Taxon: Leptospermum nitidum Hook.f. **Family:** Myrtaceae

Common Name(s): shining tea tree
shiny tea-tree

Synonym(s): Leptospermum flavescens var.
Leptospermum pubescens var.

Assessor: Chuck Chimera **Status:** Assessor Approved **End Date:** 7 Aug 2020

WRA Score: 2.5 **Designation:** EVALUATE **Rating:** Evaluate

Keywords: Temperate, Shrub, Unpalatable, Shade-Tolerant, Fire Resprouter

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y=-3, n=0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
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)	Low
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	n
205	Does the species have a history of repeated introductions outside its natural range?	y=-2, ?=-1, n=0	?
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		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	y
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	y

Qsn #	Question	Answer Option	Answer
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0	y
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets		
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	y
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	n
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant		
704	Propagules adapted to wind dispersal	y=1, n=-1	y
705	Propagules water dispersed		
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	n
801	Prolific seed production (>1000/m2)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides		
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)		

Supporting Data:

Qsn #	Question	Answer
101	**Is the species highly domesticated?**	**n**
	Source(s)	**Notes**
	Dawson, M. (2012). Australian Leptospermum in cultivation: species and cultivars. New Zealand Garden Journal 15(2): 14-22	"Leptospermum nitidum Hook.f. is endemic to Tasmania. It is a compact shrub that can grow to 2 m tall. It has narrow leaves that are up to 20 mm long and white flowers (usually 15 mm in diameter) with green centres." [Cultivars exist, but many identified as this species are actually now classified as other species]
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Widespread in Tasmania, including Cape Barren Island (Map 9). In cold moist heathy places, often on granite." [No evidence of domestication]

102	**Has the species become naturalized where grown?**	
	Source(s)	**Notes**
	WRA Specialist. (2020). Personal Communication	NA

103	**Does the species have weedy races?**	
	Source(s)	**Notes**
	WRA Specialist. (2020). Personal Communication	NA

201	**Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"**	**Low**
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Widespread in Tasmania, including Cape Barren Island (Map 9). In cold moist heathy places, often on granite."

202	**Quality of climate match data**	**High**
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	

Qsn #	Question	Answer
203	**Broad climate suitability (environmental versatility)**	**n**
	Source(s)	**Notes**
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum nitidum. https://www.anbg.gov.au. [Accessed 7 Aug 2020]	"Frost-hardy. (Plants given an this rating will tolerate frosts to -7°C in conditions of normal rainfall.) "
	Longwood Gardens. (2020). Leptospermum nitidum. https://plantexplorer.longwoodgardens.org. [Accessed 7 Aug 2020]	"HARDINESS USDA Zone 8A (Coldest zone where hardy)"
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Widespread in Tasmania, including Cape Barren Island (Map 9). In cold moist heathy places, often on granite."

204	Native or naturalized in regions with tropical or subtropical climates	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Widespread in Tasmania, including Cape Barren Island (Map 9). In cold moist heathy places, often on granite."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence
	Imada, C. (2019). Hawaiian Naturalized Vascular Plants Checklist (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence to date

205	Does the species have a history of repeated introductions outside its natural range?	?
	Source(s)	**Notes**
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum nitidum. https://www.anbg.gov.au. [Accessed 7 Aug 2020]	"This species is sometimes grown in the UK and Europe as L. grandiflorum or L. lanigerum var. grandiflorum."
	Longwood Gardens. (2020). Leptospermum nitidum. https://plantexplorer.longwoodgardens.org. [Accessed 7 Aug 2020]	Sold in Kennett Square, PA nursery

301	Naturalized beyond native range	n
	Source(s)	**Notes**
	Imada, C. (2019). Hawaiian Naturalized Vascular Plants Checklist (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

Qsn #	Question	Answer
302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

305	Congeneric weed	y
	Source(s)	Notes
	Weber, E. 2017. Invasive Plant Species of the World, 2nd Edition: A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	"Leptospermum laevigatum" … "This shrub is native to coastal heath communities in Australia. The plant is tolerant of salt spray and invades mainly coastal vegetation. It can form extensive and dense thickets displacing the native vegetation and preventing any regeneration of native woody species."
	Smith, C.W. 1985. Impact of Alien Plants on Hawaii's Native Biota. Pp. 180-250 in Stone & Scott (eds.). Hawaii's terrestrial ecosystems: preservation & management. CPSU, Honolulu, HI	"Leptospermum scoparium …This small, scrubby tree forms thickets which crowd out other plants. On Lanai, it has infested goat (Capra hircus)-eroded ridgetops, resulting in their stabilization. It appears to have allelopathic activity like many other members of the Myrtaceae. The seeds are dispersed by wind." … "It is elevation found in mesic habitats between 300-700 m. The principal infestations are on Lana'i and above La'ie in the Ko'olau Mountains, Oahu."
	WRA Specialist. (2020). Personal Communication	Leptospermum polygalifolium is targeted for control by the Koʻolau Mountains Watershed Partnership, Oahu, Hawaiian Islands

Qsn #	Question	Answer
401	**Produces spines, thorns or burrs**	**n**
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[No evidence] "Compact shrub often 2 m tall with scaly layered bark; the stems stout, with a dense, long, fine, antrorse pubescence soon giving way to short close hairs, without a flange but with a narrow ridge subtending each leaf-base, and branching densely at c. 60° but curving so as to appear to be at a narrower angle. Leaves aromatic, dense, erect or narrowly divergent, usually 8-20 mm long and 3-6 mm wide, elliptical, mostly glabrous on both surfaces but often with pubescent margins, flat or with a slight tendency to recurve, usually glossy, the texture rather thick especially near the apex, the apex broad-acute to -acuminate, somewhat infolded or curved, with a short, usually pungent, point, the base tapering to or rounded above a short broad-based petiole."

402	**Allelopathic**	
	Source(s)	**Notes**
	Ooka, J. K., & Owens, D. K. (2018). Allelopathy in tropical and subtropical species. Phytochemistry Reviews, 17(6), 1225-1237	[Unknown. Other species possess allelopathic properties] "Manuka (Leptospermum scoparium) is an allelopathic shrub originating from Australia and New Zealand that is considered an invasive of cleared grasslands."
	WRA Specialist. (2020). Personal Communication	Unknown. No evidence found

403	**Parasitic**	**n**
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Compact shrub often 2 m tall with scaly layered bark; the stems stout," [Myrtaceae. No evidence]

404	**Unpalatable to grazing animals**	**y**
	Source(s)	**Notes**
	Understorey Network. (2020). Leptospermum nitidum. http://www.understorey-network.org.au. [Accessed 7 Aug 2020]	"Resistant to wildlife browsing due to its unpalatability."

405	**Toxic to animals**	**n**
	Source(s)	**Notes**
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

406	**Host for recognized pests and pathogens**	
	Source(s)	**Notes**

Qsn #	Question	Answer
	Giblin, F. & Carnegie, A. J. (2014). Puccinia psidii (Myrtle Rust) – Australian host list. Version current at 24 Sept. 2014. http://www.anpc.asn.au/resources/Myrtle_Rust.html. [Accessed 6 Aug 2020]	Leptospermum nitidum listed as a host. Impacts unspecified. Leptospermum nitidum listed as a host species. Unknown if Leptospermum nitidum could serve as an important host to the fungus Austropuccinia psidii, but this pathogen is already present in the Hawaiian Islands and has been documented on a fairly wide host range of native and non-native plants. The cultivation of Leptospermum nitidum is therefore unlikely to significantly affect the distribution of Austropuccinia psidii.

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	**Notes**
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

408	Creates a fire hazard in natural ecosystems	
	Source(s)	**Notes**
	Pyrke, A. F., & Marsden-Smedley, J. B. (2005). Fire-attributes categories, fire sensitivity, and flammability of Tasmanian vegetation communities. Tasforests, 16, 35-46	[Possibly. A component of moderately flammable plant community] "Table 1. Fire-attributes category, fire sensitivity and flammability codes for TASVEG communities, listed in decreasing order of fi re sensitivity. (F-A Cat = fire-attributes category, FS = fire sensitivity, Fl = flammability; for fire-attributes category codes, see Table 2; fire sensitivity and flammability codes—E = extreme, VH = very high, H = high, M= moderate, L = low, N = not rated)" [Subalpine Leptospermum nitidum woodland - FS = fire sensitivity = M (moderate); Fl = flammability = M (moderate)]

409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	**Notes**
	Dawson, M. (2012). Australian Leptospermum in cultivation: species and cultivars. New Zealand Garden Journal 15(2): 14-22	"Both L. nitidum and a L. turbinatum can be grown in heavy shade and are relatively cold tolerant."
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum nitidum. https://www.anbg.gov.au. [Accessed 7 Aug 2020]	"Suitable for heavy shade."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	**Notes**
	Understorey Network. (2020). Leptospermum nitidum. http://www.understorey-network.org.au. [Accessed 7 Aug 2020]	"Soil Tolerance Fertile; Loam; Poor; Poorly-drained; Sandy; Well-drained"

Qsn #	Question	Answer
	Australian Native Plants. (2020). Leptospermum nitidum 'Flat Rock'. https://www.australianplants.com/plants.aspx?id=1320 . [Accessed 7 Aug 2020]	"Soil: Well-drained to poorly drained soils"
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Widespread in Tasmania" [Probably not soil limited]

411	Climbing or smothering growth habit	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Compact shrub often 2 m tall with scaly layered bark; the stems stout,"

412	Forms dense thickets	
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Widespread in Tasmania, including Cape Barren Island (Map 9). In cold moist heathy places, often on granite." [No suggestion of dense thickets]
	Harris, S. and Kitchener, A. (2005). From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation. Department of Primary Industries, Water and Environment, Printing Authority of Tasmania. Hobart	[Dominant plant in a number of communities throughout Tasmania, but pure stands have not been documented. In contrast, pure stands of Leptospermum scrub are described in this publication, which may include L. nitidum, but generally "consists of thickets and bands dominated by Leptospermum lanigerum"] "Leptospermum forest (NLE) … Short, dense and tangled highland forests in the west may be dominated by L. nitidum, with some Eucryphia milliganii, Nothofagus cunninghamii, Agastachys odorata and Cenarrhenes nitida." … "Leptospermum forest dominated by L. nitidum occurs above about 400 m in parts of south-west Tasmania and around the West Coast Range, where it has affinities with western rainforests and rainforest scrubs, particularly those that include Athrotaxis selaginoides." … "No systematic botanical survey has been carried out for Leptospermum nitidum dominated vegetation communities in Tasmania."
	Kirkpatrick, J.B. (1977) Native vegetation of the West coast region of Tasmania. In Landscape and Man (Eds. M.R.Banks and J.B. Kirkpatrick), pp 55–80. Royal Society of Tasmania, Hobart	[Dominant, but not monotypic] "Extensive areas of closed-scrub occur throughout the region (fig. 7) . The closed -scrub is probably the product of a series of fires in former rainforest, as eucalypts are absent despite good drainage conditions , and rainforest species are commonly found invading the understory. The canopy is usually dominated by a variable mixture of Leptospermum nitidum, L. lanigerum, L. scoparium, Aeaeia mucronata, A. melanoxylon, Banksia marginata and Phebalium squameum,"

501	Aquatic	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[Terrestrial] "Widespread in Tasmania, including Cape Barren Island (Map 9). In cold moist heathy places, often on granite."

502	Grass	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/. [Accessed 6 Aug 2020]	Family: Myrtaceae Subfamily: Myrtoideae Tribe: Leptospermeae

503	Nitrogen fixing woody plant	n
	Source(s)	**Notes**
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/. [Accessed 6 Aug 2020]	Family: Myrtaceae Subfamily: Myrtoideae Tribe: Leptospermeae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Compact shrub often 2 m tall with scaly layered bark; the stems stout,"

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[No evidence] "Widespread in Tasmania, including Cape Barren Island"

602	Produces viable seed	y
	Source(s)	**Notes**
	Understorey Network. (2020). Leptospermum nitidum. http://www.understorey-network.org.au. [Accessed 7 Aug 2020]	"Germination Time 14-30 days "
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Mature seeds c. 2.5 mm long, narrowly linear-cuneiform, curved, striate."
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum nitidum. https://www.anbg.gov.au. [Accessed 6 Aug 2020]	"Propagation From seed or cuttings."

603	Hybridizes naturally	y
	Source(s)	**Notes**

Qsn #	Question	Answer
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[Natural hybrids found] "As well, natural hybrids have been found between L. laevigatum and L. myrsinoides, L. parvifolium and L. squarrosum, L. arachnoides and L. squarrosum, L. juniperinum and L. polygalifolium, L. grandifolium and L. sphaerocarpum, and L. nitidum and L. lanigerum. L. emarginatum and L. petersonii have been found to hybridise in cultivation."

604	Self-compatible or apomictic	
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[Unknown, but other taxa are self-compatible] "That plants are self-compatible has been shown for L. scoparium in New Zealand (Burrell 1965)."

605	Requires specialist pollinators	n
	Source(s)	**Notes**
	Williams, S. (2018). A Beekeeper's Guide to Australian Leptospermum Trees and Honey. Simon Williams, Sippy Downs, Qld	"Do bees like Leptospermum flowers? Leptospermum generally has poor pollen and are mainly visited by bees for nectar. Even so, your bees may show a preference for Eucalypts if co-flowering in the region. Selecting sites with little else co-flowering will focus the bees to collect from Leptospermum species."
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Flowers white, usually c. 15 mm in diameter, single on modified shoots at the ends of dense leafy side-branches whose upper leaves are often reduced in size, and with the new growth extending beyond the flowers after flowering. Bracts stiff, golden brown, concave, the inner longest with the bracteoles fractionally shorter, all enclosing only the young bud but some tending to be caught among the flowers. Hypanthium densely long-pubescent or occasionally with fewer or short hairs or almost glabrous, 4 -6 mm long, the upper part expanded, the lower tapering to or rounded above a short rather fluted pedicel, the top of the ovary glabrous. Sepals persistent, often 5-6 mm long, very long-deltoid, silky-pubescent with pale margins and an inrolled and rather folded minutely hooded tip. Petals c. 6 mm long. Stamens in bundles of c. 7, 2.5-3 m m long, the anther-cells 0.5-0.8 mm long, parallel, much-thickened but wide open with the outer part deeper, and somewhat recurved and folded. Style deeply inset, and rather slender with a small style."
	Kingston, A. B., & McQuillan, P. B. (2000). Are pollination syndromes useful predictors of floral visitors in Tasmania?. Austral Ecology, 25(6), 600-609	"Table 2. Flowering plants, their floral characteristics, and the numbers of anthophile species which they supported" [Leptospermum nitidum visited by the following number of insect species: Bee = 6; Wasp = 1; Fly = 10; Beetle = 3; Butterfly = 2]

606	Reproduction by vegetative fragmentation	n
	Source(s)	**Notes**
	Understorey Network. (2020). Leptospermum nitidum. http://www.understorey-network.org.au. [Accessed 7 Aug 2020]	"Cuttings Expected Time to Take Root 3 weeks "

Qsn #	Question	Answer
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum nitidum. https://www.anbg.gov.au. [Accessed 7 Aug 2020]	"Propagation From seed or cuttings."
	Australian Native Plants. (2020). Leptospermum nitidum 'Flat Rock'. https://www.australianplants.com/plants.aspx?id=1320 . [Accessed 7 Aug 2020]	"Propagation Information: Seed for Leptospermum nitidum grows readily from seed. The Leptospermum nitidum 'Flat Rock' is grown from cuttings."

607	Minimum generative time (years)	
	Source(s)	**Notes**
	WRA Specialist. (2020). Personal Communication	Unknown. Reported by many sellers to have a very fast growth rate

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[Small seeds could be inadvertently dispersed, but persistence of capsules on plants makes this unlikely] "Fruit long-persistent, usually 6-10 mm in diameter, the rim woody but very narrow, the lower part usually rather straight-sided, the base broadly rounded or flat, the surface lifting and flaking, later scaly, the very woody valves scarcely exserted, and usually on opening little further raised and scarcely extended. Mature seeds c. 2.5 mm long, narrowly linear-cuneiform, curved, striate."

702	Propagules dispersed intentionally by people	y
	Source(s)	**Notes**
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum nitidum. https://www.anbg.gov.au. [Accessed 7 Aug 2020]	"This species is sometimes grown in the UK and Europe"

703	Propagules likely to disperse as a produce contaminant	
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Fruit long-persistent, usually 6-10 mm in diameter" [No evidence, but possible that seeds could be dispersed through cut flower and foliage uses]

704	Propagules adapted to wind dispersal	y
	Source(s)	**Notes**

Qsn #	Question	Answer
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Fruit long-persistent, usually 6-10 mm in diameter, the rim woody but very narrow, the lower part usually rather straight-sided, the base broadly rounded or flat, the surface lifting and flaking, later scaly, the very woody valves scarcely exserted, and usually on opening little further raised and scarcely extended. Mature seeds c. 2.5 mm long, narrowly linear-cuneiform, curved, striate." [Small seeds presumably dispersed by wind, and gravity, after capsules dehisce, similar to other species in the genus]

705	Propagules water dispersed	
	Source(s)	**Notes**
	Understorey Network. (2020). Leptospermum nitidum. http://www.understorey-network.org.au. [Accessed 7 Aug 2020]	"Communities Coastal Vegetation; Heath; Riparian; Wet Eucalypt Forest " [Possibly water-dispersed in riparian habitats]

706	Propagules bird dispersed	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Fruit long-persistent, usually 6-10 mm in diameter, the rim woody but very narrow, the lower part usually rather straight-sided, the base broadly rounded or flat, the surface lifting and flaking, later scaly, the very woody valves scarcely exserted, and usually on opening little further raised and scarcely extended. Mature seeds c. 2.5 mm long, narrowly linear-cuneiform, curved, striate."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[No evidence. No means of external attachment] "Fruit long-persistent, usually 6-10 mm in diameter, the rim woody but very narrow, the lower part usually rather straight-sided, the base broadly rounded or flat, the surface lifting and flaking, later scaly, the very woody valves scarcely exserted, and usually on opening little further raised and scarcely extended. Mature seeds c. 2.5 mm long, narrowly linear-cuneiform, curved, striate."

708	Propagules survive passage through the gut	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[Persistent woody capsules. No evidence of consumption or internal dispersal] "Fruit long-persistent, usually 6-10 mm in diameter, the rim woody but very narrow, the lower part usually rather straight-sided, the base broadly rounded or flat"

Qsn #	Question	Answer
801	**Prolific seed production (>1000/m2)**	
	Source(s)	**Notes**
	Understorey Network. (2020). Leptospermum nitidum. http://www.understorey-network.org.au. [Accessed 7 Aug 2020]	"Mature capsule deep cup-shaped nearly 1cm in diameter, wall, scaly, and opening into 5 valves. sepals are retained for some time around rim of fruit. store capsules in paper bags until the very fine seed is released " … "Viable Seeds Per Gram 500"

802	**Evidence that a persistent propagule bank is formed (>1 yr)**	
	Source(s)	**Notes**
	Understorey Network. (2020). Leptospermum nitidum. http://www.understorey-network.org.au. [Accessed 7 Aug 2020]	"Seed Storage Life Long" [Persistence in soil unknown]
	Royal Botanic Gardens Kew. (2020) Seed Information Database (SID). Version 7.1. Available from: http://data.kew.org/sid/. [Accessed 7 Aug 2020]	"Storage Behaviour: Orthodox p Storage Conditions: 94% viability following drying to mc's in equilibrium with 15% RH and freezing for 2 months at -20°C at RBG Kew, WP"

803	**Well controlled by herbicides**	
	Source(s)	**Notes**
	Motooka, P., Castro, L., Nelson, D., Nagai, G. & Ching,L. 2003. Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. CTAHR, UH Manoa, Honolulu, HI	"Leptospermum scoparium … Reported to be sensitive to triclopyr" [Related invasive taxon controlled by herbicides. Efficacy on L. nitidum unknown] unknown]

804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**y**
	Source(s)	**Notes**
	Leafland Wholesale Tree Nursery. (2020). Leptospermum nitidum 'Copper Sheen'. https://leafland.co.nz/trees/leptospermum-nitidum-copper-sheen-shiny-tea-tree/. [Accessed 7 Aug 2020]	"Can be pruned to form a dense, colourful shelter or screen."
	French, B. J., Prior, L. D., Williamson, G. J., & Bowman, D. M. (2016). Cause and effects of a megafire in sedge-heathland in the Tasmanian temperate wilderness. Australian Journal of Botany, 64(6), 513-525	[Resprouts from base after fire] "The incidence of resprouting was highly species dependent, and was most frequently observed in Lepstospermum nitidum, Boronia species and Baekia leptocaulis"

805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	Giblin, F. & Carnegie, A. J. (2014). Puccinia psidii (Myrtle Rust) – Australian host list. Version current at 24 Sept. 2014. http://www.anpc.asn.au/resources/Myrtle_Rust.html. [Accessed 7 Aug 2020]	Leptospermum nitidum listed as a host. Impacts unspecified

Summary of Risk Traits:

High Risk / Undesirable Traits
• Other species are invasive
• Unpalatable
• Moderately flammable (could increase fire risk)
• Shade tolerant
• Tolerates many soil types
• Reproduces by seeds
• Hybridizes with other species
• Seeds in persistent woody capsules; likely dispersed by wind, and intentionally cultivated by people
• Persistent capsules may result in a persistent canopy seed bank
• Resprouts after fire

Low Risk Traits
• A temperate species unlikely to be a threat in warmer, lower elevation regions of tropical island ecosystems
• No reports of invasiveness or naturalization
• Unarmed (no spines, thorns, or burrs)
• Non-toxic
• Not reported to spread vegetatively

Second Screening Results for Tree/tree-like shrubs

(A) Shade tolerant or known to form dense stands?> Yes. Tolerates heavy shade. Unknown if able to form dense stands
(B) Bird or clearly wind-dispersed?> Presumably wind-dispersed
(C) Life cycle <4 years? Unknown
Outcome = Evaluate further