

Key Words: Evaluate, Tropical Shrub, Ornamental, Showy flowers, Shade-tolerant

**Family:** *Verbenaceae*

**Taxon:** *Clerodendrum incisum*

**Synonym:** *Rothea incisa* (Klotzsch) Steane & Mabb.  
*Clerodendrum macrosiphon* Hook.f.

**Common Name:** morning kiss  
musical notes

Questionnaire :	current 20090513	Assessor:	Chuck Chimera	Designation:	EVALUATE
Status:	Assessor Approved	Data Entry Person:	Chuck Chimera	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		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		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)		y
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		
406	Host for recognized pests and pathogens		y=1, n=0		
407	Causes allergies or is otherwise toxic to humans		y=1, n=0		
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		
411	Climbing or smothering growth habit		y=1, n=0		n

412	Forms dense thickets	y=1, n=0	
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	
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	
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	
705	Propagules water dispersed	y=1, n=-1	
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	
801	Prolific seed production (>1000/m <sup>2</sup> )	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 **1**

## Supporting Data:

101	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Is the species highly domesticated? No evidence]
102	2012. WRA Specialist. Personal Communication.	NA
103	2012. WRA Specialist. Personal Communication.	NA
201	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Species suited to tropical or subtropical climate(s) 2-High] Kenya, Tanzania, Somalia, Mozambique
202	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Quality of climate match data 2-High]
203	2012. Dave's Gardern. PlantFiles: Musical Note Plant, Morning Kiss, Witches Tongue - <i>Rothea incisa</i> . <a href="http://davesgarden.com/guides/pf/go/67699/">http://davesgarden.com/guides/pf/go/67699/</a> [Accessed 25 Oct 2012]	[Broad climate suitability (environmental versatility)? No] USDA Zone 9a: to -6.6 °C (20 °F) USDA Zone 9b: to -3.8 °C (25 °F) 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)
203	2012. Kew Databases. Flora Zambesiaca - Taxon Detail: <i>Clerodendrum incisum</i> . <a href="http://apps.kew.org/efloras/search.do">http://apps.kew.org/efloras/search.do</a> [Accessed 25 Oct 2012]	[Broad climate suitability (environmental versatility)? No] "Understorey of well developed <i>Brachystegia</i> woodland and evergreen forest, dense coastal dune-thickets, on sandy and compact red soils. Sometimes grown as a garden ornamental; 5–1000 m."
204	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Native or naturalized in regions with tropical or subtropical climates? Yes] Kenya, Tanzania, Somalia, Mozambique
205	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	Does the species have a history of repeated introductions outside its natural range? Yes] "'grown in Mombasa gardens; now widely cultivated in the tropics and in greenhouses everywhere."
205	1998. Steane, D.A./Mabberley, D.J.. <i>Rothea</i> (Lamiaceae) Revived. <i>Novon</i> . 8(2): 204-206.	[Does the species have a history of repeated introductions outside its natural range? Yes] " <i>Rothea incisa</i> " ... "Tropical east Africa; widely cultivated in the tropics and under glass elsewhere"
301	2007. Randall, R.P.. The introduced flora of Australia and its weed status. CRC for Australian Weed Management, Glen Osmond, Australia	[Naturalized beyond native range? No evidence in Australia]
301	2009. Chong, K.Y./Tan, H.T.W./Corlett, R.T.. A Checklist of the Total Vascular Plant Flora of Singapore: Native, Naturalized and Cultivated Species. Raffles Museum of Biodiversity Research, National University of Singapore, Singapore	[Naturalized beyond native range? No evidence] " <i>Rothea incisa</i> (Klotzsch) Steane & Mabb.; shrub; exotic; cultivated only; = <i>Clerodendrum macrosiphon</i> Hook. f.; <i>Clerodendrum incisum</i> Klotzsch"
301	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Naturalized beyond native range? No evidence]
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	2011. Center for Aquatic and Invasive Plants. Glory tree, stickbush - <i>Clerodendrum chinense</i> . University of Florida, <a href="http://plants.ifas.ufl.edu/node/106">http://plants.ifas.ufl.edu/node/106</a>	[Congeneric weed? Yes] "Seven non-native species of <i>Clerodendrum</i> have escaped from cultivation into natural Florida (Wunderlin, 2003). "
305	2011. FloridaData. <i>Clerodendrum bungei</i> . <a href="http://www.floridata.com/ref/c/cler_bun.cfm">http://www.floridata.com/ref/c/cler_bun.cfm</a>	[Congeneric weed? Yes] " <i>Clerodendrum bungei</i> is invasive in Florida and other regions."

305	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Congeneric weed? Yes] <i>Clerodendrum ugandense</i> = <i>Rothea myricoides</i> [Listed as an agricultural weed]
401	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Produces spines, thorns or burrs? No] "Shrub 0.6-2.5 m tall, with straw-coloured stems; youngest parts ± ferruginous pubescent, soon glabrous. Leaves opposite or in whorls of 3, sometimes drying purplish, elliptic to lanceolate, 1.7-13.5 cm. long, 1.2-6 cm. wide, acuminate at the apex, gradually attenuate at the base, usually slightly discoloured, entire or usually coarsely deeply incised-toothed, often only 2-3 teeth on each side, or pinnatilobed, the divisions very acute, with scattered hairs above and on the venation beneath, or quite densely pubescent particularly beneath, rather distinctly gland-dotted, scented (descriptions vary from sweet to highly unpleasant!)"
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Parasitic? No] "Shrub 0.6-2.5 m tall" [Verbenaceae or Lamiaceae]
404	1997. Swarbrick, J.T.. Weeds of the Pacific Islands. Technical paper no. 209. South Pacific Commission, Noumea, New Caledonia	[Unpalatable to grazing animals? Unknown. Other <i>Clerodendrum</i> species may be unpalatable. ] "Apparently unpalatable to stock"
405	2010. Goyal, S./Shahzad, A./Anis, M./Khan, S.. Multiple Shoot Regeneration in <i>Clerodendrum incisum</i> L., – An Ornamental Woody Shrub. Pakistan Journal of Botany. 42(2): 873-878.	[Toxic to animals? Unknown. No evidence of vertebrate toxicity found] "The leaf extract of the plant has been shown to contain insecticidal properties against mosquitoes (Kalyanasundaram et al., 1985)."
406	2012. FloridaGardener.com. <i>Clerodendrum incisum</i> . <a href="http://www.floridagardener.com/pom/Clerodendrumincisum.htm">http://www.floridagardener.com/pom/Clerodendrumincisum.htm</a> [Accessed 29 Oct 2012]	[Host for recognized pests and pathogens?] "Pests: Whiteflies, mealybugs, aphids, common galls, cankers and leaf spots"
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	2009. Kokwaro, J.O.. Medicinal plants of East Africa. University of Nairobi Press, Nairobi, Kenya	[Causes allergies or is otherwise toxic to humans? Unknown. Medicinal uses] "This is a fever medicine for children. A decoction of the roots is given to people suffering from heart palpitations. The patient is made to lie on the stomach before drinking the decoction. This plant is used to cure a disease (epilepsy) which occurs when the children reach the age of 9 months to 12 years." ... "Leaves are crushed in cold water and both the leaves and the juice are sprinkled on the child, about a handful of the mixture at a time, and this is done according to age. Leaves decoction drunk for headache." [Used medicinally with no evidence or warnings about inadvertent toxicity or allergenic properties]
407	2012. Specialized Information Services, U.S. National Library of Medicine. TOXNET toxicology data network [online database]. National Institutes of Health, <a href="http://toxnet.nlm.nih.gov/">http://toxnet.nlm.nih.gov/</a>	[Causes allergies or is otherwise toxic to humans? No evidence]
408	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Creates a fire hazard in natural ecosystems? No evidence]
408	2012. WRA Specialist. Personal Communication.	[Creates a fire hazard in natural ecosystems? No evidence]
409	2008. Caldwell, D.. <i>Clerodendrum</i> 'Musical Note', a Cheery Filler in the Shrub Bed. Naples Daily News August 16, 2008. <a href="http://collier.ifas.ufl.edu/CommHort/CommHortPubs/ClerodendrumIncisumMacrosiphon.pdf">http://collier.ifas.ufl.edu/CommHort/CommHortPubs/ClerodendrumIncisumMacrosiphon.pdf</a> [Accessed 24 Oct 2012]	[Is a shade tolerant plant at some stage of its life cycle? Yes] "This species does better in semi-shade; avoid full sun exposure."
409	2012. Top Tropicals. <i>Clerodendrum incisum</i> , <i>Macrosiphon</i> , <i>Rothea incisa</i> , <i>Rothea incisifolia</i> . <a href="http://toptropicals.com/cgi-bin/garden_catalog/cat.cgi?uid=CLERODENDRUM_INCISUM&amp;comments=1">http://toptropicals.com/cgi-bin/garden_catalog/cat.cgi?uid=CLERODENDRUM_INCISUM&amp;comments=1</a> [Accessed 29 Oct 2012]	[Is a shade tolerant plant at some stage of its life cycle? Yes] "This perfect landscape plant is very easy to grow, blooms in both full sun or shade, and tolerates some drought."
410	2012. FloridaGardener.com. <i>Clerodendrum incisum</i> . <a href="http://www.floridagardener.com/pom/Clerodendrumincisum.htm">http://www.floridagardener.com/pom/Clerodendrumincisum.htm</a> [Accessed 29 Oct 2012]	[Tolerates a wide range of soil conditions?] "Soil Requirements: Well drained, moist, fertile humus"

411	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Climbing or smothering growth habit? No] "Shrub 0.6-2.5 m tall"
412	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Forms dense thickets? Unknown. Part of thicket vegetation in native range] "Coastal thicket, forest scrub."
501	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Aquatic? No] "Coastal thicket, forest scrub, Brachystegian-Hymenaea woodland with very mixed dense undergrowth, also fixed sand-dunes; 5-450 m."
502	2010. The Plant List. Version 1. <a href="http://www.theplantlist.org/">http://www.theplantlist.org/</a>	[Grass? No] Verbenaceae or Lamiaceae
503	2010. The Plant List. Version 1. <a href="http://www.theplantlist.org/">http://www.theplantlist.org/</a>	[Nitrogen fixing woody plant? No] Verbenaceae or Lamiaceae
504	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Shrub 0.6-2.5 m tall, with straw-coloured stems; youngest parts ± ferruginous pubescent, soon glabrous. Leaves opposite or in whorls of 3, sometimes drying purplish, elliptic to lanceolate, 1.7-13.5 cm. long, 1.2-6 cm. wide, acuminate at the apex, gradually attenuate at the base, usually slightly discoloured, entire or usually coarsely deeply incised-toothed, often only 2-3 teeth on each side, or pinnatifid, the divisions very acute, with scattered hairs above and on the venation beneath, or quite densely pubescent particularly beneath, rather distinctly gland-dotted, scented (descriptions vary from sweet to highly unpleasant!)"
601	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Evidence of substantial reproductive failure in native habitat? No evidence]
602	2012. Dave's Gardern. PlantFiles: Musical Note Plant, Morning Kiss, Witches Tongue - <i>Rotheca incisa</i> . <a href="http://davesgarden.com/guides/pf/go/67699/">http://davesgarden.com/guides/pf/go/67699/</a> [Accessed 25 Oct 2012]	[Produces viable seed? Presumably Yes] "Seed Collecting: Allow pods to dry on plant; break open to collect seeds"
602	2012. FloridaGardener.com. <i>Clerodendrum incisum</i> . <a href="http://www.floridagardener.com/pom/Clerodendrumincisum.htm">http://www.floridagardener.com/pom/Clerodendrumincisum.htm</a> [Accessed 29 Oct 2012]	[Produces viable seed?] "Propagation: cuttings & suckers"
602	2012. Simpson, D.. Some Magnetic Island Plants. <a href="http://www.somemagneticislandplants.com.au/">http://www.somemagneticislandplants.com.au/</a>	[Produces viable seed? Presumably Yes] "Propagation may be done from either herbaceous or woody cuttings, or from seed. For the last, allow the seed pods to dry on the plant, before breaking them open to collect the seeds."
603	2012. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2012. Dave's Gardern. PlantFiles: Musical Note Plant, Morning Kiss, Witches Tongue - <i>Rotheca incisa</i> . <a href="http://davesgarden.com/guides/pf/go/67699/">http://davesgarden.com/guides/pf/go/67699/</a> [Accessed 25 Oct 2012]	[Self-compatible or apomictic? Possibly] "The ants don't seem to harm the plant, but when they cover the pure white flowers, it's pretty unsightly. On the other hand, I think they may be helping a little with pollination - the groups of blooms with the most bugs seem to develop the most seed pods."
605	1992. Verdcourt, B.. Flora of Tropical East Africa - Verbenaceae. A.A. Balkema, Rotterdam, Netherlands	[Requires specialist pollinators?] "Corolla white, opening early in the morning; tube 5-9 cm. long, with sparse to dense gland-tipped hairs; limb 2.5 x 2 cm., the lobes 0.8-1.5 cm. long, 4.5-7 mm. wide. Style purple and white and anthers purple on crimson and purple filaments, exserted 3-5 cm."
605	2012. Dave's Gardern. PlantFiles: Musical Note Plant, Morning Kiss, Witches Tongue - <i>Rotheca incisa</i> . <a href="http://davesgarden.com/guides/pf/go/67699/">http://davesgarden.com/guides/pf/go/67699/</a> [Accessed 25 Oct 2012]	[Requires specialist pollinators? Unknown] "The ants don't seem to harm the plant, but when they cover the pure white flowers, it's pretty unsightly. On the other hand, I think they may be helping a little with pollination - the groups of blooms with the most bugs seem to develop the most seed pods."
606	2012. FloridaGardener.com. <i>Clerodendrum incisum</i> . <a href="http://www.floridagardener.com/pom/Clerodendrumincisum.htm">http://www.floridagardener.com/pom/Clerodendrumincisum.htm</a> [Accessed 29 Oct 2012]	[Reproduction by vegetative fragmentation? Unknown. May spread by suckers] "Propagation: cuttings & suckers"
607	2012. <i>Clerodendrum incisum</i> /Musical Notes <i>Clerodendron</i> . <i>Clerodendrum incisum</i> /Musical Notes <i>Clerodendron</i> . <a href="http://www.onlineplantguide.com/Plant-Details/3015/">http://www.onlineplantguide.com/Plant-Details/3015/</a> [Accessed 29 Oct 2012]	[Minimum generative time (years)? Unknown] "Rate of Growth: Moderate"

607	2012. FloridaGardener.com. Clerodendrum incisum. <a href="http://www.floridagardener.com/pom/Clerodendrumincisum.htm">http://www.floridagardener.com/pom/Clerodendrumincisum.htm</a> [Accessed 29 Oct 2012]	[Minimum generative time (years)?] "Rate of Growth: Fast"
701	2012. WRA Specialist. Personal Communication.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Unknown]
702	1998. Steane, D.A./Mabberley, D.J.. <i>Rothea</i> (Lamiaceae) Revived. <i>Novon.</i> 8(2): 204-206.	[Propagules dispersed intentionally by people? Yes] " <i>Rothea incisa</i> " ... "Tropical east Africa; widely cultivated in the tropics and under glass elsewhere"
702	2008. Caldwell, D.. Clerodendrum 'Musical Note', a Cheery Filler in the Shrub Bed. <i>Naples Daily News</i> August 16, 2008. <a href="http://collier.ifas.ufl.edu/CommHort/CommHortPubs/ClerodendrumIncisumMacrosiphon.pdf">http://collier.ifas.ufl.edu/CommHort/CommHortPubs/ClerodendrumIncisumMacrosiphon.pdf</a> [Accessed 24 Oct 2012]	[Propagules dispersed intentionally by people? Yes] "Clerodendrum incisum 'Macrosiphon' sometimes referred to as 'Musical Note' strikes a winning chord in the small shrub orchestra. This plant is not one of the well known species in the large Clerodendrum group. And unusual for a Clerodendrum, it makes my "short shrub" list at 3 to 5 feet tall and 4 to 5 feet wide; it needs little pruning. This is a repeat bloomer and produces flowers almost monthly, if left unsheared."
703	2010. Goyal, S./Shahzad, A./Anis, M./Khan, S.. Multiple Shoot Regeneration in Clerodendrum incisum L., – An Ornamental Woody Shrub. <i>Pakistan Journal of Botany.</i> 42(2): 873-878.	[Propagules likely to disperse as a produce contaminant? Unlikely given low seed set] "Clerodendrum incisum is propagated through cuttings as seed setting is very low."
704	1992. Verdcourt, B.. <i>Flora of Tropical East Africa - Verbenaceae.</i> A.A. Balkema, Rotterdam, Netherlands	[Propagules adapted to wind dispersal? Unknown] "Fruit depressed-subglobose, 7 mm. long, 9 mm. wide, 3-4-lobed, glabrous, ridged and wrinkled-reticulate in dry state."
705	1992. Verdcourt, B.. <i>Flora of Tropical East Africa - Verbenaceae.</i> A.A. Balkema, Rotterdam, Netherlands	[Propagules water dispersed? Unknown] "Fruit depressed-subglobose, 7 mm. long, 9 mm. wide, 3-4-lobed, glabrous, ridged and wrinkled-reticulate in dry state." ... "Coastal thicket" ... "...also fixed sand-dunes; 5-450 m." [Possibly
706	1992. Verdcourt, B.. <i>Flora of Tropical East Africa - Verbenaceae.</i> A.A. Balkema, Rotterdam, Netherlands	[Propagules bird dispersed? No evidence] "Fruit depressed-subglobose, 7 mm. long, 9 mm. wide, 3-4-lobed, glabrous, ridged and wrinkled-reticulate in dry state."
707	2008. Royal Botanic Gardens Kew. Seed Information Database (SID). Version 7.1. <a href="http://data.kew.org/sid/">http://data.kew.org/sid/</a>	[Propagules dispersed by other animals (externally)? Yes] "Seed Dispersal - Animal; Diaspore is carried intentionally; Direct or experimental observation; (van der Pijl, 1982); Ants.; The seed has an elaiosome."
708	1992. Verdcourt, B.. <i>Flora of Tropical East Africa - Verbenaceae.</i> A.A. Balkema, Rotterdam, Netherlands	[Propagules survive passage through the gut? Unknown] "Fruit depressed-subglobose, 7 mm. long, 9 mm. wide, 3-4-lobed, glabrous, ridged and wrinkled-reticulate in dry state."
801	2010. Goyal, S./Shahzad, A./Anis, M./Khan, S.. Multiple Shoot Regeneration in Clerodendrum incisum L., – An Ornamental Woody Shrub. <i>Pakistan Journal of Botany.</i> 42(2): 873-878.	[Prolific seed production (>1000/m <sup>2</sup> )? No] "Clerodendrum incisum is propagated through cuttings as seed setting is very low."
802	2012. WRA Specialist. Personal Communication.	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown]
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species
804	2012. Simpson, D.. <i>Some Magnetic Island Plants.</i> <a href="http://www.somemagneticislandplants.com.au/">http://www.somemagneticislandplants.com.au/</a>	[Tolerates, or benefits from, mutilation, cultivation, or fire? Unknown] "For the best floral display, a light pruning is desirable after flowering."
805	2012. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

## **Summary of Risk Traits**

### **High Risk / Undesirable Traits**

- Thrives in tropical climates
- Related species have naturalized or become invasive
- Shade-tolerant
- Intentionally spread by people
- Biology and ecology poorly understood

### **Low Risk / Desirable Traits**

- No records of naturalization or invasiveness reported
- Unarmed (no spines, thorns or burrs)
- Landscaping and ornamental value (showy flowers)
- Medicinal uses
- Low seed set (suggesting limited dispersibility)