Brill Archive, Leiden, Netherlands	[Propagules bird dispersed? Yes] "Megalaima lineata" … "Vegetable" Fruits (Ficus spp., Schleichera oleos, Litsea spp., and Coffea spp. (coffee))."
706	1994. Murali, K.S./Sukumar, R.. Reproductive Phenology of a Tropical Dry Forest in Mudumalai, Southern India. Journal of Ecology 82(4): 759-767. 82(4): 759-767.	[Propagules bird dispersed? Presumably Yes] "Appendix I List of species studied, occurrence, pollination and dispersal modes" [Schleichera oleosa - Dispersal Mode - A = Animal]
706	1998. Dassanayake, M.D./Clayton, W.D. (eds.). A Revised handbook to the flora of Ceylon, Volume 12. A.A. Balkema, Rotterdam, Netherlands	[Propagules bird dispersed? Presumably Yes. Fleshy-fruited] "Drupes ovoid, 2-2.5 x 1.5 cm, sharply pointed, sometimes spiny. Seeds 1 or 2, ± ovoid or sub-globular, 1-1.5 cm long; aril fleshy, pulpy, nearly covering the seed, with a pleasant acidic taste."
707	1998. Dassanayake, M.D./Clayton, W.D. (eds.). A Revised handbook to the flora of Ceylon, Volume 12. A.A. Balkema, Rotterdam, Netherlands	[Propagules dispersed by other animals (externally)? No evidence] "Drupes ovoid, 2-2.5 x 1.5 cm, sharply pointed, sometimes spiny. Seeds 1 or 2, ± ovoid or sub-globular, 1-1.5 cm long; aril fleshy, pulpy, nearly covering the seed, with a pleasant acidic taste." [Unlikely. Seeds may be carried away by animals, but fruits & seeds otherwise lack means of external attachment]
708	1998. Dassanayake, M.D./Clayton, W.D. (eds.). A Revised handbook to the flora of Ceylon, Volume 12. A.A. Balkema, Rotterdam, Netherlands	[Propagules survive passage through the gut? Presumably Yes] "Drupes ovoid, 2-2.5 x 1.5 cm, sharply pointed, sometimes spiny. Seeds 1 or 2, ± ovoid or sub-globular, 1-1.5 cm long; aril fleshy, pulpy, nearly covering the seed, with a pleasant acidic taste."
708	2000. Duke, J.A.. Handbook of nuts. CRC Press, Boca Raton, FL	[Propagules survive passage through the gut? Presumably Yes] "Monkeys and birds eat the seeds, thus interfering in their collection for use for oil." [Probably consume the arils on the seed, thus removing them from the tree]
801	2013. World Agroforestry Centre. Agroforestry tree database - Schleichera oleosa. PROSEA, http://www.worldagroforestrycentre.org/sea/products/afdbases/af/asp/SpeciesInfo.asp?SpID=18132 [Accessed 07 Feb 2013]	[Prolific seed production (>1000/m2)? Unlikely, as fruits and seeds are relatively large] "The tree produces seeds annually. Flowers appear along with new leaves in February- April at the beginning of dry season. Some trees produce only male flowers. The fruits fall quickly to the ground as soon as they ripen in July September after the onset of rain. In India, a mature tree yields 21-28 kg depulped seed per year."
802	2002. Marod, D./Kutintara, U./Tanaka, H./Nakashizuka, T.. The effects of drought and fire on seed and seedling dynamics in a tropical seasonal forest in Thailand. Plant Ecology. 161: 41–57.	[Evidence that a persistent propagule bank is formed (>1 yr)? No] "Most species have adapted to fire and/or drought by resprouting, seed bank, and/or seedling bank, although the few species which occur mainly in mesic evergreen forests have less adapted to these environments." … "Table 4. Summary of the characteristics of the species in relation to the water regime and fire" [Schleichera oleosa resprouts after fire but does not regenerate from a seed bank]
802	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Evidence that a persistent propagule bank is formed (>1 yr)? Probably No] "-Seed storage recalcitrant"
802	2011. Kundu, M.. Schleichera oleosa (Lou.) Oken. Seed Leaflet No. 153. Forest & Landscape Denmark, University of Copenhagen,	[Evidence that a persistent propagule bank is formed (>1 yr)? No] "No seed is viable at ambient condition for one year, if stored with more than 10 % seed moisture content."

803	2013. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species
804	1997. Mandal, L.. Nutritive values of tree leaves of some tropical species for goats. Small Ruminant Research. 24(2): 95-105.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Schleichera oleosa (Lour.) Oken, is found in the sub-Himalayan tract and can thrive even on lateritic and sandy soils, naturally reproducing through seeds, root suckers and coppice."
804	2002. Marod, D./Kutintara, U./Tanaka, H./Nakashizuka, T.. The effects of drought and fire on seed and seedling dynamics in a tropical seasonal forest in Thailand. Plant Ecology. 161: 41–57.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Most species have adapted to fire and/or drought by resprouting, seed bank, and/or seedling bank, although the few species which occur mainly in mesic evergreen forests have less adapted to these environments." … "Table 4. Summary of the characteristics of the species in relation to the water regime and fire" [Schleichera oleosa resprouts after fire but does not regenerate from a seed bank]
804	2013. World Agroforestry Centre. Agroforestry tree database - Schleichera oleosa. PROSEA, http://www.worldagroforestrycentre.org/sea/products/afdbases/af/asp/SpeciesInfo.asp?SpID=18132 [Accessed 07 Feb 2013]	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "S. oleosa is fire-resistant."
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

- Naturalized in Indonesia. Escaped in Central America
- Thrives in tropical climates
- Grows from 0-1200 m elevation
- Potentially allelopathic
- Shade tolerant
- Able to reproduce from suckers
- Seeds dispersed by animals and people
- Able to coppice & resistant to fire

Low Risk / Desirable Traits

- Despite ability to spread, no negative impacts have been documented
- Fodder tree
- Non-toxic
- Landscaping and ornamental value
- Edible pulp
- Host for the lac insect (Laccifer lacca).
- Reaches maturity in 6-8 years
- Will not form a persistent seed bank
- Relatively large fruit & seeds unlikely to be accidentally dispersed