

Taxon: *Goepertia roseopicta* (Linden) Borchs. & S. Suarez

Family: Marantaceae

Common Name(s): jungle rose
rose-painted calathea

Synonym(s): *Calathea illustris* (Linden) N. E. Br.
Calathea roseopicta (Linden) Regel
Maranta illustris Linden
Maranta roseopicta Linden

Assessor: Chuck Chimera

Status: Assessor Approved

End Date: 18 Aug 2016

WRA Score: -1.0

Designation: L

Rating: Low Risk

Keywords: Tropical, Herb, Ornamental, Rhizomatous, Propagated Vegetatively

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)	High
202	Quality of climate match data	(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
203	Broad climate suitability (environmental versatility)	y=1, n=0	n
204	Native or naturalized in regions with tropical or subtropical climates	y=1, n=0	y
205	Does the species have a history of repeated introductions outside its natural range?	y=-2, ?=-1, n=0	y
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		
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

Qsn #	Question	Answer Option	Answer
408	Creates a fire hazard in natural ecosystems	y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	y
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)		
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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	y
606	Reproduction by vegetative fragmentation	y=1, n=-1	y
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	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed		
706	Propagules bird dispersed		
707	Propagules dispersed by other animals (externally)		
708	Propagules survive passage through the gut		
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		
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
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[No evidence of domestication] "Calathea roseopicta is native to the upper Amazon region in Colombia, Peru, and Brazil. It was discovered by G. Wallis between Iquitos and Loreto, Peru, and introduced to horticulture by J. Linden in May 1866 along with C. lindeniana."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. 2016. 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"	High
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html . [Accessed 17 Aug 2016]	"Native: Southern America Brazil: Brazil - Amazonas, - Mato Grosso Western South America: Peru - Huanuco, - Loreto, - Madre de Dios, - San Martin"

202	Quality of climate match data	High
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html . [Accessed 17 Aug 2016]	

Qsn #	Question	Answer
203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Missouri Botanical Garden. 2016. <i>Goeppertia roseopicta</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=364366&isprofile=0&:// . [Accessed 17 Aug 2016]	"Zone: 11 to 12" ... "In the U.S., it will survive outdoors in far southern Florida and Hawaii, but otherwise must be grown indoors in containers."
	Tropicos.org. 2016. Tropicos [Online Database]. Missouri Botanical Garden. http://www.tropicos.org/ . [Accessed 17 Aug 2016]	Collected from 100-350 m elevation, and from 02°40'00"S to 05°55'00"S latitude [Low elevation tropical latitudes]

Qsn #	Question	Answer
204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html . [Accessed 17 Aug 2016]	"Native: Southern America Brazil: Brazil - Amazonas, - Mato Grosso Western South America: Peru - Huanuco, - Loreto, - Madre de Dios, - San Martin"

Qsn #	Question	Answer
205	Does the species have a history of repeated introductions outside its natural range?	y
	Source(s)	Notes
	Chong, K.Y., Tan, H.T.W. & Corlett, R.T. 2009. A Checklist of the Total Vascular Plant Flora of Singapore: Native, Naturalized and Cultivated Species. Raffles Museum of Biodiversity Research, National University of Singapore, Singapore	"cultivated only" [Singapore]
	Dave's Garden. 2016. Rose Painted Calathea - <i>Calathea roseopicta</i> . http://davesgarden.com/guides/pf/go/55965/ . [Accessed 17 Aug 2016]	"This plant has been said to grow in the following regions: Glendale, Arizona Delray Beach, Florida Loxahatchee, Florida Miami, Florida Wellborn, Florida Winter Haven, Florida Smyrna, Georgia Caguas, Puerto Rico Collinwood, Tennessee Crossville, Tennessee Arlington, Texas Kilgore, Texas La Vernia, Texas Arlington, Virginia"
	Randall, R.P. 2007. The introduced flora of Australia and its weed status. CRC for Australian Weed Management, Glen Osmond, Australia	Cultivated
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	Cultivated in Hawaiian Islands

301	Naturalized beyond native range	n
	Source(s)	Notes
	Chong, K.Y., Tan, H.T.W. & Corlett, R.T. 2009. A Checklist of the Total Vascular Plant Flora of Singapore: Native, Naturalized and Cultivated Species. Raffles Museum of Biodiversity Research, National University of Singapore, Singapore	" <i>Calathea roseopicta</i> (Linden) Regel; Marantaceae; cultivated only"
	Randall, R.P. 2007. The introduced flora of Australia and its weed status. CRC for Australian Weed Management, Glen Osmond, Australia	No evidence
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence
	Wagner, W.L., Herbst, D.R. & Lorence, D.H. 2016. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/ . [Accessed 17 Aug 2016]	No evidence to date

302	Garden/amenity/disturbance weed	n
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Qsn #	Question	Answer
	Source(s)	Notes
	Learn 2 Grow. 2016. <i>Calathea roseopicta</i> . http://www.learn2grow.com/plants/calathea-roseopicta/ . [Accessed 17 Aug 2016]	"Invasive - No"
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

305	Congeneric weed	n
	Source(s)	Notes
	Leoni, J. M., & Costa, F. R. C. (2013). Sustainable use of <i>Calathea lutea</i> in handicrafts: A case study from the Amanã Sustainable Development Reserve in the Brazilian Amazon. <i>Economic Botany</i> , 67(1), 30-40	[<i>Calathea lutea</i> considered a weed by farmers. <i>G. roseopicta</i> formerly included in <i>Calathea</i> genus] "The cauçu (area dominated by cauçu - <i>Calathea lutea</i>) is a plant formation that arises in abandoned fields. <i>C. lutea</i> sprouts quickly after forest or fallow areas are cut and burned; cauçu grows so vigorously that farmers eliminate it to prevent it from overcrowding crop plants. Dense stands are usually associated with high várzeas along the river channel that passes through the Corací sector." ... "Cauçu is considered a weed by farmers of Corací, and by contrast, a NTFP by artisans." [NTFP = non-timber forest products] "Cauçu is considered a weed because the stands grow fast and compete with other plants in the same areas. Due to its aggressive nature, cauçu must be cut frequently, a task considered arduous by local farmers."
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	Possibly. Several <i>Calathea</i> species listed as naturalized or as weeds of unspecified impacts. No evidence of invasive <i>Goepertia</i> species

Qsn #	Question	Answer
401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[No evidence] "Stemless herb 10-20" tall. Lvs 1-3, basal; sheath, peti, and pulvinus dark red-purple, pulvinus 0.75-1.25" long; blades broadly elliptic to nearly circular, 6-10.75" x 5.25-8.25", upper side dark green, with pale green, white or pink line along midvein, and narrow (<0.25") white or pink band along margin, underside dark red-purple, glabrous, base rounded."

402	Allelopathic	
	Source(s)	Notes
	Leoni, J. M., & Costa, F. R. C. (2013). Sustainable use of <i>Calathea lutea</i> in handicrafts: A case study from the Amanã Sustainable Development Reserve in the Brazilian Amazon. <i>Economic Botany</i> , 67(1), 30-40	[Unknown, Related genus may have species with allelopathic properties] "Shading, mechanical interference by litter, or even allelopathy are possible causes of suppression, as has been observed in experimental studies of other species (Bosyl and Reader 1995)."

403	Parasitic	n
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	"Stemless herb 10-20" tall. Lvs 1-3, basal; sheath, peti, and pulvinus dark red-purple, pulvinus 0.75-1.25" long; blades broadly elliptic to nearly circular, 6-10.75" x 5.25-8.25", upper side dark green, with pale green, white or pink line along midvein, and narrow (<0.25") white or pink band along margin, underside dark red-purple, glabrous, base rounded." [Marantaceae. No evidence]

404	Unpalatable to grazing animals	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Palatability of foliage unknown

405	Toxic to animals	n
	Source(s)	Notes
	House Plants Expert. 2016. Rose painted calathea. http://www.houseplantsexpert.com/rose-painted-calathea.html . [Accessed 17 Aug 2016]	"Non-toxic to cats and dogs."
	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
	Wagstaff, D.J. 2008. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	

Qsn #	Question	Answer
	Source(s)	Notes
	The Royal Horticultural Society. 2016. <i>Calathea roseopicta</i> . https://www.rhs.org.uk/plants/details?plantid=2196 . [Accessed 18 Aug 2016]	"Pests: May be attacked by glasshouse whitefly and glasshouse red spider mite Diseases: Generally disease free "
	Missouri Botanical Garden. 2016. <i>Goepertia roseopicta</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=364366&isprofile=0&:// . [Accessed 17 Aug 2016]	"Problems: No serious insect or disease problems. Watch for aphids, scale, mealybugs and spider mites. Leaf spots may appear. Plants do not thrive in low humidity where leaves may roll or turn brown. Direct sun usually causes leaf scorch."

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Global Species. 2016. <i>Calathea roseopicta</i> . http://globalspecies.org/ntaxa/1155907 . [Accessed 17 Aug 2016]	"Allergen Potential [1] Low"
	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
	Wagstaff, D.J. 2008. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	Missouri Botanical Garden. 2016. <i>Goepertia roseopicta</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=364366&isprofile=0&:// . [Accessed 17 Aug 2016]	[No evidence. Unlikely given habit & habitat] " <i>Goepertia roseopicta</i> , commonly known as jungle velvet or calathea, is noted for its striking variegated leaves. In the wet tropics and sub-tropics, this plant is commonly grown outdoors in shaded areas and courtyards for display of its highly ornamental foliage. It is native to tropical areas along the upper Amazon in northwestern Brazil, Peru and Columbia."

409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	Notes
	Grow Plants. 2016. <i>Calathea roseopicta</i> . http://www.growplants.org/growing/calathea-roseopicta . [Accessed 18 Aug 2016]	"Light conditions in optimal condition for growing <i>Calathea roseopicta</i> : Full Shade"
	Missouri Botanical Garden. 2016. <i>Goepertia roseopicta</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=364366&isprofile=0&:// . [Accessed 17 Aug 2016]	"Sun: Part shade to full shade"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	

Qsn #	Question	Answer
	Source(s)	Notes
	The Royal Horticultural Society. 2016. <i>Calathea roseopicta</i> . https://www.rhs.org.uk/plants/details?plantid=2196 . [Accessed 18 Aug 2016]	"Soil - Clay, Chalk, Loam pH - Acid, Alkaline, Neutral"
	Learn 2 Grow. 2016. <i>Calathea roseopicta</i> . http://www.learn2grow.com/plants/calathea-roseopicta/ . [Accessed 17 Aug 2016]	"Soil Drainage - Average Soil type - Loam, Sand"
	Dave's Garden. 2016. Rose Painted Calathea - <i>Calathea roseopicta</i> . http://davesgarden.com/guides/pf/go/55965/ . [Accessed 18 Aug 2016]	"Soil pH requirements: 5.1 to 5.5 (strongly acidic) 5.6 to 6.0 (acidic) 6.1 to 6.5 (mildly acidic)"

411	Climbing or smothering growth habit	n
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. 2005. <i>A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places</i> . Bishop Museum Press, Honolulu, HI	"Stemless herb 10-20" tall. Lvs 1-3, basal; sheath, peti, and pulvinus dark red-purple, pulvinus 0.75-1.25" long; blades broadly elliptic to nearly circular, 6-10.75" x 5.25-8.25", upper side dark green, with pale green, white or pink line along midvein, and narrow (<0.25") white or pink band along margin, underside dark red-purple, glabrous, base rounded."

412	Forms dense thickets	n
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown. No evidence of distribution or density from native range found

501	Aquatic	n
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. 2005. <i>A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places</i> . Bishop Museum Press, Honolulu, HI	[Terrestrial herb] "Stemless herb 10-20" tall."

502	Grass	n
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html . [Accessed 17 Aug 2016]	Marantaceae

Qsn #	Question	Answer
503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html . [Accessed 17 Aug 2016]	Marantaceae

Qsn #	Question	Answer
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	The Royal Horticultural Society. 2016. <i>Calathea roseopicta</i> . https://www.rhs.org.uk/plants/details?plantid=2196 . [Accessed 18 Aug 2016]	" <i>C. roseopicta</i> is a clump-forming perennial to 25cm, with short-stalked, oblong, dark green leaves with pink midrib and stripes parallel to the margins" ... "Propagate by division in late spring"
	Staples, G.W. & Herbst, D.R. 2005. <i>A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places</i> . Bishop Museum Press, Honolulu, HI	"Stemless herb 10-20" tall. Lvs 1-3, basal; sheath, peti, and pulvinus dark red-purple, pulvinus 0.75-1.25" long; blades broadly elliptic to nearly circular, 6-10.75" x 5.25-8.25", upper side dark green, with pale green, white or pink line along midvein, and narrow (<0.25") white or pink band along margin, underside dark red-purple, glabrous, base rounded." [Marantaceae. No evidence]

Qsn #	Question	Answer
601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html . [Accessed 18 Aug 2016]	[No evidence from native range] "Native: Southern America Brazil: Brazil - Amazonas, - Mato Grosso Western South America: Peru - Huanuco, - Loreto, - Madre de Dios, - San Martin"

Qsn #	Question	Answer
602	Produces viable seed	y
	Source(s)	Notes
	Shared Encyclopedia. 2016. <i>Calathea roseopicta</i> . http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril."
	Grow Plants. 2016. <i>Calathea roseopicta</i> . http://www.growplants.org/growing/calathea-roseopicta . [Accessed 18 Aug 2016]	"What is the best way to start growing <i>Calathea roseopicta</i> : Plant / Seed / Vegetative reproduction" [Seeds may be rare in cultivation. Typically propagated using vegetative reproduction]

Qsn #	Question	Answer
603	Hybridizes naturally	
	Source(s)	Notes

Qsn #	Question	Answer
	Kennedy, H. (1978). Systematics and Pollination of the "closed flowered" Species of <i>Calathea</i> (Marantaceae). University of California Publications in Botany Volume 71. University of California Press, Berkeley and Los Angeles, CA	[Unknown. Natural hybrids documented in genus <i>Calathea</i>] "Near the La Lola Cacao Institute (Milla 28) Limon Province. Costa Rica. a natural hybrid between <i>C. warscewiczii</i> ; and <i>C. marantifolia</i> was found by Dr. R. L. Dressler"
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	Artificial hybrid created between <i>Calathea roseopicta</i> & <i>Calathea veitchiana</i> . Unknown if natural hybrids can or do occur

604	Self-compatible or apomictic	
	Source(s)	Notes
	Flora of North America Editorial Committee. 2000, Flora of North America: North of Mexico, Volume 22. Oxford University Press, Oxford, UK	[Possibly. Unconfirmed] "Marantaceae are self-compatible but are mainly allogamous (out-crossing). In spite of the elaborate pollination system, some 8% of the species are known to be autogamous (self pollinating), including all three species in the flora [very rarely cleistogamous]. Such self-pollen is deposited in the stigma during pollen transfer within the bud prior to anthesis, not during subsequent stylar movement.

605	Requires specialist pollinators	y
	Source(s)	Notes
	Flora of North America Editorial Committee. 2000, Flora of North America: North of Mexico, Volume 22. Oxford University Press, Oxford, UK	"Florally, Marantaceae are characterized by their highly modified staminodes and unusual pollination mechanism: explosive, secondary pollen presentation. During the bud stage, pollen is shed onto the back of the style, behind the stigma. At anthesis the style is under tension and is enfolded and held in place by the cucullate (hooded) staminode. Bees, probing for nectar in the flower, depress the appendage (trigger) of the cucullate staminode. This releases the style, which springs forward, moving in a single plane or helically, bringing the cup-shaped stigma in contact with pollen on the pollinator and, in the same motion, depositing fresh pollen on the same spot."

606	Reproduction by vegetative fragmentation	y
	Source(s)	Notes
	Shared Encyclopedia. 2016. <i>Calathea roseopicta</i> . http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Perennial herb with rhizome " [Rhizomatous. Presumably yes]
	The Royal Horticultural Society. 2016. <i>Calathea roseopicta</i> . https://www.rhs.org.uk/plants/details?plantid=2196 . [Accessed 18 Aug 2016]	[Presumably Yes] " <i>C. roseopicta</i> is a clump-forming perennial to 25cm, with short-stalked, oblong, dark green leaves with pink midrib and stripes parallel to the margins" ... "Propagate by division in late spring "

Qsn #	Question	Answer
607	Minimum generative time (years)	
	Source(s)	Notes
	Grow Plants. 2016. <i>Calathea roseopicta</i> . http://www.growplants.org/growing/calathea-roseopicta . [Accessed 18 Aug 2016]	"Growth speed in <i>Calathea roseopicta</i> : Medium growing / Slow growing" [Time to first flowering unknown, but plants may be able to reproduce vegetatively at an earlier age]
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	Notes
	Shared Encyclopedia. 2016. <i>Calathea roseopicta</i> . http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril." [Seeds, if produced, lack means of external attachment]
702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	Missouri Botanical Garden. 2016. <i>Goepertia roseopicta</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=364366&isprofile=0&:// . [Accessed 17 Aug 2016]	" <i>Goepertia roseopicta</i> , commonly known as jungle velvet or <i>calathea</i> , is noted for its striking variegated leaves. In the wet tropics and sub-tropics, this plant is commonly grown outdoors in shaded areas and courtyards for display of its highly ornamental foliage. It is native to tropical areas along the upper Amazon in northwestern Brazil, Peru and Columbia. In the U.S., it will survive outdoors in far southern Florida and Hawaii, but otherwise must be grown indoors in containers."
703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Shared Encyclopedia. 2016. <i>Calathea roseopicta</i> . http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril." [No evidence. Seeds may be rare or absent in cultivation]
704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	Shared Encyclopedia. 2016. <i>Calathea roseopicta</i> . http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril." [Seeds, if produced, lack adaptations for wind dispersal]
705	Propagules water dispersed	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown. Seeds, if produced, or rhizome fragments, might be secondarily dispersed by water if growing in riparian areas
706	Propagules bird dispersed	

Qsn #	Question	Answer
	Source(s)	Notes
	Shared Encyclopedia. 2016. Calathea roseopicta. http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril." [Arillate seeds, if produced, might be bird or ant-dispersed]
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"Most species with arillate seeds are probably myrmecochorous."

707	Propagules dispersed by other animals (externally)	
	Source(s)	Notes
	Shared Encyclopedia. 2016. Calathea roseopicta. http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril." [Arillate seeds, if produced, might be bird or ant-dispersed]
	Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume IV. Flowering plants, Monocotyledons: Alismatanae and Commelinanae (except Gramineae). Springer-Verlag, Berlin, Heidelberg, New York	"Most species with arillate seeds are probably myrmecochorous."

708	Propagules survive passage through the gut	
	Source(s)	Notes
	Shared Encyclopedia. 2016. Calathea roseopicta. http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	"Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril." [Possibly. Arillate seeds, if produced, might be bird or ant-dispersed]

801	Prolific seed production (>1000/m2)	
	Source(s)	Notes
	Shared Encyclopedia. 2016. Calathea roseopicta. http://et97.com/view/94731.htm . [Accessed 18 Aug 2016]	[Unknown] "Capsule dehiscent into 3 flap, flap and medial axis from the fruit; 3 seeds, triangle, back bulge, 2 lobed aril."
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	Probably No. No description of seeds provided.

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	Dalling, J. W., Swaine, M. D., & Garwood, N. C. (1998). Dispersal patterns and seed bank dynamics of pioneer trees in moist tropical forest. <i>Ecology</i> , 79(2): 564-578	[Other Calathea species form a persistent seed bank] "Most seeds of Calathea ovandensis, a gap-dependent herb, can persist for several years in the soil under natural conditions (Horvitz and Schemske 1994)."

Qsn #	Question	Answer
803	Well controlled by herbicides	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown. No information on herbicide efficacy or chemical control of this species.

804	Tolerates, or benefits from, mutilation, cultivation, or fire	
	Source(s)	Notes
	Missouri Botanical Garden. 2016. <i>Goeppertia roseopicta</i> . http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=364366&isprofile=0&:// . [Accessed 18 Aug 2016]	"This is a compact, rhizomatous, evergreen perennial" [Unknown. Possible that mechanical damage to rhizomes may result in resprouting]

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	Unknown. Cultivated in Hawaii

Summary of Risk Traits:

High Risk / Undesirable Traits

- Thrives in tropical climates
- Other *Calathea* species have become invasive. Formerly classified in genus
- Shade tolerant
- Reproduces by seeds & vegetatively by rhizomes
- May be self-compatible
- Seeds, if produced, may be dispersed by ants, birds & intentionally by people
- Seeds, if produced, may persist in the soil
- Limited seed production may reduce risk of inadvertent dispersal

Low Risk Traits

- Unarmed (no spines, thorns or burrs)
- Ornamental
- Non-toxic
- Requires specialized pollinators
- Limited seed production may reduce risk of inadvertent dispersal