UF IFAS UNIVERSITY of FLORIDA

Assessment of Non-native Plants in Florida's Natural Areas

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Assessment date 10 July 2017

	Corymbia citriodora **Central & South Zone**	**Answer**	**Score**
1.01	Is the species highly domesticated?	n	0
1.02	Has the species become naturalised where grown?		
1.03	Does the species have weedy races?		
2.01	Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10	2	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	2	
2.03	Broad climate suitability (environmental versatility)	y	1
2.04	Native or naturalized in habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches	y	1
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	y	2
3.02	Garden/amenity/disturbance weed	unk	
3.03	Weed of agriculture	unk	
3.04	Environmental weed	unk	
3.05	Congeneric weed	y	2
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic	unk	0
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	n	-1
4.05	Toxic to animals	n	0
4.06	Host for recognised pests and pathogens	n	0
4.07	Causes allergies or is otherwise toxic to humans	unk	0
4.08	Creates a fire hazard in natural ecosystems	unk	0
4.09	Is a shade tolerant plant at some stage of its life cycle	n	0
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.	unk	0
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	n	0
5.01	Aquatic	n	0
5.02	Grass	n	0
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte	n	0

6.01	Evidence of substantial reproductive failure in native habitat	n	0
6.02	Produces viable seed	y	1
6.03	Hybridizes naturally	y	1
6.04	Self-compatible or apomictic	y	1
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	unk	-1
6.07	Minimum generative time (years)	2	0
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	unk	-1
7.02	Propagules dispersed intentionally by people	y	1
7.03	Propagules likely to disperse as a produce contaminant	n	-1
7.04	Propagules adapted to wind dispersal	y	1
7.05	Propagules water dispersed	y	1
7.06	Propagules bird dispersed	unk	-1
7.07	Propagules dispersed by other animals (externally)	unk	-1
7.08	Propagules dispersed by other animals (internally)	unk	-1
8.01	Prolific seed production	y	1
8.02	Evidence that a persistent propagule bank is formed (>1 yr)	unk	-1
8.03	Well controlled by herbicides	unk	1
8.04	Tolerates, or benefits from, mutilation or cultivation	y	1
8.05		?	
	Total Score	**7**	
	Implemented Pacific Second Screening	**NO**	
	Risk Assessment Results	**High**	

section	# questions answered	satisfy minimum?
A	8	yes
B	8	yes
C	16	yes
total	32	yes

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	Corymbia citriodora **North Zone**	**Answer**	**Score**
1.01	Is the species highly domesticated?	n	0
1.02	Has the species become naturalised where grown?		
1.03	Does the species have weedy races?		
2.01	Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10	2	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	1	
2.03	Broad climate suitability (environmental versatility)	y	1
2.04	Native or naturalized in habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches	y	1
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	y	2
3.02	Garden/amenity/disturbance weed	unk	
3.03	Weed of agriculture	unk	
3.04	Environmental weed	unk	
3.05	Congeneric weed	y	2
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic	unk	0
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	n	-1
4.05	Toxic to animals	n	0
4.06	Host for recognised pests and pathogens	n	0
4.07	Causes allergies or is otherwise toxic to humans	unk	0
4.08	Creates a fire hazard in natural ecosystems	unk	0
4.09	Is a shade tolerant plant at some stage of its life cycle	n	0
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.	unk	0
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	n	0
5.01	Aquatic	n	0
5.02	Grass	n	0
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte	n	0

6.01	Evidence of substantial reproductive failure in native habitat	n	0
6.02	Produces viable seed	y	1
6.03	Hybridizes naturally	y	1
6.04	Self-compatible or apomictic	y	1
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	unk	-1
6.07	Minimum generative time (years)	2	0
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	unk	-1
7.02	Propagules dispersed intentionally by people	y	1
7.03	Propagules likely to disperse as a produce contaminant	n	-1
7.04	Propagules adapted to wind dispersal	y	1
7.05	Propagules water dispersed	y	1
7.06	Propagules bird dispersed	unk	-1
7.07	Propagules dispersed by other animals (externally)	unk	-1
7.08	Propagules dispersed by other animals (internally)	unk	-1
8.01	Prolific seed production	y	1
8.02	Evidence that a persistent propagule bank is formed (>1 yr)	unk	-1
8.03	Well controlled by herbicides	unk	1
8.04	Tolerates, or benefits from, mutilation or cultivation	y	1
8.05		?	
	Total Score	**7**	
	Implemented Pacific Second Screening	**NO**	
	Risk Assessment Results	**High**	

section	# questions answered	satisfy minimum?
A	8	yes
B	8	yes
C	16	yes
total	32	yes

	Reference	Source data
1.01		Cultivated, but no evidence of selection for reduced weediness
1.02		Skip to 2.01
1.03		Skip to 2.01
2.01	1. Global Plant Hardiness Zones for Phytosanitary Risk Analysis. http://naldc.nal.usda.gov/download/36586/PDF (Accessed: 11 October 2016) 2. US National Plant Germplasm System. https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?404658 (Accessed: 11 October 2016) 3. Queensland Government. http://keyserver.lucidcentral.org/weeds/data/media/Html/corymbia_citriodora.htm (Accessed: 11 October 2016) 4. Dave's Garden. http://davesgarden.com/guides/pf/go/64201/#b (Accessed: 11 October 2016) 5. Australia Plants. http://www.australiaplants.com/Corymbia_citriodora.htm (Accessed: 16 October 2016) 6. Arizona State University. http://www.public.asu.edu/~camartin/plants/Plant%20html%20files/corymbiacitriodora.html (Accessed: 16 October 2016) 7. Missouri Botanical Garden. http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=282868&isprofile=0& (Accessed: 16 October 2016)	1. Figure 3. Florida North Zone: Hardiness zones 8 and 9. Central Zone: Hardiness zones 9 and 10. South Zone: Hardiness zone 10. 2. Native to Australia - Queensland. 3. "Native to eastern Queensland and north-eastern New South Wales (i.e. from Cooktown in northern Queensland south to Coffs Harbour in northern New South Wales)." 4. USDA Zones 9 through 11. 5. USDA Zone 9 6. "USDA 9-11" 7. "Winter hardy to USDA Zones 8-11"
2.02		Native range is well known.
2.03	1. The University of Melbourne. Köppen-Geiger Climate Map of the Wolrd. http://people.eng.unimelb.edu.au/mpeel/koppen.html (Accessed: 11 October 2016) 2. US National Plant Germplasm System. https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?404658 (Accessed: 11 October 2016) 3. Queensland Government. http://keyserver.lucidcentral.org/weeds/data/media/Html/corymbia_citriodora.htm (Accessed: 11 October 2016) 4. Cameron, Mary M. and Lorenz, Lena M. Biological and Environmental Control of Disease Vectors. https://books.google.com/books?id=KbdXmKZfXUIC&pg=PA49&lpg=PA49&dq=%22Corymbia+citriodora%22+naturalized&source=bl&ots=8HPi2CHCxP&sig=pOBliZZ_-gfU8jbBgTjUe7dcHiw&hl=en&sa=X&ved=0ahUKEwi6rr-D-p_QAhWL14MKHbIyAMQ4ChDoAQgcMAE#v=onepage&q=%22Corymbia%20citriodora%22%20naturalized&f=false (Accessed: 18 October 2016) 5. The University of Sydney eFlora: Vascular Plants of the Sydney Region. https://eflora.library.sydney.edu.au/taxon/corymbia-citriodora (Accessed: 18 October 2016) 6. 1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI. (Accessed: 18 October 2016)	1. Native or naturalized to Köppen-Geiger Climate Zones: Af, Am, Aw, BSh, Cfa, and Cfb. 2. Native to Australia - Queensland. 3. "Native to eastern Queensland and north-eastern New South Wales (i.e. from Cooktown in northern Queensland south to Coffs Harbour in northern New South Wales)."; "Naturalised in northern Victoria, south-western Western Australia (i.e. in the Darling Range near Mundaring and near Perth) and beyond its native range in central New South Wales (i.e. in suburban Sydney). Possibly also sparingly naturalised in south-eastern South Australia. Naturalised overseas in south-western USA (i.e. California) and Hawaii." 4. "it has been naturalized throughout the tropics and the essential oil of the tree is produced mainly in Brazil and China" 5. "A native of open woodland from Qld, but planted in streets and gardens and occasionally naturalized around Sydney." 6. "In Hawai'i, widely planted and regenerating from seed in these areas"

2.04	1. Climate Charts. World Climate Maps. http://www.climate-charts.com/World-Climate-Maps.html#rain (Accessed: 11 October 2016) 2. US National Plant Germplasm System. https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?404658 (Accessed: 11 October 2016) 3. Queensland Government. http://keyserver.lucidcentral.org/weeds/data/media/Html/corymbia_citriodora.htm (Accessed: 11 October 2016) 4. Cameron, Mary M. and Lorenz, Lena M. Biological and Environmental Control of Disease Vectors. https://books.google.com/books?id=KbdXmKZfXUIC&pg=PA49&lpg=PA49&dq=%22Corymbia+citriodora%22+naturalized&source=bl&ots=8HPi2CHCxP&sig=pOBliZZ_-gfU8jbBgTjUe7dcHiw&hl=en&sa=X&ved=0ahUKEwi6rr-D-p_QAhWL14MKHbIyAMQ4ChDoAQgcMAE#v=onepage&q=%22Corymbia%20citriodora%22%20naturalized&f=false (Accessed: 18 October 2016) 5. The University of Sydney eFlora: Vascular Plants of the Sydney Region. https://eflora.library.sydney.edu.au/taxon/corymbia-citriodora (Accessed: 18 October 2016) 6. 1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI. (Accessed: 18 October 2016)	1. Native and naturalized in areas with rainfall within these ranges. 2. Native to Australia - Queensland. 3. "Native to eastern Queensland and north-eastern New South Wales (i.e. from Cooktown in northern Queensland south to Coffs Harbour in northern New South Wales)."; "Naturalised in northern Victoria, south-western Western Australia (i.e. in the Darling Range near Mundaring and near Perth) and beyond its native range in central New South Wales (i.e. in suburban Sydney). Possibly also sparingly naturalised in south-eastern South Australia. Naturalised overseas in south-western USA (i.e. California) and Hawaii." 4. "it has been naturalized throughout the tropics and the essential oil of the tree is produced mainly in Brazil and China" 5. "A native of open woodland from Qld, but planted in streets and gardens and occasionally naturalized around Sydney." 6. "In Hawai'i, widely planted and regenerating from seed in these areas"
2.05	1. Dave's Garden. http://davesgarden.com/guides/pf/go/64201/#b (Accessed: 11 October 2016) 2. Hanelt, Peter. Mansfeld's Encyclopedia of Agricultural and Horticultural Crops. https://books.google.com/books?id=10IMFSavIMsC&pg=PA934&lpg=PA934&dq=%22Corymbia+citriodora%22+naturalized&source=bl&ots=7GiTx2F-6Y&sig=H8lRS8HlwTya5kH1rA81xz0EN98&hl=en&sa=X&ved=0ahUKEwi6rr-D-p_QAhWL14MKHbIyAMQ4ChDoAQgeMAI#v=onepage&q=%22Corymbia%20citriodora%22%20naturalized&f=false (Accessed: 18 October 2016) 3. The University of Sydney eFlora: Vascular Plants of the Sydney Region. https://eflora.library.sydney.edu.au/taxon/corymbia-citriodora (Accessed: 18 October 2016)	1. Said to grow in Florida, Texas, Louisiana, and California. 2. "Cultivated mainly in Brazil, S China, India, Sri Lanka, Zaire, Kenya, South Africa, Fiji; but also in further (sub)tropical countries" 3. "A native of open woodland from Qld, but planted in streets and gardens and occasionally naturalized around Sydney."
3.01	1. Queensland Government. http://keyserver.lucidcentral.org/weeds/data/media/Html/corymbia_citriodora.htm (Accessed: 11 October 2016) 2. Cameron, Mary M. and Lorenz, Lena M. Biological and Environmental Control of Disease Vectors. https://books.google.com/books?id=KbdXmKZfXUIC&pg=PA49&lpg=PA49&dq=%22Corymbia+citriodora%22+naturalized&source=bl&ots=8HPi2CHCxP&sig=pOBliZZ_-gfU8jbBgTjUe7dcHiw&hl=en&sa=X&ved=0ahUKEwi6rr-D-p_QAhWL14MKHbIyAMQ4ChDoAQgcMAE#v=onepage&q=%22Corymbia%20citriodora%22%20naturalized&f=false (Accessed: 18 October 2016) 3. The University of Sydney eFlora: Vascular Plants of the Sydney Region. https://eflora.library.sydney.edu.au/taxon/corymbia-citriodora (Accessed: 18 October 2016) 4. 1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI. (Accessed: 18 October 2016)	1. "Naturalised in northern Victoria, south-western Western Australia (i.e. in the Darling Range near Mundaring and near Perth) and beyond its native range in central New South Wales (i.e. in suburban Sydney). Possibly also sparingly naturalised in south-eastern South Australia. Naturalised overseas in south-western USA (i.e. California) and Hawaii." 2. "it has been naturalized throughout the tropics and the essential oil of the tree is produced mainly in Brazil and China" 3. "A native of open woodland from Qld, but planted in streets and gardens and occasionally naturalized around Sydney." 4. "In Hawai'i, widely planted and regenerating from seed in these areas"

3.02	1. New South Wales Government PlantNET. http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Corymbia~variegata (Accessed: 16 October 2016) 2. Global Compendium of Weeds. http://www.hear.org/gcw/species/corymbia_citriodora/ (Accessed: 18 October 2016)	1. "Distribution and occurrence: In open forest on soils of medium fertility, but often on hilly country" 2. Not classified as a weed
3.03		No evidence
3.04	1. Queensland Government. http://keyserver.lucidcentral.org/weeds/data/media/Html/corymbia_citriodora.htm (Accessed: 11 October 2016)	1. "This species is regarded as an environmental weed in Western Australia and in the wider Sydney and Blue Mountains region in central New South Wales. Lemon-scented gum (Corymbia citriodora) is spreading from deliberate plantings and invading open woodland areas, particularly in south-western Western Australia."
3.05	1. Global Compendium of Weeds. http://www.hear.org/gcw/species/corymbia_torelliana/ (Accessed: 18 October 2016) 2. 2012. Weeds Australia. Weed Identification - Eucalyptus maculata = Corymbia maculata. Australian Weeds Committee, http://www.weeds.org.au/cgibin/weedident.cgi?tpl=plant.tpl&ibra=all&card=E44 (Accessed: 18 October 2016)	1. Corymbia torelliana classified as an environmental weed and garden thug 2. "Eucalyptus maculata = Corymbia maculata" … "It has been planted in southern Western Australia where it has become naturalised in Banksia and Tuart woodlands from Perth to Busselton. In Kings Park, Perth, Spotted gum has become a serious weed invading Banksia woodland and killing the understorey. Spotted gum is spread by seed."
4.01	1. Flora of China. http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200014779 (Accessed: 16 October 2016) 2. New South Wales Government PlantNET. http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Corymbia~variegata (Accessed: 16 October 2016)	No evidence of these characteristics
4.02	1. CAB Direct. https://www.cabdirect.org/cabdirect/abstract/20103097293 (Accessed: 18 October 2016)	1. Allelopathy tested only in lab conditions with extracts of leaves
4.03		No evidence
4.04	1. Australia Plants. http://www.australiaplants.com/Corymbia_citriodora.htm (Accessed: 16 October 2016) 2. Forest and Wood Products Australia. http://www.fwpa.com.au/rd-and-e/processing/159-tree-growth-relationships-and-silvicultural-tools-to-assist-stand-management-in-private-native-spotted-gum-dominant-forests-in-queensland-and-northern-new-south-wales.html (Accessed: 18 October 2016) 3. Queensland Government. Eucalypt open-forests management guide. https://www.qld.gov.au/environment/plants-animals/regrowth-guides/euc-open-ecology/ (Accessed: 18 October 2016) 4. Land for Wildlife Queensland. www.lfwseq.org.au/_literature_120371/Note_A4_Koalas (Accessed: 18 October 2016) 5. Staker, Lynda. Macropod Husbandry, Healthcare & Medicinals. Volume I. https://books.google.com/books?id=37e1AwAAQBAJ&pg=PA280&lpg=PA280&dq=%22Corymbia+citriodora%22+wallaby&source=bl&ots=zTy4DYmwn-&sig=1GLgEVSc89pLkLJWRO_KJrSpUtQ&hl=en&sa=X&ved=0ahUKEwidoKrvm6bQAhXIs1QKHXXYCpUQ6AEIGzAA#v=onepage&q=%22Corymbia%20citriodora%22%20wallaby&f=false (Accessed: 18 October 2016)	1. "food source for sugar gliders and Koala browse" 2. "Private landholders frequently combine grazing with the irregular harvesting of their Spotted Gum (Corymbia citriodora subsp. variegata, C. citriodora subsp. citriodora and C. henryi) dominant forests." 3. "Even relatively intense grazing by wallabies and cattle does not appear to prevent some open-forest eucalypt species establishing and growing. Young seedlings can die if shoots are removed before they have developed a large enough lignotuber. In a glasshouse study, seedlings of Corymbia citriodora subsp. variegata developed a lignotuber large enough to survive defoliation after only about 4 months growth" 4. Koala food tree 5. "Red necked wallabies like the bark and leaves"

4.05	1. Australia Plants. http://www.australiaplants.com/Corymbia_citriodora.htm (Accessed: 16 October 2016) 2. Forest and Wood Products Australia. http://www.fwpa.com.au/rd-and-e/processing/159-tree-growth-relationships-and-silvicultural-tools-to-assist-stand-management-in-private-native-spotted-gum-dominant-forests-in-queensland-and-northern-new-south-wales.html (Accessed: 18 October 2016) 3. Queensland Government. Eucalypt open-forests management guide. https://www.qld.gov.au/environment/plants-animals/regrowth-guides/euc-open-ecology/ (Accessed: 18 October 2016) 4. Land for Wildlife Queensland. www.lfwseq.org.au/_literature_120371/Note_A4_Koalas (Accessed: 18 October 2016) 5. Staker, Lynda. Macropod Husbandry, Healthcare & Medicinals. Volume I. https://books.google.com/books?id=37e1AwAAQBAJ&pg=PA280&lpg=PA280&dq=%22Corymbia+citriodora%22+wallaby&source=bl&ots=zTy4DYmwn-&sig=1GLgEVSc89pLkLJWRO_KJrSpUtQ&hl=en&sa=X&ved=0ahUKEwidoKrvm6bQAhXIs1QKHXXYCpUQ6AEIGzAA#v=onepage&q=%22Corymbia%20citriodora%22%20wallaby&f=false (Accessed: 18 October 2016)	1. "food source for sugar gliders and Koala browse" 2. "Private landholders frequently combine grazing with the irregular harvesting of their Spotted Gum (Corymbia citriodora subsp. variegata, C. citriodora subsp. citriodora and C. henryi) dominant forests." 3. "Even relatively intense grazing by wallabies and cattle does not appear to prevent some open-forest eucalypt species establishing and growing. Young seedlings can die if shoots are removed before they have developed a large enough lignotuber. In a glasshouse study, seedlings of Corymbia citriodora subsp. variegata developed a lignotuber large enough to survive defoliation after only about 4 months growth" 4. Koala food tree 5. "Red necked wallabies like the bark and leaves" 6. Had mild negative inflammatory impacts on rats and rabbits, but this was only when rats were injected with undiluted lemon-scented gum essential oils or undiluted oil was applied directly to the skin of rabbits
4.06	1. Victoria Government. http://fe.yarraranges.vic.gov.au/files/08CA528D-5C24-4BE7-BE0C-9DA501084482/Corymbia_citriodora.pdf (Accessed: 11 October 2016) 2. Andreasens Green Wholesale Nurseries. http://andreasensgreen.com.au/product/corymbia-citriodora/ (Accessed: 11 October 2016) 3. Arizona State University. http://www.public.asu.edu/~camartin/plants/Plant%20html%20files/corymbiacitriodora.html (Accessed: 16 October 2016) 4. Missouri Botanical Garden. http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=282868&isprofile=0& (Accessed: 16 October 2016) 5. Doran JC, 1999. Corymbia citriodora (Hook.) Hill & L.A.S. Johnson. In: Plant Resources of South-East Asia No. 19: Essential-oil plants [ed. by Oyen, L. P. A. \Nguyen Xuan Dung]. Leiden, The Netherlands: Backhuys Publisher, 89-95. (Accessed: 19 October 2016)	1. "Borer can cause damage and unsightly kino exudates that standout because of the bark, susceptible to foliar and sap sucking insects." 2. "Common Pest And Diseases : Relatively pest free" 3. "Disease and pests: None" 4. "Problems: No serious insect or disease problems." 5. Within its native distribution range in Australia, C. citriodora has remained relatively free of diseases and pests. However, there is evidence that outside its native distribution range (i.e., Brazil), this species has been damaged by a range of diseases such as: leaf spot caused by Cylindrocladium spp., a rust (Puccinia psidii), and a stem canker (Cryphonectria cubensis), and infections by Endothia havanensis. In China, gummosis induced by Cytospora sp. and Macrophoma sp. has caused severe damage. In India, it is susceptible to a range of diseases including: Cylindrocladium seedling blight, a rust (Melampsora sp.), pink disease (Corticium salmonicolor), and Ganoderma root rot. The root rot fungus Pseudophaeolus baudonii attacked plantings of C. citriodora in Ghana causing 50% mortality over 3 years. Most problems arise on sites with high rainfall and humidity. C. citriodora is also very susceptible to termites. In India, Microcerotermes minor can cause up to 30% mortality and Odontotermes horni over 10%. A range of defoliating insects and a stem borer (Apate indistincta) have been noted causing occasional damage to plantations; no evidence that this species is a significant primary or alternate host
4.07	1. The Woodworking Reference Library. http://library.davidtilson.com/materials/toxic.html (Accessed: 18 October 2016) 2. The Wood Database. http://www.wood-database.com/lemon-scented-gum/ (Accessed: 18 October 2016) 3. Blackall Range Woodies. http://www.blackallrangewoodies.org.au/Safety%20&%20First%20Aid/Timber%20Reactions.htm (Accessed: 18 October 2016)	1. "Toxic (wood, dust) / dermatitis" 2. "Allergies/Toxicity: Although severe reactions are quite uncommon, Lemon-Scented Gum has been reported to cause skin irritation." 3. Corymbia citriodora: Dermatitis
4.08		No evidence

4.09	1. Top Tropicals. http://toptropicals.com/catalog/uid/Eucalyptus_citriodora.htm (Accessed: 11 October 2016) 2. Australia Plants. http://www.australiaplants.com/Corymbia_citriodora.htm (Accessed: 16 October 2016) 3. Arizona State University. http://www.public.asu.edu/~camartin/plants/Plant%20html%20files/corymbiacitriodora.html (Accessed: 16 October 2016) 4. Missouri Botanical Garden. http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=282868&isprofile=0& (Accessed: 16 October 2016)	1. "Full sun" 2. "Placement: sun" 3. "Light: Full sun" 4. "Sun: Full sun"
4.10	1. Victoria Government. http://fe.yarraranges.vic.gov.au/files/08CA528D-5C24-4BE7-BE0C-9DA501084482/Corymbia_citriodora.pdf (Accessed: 11 October 2016) 2. Australia Plants. http://www.australiaplants.com/Corymbia_citriodora.htm (Accessed: 16 October 2016) 3. Arizona State University. http://www.public.asu.edu/~camartin/plants/Plant%20html%20files/corymbiacitriodora.html (Accessed: 16 October 2016) 4. Florabank. http://www.florabank.org.au/lucid/key/species%20navigator/media/html/Corymbia_citriodora.htm (Accessed: 19 October 2016)	1. "Adapted to a wide range of soils." 2. "Soil type: Sandy loam or gravel" 3. "Soil: Tolerant" 4. "Soil factors: Texture: clay loam, duplex texture contrast soils, light to medium clay (35-50% clay), loam, sandy loam, sandy clay loam or sand. Soil pH reaction: acidic (less than 6.5), neutral (6.5-7.5) or alkaline (greater than 7.5). Soil depth: skeletal to shallow (less than 30 cm) or moderate to deep (30-100 cm or greater). Drainage: well-drained. Salinity: slightly to moderately saline or non-saline"
4.11	1. USDA Plants Database. http://plants.usda.gov/core/profile?symbol=COCI4 (Accessed: 11 October 2016) 2. Top Tropicals. http://toptropicals.com/catalog/uid/Eucalyptus_citriodora.htm (Accessed: 11 October 2016)	1. "Growth Habit: Tree" 2. "Tree"
4.12	1. USDA Plants Database. http://plants.usda.gov/core/profile?symbol=COCI4 (Accessed: 11 October 2016) 2. Top Tropicals. http://toptropicals.com/catalog/uid/Eucalyptus_citriodora.htm (Accessed: 11 October 2016)	1. "Growth Habit: Tree" 2. "Tree"; no evidence of dense groupings that restricts growth or movement
5.01	1. Missouri Botanical Garden. http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=282868&isprofile=0& (Accessed: 16 October 2016)	1. "Family: Myrtaceae"
5.02	1. USDA Plants Database. http://plants.usda.gov/core/profile?symbol=COCI4 (Accessed: 11 October 2016) 2. Top Tropicals. http://toptropicals.com/catalog/uid/Eucalyptus_citriodora.htm (Accessed: 11 October 2016)	1. "Growth Habit: Tree" 2. "Tree"
5.03	1. Missouri Botanical Garden. http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=282868&isprofile=0& (Accessed: 16 October 2016)	1. "Family: Myrtaceae"
5.04	1. Flora of China. http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200014779 (Accessed: 16 October 2016) 2. New South Wales Government PlantNET. http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Corymbia~variegata (Accessed: 16 October 2016)	No evidence of these specialized structures
6.01		No evidence
6.02	1. Arizona State University. http://www.public.asu.edu/~camartin/plants/Plant%20html%20files/corymbiacitriodora.html (Accessed: 16 October 2016) 2. Horticultural Implex. http://www.ehorticulture.com/tree-plants-seeds/multi-purpose-tree/eucalyptus-citriodora-detail.html (Accessed: 19 October 2016)	1. "Propagation: Seed" 2. "Corymbia citriodora seeds are boat-shaped, glossy reddish-black in color, and measure about 2.3–5 mm in length."

6.03	1. 1984. Kapoor, M.L./Sharma, V.K.. Hybrids between Eucalyptus citriodora Hook. and E. torelliana F. v. Muell. in India. Silvae Genetica. 33: 2-3. (Accessed: 19 October 2016) 2. 2007. Lee, D.J.. Achievements in forest tree genetic improvement in Australia and New Zealand 2: Development of Corymbia species and hybrids for plantations in eastern Australia. Australian Forestry. 70(1): 11-16. (Accessed: 28 October 2016)	1. "Spontaneous hybrids between E. citriodora and E. torelliana belonging to subgenus Corymbia have been reported for the first time from India." 2. "This paper describes the establishment of provenance seedling seed orchards of three spotted gums and cadaga (all species of Corymbia ex Eucalyptus). It also discusses the limitations of growing the spotted gums as pure species including: lack of mass flowering, susceptibility to a fungal shoot blight and low amenability to vegetative propagation. These limitations, together with observation of putative natural hybrids of the spotted gums with cadaga, and the early promise of manipulated hybrids, led to an intensive breeding and testing program. Many hybrid families have significant advantages in growth and tolerance to disease, insects and frost, and can be vegetatively propagated. They also exhibit broad environmental plasticity, allowing the best varieties to be planted across a wider range of sites than the spotted gums, resulting in more land being suitable for plantation development."
6.04	1. Louis the Plant Geek. http://www.louistheplantgeek.com/a-gardening-journal/508-corymbia-citriodora (Accessed: 28 October 2016) 2. 1983. Yeh, F.C./Brune, Arno William M. Cheliak, Diane C. Chipman. Mating system of Eucalyptus citriodora in a seed-production area. Canadian Journal of Forest Research. 13(6): 1051-1055. (Accessed: 28 October 2016) 3. 2005. Bhattacharya, A./Mondal, S./Mandal, S.. Pollinating Agents of Eucalyptus citriodora Hook. - Insects or Wind?. Asian Journal of Plant Sciences. 4(5): 492-495. (Accessed: 28 October 2016)	1. "Corymbia citriodora can self-seed rampantly, and if grown as a tree (that gets to 100 feet tall, remember), there's no practical way to disbud the flowers or prophylactically harvest the seed." 2. "Arrays of open-pollinated seeds were assayed for allozyme polymorphisms at three loci (Adh, Gdh, and Mdh-2) to obtain a quantitative estimate of outcrossing rate in a seed-production area of Eucalyptus citriodora (Hook). Rate of outcrossing varied among loci, but suggested overall that up to 14.7% of the seed might be derived from selffertilization at the viable embryo stage. Such a level of partial self-fertilization, together with local variation in the mating system, yielded an observed average inbreeding coefficient of 0.205 for these loci in the progeny arrays. By contrast, the mature trees exhibited substantial excesses of heterozygotes (F = −0.300), concordant with but not necessarily supportive of earlier hypotheses that selection against homozygotes through the life cycle occurred in eucalypts." 3. "Eucalyptus citriodora is a self-compatible, protandrous, monoclinous, mass-bloomer tree. Protandrous nature prevents intrafloral selfing. Geitonogamy becomes predominant."
6.05	1. Orwa C, Mutua A, Kindt R, Jamnadass R, Simons A, 2009. Agroforestree Database: a tree reference and selection guide version 4.0. World Agroforestry Centre. http://www.worldagroforestry.org/af/treedb/ (Accessed: 19 October 2016) 2. 2005. Bhattacharya, A./Mondal, S./Mandal, S.. Pollinating Agents of Eucalyptus citriodora Hook. - Insects or Wind?. Asian Journal of Plant Sciences. 4(5): 492-495. (Accessed: 19 October 2016)	1. visited and pollinated by flies, ants and, in particular, bees 2. "Thus, the inefficiency of insects, unreliability of resource base of entomophily and the gamete wastage of anemophily appear to be the positive sites of Eucalyptus citriodora in its pollination system by resorting to the anemophily, which could be considered as an adaptive feature of tropical country."
6.06		No evidence
6.07	1. Torbay Treefarmers. http://www.torbaytreefarmers.com/tree-info.php?tree_id=32 (Accessed: 16 October 2016) 2. Wasuwanich P, 1989. Phenological investigation of Australian tree species in field trials in Thailand. Unpublished report. Bangkok, Thailand: Royal Forest Department. (Accessed: 16 October 2016) 3. Turnbull JW, Pryor LD, 1984. Choice of species and seed sources. In: Hillis WE, Brown AG, eds. Eucalypts for Wood Production. Sydney, Australia: CSIRO, Australia and Academic Press, 6-65. (Accessed: 16 October 2016)	1. "Growth rate: Fast" 2&3. Flowering usually starts within two years after planting, and seeds are produced abundantly by 5 years of age
7.01		No evidence

7.02	1. New South Wales Government Department of Primary Industries. http://www.dpi.nsw.gov.au/ (Accessed: 11 October 2016) 2. Australia Plants. http://www.australiaplants.com/Corymbia_citriodora.htm (Accessed: 16 October 2016) 3. Arizona State University. http://www.public.asu.edu/~camartin/plants/Plant%20html%20files/corymbiacitriodora.html (Accessed: 16 October 2016) 4. Plant World Seeds. http://www.plant-world-seeds.com/store/view_seed_item/4617 (Accessed: 19 October 2016)	1. "Spotted gum (Corymbia spp.) is an important and commonly planted commercial timber species capable of producing excellent sawn timber for a range of uses." 2. "Extremely highly lemon scented foliage, either fresh or dried makes an outstanding potpourri."; "Uses: Shade tree, sawmilling, essential oils, perfumed foliage." 3. "Landscape Use: This is a vertical accent tree for groupings in large and expansive landscape spaces, trunk accent, commercial oil production." 4. Seed can be purchased online
7.03		No evidence
7.04	1. Orwa C, Mutua A, Kindt R, Jamnadass R, Simons A, 2009. Agroforestree Database: a tree reference and selection guide version 4.0. World Agroforestry Centre. http://www.worldagroforestry.org/af/treedb/ (Accessed: 19 October 2016) 2. 2006. EUCLID. Eucalypts of Australia. Third Edition. Centre for Plant Biodiversity Research (CPBR), www.publish.csiro.au/samples/euclidsample/html/index.htm (Accessed: 19 October 2016)	1. Seeds can be dispersed by wind, water, and by humans 2. "Fruit pedicellate (pedicels 0.1–0.7 cm long), urceolate or barrel-shaped, 0.8–1.5 cm long, 0.7–1.2 cm wide, disc descending, valves 3, enclosed. Seed reddish black, glossy, 2.3–5 mm long, boat-shaped (flattened with a slight dorsal keel), dorsal surface smooth, not winged, hilum ventral."
7.05	1. Orwa C, Mutua A, Kindt R, Jamnadass R, Simons A, 2009. Agroforestree Database: a tree reference and selection guide version 4.0. World Agroforestry Centre. http://www.worldagroforestry.org/af/treedb/ (Accessed: 19 October 2016)	1. Seeds can be dispersed by wind, water, and by humans
7.06		No evidence
7.07	1. 2006. EUCLID. Eucalypts of Australia. Third Edition. Centre for Plant Biodiversity Research (CPBR), www.publish.csiro.au/samples/euclidsample/html/index.htm (Accessed: 19 October 2016)	1. "Fruit pedicellate (pedicels 0.1–0.7 cm long), urceolate or barrel-shaped, 0.8–1.5 cm long, 0.7–1.2 cm wide, disc descending, valves 3, enclosed. Seed reddish black, glossy, 2.3–5 mm long, boat-shaped (flattened with a slight dorsal keel), dorsal surface smooth, not winged, hilum ventral."; no mechanism of attachment
7.08		No evidence
8.01	1. Gunn BV (2001) Australian Tree Seed Centre Operations Manual. Internal Publication, CSIRO Australian Tree Seed Centre, ACT. http://www.ensisjv.com/Portals/0/atsc-opmanualcomplete.pdf (Accessed: 19 October 2016) 2. Turnbull JW, Doran JC, 1987. Seed development and germination in the Myrtaceae. Germination of Australian native plant seed., 46-57, 186-198; 57 ref. (Accessed: 28 Ocotober 2016)	1. 140 viable seeds per gram 2. There are an average of 109,000 viable seed per kilogram of seed and chaff mix
8.02	1. Horticultural Implex. http://www.ehorticulture.com/tree-plants-seeds/multi-purpose-tree/eucalyptus-citriodora-detail.html (Accessed: 19 October 2016)	1. "Seed Longevity 1-2year"; insufficient evidence
8.03		No evidence
8.04	1. Victoria Government. http://fe.yarraranges.vic.gov.au/files/08CA528D-5C24-4BE7-BE0C-9DA501084482/Corymbia_citriodora.pdf (Accessed: 11 October 2016) 2. Florabank. http://www.florabank.org.au/lucid/key/species%20navigator/media/html/Corymbia_citriodora.htm (Accessed: 19 October 2016) 3. Louis the Plant Geek. http://www.louistheplantgeek.com/a-gardening-journal/508-corymbia-citriodora (Accessed: 19 October 2016)	1. "root disturbance: Moderate tolerance." 2. "Fire: regenerates foliage after damaging fire" 3. "As a bush for just the season or for the long term: Any amount of pinching or pruning is fine, including cutting the entire plant down to four-inch stumps each Spring."

8.05	1. Doran JC, 1999. Corymbia citriodora (Hook.) Hill & L.A.S. Johnson. In: Plant Resources of South-East Asia No. 19: Essential-oil plants [ed. by Oyen, L. P. A. \Nguyen Xuan Dung]. Leiden, The Netherlands: Backhuys Publisher, 89-95. (Accessed: 19 October 2016)	1. Within its native distribution range in Australia, C. citriodora has remained relatively free of diseases and pests. However, there is evidence that outside its native distribution range (i.e., Brazil), this species has been damaged by a range of diseases such as: leaf spot caused by Cylindrocladium spp., a rust (Puccinia psidii), and a stem canker (Cryphonectria cubensis), and infections by Endothia havanensis. In China, gummosis induced by Cytospora sp. and Macrophoma sp. has caused severe damage. In India, it is susceptible to a range of diseases including: Cylindrocladium seedling blight, a rust (Melampsora sp.), pink disease (Corticium salmonicolor), and Ganoderma root rot. The root rot fungus Pseudophaeolus baudonii attacked plantings of C. citriodora in Ghana causing 50% mortality over 3 years. Most problems arise on sites with high rainfall and humidity. C. citriodora is also very susceptible to termites. In India, Microcerotermes minor can cause up to 30% mortality and Odontotermes horni over 10%. A range of defoliating insects and a stem borer (Apate indistincta) have been noted causing occasional damage to plantations