Taxon: Leptospermum spectabile Joy Thomps. **Family:** Myrtaceae

Common Name(s): blood red tea-tree
Colo River tea tree
round fruited tea tree

Synonym(s):

Assessor: Chuck Chimera **Status:** Assessor Approved **End Date:** 30 Jul 2020

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

Keywords: Temperate Shrub, Escape (New Zealand), Cut Flower, Persistent Capsules, Riparian

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		
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		
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	y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle		

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	y=1, n=0	n
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	y=1, n=-1	y
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	[No evidence] "Leptospermum spectabile Joy Thomps. is a distinctive species worthy of cultivation. It was described by Thompson in 1989, and was originally discovered as long ago as 1957 from the Colo River gorge, New South Wales (as recounted by Harris and Percy, 1988). Seed was sent (as L. sp. affinity sphaerocarpum) to New Zealand from the Royal Botanic Gardens, Sydney in 1983, and sown and planted out at Landcare Research for evaluation. Within this cultivated population, flower colour ranged from pink to deep red, and growth habit also varied. A seedling with deep-red petals and a relatively compact bushy habit was selected, propagated from cuttings, and named L. 'Christmas Star' (Harris and Percy, 1988)."

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**
	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 29 Jul 2020]	"Native Australasia AUSTRALIA: Australia [New South Wales]"

202	**Quality of climate match data**	**High**
	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 29 Jul 2020]	

203	**Broad climate suitability (environmental versatility)**	**n**

Qsn #	Question	Answer
	Source(s)	**Notes**
	Benson, D. & McDougall, L. (1998). Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia 5(4): 808-987	"Habitat: Riverbanks within sandstone gorge. Altitude: 0-140 m Annual rainfall: 900 mm"
	Plant This. (2020). Leptospermum spectabile . http://www.plantthis.com.au. [Accessed 30 Jul 2020]	"Hardiness zones: 9-10"
	Dave's Garden. (2020). Leptospermum spectabile. https://davesgarden.com/guides/pf/go/117767/. [Accessed 30 Jul 2020]	"Hardiness: USDA Zone 8a: to -12.2 °C (10 °F) USDA Zone 8b: to -9.4 °C (15 °F) USDA Zone 9a: to -6.6 °C (20 °F) USDA Zone 9b: to -3.8 °C (25 °F) USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)"

204	Native or naturalized in regions with tropical or subtropical climates	n
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 29 Jul 2020]	"L. spectabile is becoming well known in cultivation and it is proving to be a hardy shrub for moist soils in temperate climates."
	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 29 Jul 2020]	"Native Australasia AUSTRALIA: Australia [New South Wales]"
	Imada, C. (2019). Hawaiian Naturalized Vascular Plants Checklist (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence

Qsn #	Question	Answer
205	**Does the species have a history of repeated introductions outside its natural range?**	**?**
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 29 Jul 2020]	"L. spectabile is becoming well known in cultivation and it is proving to be a hardy shrub for moist soils in temperate climates."
	Dawson, M. (2012). Australian Leptospermum in cultivation: species and cultivars. New Zealand Garden Journal 15(2): 14-22	[New Zealand] "Leptospermum spectabile Joy Thomps. is a distinctive species worthy of cultivation. It was described by Thompson in 1989, and was originally discovered as long ago as 1957 from the Colo River gorge, New South Wales (as recounted by Harris and Percy, 1988). Seed was sent (as L. sp. affinity sphaerocarpum) to New Zealand from the Royal Botanic Gardens, Sydney in 1983, and sown and planted out at Landcare Research for evaluation. Within this cultivated population, flower colour ranged from pink to deep red, and growth habit also varied. A seedling with deep-red petals and a relatively compact bushy habit was selected, propagated from cuttings, and named L. 'Christmas Star' (Harris and Percy, 1988)."
	Dave's Garden. (2020). Leptospermum spectabile. https://davesgarden.com/guides/pf/go/117767/. [Accessed]	Cultivated as an ornamental and cut flower, but unclear how widespread this species has been grown outside its native range

301	Naturalized beyond native range	
	Source(s)	**Notes**
	Heenan, P. B., de Lange, P. J., Cameron, E. K., & Parris, B. S. 2008. Checklist of dicotyledons, gymnosperms, and pteridophytes naturalised or casual in New Zealand: additional records 2004–06. New Zealand Journal of Botany, 46(2): 257-283	"Leptospermum spectabile Joy Thomps. FIRST RECORD: de Lange PJ, de Lange TJP, de Lange FJT, J. Auckland Bot. Soc. 60, 137 (2005). VOUCHER: AK 286758, P. J. de Lange 6022, 1 Apr 2004, North Auckland, near Kaeo. NOTES: Cultivation Escape. Scattered plants in scrub near roadside."
	Schönberger, I. et al. (2019) Checklist of the New Zealand Flora – Seed Plants. Manaaki Whenua-LandcareResearch, Lincoln. http://dx.doi.org/10.26065/s3gg-v336. [Accessed]	"ζ Leptospermum spectabile Joy Thomps." [ζ = exotic, occasional ('casual'); otherwise indigenous (including both endemic or non-endemic to New Zealand.)]
	Howell, C. J., & Sawyer, J. W. (2006). New Zealand naturalised vascular plant checklist. New Zealand Plant Conservation Network, Wellington, NZ	[Potentially naturalizing] "Leptospermum spectabile - Casual" [Casual is the name given to taxa that are: passively regenerating only in the immediate vicinity of the cultivated parent plant, or more widespread but only known as isolated or few individuals; garden escapes persisting only 2–3 years; or garden discards persisting vegetatively but not spreading sexually or asexually']
	WRA Specialist. (2020). Personal Communication	Possibly naturalized, or naturalizing in New Zealand, but status has continued to be classified as "casual" to present

302	Garden/amenity/disturbance weed	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	Heenan, P. B., de Lange, P. J., Cameron, E. K., & Parris, B. S. 2008. Checklist of dicotyledons, gymnosperms, and pteridophytes naturalised or casual in New Zealand: additional records 2004–06. New Zealand Journal of Botany, 46(2): 257-283	"Cultivation Escape. Scattered plants in scrub near roadside." [No impacts documented]
	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

401	Produces spines, thorns or burrs	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[No evidence] "Shrub to 3 m tall with close firm and ultimately corrugated bark; the younger stems with long, fine, antrorse hairs and shorter curved hairs and with short crisped and irregular hairs persisting, scarcely or imperceptibly flanged but thickened below each node, and with branching usually at c. 30° or even less. Leaves erect or very narrowly divergent at least at first, most from 20-35 mm long and mostly 3-5 mm wide, narrowly elliptical, rather firm in texture, with the surface often dull, usually almost flat, occasionally incurved in cross-section, ultimately almost glabrous but with hairs tending to persist at the base, tapering to a long-acute or -acuminate, slightly infolded and shortly, stiffly, pointed apex, the base tapering to a short petiole sometimes thickened at the back."

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	"Shrub to 3 m tall with close firm and ultimately corrugated bark" [Myrtaceae. No evidence]

404	Unpalatable to grazing animals	
	Source(s)	**Notes**
	Bennett, L. T. (1994). The expansion of Leptospermum laevigatum on the Yanakie Isthmus, Wilson's Promontory, under changes in the burning and grazing regimes. Australian Journal of Botany, 42(5), 555-564	[Unknown. Other species may be palatable] "An increase in grazing pressure was identified as the probable cause of the L. laevigatum expansion due to: (1) the exposure of bare ground, and (2) the restriction of the feeding range of cattle (known to graze both L. laevigatum and Acacia sophorae on the Isthmus) … Cattle also grazed Leptospermurn laevigatum on the aerodrome (Judd 1990) and probably prevented its spread in other areas where cattle congregated."
	Understorey Network. (2020). Leptospermum lanigerum. http://www.understorey-network.org.au. [Accessed 30 Jul 2020]	[Unknown. Other species reported to be unpalatable] "Resistant to wildlife browsing due to its unpalatability."

Qsn #	Question	Answer
405	**Toxic to animals**	**n**
	Source(s)	**Notes**
	Plant This. (2020). Leptospermum spectabile . http://www.plantthis.com.au. [Accessed 30 Jul 2020]	"No hazards currently listed."
	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**
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum spectabile. https://www.anbg.gov.au. [Accessed 30 Jul 2020]	"Other possible limitations to cultivation of this spectacular plant include the susceptibility of many Leptospermum species to a variety of insect pests. The susceptibility of L. spectabile is still somewhat unknown and current pest control techniques can effectively remedy most pest attacks."
	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 30 Jul 2020]	Leptospermum lanigerum listed as a host. Impacts unspecified. Leptospermum spectabile listed as a host species. Unknown if Leptospermum spectabile 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 spectabile is therefore unlikely to significantly affect the distribution of Austropuccinia psidii.

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	**Notes**
	Plant This. (2020). Leptospermum spectabile . http://www.plantthis.com.au. [Accessed 30 Jul 2020]	"No hazards currently listed."
	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	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Found only along the Colo River in central eastern New South Wales (Map 9). Among sandstone boulders on the river bank." [No evidence, and unlikely given limited riparian distribution]

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 30 Jul 2020]	"Plants prefer full sun or partial shade and may be pruned severely if necessary."

Qsn #	Question	Answer
	Plant This. (2020). Leptospermum spectabile . http://www.plantthis.com.au. [Accessed 30 Jul 2020]	"Sunlight: hot overhead sun to warm low sun"
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum spectabile. https://www.anbg.gov.au. [Accessed 30 Jul 2020]	[Tolerates all sunlight levels, and presumably shade, but does best in sun] "Overall this species is relatively easy to grow as it is usually very hardy, and although it will grow in most soil types and sunlight levels, for maximum success this species should be grown in well drained soils and a sunny position."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 30 Jul 2020]	"L. spectabile is becoming well known in cultivation and it is proving to be a hardy shrub for moist soils in temperate climates."
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum spectabile. https://www.anbg.gov.au. [Accessed 30 Jul 2020]	"Overall this species is relatively easy to grow as it is usually very hardy, and although it will grow in most soil types and sunlight levels, for maximum success this species should be grown in well drained soils and a sunny position."
	Benson, D. & McDougall, L. (1998). Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia 5(4): 808-987	"Substrate: Sandstone rocks with sandy alluvium inundated periodically by floods."

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	"Shrub to 3 m tall with close firm and ultimately corrugated bark"

412	Forms dense thickets	n
	Source(s)	**Notes**
	Heenan, P. B., de Lange, P. J., Cameron, E. K., & Parris, B. S. 2008. Checklist of dicotyledons, gymnosperms, and pteridophytes naturalised or casual in New Zealand: additional records 2004–06. New Zealand Journal of Botany, 46(2): 257-283	"Cultivation Escape. Scattered plants in scrub near roadside." [No evidence from New Zealand, where populations are reported to be escaping and potentially naturalizing]
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Found only along the Colo River in central eastern New South Wales (Map 9). Among sandstone boulders on the river bank." [No evidence from native range]
	Benson, D. & McDougall, L. (1998). Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia 5(4): 808-987	"Habitat: Riverbanks within sandstone gorge." … "Typical local abundance: Frequent, but localised." [No evidence from native range]

Qsn #	Question	Answer
501	**Aquatic**	**n**
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[Riparian] "Found only along the Colo River in central eastern New South Wales (Map 9). Among sandstone boulders on the river bank."

502	**Grass**	**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 29 Jul 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 29 Jul 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	"Shrub to 3 m tall with close firm and ultimately corrugated bark"

601	**Evidence of substantial reproductive failure in native habitat**	**n**
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 29 Jul 2020]	"Conservation Status: Not currently listed as threatened under the EPBC Act*. Regarded as rare as it occurs in small populations and classified as 2RC- under the ROTAP* system."

Qsn #	Question	Answer
602	Produces viable seed	y
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Mature seeds c. 6 mm long, linear-cuneiform, long-sigmoid, striate."
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 30 Jul 2020]	"Propagation is easy from seed which does not require any pretreatment."
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum spectabile. https://www.anbg.gov.au. [Accessed 30 Jul 2020]	"Propagation of this species is generally easily done from both seeds and cuttings, and once established the plant should require minimal maintenance."

603	Hybridizes naturally	y
	Source(s)	**Notes**
	Dawson, M. (2013). Australian Leptospermum in cultivation: Interspecific hybrids. New Zealand Garden Journal, 16(1): 2-13	[Two spontaneous hybrids, and a number of artificial hybrids, have been documented] "Leptospermum 'Aphrodite' (L. spectabile × L. polygalifolium ?) arose in the 1980s as a spontaneous hybrid seedling of L. spectabile Joy Thomps." … "One of the first selections to be released into the nursery trade is a spontaneous hybrid between L. spectabile and L. rotundifolium 'Jervis Bay' (e.g., Harris et al. 1995; Commercial Horticulture Supplement, July 1999; Harris, 1999a,b)."

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 a rather dark red, c. 20 mm in diameter, single on modified shoots on several-leaved leafy side-branches, the new growth extending from beyond the flowers after flowering."

606	Reproduction by vegetative fragmentation	n
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 30 Jul 2020]	"Propagation is easy from seed which does not require any pretreatment. Cuttings are also successful and this is the only method that should be used for propagation of cultivars."

Qsn #	Question	Answer
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum spectabile. https://www.anbg.gov.au. [Accessed 30 Jul 2020]	"Propagation of this species is generally easily done from both seeds and cuttings, and once established the plant should require minimal maintenance." [No evidence of natural vegetative spread]

607	Minimum generative time (years)	
	Source(s)	**Notes**
	Plant This. (2020). Leptospermum spectabile . http://www.plantthis.com.au. [Accessed 30 Jul 2020]	"Growth rate: average"
	Benson, D. & McDougall, L. (1998). Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia 5(4): 808-987	"Primary juvenile period:" [Unknown. No data provided]

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 persistent but not enlarging, c. 9-12 mm in diameter, widest at the distinct but not woody rim, below the lower part hemispherical, with or without an almost negligible stalk, the valves very woody, before opening much exserted to form a tall often rather narrowly rounded dome minutely dished in the centre but raised to the high style-base, on opening tearing from the style and spreading to the width of the rim or somewhat beyond, the fruit usually appearing to be deeper than wide. Mature seeds c. 6 mm long, linear-cuneiform, long-sigmoid, striate."

702	Propagules dispersed intentionally by people	y
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 29 Jul 2020]	"L. spectabile is becoming well known in cultivation and it is proving to be a hardy shrub for moist soils in temperate climates."
	Dawson, M. (2012). Australian Leptospermum in cultivation: species and cultivars. New Zealand Garden Journal 15(2): 14-22	"Leptospermum spectabile Joy Thomps. is a distinctive species worthy of cultivation."

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 persistent but not enlarging, c. 9-12 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

Qsn #	Question	Answer
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Fruit persistent but not enlarging, c. 9-12 mm in diameter," … "Mature seeds c. 6 mm long, linear cuneiform, long-sigmoid, striate." [Small seeds presumably dispersed by wind, and gravity, after capsules dehisce, similar to other species in the genus]

705	Propagules water dispersed	y
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Found only along the Colo River in central eastern New South Wales (Map 9). Among sandstone boulders on the river bank." [Distribution suggests seeds are likely moved by water]

706	Propagules bird dispersed	n
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[No evidence. Not fleshy-fruited] "Fruit persistent but not enlarging, c. 9-12 mm in diameter, widest at the distinct but not woody rim, below the lower part hemispherical, with or without an almost negligible stalk, the valves very woody, before opening much exserted to form a tall often rather narrowly rounded dome minutely dished in the centre but raised to the high style-base, on opening tearing from the style and spreading to the width of the rim or somewhat beyond, the fruit usually appearing to be deeper than wide. Mature seeds c. 6 mm long, linear-cuneiform, long-sigmoid, 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 persistent but not enlarging, c. 9-12 mm in diameter, widest at the distinct but not woody rim, below the lower part hemispherical, with or without an almost negligible stalk, the valves very woody, before opening much exserted to form a tall often rather narrowly rounded dome minutely dished in the centre but raised to the high style-base, on opening tearing from the style and spreading to the width of the rim or somewhat beyond, the fruit usually appearing to be deeper than wide. Mature seeds c. 6 mm long, linear-cuneiform, long-sigmoid, 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 persistent but not enlarging, c. 9-12 mm in diameter,"

801	Prolific seed production (>1000/m2)	

Qsn #	Question	Answer
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	[Seed densities unknown] "Fruit persistent but not enlarging, c. 9-12 mm in diameter, widest at the distinct but not woody rim, below the lower part hemispherical, with or without an almost negligible stalk, the valves very woody, before opening much exserted to form a tall often rather narrowly rounded dome minutely dished in the centre but raised to the high style-base, on opening tearing from the style and spreading to the width of the rim or somewhat beyond, the fruit usually appearing to be deeper than wide. Mature seeds c. 6 mm long, linear-cuneiform, long-sigmoid, striate."

802	**Evidence that a persistent propagule bank is formed (>1 yr)**	
	Source(s)	**Notes**
	Thompson, J. (1989). A revision of the genus Leptospermum (Myrtaceae). Telopea 3(3): 301-449	"Fruit persistent but not enlarging, c. 9-12 mm in diameter," [Likely forms a persistent canopy seed bank, as do other species in the genus]

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. spectabile unknown] unknown]

804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**y**
	Source(s)	**Notes**
	Australian Native Plant Society. (2020). Leptospermum spectabile. http://anpsa.org.au/l-spe.html. [Accessed 30 Jul 2020]	"Plants prefer full sun or partial shade and may be pruned severely if necessary." [Presumably tolerates severe pruning]
	Australian National Botanic Gardens and Centre for Australian National Biodiversity Research. (2020). Growing Native Plants. Leptospermum spectabile. https://www.anbg.gov.au. [Accessed 30 Jul 2020]	[Tolerates heavy pruning] "However, tip or heavier pruning of Leptospermum species after flowering has been shown to improve their vigour and avoid a woody appearance."

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 30 Jul 2020]	Leptospermum spectabile listed as a host. Impacts unspecified

Summary of Risk Traits:

High Risk / Undesirable Traits
• Cultivation escape in New Zealand
• Other species are invasive
• Tolerates many soil types
• Reproduces by seeds
• Seeds in persistent woody capsules; likely dispersed by wind, and intentionally cultivated by people
• Riparian species likely also dispersed by water
• Persistent capsules may result in a persistent “canopy seed bank”
• Gaps in biological and ecological information may reduce accuracy of risk prediction

Low Risk Traits
• No negative impacts currently documented from escaped populations
• Unarmed (no spines, thorns, or burrs)
• Non-toxic
• Seeds may be retained on plants for extended periods, limiting dispersal unless exposed to fire or drought

Second Screening Results for Tree/tree-like shrubs

(A) Shade tolerant or known to form dense stands?> Not known to form dense stands, but tolerates partial shade
(B) Bird or clearly wind-dispersed?> Presumably dispersed by wind
(C) Life cycle <4 years? Unknown
Outcome = Evaluate further