Key Words: Low Risk, Not Naturalized, Tropical Tree, Ornamental, Timber, Shade-tolerant

Family: ***Lauraceae***

Taxon: ***Chlorocardium rodiei***

Synonym: *Nectandra rodiei M. R. Schomb. (basionym)*
Ocotea rodiei (M. R. Schomb.) Mez

Common Name: greenheart tree

Questionaire : current 20090513 **Assessor:** HPWRA OrgData **Designation:** L
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**	**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**	**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**	
406	**Host for recognized pests and pathogens**	**y=1, n=0**	**y**
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**	**n**
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**	**y**
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**	**n**
703	**Propagules likely to disperse as a produce contaminant**	**y=1, n=-1**	**n**
704	**Propagules adapted to wind dispersal**	**y=1, n=-1**	**n**
705	**Propagules water dispersed**	**y=1, n=-1**	**n**
706	**Propagules bird dispersed**	**y=1, n=-1**	**n**
707	**Propagules dispersed by other animals (externally)**	**y=1, n=-1**	
708	**Propagules survive passage through the gut**	**y=1, n=-1**	**y**
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** **-1**

Supporting Data:

101	1991. Rohwer, J.G./Richter, H.G./van der Werff, H.. Two New Genera of Neotropical Lauraceae and Critical Remarks on the Generic Delimitation. Annals of the Missouri Botanical Garden. 78(2): 388-400.	[Is the species highly domesticated? No evidence]
102	2013. WRA Specialist. Personal Communication.	NA
103	2013. WRA Specialist. Personal Communication.	NA
201	2007. Red List Standards & Petitions Working Group. Chlorocardium rodiei. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. www.iucnredlist.org [Accessed 11 Feb 2013]	[Species suited to tropical or subtropical climate(s) 2-High] "Chlorocardium rodiei occurs primarily in Guyana, but is also found in Suriname and possibly in Venezuela but this is unsubstantiated. If the species occurs in western Venezuela it is only likely to be at very low densities. Similarly the species in Suriname is confined to a small area along Maratakka River."
202	2007. Red List Standards & Petitions Working Group. Chlorocardium rodiei. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. www.iucnredlist.org [Accessed 11 Feb 2013]	[Quality of climate match data 2-High]
203	2013. Tropicos.org. Tropicos [Online Database]. Missouri Botanical Garden, http://www.tropicos.org/	[Broad climate suitability (environmental versatility)? No evidence] Collected from sea level to 200 m elevation, and from 03°31'25"N, 58°15'02"W to 07°08'00"N, 58°43'00"W
204	1999. Hammond, D.S./Brown, V.K./Zagt, R.. Spatial and Temporal Patterns of Seed Attack and Germination in a Large-Seeded NeotropicalTree Species. Oecologia. 119(2): 208-218.	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Chlorocardium is a monoecious canopy tree endemic to the eastern part of the Guiana Shield."
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] "List of countries: South America - French Guiana- natural; Guyana - natural; Suriname - natural"
205	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Does the species have a history of repeated introductions outside its natural range? Vietnam] "Introduced in Vietnam"
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	1991. van der Werff, H.. A Key to the Genera of Lauraceae in the New World. Annals of the Missouri Botanical Garden. 78(2): 377-387.	[Congeneric weed? No evidence] "A genus with two species, one from Guyana and Surinam, the other from Amazonian Ecuador and adjacent Colombia, previously included in Ocotea, but differing in characters of flowers, wood, and leaf position. The Ecuadorian/Colombian species is incompletely known."
305	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Congeneric weed? No evidence]
401	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Produces spines, thorns or burrs? No evidence] "Height up to 130 ft (40 m)" … "Bark Ash gray, smooth, dense. Leaf Smooth, leathery, 4-6 in (10-15 cm) long."
402	2013. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Parasitic? No] "Height up to 130 ft (40 m)" … "Bark Ash gray, smooth, dense. Leaf Smooth, leathery, 4-6 in (10-15 cm) long." [Tree]
404	2013. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals? Unknown]

405	1999. Cervantes Peredo, L. et al.. The stenomatine moth, Stenoma catenifer Walsingham: a pre-dispersal seed predator of Greenheart (Chlorocardium rodiei (Schomb.) Rohwer, Richter & van der Werff) in Guyana. Journal of Natural History. 33(4): 531-542.	[Toxic to animals? Toxicity of foliage unknown] "Greenheart seeds contain a mixture of bitter alkaloids , called bibirine (Fanshawe, 1947) , which may be toxic to predators."
406	1999. Cervantes Peredo, L. et al.. The stenomatine moth, Stenoma catenifer Walsingham: a pre-dispersal seed predator of Greenheart (Chlorocardium rodiei (Schomb.) Rohwer, Richter & van der Werff) in Guyana. Journal of Natural History. 33(4): 531-542.	[Host for recognized pests and pathogens? Yes] "Stenoma catenifer Walsingham, a neotropical pest of avocado, is newly recorded from a wild host, the Guyanese endemic member of the Lauraceae, Chlorocardium rodiei (Schomb.) Rohwer, Richter & van der WerV, an economically very important timber source."
407	2006. Sims, M./Skadsen: , E.. Wood Hazards. http://wiki.bme.com/index.php?title=Wood_Hazards [Accessed 11 Feb 2013]	[Causes allergies or is otherwise toxic to humans? Wood & dust may be toxic] "There are other hardwoods that are notorious for causing dangerous reactions (which may include surprisingly strong reactions such as cardiac and nervous system effects, cancer, and genotoxicity), such as: afromosia (Periocopsis elata), Australian blackwood (Acacia melanoxylon), greenheart (Chlorocardium rodiei)…"
407	2013. The Woodworking Reference Library. Toxic Woods. http://library.davidtilson.com/materials/toxic.html [Accessed 11 Feb 2013]	[Causes allergies or is otherwise toxic to humans? Wood dust may cause problems] "Strong sensitizer (wood, dust (sepsis from splinters, asthma, cardiac & intestinal disorders"
408	1995. National Agricultural Research Insitute. Guyana: Country Report to the FAO International Technical Conference on Plant Genetic Resources. (Leipzig, 1996). NARI, Georgetown, Guyana	[Creates a fire hazard in natural ecosystems? No evidence]
409	1994. ter Steege, H.T./Bokdam, C./Boland, M./Dobbelsteen, J./Verburg, I.. The Effects of Man Made Gaps on Germination, Early Survival, and Morphology of Chlorocardium rodiei Seedlings in Guyana. Journal of Tropical Ecology. 10(2): 245-260.	[Is a shade tolerant plant at some stage of its life cycle? Yes. But growth promoted by canopy gaps] "Chlorocardium rodiei has been classified as shade tolerant (Fanshawe 1948) but responds fast to canopy openings. Our findings suggest that while seedlings may persist at least one year in the understorey, they are not shade tolerant for many years. The observed light levels in natural, unlogged forest are probably not high enough to promote positive growth. Large gaps such as those caused by logging are big enough to increase growth and survival of Chlorocardium rodiei seedlings."
409	2004. de Freitas, J.V.. Improving Tree Selection for Felling and Retention in Natural Forest in Amazonia Through Spatial Control and Targeted Seed Tree Retention: A Case Study of a Forest Management Project in Amazonas State, Brazil. PhD Diss. University	[Is a shade tolerant plant at some stage of its life cycle? Yes] "In spite of the fact that the local high intensity logging may be associated to damage on advanced regeneration, an additional problem is that Chlorocaridium is a shade bearer, and therefore, the post-logging environment, rich in light, will put the species at a competitive disadvantage with less valued light demander species."
410	1993. ter Steege, H./Jetten, V.G./Polak, A.M./Werger, M.J.A.. Tropical Rain Forest Types and Soil Factors in a Watershed Area in Guyana. Journal of Vegetation Science. 4(5): 705-716.	[Tolerates a wide range of soil conditions? Possibly No] "Chlorocardium rodiei, Mora gonggrijpii and Eschweilera sagotiana are species of the brown sands…" … "Well drained mixed forest on Ferralic Arenosols and Haplic Ferralsols, better drained than the next type (cf. TWINSPAN groups 1 and 2). Chlorocardium rodiei, Eschweilera sagotiana (plus other Lecythidaceae) and Dicymbe altsonii dominate these areas, alone or in combination." … "Poorly-drainedm ixed forest in low lying small creek heads and valleys, on Ferralic Arenosols and Haplic Ferralsols (groups 3 and 4). Eperua rubiginosa is dominant here. Eschweilera sagotiana and Chlorocardium rodiei and Mora gonggrijpii may be co dominant" … "Most of those species are also clumped on the soil type of their preference (brown or white sands). Thus Chlorocardium rodiei, Mora gonggrijpii and Eschweilera sagotiana are clumped on brown sands and Eperua grandiflora is clumped on white sands"
411	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Climbing or smothering growth habit? No] "Height up to 130 ft (40 m)" … "Bark Ash gray, smooth, dense. Leaf Smooth, leathery, 4-6 in (10-15 cm) long."
412	1995. National Agricultural Research Insitute. Guyana: Country Report to the FAO International Technical Conference on Plant Genetic Resources. (Leipzig, 1996). NARI, Georgetown, Guyana	[Forms dense thickets? Unknown. Dominant forest component] "The greenheart forests are found on brown sand as well as on laterite, often on slopes of ridges. It is known from the area east of the Pomeroon R. north of the line Kartuni-Puruni-East Kaburi-Kurduni R. The dominant species is Chlorocardium rodiei."
412	1999. Hammond, D.S./Brown, V.K./Zagt, R.. Spatial and Temporal Patterns of Seed Attack and Germination in a Large-Seeded NeotropicalTree Species. Oecologia. 119(2): 208-218.	[Forms dense thickets? No evidence] "Chlorocardium is a monoecious canopy tree endemic to the eastern part of the Guiana Shield. It is a common codominant in many well-drained areas covered by brown sand (FAO: haplic Ferralsols) and lateritic (dystric Leptosols) soils, where it can reach densities of 84 and 40 stems (>10 cm dbh) ha 1, respectively (Fanshawe 1947; D.S. Hammond, unpublished data)."

412	2002. Pereira Jr., R./Zweede, J./Asner, G.P./Keller, M.. Forest canopy damage and recovery in reduced-impact and conventional selective logging in eastern Para, Brazil. Forest Ecology and Management. 168: 77–89.	[Forms dense thickets? Possibly Yes] "In this particular case, the harvest consisted almost entirely of Chlorocardium rodiei (greenheart) which grows in dense stands." [Unknown if tree excludes other vegetation]
501	2007. Red List Standards & Petitions Working Group. Chlorocardium rodiei. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. www.iucnredlist.org [Accessed 11 Feb 2013]	[Aquatic? No] "Systems: Terrestrial"
502	1991. Rohwer, J.G./Richter, H.G./van der Werff, H.. Two New Genera of Neotropical Lauraceae and Critical Remarks on the Generic Delimitation. Annals of the Missouri Botanical Garden. 78(2): 388-400.	[Grass? No] Lauraceae
503	2013. Tropicos.org. Tropicos [Online Database]. Missouri Botanical Garden, http://www.tropicos.org/	[Nitrogen fixing woody plant? No] Lauraceae
504	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Height up to 130 ft (40 m)" … "Bark Ash gray, smooth, dense. Leaf Smooth, leathery, 4-6 in (10-15 cm) long."
601	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Evidence of substantial reproductive failure in native habitat? Yes] "Since the mid=20th century, the number of trees has declined due to overexploitation of natural reserves and limited success in establishing plantations, since the tree fruits once every 15 years."
602	1999. Hammond, D.S./Brown, V.K./Zagt, R.. Spatial and Temporal Patterns of Seed Attack and Germination in a Large-Seeded NeotropicalTree Species. Oecologia. 119(2): 208-218.	[Produces viable seed? Yes] "Seedfall in Chlorocardium appears to be a regular, (semi-)annual event (Zagt 1997). Though not all individual trees reproduce consistently every year, the highly aggregated distribution of adults appears to buffer the drastic year-to-year variation in per capita output which can lead to a less predictable pattern of seed availability in many other Guianan tree species (e.g. Forget 1997). In addition, predispersal predation of fruit is typically low (Ter Steege et al. 1996). This creates a 'patch' of relative high seed density which, combined with a large seed size and extraordinarily protracted germination within a cohort (see Fig. 4), lends a spatial and temporal predictability to Chlorocardium seeds shared by few other sympatric tree species (D.S. Hammond, personal observation)."
603	1993. Kubitzki, K./Rohwer, J.G./Bittrich, V. (eds.). The Families and genera of vascular plants. Volume II. Springer-Verlag, Berlin, Heidelberg, New York	[Hybridizes naturally? Unknown] ""Two species, S. America, one in Guyana and Surinam, the other in Colombia and Ecuador." [Ranges of two species do not overlap]
604	1993. Kubitzki, K./Rohwer, J.G./Bittrich, V. (eds.). The Families and genera of vascular plants. Volume II. Springer-Verlag, Berlin, Heidelberg, New York	[Self-compatible or apomictic? Unknown] "flowers tetramerous or irregular, bisexual;…" [Generic description]
605	1993. Kubitzki, K./Rohwer, J.G./Bittrich, V. (eds.). The Families and genera of vascular plants. Volume II. Springer-Verlag, Berlin, Heidelberg, New York	[Requires specialist pollinators? No evidence] "flowers tetramerous or irregular, bisexual; tepals 4-10, (sub)equal; fertile stamens 12-20, all with glands; filaments indistinct; anthers 4-locular, the pollen sacs arranged in two pairs above each other, the upper ones latrorse, the lower ones extrorse-latrorse; staminodes usually absent; receptacles deeply cup-shaped…" [Generic description]
605	1994. Zomlefer, W.B.. Guide to Flowering Plant Families. The University of North Carolina Press, Chapel Hill & London	[Requires specialist pollinators? No evidence] "Insects (often flies) are attracted to the nectar produced by glandular outgrowths that usually occur on the filaments of the third whorl…"
606	1998. Rijks, M.H./Malta, E.J./Zagt, R.J.. Regeneration Through Sprout Formation in Chlorocardium rodiei (Lauraceae) in Guyana. Journal of Tropical Ecology. 14(4): 463-475.	[Reproduction by vegetative fragmentation? No evidence]
607	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Minimum generative time (years)? >3+] "Since the mid=20th century, the number of trees has declined due to overexploitation of natural reserves and limited success in establishing plantations, since the tree fruits once every 15 years."
701	2005. Usher, C./Ridsdale, C.. Eyewitness Companions: Trees. DK Publishing, Inc., New York, NY	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas) y=1, n=-1? No evidence] "Fruit - Nut with a large, hard, brittle pericarp, containing a singly large, fleshy seed." [No evidence, and large fruit and seeds lack means of external attachment]

702	1995. ter Steege, H./Boot, R./Brouwer, L./Hammond, D./van der Hout, P./Jetten, V. g./Khan, Z./Polak, A.M./Raaimakers, D./Zagt, R.. Basic and Applied Research for Sound Rain Forest Management in Guyana. Ecological Applications. 5(4): 904-910.	[Propagules dispersed intentionally by people? No evidence outside native range] "Chlorocardium rodiei (greenheart) is Guyana's most renowned timber resource and has tra- ditionally constituted 70% of the country's timber ex- ports. {Names and authorities follow Mennega et al. 1988 (except in C. rodiei (Schomb.) Rohwer, Richter and v.d. Werff [syn. Ocotea rodiaei (Schomb.) Mez], which was renamed recently)."
703	1991. Rohwer, J.G./Richter, H.G./van der Werff, H.. Two New Genera of Neotropical Lauraceae and Critical Remarks on the Generic Delimitation. Annals of the Missouri Botanical Garden. 78(2): 388-400.	[Propagules likely to disperse as a produce contaminant? No evidence] "Fruits of Chlorocardium rodiei have been described as large (6-7 cm long, 5 cm diam.) and ellipsoid to ovoid-globose, seated in a shallow, single- margined cupule, 2-2.5 cm diam. (Mez, 1889; Kostermans, 1936)." [Large fruit & seeds are unlikely to be accidentally dispersed]
704	1991. Rohwer, J.G./Richter, H.G./van der Werff, H.. Two New Genera of Neotropical Lauraceae and Critical Remarks on the Generic Delimitation. Annals of the Missouri Botanical Garden. 78(2): 388-400.	[Propagules adapted to wind dispersal? No] "Fruits of Chlorocardium rodiei have been described as large (6-7 cm long, 5 cm diam.) and ellipsoid to ovoid-globose, seated in a shallow, single- margined cupule, 2-2.5 cm diam. (Mez, 1889; Kostermans, 1936)."
705	1996. Hammond, D.S. et al.. A compilation of known Guianan timber trees and the significance of their dispersal mode, seed size and taxonomic affinity to tropical rain forest management. Forest Ecology and Management. 83(1–2): 99–116.	[Propagules water dispersed? No evidence] "Appendix A: Names, distributions and dispersal characteristics of Guianan limber tree species. Dispersal modes and seed sizes arc referenced to source." [Chlorocardium rodiei - Primary Dipsersal Mode = 1 (Mammal); Secondary Dispersal Mode = 4 (Unassisted)]
706	2008. UNEP World Conservation Monitoring Centre. Estrategias para el uso y el manejo sostenibles de especies arbóreas sujetas a comercio internacional: Sudamérica. UNEP WCMC, Cambridge, UK	[Propagules bird dispersed? No evidence] "The seeds are dispersed by mammals (Chanderbali, 1997)."
707	1996. Hammond, D.S. et al.. A compilation of known Guianan timber trees and the significance of their dispersal mode, seed size and taxonomic affinity to tropical rain forest management. Forest Ecology and Management. 83(1–2): 99–116.	[Propagules dispersed by other animals (externally)? Unknown. Possible that animals may carry large fruit externally to consume pulp or seeds elsewhere] "Appendix A: Names, distributions and dispersal characteristics of Guianan limber tree species. Dispersal modes and seed sizes arc referenced to source." [Chlorocardium rodiei - Primary Dipsersal Mode = 1 (Mammal); Secondary Dispersal Mode = 4 (Unassisted)]
708	2008. UNEP World Conservation Monitoring Centre. Estrategias para el uso y el manejo sostenibles de especies arbóreas sujetas a comercio internacional: Sudamérica. UNEP WCMC, Cambridge, UK	[Propagules survive passage through the gut? Presumably Yes] "The seeds are dispersed by mammals (Chanderbali, 1997)." [Details of dispersal lacking]
801	2008. UNEP World Conservation Monitoring Centre. Estrategias para el uso y el manejo sostenibles de especies arbóreas sujetas a comercio internacional: Sudamérica. UNEP WCMC, Cambridge, UK	[Prolific seed production (>1000/m2)? Possibly at infrequent intervals] "Mast fruiting occurs every 12-15 years and the seeds are dropped around the parent tree (Polak, 1992)."
802	1994. ter Steege, H.T./Bokdam, C./Boland, M./Dobbelsteen, J./Verburg, I.. The Effects of Man Made Gaps on Germination, Early Survival, and Morphology of Chlorocardium rodiei Seedlings in Guyana. Journal of Tropical Ecology. 10(2): 245-260.	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown] "Although seedlings of Chlorocardium rodiei can tolerate full sunlight at a young stage, caution in logging activity should be taken. The seeds of Chlorocardium rodiei do not germinate in very open habitats, as are often created in felling the gregariously growing Chlorocardum rodiei individuals. In logged areas some mature trees should remain to provide seeds and shade."
803	2013. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species
804	1998. Rijks, M.H./Malta, E.J./Zagt, R.J.. Regeneration Through Sprout Formation in Chlorocardium rodiei (Lauraceae) in Guyana. Journal of Tropical Ecology. 14(4): 463-475.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Chlorocardium rodiei Schomb. (Lauraceae) (see Rohwer et al. 1991), locally known as greenheart, is a tropical hardwood species endemic to the Guianas where it is commercially logged (Lindeman & Mori 1989). Under natural conditions C. rodiei trees that have sustained considerable damage, such as the loss of part of the crown, can re-iterate by producing sprouts high up on the bole. These sprouts have been observed to reach diameters of up to 30 cm (E. Malta & M. H. Rijks, unpubl. data) and usually replace the lost part of the crown in the canopy. Stumps frequently produce a large number of sprouts after logging of the bole, that persist for a long time (Fanshawe 1947; R. J. Zagt, unpubl. data)." … "In conclusion, we have shown that sprouts can survive in large numbers for at least 20 y after logging, and that they grow. For C. rodiei sprouting following damage or logging is a survival mechanism following the removal of apical dominance…"
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

- Thrives in tropical climates
- Wood dust may be toxic or allergenic
- Shade tolerant (potential to invade intact forest understory)
- Dominant forest component in Guyana (competitive ability?)
- Relatively large fruit & seeds dispersed by mammals (potentially pigs in Hawaiian Islands)
- Resprouts after cutting or damage to trunk
- Limited planting outside native range may account for lack of naturalization or invasiveness

Low Risk / Desirable Traits

- No evidence of naturalization or invasiveness elsewhere
- Restricted to low elevation tropics
- Unarmed (no spines, thorns or burrs)
- Landscaping and ornamental value
- Timber tree
- Large fruit & seeds unlikely to be accidentally dispersed