

Family: *Malvaceae*

Taxon: *Grewia truncata*

Synonym: *Grewia nodisepala* K.Schum.
Grewia retusa Chiov.

Common Name: mlima
mdomoko

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		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)		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		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		
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		
411	Climbing or smothering growth habit		y=1, n=0		n

412	Forms dense thickets	y=1, n=0	y
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	n
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	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	
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	
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	
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	
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	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. Flora of Tropical East Africa - Tiliaceae & Muntingiaceae. A.A. Balkema, Rotterdam, Netherlands	[Is the species highly domesticated? No] No evidence
102	2013. WRA Specialist. Personal Communication.	NA
103	2013. WRA Specialist. Personal Communication.	NA
201	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. Flora of Tropical East Africa - Tiliaceae & Muntingiaceae. A.A. Balkema, Rotterdam, Netherlands	[Species suited to tropical or subtropical climate(s) 2- High] "Kenya Tanzania ... Malawi and Mozambique"
202	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. Flora of Tropical East Africa - Tiliaceae & Muntingiaceae. A.A. Balkema, Rotterdam, Netherlands	[Quality of climate match data 2-High]
203	2013. Conservatoire et Jardin botaniques & South African National Biodiversity Institute. African Plant Database - <i>Grewia truncata</i> Mast.. http://www.ville-ge.ch/musinfo/bd/cjb/africa/details.php?langue=an&id=121770 [Accessed 27 June 2013]	[Broad climate suitability (environmental versatility)? Yes] "Riverine plant, sometimes thicket-forming; also coastal; 1-500 m alt.; inland 900-1200 m alt." [Environmental versatility - elevation range exceeds 1000 m]
204	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. Flora of Tropical East Africa - Tiliaceae & Muntingiaceae. A.A. Balkema, Rotterdam, Netherlands	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Kenya Tanzania ... Malawi and Mozambique"
205	2013. WRA Specialist. Personal Communication.	[Does the species have a history of repeated introductions outside its natural range? No evidence] Apparently not widely cultivated outside native range
301	2012. Sand, J.. Honolulu Botanical Gardens. Pers. Comm. 16 Oct. 2012.	[Naturalized beyond native range? Yes. Sparingly] "...it is naturalizing at Koko Crater. We are controlling it and have removed mother plants."
301	2013. Lau, A./Frohlich, D.. New plant records for the Hawaiian Islands 2011–2012. Bishop Museum Occasional Papers. 114: 5–16.	[Naturalized beyond native range? Yes] "Though it occasionally forms dense thickets in its native range, where it is most commonly found in riparian areas (Flora Zambesiaca online 2011), it was seen naturalized on Oahu with a very scattered, low density distribution over a large area in a dry, lowland tuff cone crater among <i>Leucaena leucocephala</i> scrub vegetation. It can be distinguished from other species of <i>Grewia</i> in Hawai'i by its oblong or obovate-oblong leaves with a retuse to truncate apex; white sepals (1.5–2.5 cm long) and petals (10–16 mm long); and relatively large (1.5 cm diam), deeply 4-lobed fruit (Flora Zambesiaca online 2011). A full description and keys to the genus are currently available at Flora Zambesiaca online (2011)." ... "Material examined. O'AHU: Koko Crater Botanical Garden. Saplings, seedlings, matures scattered along slope above Madagascar section in <i>Leucaena</i> -dominated scrub. Shrub ca. 2 m tall, sepals white inside, petals less conspicuous, white, curled down, flowers mildly fragrant mid-day, some fruits persisting, dry, deeply lobed, 12 Mar 2012, D. Frohlich & A. Lau 2012031204."
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]
302	2013. WRA Specialist. Personal Communication.	[Garden/amenity/disturbance weed? No evidence] Lack of information on weed status may be due to limited cultivation outside native range
303	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Agricultural/forestry/horticultural weed? No] No evidence
303	2013. WRA Specialist. Personal Communication.	[Agricultural/forestry/horticultural weed? No evidence] Lack of information on weed status may be due to limited cultivation outside native range
304	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Environmental weed? No] No evidence
304	2013. WRA Specialist. Personal Communication.	[Environmental weed? No evidence] Lack of information on weed status may be due to limited cultivation outside native range

305	2011. Queensland Government. Weeds of Australia - <i>Grewia</i> , <i>Grewia asiatica</i> . http://keyserver.lucidcentral.org/weeds/data/03030800-0b07-490a-8d04-0605030c0f01/media/Html/Grewia_asiatica.htm [Accessed 15 Oct 2012]	[Congeneric weed? Yes] " <i>Grewia</i> (<i>Grewia asiatica</i>) is regarded as an environmental weed in the Northern Territory and Queensland. It is listed as a priority environmental weed in two Natural Resource Management regions. This species invades natural woodland communities, changing the structure and processes of the systems. It is thought to pose a significant threat to the biodiversity of the tropical savannas and rangelands of northern Australia. <i>Grewia</i> (<i>Grewia asiatica</i>) is believed to be reasonably widespread in northern Queensland, with specimens being collected from the Collinsville, Townsville, Mackay, Ayr, Laura and Cooktown districts. It has invaded woodlands in the drier parts of the Cape York Peninsula, particularly in the Laura Lakefield area. In the Townsville region it grows in disturbed areas in eucalypt woodlands which are subject to frequent fires. At Laura, it grows in eucalypt and melaleuca woodlands or open forest and is particularly vigorous in riparian areas near the Laura River. <i>Grewia</i> (<i>Grewia asiatica</i>) is listed as a high priority weed species in the Cook Shire and as a medium priority pest species in the Townsville City Council local authority area. In the Northern Territory, <i>Grewia</i> (<i>Grewia asiatica</i>) is a significant weed in the Daly Basin region and is also present in the Finnis and Adelaide River catchments. It has also invaded conservation areas in northern Queensland and the Northern Territory (e.g. Casuarina Coastal Reserve)."
305	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Congeneric weed? Yes] Several <i>Grewia</i> are listed as naturalized and/or weeds
401	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. Flora of Tropical East Africa - Tiliaceae & Muntingiaceae. A.A. Balkema, Rotterdam, Netherlands	[Produces spines, thorns or burrs? No] "Shrub to 5 m tall: young branches stellate-pubescent. Leaves oblong to obovate-oblong with an irregular outline"
402	2008. Batish, D.R./Singh, H.P./Kohli, R.K.. Allelopathic Tree-Crop Interactions under Agroforestry Systems. Pp 37-50 in D.R. Batish et al. (eds.) Ecological basis of agroforestry. CRC Press, Boca Raton, FL	[Allelopathic? Unknown. Other <i>Grewia</i> species may have allelopathic properties] "A number of studies have shown that mulches and prunings of trees may release allelochemicals and thus suppress crop growth. Kamara et al. (1999) studied the effect of leaf extracts and mulch from 5 year old multipurpose trees (MPTs)" [Includes <i>Grewia pubescens</i>]
403	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. Flora of Tropical East Africa - Tiliaceae & Muntingiaceae. A.A. Balkema, Rotterdam, Netherlands	[Parasitic? No evidence] "Shrub to 5 m tall..." [Malvaceae subfamily: <i>Grewioideae</i> . Also placed in: Tiliaceae]
404	2004. Tews, J./Schurr, F./Jeltsch, F.. Seed dispersal by cattle may cause shrub encroachment of <i>Grewia flava</i> on southern Kalahari rangelands. Applied Vegetation Science. 7: 89-102.	[Unpalatable to grazing animals? Probably No based on palatability of related species] "Cattle negate this dispersal limitation by browsing on the foliage of <i>Grewia</i> and dispersing seeds into the grassland matrix." ... "The palatable shoots and foliage of <i>Grewia</i> are important fodder for domestic livestock (Watt & Breyer-Brandwijk 1962)."
404	2007. Medley, K.E./Kalibo, H.W.. Ethnobotanical survey of wild woody plant resources at mount kasigau, Kenya. Journal of East African Natural History. 96(2): 149-186.	[Unpalatable to grazing animals? No] "Fruits edible; leaves eaten by goats"
405	2004. Tews, J./Schurr, F./Jeltsch, F.. Seed dispersal by cattle may cause shrub encroachment of <i>Grewia flava</i> on southern Kalahari rangelands. Applied Vegetation Science. 7: 89-102.	[Toxic to animals? No evidence in related species] "Cattle negate this dispersal limitation by browsing on the foliage of <i>Grewia</i> and dispersing seeds into the grassland matrix."
405	2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Toxic to animals? No evidence]
406	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Host for recognized pests and pathogens? Potentially] "The leaves of all species of <i>Grewia</i> are badly damaged by Chinese rose beetle, sometimes to the point of skeletonizing the majority of leaves on a plant." [A widespread pest of Malvaceae]
407	2007. Medley, K.E./Kalibo, H.W.. Ethnobotanical survey of wild woody plant resources at mount kasigau, Kenya. Journal of East African Natural History. 96(2): 149-186.	[Causes allergies or is otherwise toxic to humans? No] "Fruits edible; leaves eaten by goats; bark can be used to treat diarrhea; firewood."
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? No evidence] "Roots used for snake bite treatment. The roots can be chewed or pounded and soaked in water."

408	2013. Kew Databases. Flora Zambesiaca - Taxon Detail: <i>Grewia truncata</i> . http://apps.kew.org/efloras/search.do [Accessed 27 June 2013]	[Creates a fire hazard in natural ecosystems? Unknown] "Riverine species, sometimes thicket-forming." [Thicket formation may increase risk of fire due to increased fuel load]
409	2013. WRA Specialist. Personal Communication.	[Is a shade tolerant plant at some stage of its life cycle? Unknown]
410	2013. Conservatoire et Jardin botaniques & South African National Biodiversity Institute. African Plant Database - <i>Grewia truncata</i> Mast.. http://www.ville-ge.ch/musinfo/bd/cjb/africa/details.php?langue=an&id=121770 [Accessed 27 June 2013]	[Tolerates a wide range of soil conditions? Unknown] "Riverine plant, sometimes thicket-forming; also coastal; 1-500 m alt.; inland 900-1200 m alt." [Broad elevational distribution suggests that this plant may be able to tolerate many soil types]
411	2013. Kew Databases. Flora Zambesiaca - Taxon Detail: <i>Grewia truncata</i> . http://apps.kew.org/efloras/search.do [Accessed 27 June 2013]	[Climbing or smothering growth habit? No] "Shrub or small tree up to 6 m. tall, with pubescent branchlets."
412	2013. Conservatoire et Jardin botaniques & South African National Biodiversity Institute. African Plant Database - <i>Grewia truncata</i> Mast.. http://www.ville-ge.ch/musinfo/bd/cjb/africa/details.php?langue=an&id=121770 [Accessed 27 June 2013]	[Forms dense thickets? Yes] "Riverine plant, sometimes thicket-forming"
412	2013. Kew Databases. Flora Zambesiaca - Taxon Detail: <i>Grewia truncata</i> . http://apps.kew.org/efloras/search.do [Accessed 27 June 2013]	[Forms dense thickets? Yes] "Riverine species, sometimes thicket-forming."
501	2013. Kew Databases. Flora Zambesiaca - Taxon Detail: <i>Grewia truncata</i> . http://apps.kew.org/efloras/search.do [Accessed 27 June 2013]	[Aquatic? No] "Riverine species, sometimes thicket-forming."
502	2010. The Plant List. Version 1. http://www.theplantlist.org/	[Grass? No] Malvaceae [Formerly Tiliaceae]
503	2010. The Plant List. Version 1. http://www.theplantlist.org/	[Nitrogen fixing woody plant? No] Malvaceae [Formerly Tiliaceae]
504	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. Flora of Tropical East Africa - Tiliaceae & Muntingiaceae. A.A. Balkema, Rotterdam, Netherlands	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Shrub to 5 m tall; young branches stellate pubescent. Leaves oblong to obovate oblong with an irregular outline, 3–15 cm long, 2.1–9.2 cm wide, broadly obtuse to truncate or emarginate, sometimes deeply so, at the apex, rounded to truncate at the base, irregularly coarsely serrate to crenate, with scattered stellate hairs above, stellate-pubescent beneath, paperyaceous; petiole 3–10 mm long, stellate-pubescent; stipules linear-lanceolate, 5–7 mm long."
601	2013. Conservatoire et Jardin botaniques & South African National Biodiversity Institute. African Plant Database - <i>Grewia truncata</i> Mast.. http://www.ville-ge.ch/musinfo/bd/cjb/africa/details.php?langue=an&id=121770 [Accessed 27 June 2013]	[Evidence of substantial reproductive failure in native habitat? No] "Riverine plant, sometimes thicket-forming" No evidence
602	2013. Lau, A./Frohlich, D.. New plant records for the Hawaiian Islands 2011–2012. Bishop Museum Occasional Papers. 114: 5–16.	[Produces viable seed? Yes] "it was seen naturalized on Oahu with a very scattered, low density distribution over a large area in a dry, lowland tuff cone crater among <i>Leucaena leucocephala</i> scrub vegetation." ... "Material examined. O'AHU: Koko Crater Botanical Garden. Saplings, seedlings, matures scattered along slope above Madagascar section in <i>Leucaena</i> -dominated scrub."
603	2008. Louppe, D./Oteng-Amoako, A.A./Brink, M.. Timbers 1: volume 7 of Plant Resources of Tropical Africa. PROTA, Wageningen, Netherlands	[Hybridizes naturally? Unknown, but interspecific hybridization documented in genus] " <i>Grewia bicolor</i> is extremely variable, and it hybridizes freely with <i>Grewia monticola</i> Sond."
604	1940. East, E.M.. The distribution of self-sterility in the flowering plants. Proceedings of the American Philosophical Society. 82: 449-518.	[Self-compatible or apomictic? Unknown for <i>G. truncata</i>] "Genera where one or more species are known to be self-fertile are <i>Elaeocarpus</i> , <i>Slonea</i> , <i>Muntingia</i> , <i>Aristotelia</i> , <i>Apeiba</i> , <i>Grewia</i> , <i>Luehea</i> , <i>Tilia</i> , and <i>Triumfetta</i> "
605	2002. Kubitzki, K./Bayer, C. (eds.). The Families and genera of vascular plants. Volume V. Flowering Plants. Dicotyledons: Capparales, Malvales and Non-betalain Caryophyllales. Springer-Verlag, Berlin, Heidelberg, New York	[Requires specialist pollinators? No evidence] "In <i>Grewioideae</i> the relatively small-flowered genera, which have nectaries at the adaxial petal bases, point to bee pollination. The only pertinent report is from Zietsman (1991), who found the South African <i>Grewia occidentalis</i> pollinated mainly by <i>Apis mellifera</i> and two <i>Xylocopa</i> ." [No evidence based on generic characteristics]

606	2004. Tews, J./Moloney, K./Jeltsch, F.. Modeling seed dispersal in a variable environment: a case study of the fleshy-fruited savanna shrub <i>Grewia flava</i> . <i>Ecological Modelling</i> . 175: 65-76.	[Reproduction by vegetative fragmentation? Unknown. Related species can spread clonally] " <i>Grewia</i> plants are noted for clonal, multi-stemmed growth forms (Schurr, 2001)."
607	2012. Shoot Gardening. <i>Grewia occidentalis</i> (African starbush). http://www.shootgardening.co.uk/plant/grewia-occidentalis [Accessed 15 Oct 2012]	[Minimum generative time (years)? Unknown for <i>G. truncata</i>] " <i>Grewia occidentalis</i> " ... "2-5 years to maturity" [Probably similar rate of growth and time to maturity]
701	2011. Queensland Government. Weeds of Australia - <i>Grewia</i> , <i>Grewia asiatica</i> . http://keyserver.lucidcentral.org/weeds/data/03030800-0b07-490a-8d04-0605030c0f01/media/Html/Grewia_asiatica.htm [Accessed 15 Oct 2012]	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Possibly due to ability of related species to be dispersed as garden waste] " <i>Grewia asiatica</i> " ... "This species reproduces by seed. The seeds are spread when they are ingested and expelled intact by birds and other animals. They may also be spread as ornamental plantings, in dumped garden waste, and by floodwaters."
702	2013. WRA Specialist. Personal Communication.	[Propagules dispersed intentionally by people? Possibly] May be cultivated ornamentally, but on a limited basis
703	2013. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No] No evidence, and unlikely to be cultivated with produce
704	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. <i>Flora of Tropical East Africa - Tiliaceae & Muntingiaceae</i> . A.A. Balkema, Rotterdam, Netherlands	[Propagules adapted to wind dispersal? No] "Fruit (1-)4-lobed, 10-15 mm wide, the lobes 6-9 mm long, 5-8 mm wide, covered with long hairs with a small wart at their base, green with pale dots." [Grewia are fleshy-fruited drupes]
705	2013. Kew Databases. <i>Flora Zambesiaca - Taxon Detail: Grewia truncata</i> . http://apps.kew.org/efloras/search.do [Accessed 27 June 2013]	[Propagules water dispersed? Possibly. Distributed along rivers] "Riverine species, sometimes thicket-forming."
706	2001. Whitehouse, C./Cheek, M./Andrews, S./Verdcourt, B.. <i>Flora of Tropical East Africa - Tiliaceae & Muntingiaceae</i> . A.A. Balkema, Rotterdam, Netherlands	[Propagules bird dispersed? Presumably Yes] "Fruit (1-)4-lobed, 10-15 mm wide, the lobes 6-9 mm long, 5-8 mm wide, covered with long hairs with a small wart at their base, green with pale dots." [Grewia are fleshy-fruited drupes]
707	2013. Kew Databases. <i>Flora Zambesiaca - Taxon Detail: Grewia truncata</i> . http://apps.kew.org/efloras/search.do [Accessed 27 June 2013]	[Propagules dispersed by other animals (externally)? No] "Fruit (1-)4-lobed, 10-15 mm wide, the lobes 6-9 mm long, 5-8 mm wide, covered with long hairs with a small wart at their base, green with pale dots." [Fruits lack means of external attachment, and species in genus are largely adapted for internal dispersal by birds and mammals]
708	2004. Tews, J./Schurr, F./Jeltsch, F.. Seed dispersal by cattle may cause shrub encroachment of <i>Grewia flava</i> on southern Kalahari rangelands. <i>Applied Vegetation Science</i> . 7: 89-102.	[Propagules survive passage through the gut? Presumably Yes] " <i>Grewia flava</i> " ... "In addition, dung pads of cattle are known to contain considerable amounts of <i>Grewia</i> seeds (Schurr 2001)." [Morphology of <i>G. truncata</i> fruit suggests a similar dispersal syndrome]
801	2013. Kew Databases. <i>Flora Zambesiaca - Taxon Detail: Grewia truncata</i> . http://apps.kew.org/efloras/search.do [Accessed 27 June 2013]	[Prolific seed production (>1000/m ²)? No] "Shrub to 5 m tall; young branches stellate pubescent." ... "Fruit (1-)4-lobed, 10-15 mm wide, the lobes 6-9 mm long, 5-8 mm wide, covered with long hairs with a small wart at their base, green with pale dots." [Unlikely, given size of plants and fruit size]
802	2008. Royal Botanic Gardens Kew. Seed Information Database (SID). Version 7.1. http://data.kew.org/sid/	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown] Several <i>Grewia</i> species possess orthodox seed storage
803	2013. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species
804	2004. Tews, J./Schurr, F./Jeltsch, F.. Seed dispersal by cattle may cause shrub encroachment of <i>Grewia flava</i> on southern Kalahari rangelands. <i>Applied Vegetation Science</i> . 7: 89-102.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Possibly Yes based on response to fire of related species] "In the wet season following a fire, shrub cover of matrix individuals is reduced by 50% (with no fruit production) and reaches the pre fire value in the year after. This describes the quick resprouting of <i>Grewia</i> from basal parts (Skarpe 1980; Gandar 1982)."
804	2005. Staples, G.W./Herbst, D.R.. <i>A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places</i> . Bishop Museum Press, Honolulu, HI	[Tolerates, or benefits from, mutilation, cultivation, or fire? Possibly Yes based on response to pruning of a related species] " <i>Grewia occidentalis</i> " ... "The scrambling habit requires vigorous pruning to keep it compact..."
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

- Sparingly Naturalized in Koko Crater, Oahu, Hawaiian Islands
- Thrives in tropical climates
- Related species can become weedy
- Often forming thickets near streams in native range of Africa
- Seeds dispersed internally by birds and other mammals
- Biology and ecology poorly understood. Assessment could change as more information becomes available

Low Risk / Desirable Traits

- No reports of negative impacts or invasiveness elsewhere
- Unarmed (no spines, thorns, or burrs)
- Non-toxic
- Landscaping and ornamental value