

Taxon: Lonchocarpus punctatus Kunth

Family: Fabaceae

Common Name(s): dotted lancepod
lilac tree

Synonym(s): Lonchocarpus roseus auct.
Lonchocarpus violaceus auct.

Assessor: Chuck Chimera

Status: Assessor Approved

End Date: 5 Feb 2016

WRA Score: 3.0

Designation: EVALUATE

Rating: Evaluate

Keywords: Tropical Tree, Ornamental, Unarmed, Toxic Properties, N-Fixing

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	?
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	y
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	y
402	Allelopathic		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals		
405	Toxic to animals	y=1, n=0	y
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans		
408	Creates a fire hazard in natural ecosystems		
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	y
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	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	y=1, n=-1	n
704	Propagules adapted to wind dispersal		
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		
801	Prolific seed production (>1000/m ²)	y=1, n=-1	n
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
	Pittier, H. (1917). The middle American species of <i>Lonchocarpus</i> . Contributions from the United States National Herbarium, 20(2), 37-93	"Many Middle American specimens have been identified as <i>Lonchocarpus violaceus</i> Benth., but this name is now found to be untenable. The type of the genus, <i>L. punctatus</i> H. B. K., was confused with the supposed <i>violaceus</i> by Bentham." [No evidence that species has been domesticated]

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 4 Feb 2016]	"Native: Southern America Caribbean: Antigua and Barbuda - Antigua; Barbados; Dominica; Guadeloupe; Martinique; Montserrat; St. Kitts and Nevis - Nevis; St. Lucia; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago Northern South America: Venezuela Western South America: Colombia"

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 4 Feb 2016]	

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes

Qsn #	Question	Answer
	Useful Tropical Plants Database. 2016. <i>Lonchocarpus punctatus</i> . http://tropical.theferns.info/viewtropical.php?id=Lonchocarpus+punctatus . [Accessed 4 Feb 2016]	"A plant of tropical regions, growing in areas with a distinct dry season[307]. The regions where the tree is found have an average annual temperature of 26°C with a maximum temperature of 36.7°C and a minimum temperature of 14.9°C[337]. Average annual precipitation is approximately 1,288mm, ranging between 900 - 1,800m [337]."
	iplantz. 2016. <i>Lonchocarpus violaceus</i> . http://www.iplantz.com/plant/976/lonchocarpus#tabs-6 . [Accessed 5 Feb 2016]	"Climate: Grows naturally in moderately humid tropical lowland climates, generally in areas with average annual low temperatures of 19 to 24 °C average annual high temperatures of 28 to 33 °C and annual rainfall of 1000 to 2000 mm, with a dry season of 3 to 6 months. "
	Dave's Garden. 2016. Lilac Tree, Lancepod, Chaperno. <i>Lonchocarpus violaceus</i> . http://davesgarden.com/guides/pf/go/116860/ . [Accessed 4 Feb 2016]	"Hardiness: 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)"
	Tropicos.org. 2016. Tropicos [Online Database]. Missouri Botanical Garden. http://www.tropicos.org/ . [Accessed 4 Feb 2016]	Primarily collected at elevations below 300 m

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 4 Feb 2016]	"Native: Southern America Caribbean: Antigua and Barbuda - Antigua; Barbados; Dominica; Guadeloupe; Martinique; Montserrat; St. Kitts and Nevis - Nevis; St. Lucia; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago Northern South America: Venezuela Western South America: Colombia"

205	Does the species have a history of repeated introductions outside its natural range?	?
	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	" <i>Lonchocarpus sericeus</i> ... is sometimes seen in Hawaii as a flowering shade and street tree in local parks." ... "Other <i>Lonchocarpus</i> species are present in botanical gardens but are not in general cultivation in Hawaii."
	Gann, G.D., and Collaborators. 2001-2015. The Floristic Inventory of South Florida Database Online. The Institute for Regional Conservation. Delray Beach, FL. http://regionalconservation.org/ . [Accessed 4 Feb 2016]	"SOUTH FLORIDA Cultivated Status: Cultivated"

301	Naturalized beyond native range	y
	Source(s)	Notes

Qsn #	Question	Answer
	Morton, J.F. 1976. Pestiferous spread of many ornamental and fruit species in South Florida. Proceedings of the Florida State Horticultural Society 89: 348-353	"Lonchocarpus violaceus ... West Indies. Naturalized on Florida Keys"
	Gann, G.D., and Collaborators. 2001-2015. The Floristic Inventory of South Florida Database Online. The Institute for Regional Conservation. Delray Beach, FL. http://regionalconservation.org/ . [Accessed 4 Feb 2016]	"SOUTH FLORIDA Occurrence: Present SOUTH FLORIDA Native Status: Not Native, Naturalized SOUTH FLORIDA Cultivated Status: Cultivated"

302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	iplantz. 2016. <i>Lonchocarpus violaceus</i> . http://www.iplantz.com/plant/976/lonchocarpus#tabs-6 . [Accessed 5 Feb 2016]	"It is reported to have naturalised in Florida, but there does not appear to be any records of it being a serious weed anywhere in the world."
	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	
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	<i>Lonchocarpus capassa</i> listed as a weed, but now classified as <i>Philenoptera violacea</i> . Other species listed as naturalized or potential weeds

401	Produces spines, thorns or burrs	y
	Source(s)	Notes
	Nelson, G. 2010. The Trees of Florida. A Reference and Field Guide. 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Form: Shrub or small tree to about 8 m tall. Leaves: Alternate, pinnately compound, with 2- 8 pairs of leaflets and a single terminal leaflet; leaflets opposite. oval or oblong, to about 6 cm long and 2 cm wide."

402	Allelopathic	

Qsn #	Question	Answer
	Source(s)	Notes
	Tur, C. M., Martinazzo, E. G., Aumonde, T. Z., & Villela, F. A. (2012). Allelopathy effect of leaves aqueous extracts of <i>Lonchocarpus campestris</i> on the germination and early growth of beggartick. <i>Revista de Ciências Agrárias</i> 55(4), 277-281	[Unknown. Allelopathy documented in other members of genus] "Several plant species synthesize substances called allelochemicals, which inhibit the germination and early growth of seedlings. The objective of this study was to evaluate the allelopathic action of aqueous extracts of fresh and dry <i>Lonchocarpus campestris</i> leaves on the germination and early growth of beggartick. The concentrations used were 0; 2; 4 and 8%. The following parameters were evaluated: germination, speed index and germination rate, length of the hypocotyl and radicle, total dry mass, and water content. The germination and speed index were reduced by increasing the concentration of the extract of fresh and dry leaves. The germination rate was reduced at 4% and 8% concentrations of the extract of dry leaves. The length of the radicle was reduced as from 2% concentration of the extract of fresh and dry leaves and the length of the hypocotyl decreased at 8% concentration of the extract of fresh leaves. The total dry mass and water content were similar among plants under different concentrations. Aqueous extracts of <i>Lonchocarpus campestris</i> leaves presented allelopathic effects on the seeds and seedlings of beggartick and the most radical results were caused by the dry leaves extract."

403	Parasitic	n
	Source(s)	Notes
	Nelson, G. 2010. <i>The Trees of Florida. A Reference and Field Guide</i> . 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Form: Shrub or small tree to about 8 m tall." [Fabaceae. No evidence]

404	Unpalatable to grazing animals	y
	Source(s)	Notes
	Achán, G., Febles, G., Ruiz, T., Alonso, J., & Noda, A. (2011). Performance of tree species in two arboretums of the Institute of Animal Science. <i>Cuban Journal of Agricultural Science</i> , 45(4): 439-444	"Tabla 2. Acceptability by the animals of tree species in the arboreum 1." [Species are ranked on a scale of 1-6, with 1 = Very consumed and 6 = Not consumed. <i>Lonchocarpus punctatus</i> was scored 5, suggesting little consumption and low palatability]

405	Toxic to animals	y
	Source(s)	Notes
	iplantz. 2016. <i>Lonchocarpus violaceus</i> . http://www.iplantz.com/plant/976/lonchocarpus#tabs-6 . [Accessed 5 Feb 2016]	"The leaves are reported to contain high concentrations of the poison Rotenone, a commonly used organic insecticide. They have a history of use by native people as a fish poison and are a potential source of compounds for the manufacture of Biopesticides." ... "Problem features: All parts of the plant are poisonous and as a precaution honey produced by bees foraging the flowers should not be consumed. There are reports of domestic animals being poisoned after consuming the seed."
	Useful Tropical Plants Database. 2016. <i>Lonchocarpus punctatus</i> . http://tropical.theferns.info/viewtropical.php?id=Lonchocarpus+punctatus . [Accessed 4 Feb 2016]	"The plant is poisonous and has been used as a fish poison[307]."

Qsn #	Question	Answer
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"Toxic to fishes. leaves contain poisons that are used to catch fish, they also serve as effective insecticides. Hypoglycemicly active stilbenoids.)"

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown

407	Causes allergies or is otherwise toxic to humans	
	Source(s)	Notes
	iplantz. 2016. <i>Lonchocarpus violaceus</i> . http://www.iplantz.com/plant/976/lonchocarpus#tabs-6 . [Accessed 5 Feb 2016]	[Potentially toxic if consumed] "Problem features: All parts of the plant are poisonous and as a precaution honey produced by bees foraging the flowers should not be consumed. There are reports of of domestic animals being poisoned after consuming the seed."
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	[Used medicinally] (Psychoactive, mystical, ritual, hallucinogenic, the shamanic liqueur balche is a blend of <i>Melipona</i> honey and water, to which the bark is added during the fermentation process, balche used ceremonially."

408	Creates a fire hazard in natural ecosystems	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown. No evidence

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes
	Treeworld Wholesale. 2016. <i>Lonchocarpus violaceus</i> . Lancepod Tree, Lilac Tree. http://treeworldwholesale.com/product/lonchocarpus-violaceus-4/ . [Accessed 5 Feb 2016]	"Light Requirements: Full Sun"
	Useful Tropical Plants Database. 2016. <i>Lonchocarpus punctatus</i> . http://tropical.theferns.info/viewtropical.php?id=Lonchocarpus+punctatus . [Accessed 5 Feb 2016]	"Prefers a sunny position and a fertile, friable soil"
	iplantz. 2016. <i>Lonchocarpus violaceus</i> . http://www.iplantz.com/plant/976/lonchocarpus#tabs-6 . [Accessed 5 Feb 2016]	"Sunlight exposure(?) Full sun Partial sun"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	Treeworld Wholesale. 2016. <i>Lonchocarpus violaceus</i> . Lancepod Tree, Lilac Tree. http://treeworldwholesale.com/product/lonchocarpus-violaceus-4/ . [Accessed 5 Feb 2016]	"Lancepod is a hardy tree and can be grown on a range of poor soils, if well-drained."

Qsn #	Question	Answer
	iplantz. 2016. <i>Lonchocarpus violaceus</i> . http://www.iplantz.com/plant/976/lonchocarpus#tabs-6 . [Accessed 5 Feb 2016]	Soil pH: Alkaline soil Neutral soil Soil texture: Limestone soil Loam soil

411	Climbing or smothering growth habit	n
	Source(s)	Notes
	Nelson, G. 2010. <i>The Trees of Florida. A Reference and Field Guide. 2nd Edition.</i> Pineapple Press Inc, Sarasota, FL	"Form: Shrub or small tree to about 8 m tall."

412	Forms dense thickets	n
	Source(s)	Notes
	Nelson, G. 2010. <i>The Trees of Florida. A Reference and Field Guide. 2nd Edition.</i> Pineapple Press Inc, Sarasota, FL	No evidence
	Pittier, H. (1917). <i>The middle American species of Lonchocarpus. Contributions from the United States National Herbarium, 20(2), 37-93</i>	No evidence
	WRA Specialist. 2016. Personal Communication	No evidence found from native or introduced range

501	Aquatic	n
	Source(s)	Notes
	Nelson, G. 2010. <i>The Trees of Florida. A Reference and Field Guide. 2nd Edition.</i> Pineapple Press Inc, Sarasota, FL	[Terrestrial tree] "Form: Shrub or small tree to about 8 m tall." ... "Distribution : Tropical hammocks; Florida Keys."

502	Grass	n
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. <i>National Plant Germplasm System [Online Database]</i> . http://www.ars-grin.gov/npgs/index.html . [Accessed 4 Feb 2016]	"Family: Fabaceae (alt.Leguminosae) Subfamily: Faboideae Tribe: Millettieae"

503	Nitrogen fixing woody plant	y
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network, 2016. <i>National Plant Germplasm System [Online Database]</i> . http://www.ars-grin.gov/npgs/index.html . [Accessed 4 Feb 2016]	"Family: Fabaceae (alt.Leguminosae)"

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Nelson, G. 2010. <i>The Trees of Florida. A Reference and Field Guide. 2nd Edition.</i> Pineapple Press Inc, Sarasota, FL	"Shrub or small tree to about 8 m tall."

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 5 Feb 2016]	[No evidence. Widespread distribution] "Native: Southern America Caribbean: Antigua and Barbuda - Antigua; Barbados; Dominica; Guadeloupe; Martinique; Montserrat; St. Kitts and Nevis - Nevis; St. Lucia; St. Vincent and Grenadines - St. Vincent; Trinidad and Tobago Northern South America: Venezuela Western South America: Colombia"

602	Produces viable seed	y
	Source(s)	Notes
	Nelson, G. 2010. The Trees of Florida. A Reference and Field Guide. 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Fruit: A flat, thin, linear pod to about 15 cm long; containing 1 to several flat seeds; seed compartments separated by visible constrictions."
	Stebbins, M. 1999. Flowering Trees of Florida. Pineapple Press Inc., Sarasota, FL	"Lonchocarpus violaceus is grown from seed, although it does not produce seed in great quantity."
	Useful Tropical Plants Database. 2016. <i>Lonchocarpus punctatus</i> . http://tropical.theferns.info/viewtropical.php?id=Lonchocarpus+punctatus . [Accessed 4 Feb 2016]	"Propagation Seed. Under humid conditions the fresh seeds germinate at 65% without pre-treatment. A heterogeneous sample of seeds germinated approximately 10 days after sowing[337]. Seeds remain viable for approximately 6 months when stored under ambient conditions (24 - 30°C). With longer storage, their viability quickly diminishes[337]."

603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown

604	Self-compatible or apomictic	
	Source(s)	Notes
	Bullock, S. H. 1985. Breeding systems in the flora of a tropical deciduous forest in Mexico. <i>Biotropica</i> , 17(4): 287-301	"Lonchocarpus species vary substantially in compatibility, but all are pollinated by megachilid bees."
	Bawa, K. S. (1974). Breeding systems of tree species of a lowland tropical community. <i>Evolution</i> , 28: 85-92	Another species in the genus, <i>Lonchocarpus costaricensis</i> is reported to be self-incompatible

605	Requires specialist pollinators	n
	Source(s)	Notes

Qsn #	Question	Answer
	Villanueva-G, R. (1994). Nectar sources of European and Africanized honey bees (<i>Apis mellifera</i> L.) in the Yucatán peninsula, Mexico. <i>Journal of Apicultural Research</i> , 33(1): 44-58	"Honey samples were collected from 22 European and 22 Africanized honey bee colonies. The pollen from these honey samples was acetolysed and subsequently mounted on slides using glycerine jelly in order to identify frequently used nectar sources for honey bees in the Yucatán Peninsula during the wet and dry seasons. The most common species in order of abundance in the honey samples were: <i>Metopium brownei</i> , <i>Mimosa bahamensis</i> , <i>Samyda yucatanensis</i> , <i>Thouinia canescens</i> , <i>Lonchocarpus rugosus</i> , <i>Bursera simaruba</i> , <i>Trema micrantha</i> , <i>Gymnopodium floribundum</i> , <i>Lonchocarpus</i> sp. 2, <i>Paullinia</i> sp.1 and <i>Viguiera dentata</i> . Many of the pollen grains found in the honey samples were not from nectariferous plants, but from plants that produce pollen only: <i>Cecropia peitata</i> , several <i>Cyperaceae</i> , <i>Gramineae</i> and one <i>Piperaceae</i> . Families represented by the greatest number of species were: <i>Leguminosae</i> , <i>Compositae</i> , <i>Gramineae</i> , <i>Malvaceae</i> , <i>Sapindaceae</i> , <i>Myrtaceae</i> , <i>Palmae</i> , <i>Polygonaceae</i> , <i>Cyperaceae</i> and <i>Sapotaceae</i> . A comparison was made between the numbers of pollen and nectar flowers visited by bees from European and Africanized colonies in different apiaries. Less than 50% of the pollen species were common to both European and Africanized honey samples, indicating a differential utilization of the resources available."
	Bullock, S. H. 1985. Breeding systems in the flora of a tropical deciduous forest in Mexico. <i>Biotropica</i> , 17(4): 287-301	" <i>Lonchocarpus</i> species vary substantially in compatibility, but all are pollinated by megachilid bees."

606	Reproduction by vegetative fragmentation	n
	Source(s)	Notes
	Stebbins, M. 1999. <i>Flowering Trees of Florida</i> . Pineapple Press Inc., Sarasota, FL	"grown from seed, although it does not produce seed in great quantity."

607	Minimum generative time (years)	
	Source(s)	Notes
	iplantz. 2016. <i>Lonchocarpus violaceus</i> . http://www.iplantz.com/plant/976/lonchocarpus#tabs-6 . [Accessed 5 Feb 2016]	"Growth rate(?) Moderate growth"
	Stebbins, M. 1999. <i>Flowering Trees of Florida</i> . Pineapple Press Inc., Sarasota, FL	"It has a moderate growth rate..."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	Notes
	Nelson, G. 2010. <i>The Trees of Florida. A Reference and Field Guide</i> . 2nd Edition. Pineapple Press Inc, Sarasota, FL	[Unlikely. Pods relatively long. Pods & seeds lack means of external attachment] "Fruit: A flat, thin, linear pod to about 15 cm long; containing 1 to several flat seeds; seed compartments separated by visible constrictions."

702	Propagules dispersed intentionally by people	y
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Qsn #	Question	Answer
	Source(s)	Notes
	Llamas, K.A. 2003. Tropical Flowering Plants. Timber Press, Portland, OR	"Lonchocarpus violaceus is a highly desirable fall-blooming species occasionally cultivated in the United States."

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Nelson, G. 2010. The Trees of Florida. A Reference and Field Guide. 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Fruit: A flat, thin, linear pod to about 15 cm long; containing 1 to several flat seeds" [Relatively large pods unlikely to contaminate produce]
	Stebbins, M. 1999. Flowering Trees of Florida. Pineapple Press Inc., Sarasota, FL	"grown from seed, although it does not produce seed in great quantity." [Seeds could theoretically become a contaminant of potted plants if grown in a nursery, but this an probably unlikely]

704	Propagules adapted to wind dispersal	
	Source(s)	Notes
	Janzen, D. H., Fellows, L. E., & Waterman, P. G. (1990). What protects Lonchocarpus (Leguminosae) seeds in a Costa Rican dry forest?. <i>Biotropica</i> , 22(3): 272-285.	"All six of the native species of Lonchocarpus trees in the deciduous and semievergreen dry forests of Santa Rosa National Park in northwestern Costa Rica mature their indehiscent, dry and wind dispersed fruits during the first half of the dry season" [Does not include <i>L. punctatus</i> , but possesses similar morphology]
	Nelson, G. 2010. The Trees of Florida. A Reference and Field Guide. 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Fruit: A flat, thin, linear pod to about 15 cm long; containing 1 to several flat seeds" [Possible that pods may be dispersed by wind, but size may limit distance]

705	Propagules water dispersed	
	Source(s)	Notes
	Nelson, G. 2010. The Trees of Florida. A Reference and Field Guide. 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Fruit: A flat, thin, linear pod to about 15 cm long; containing 1 to several flat seeds" [Buoyancy of pods unknown, but it may be possible that pods may float & be dispersed if growing near water]

706	Propagules bird dispersed	n
	Source(s)	Notes
	Nelson, G. 2010. The Trees of Florida. A Reference and Field Guide. 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Fruit: A flat, thin, linear pod to about 15 cm long; containing 1 to several flat seeds" [Not fleshy fruited]

707	Propagules dispersed by other animals (externally)	n
	Source(s)	Notes
	Nelson, G. 2010. The Trees of Florida. A Reference and Field Guide. 2nd Edition. Pineapple Press Inc, Sarasota, FL	"Fruit: A flat, thin, linear pod to about 15 cm long; containing 1 to several flat seeds" [Unlikely. No means of external attachment]

708	Propagules survive passage through the gut	

Qsn #	Question	Answer
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown if pods or seeds are ever consumed by browsing or grazing animals or whether seeds would survive ingestion

801	Prolific seed production (>1000/m ²)	n
	Source(s)	Notes
	Stebbins, M. 1999. Flowering Trees of Florida. Pineapple Press Inc., Sarasota, FL	"Lonchocarpus violaceus is grown from seed, although it does not produce seed in great quantity."
	Toledo, J. 2016. Kauai Nursery and Landscaping. Personal Communication. 02 February	"We have two trees on the ditch bank that produce hundreds of seeds every year but non of them germinate on the ground and as evident last year they were pretty hard to propagate by seed and the ones that did struggle which is why we didn't use them last year."

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	Royal Botanic Gardens Kew. (2016) Seed Information Database (SID). Version 7.1. http://data.kew.org/sid/ . [Accessed 5 Feb 2016]	Unknown. Several species have orthodox seeds

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
	WRA Specialist. 2016. Personal Communication	Unknown

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. 2016. Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits

- Thrives in tropical climates
- Naturalized in the Florida Keys
- Poisonous
- Tolerates many soil types
- N-fixing
- Reproduces by seeds
- Seed pods possibly dispersed by wind
- Gaps in the ecological information limit accuracy of risk prediction

Low Risk Traits

- No negative impacts documented to date
- Unarmed (no spines, thorns or burrs)
- Ornamental & medicinal uses
- Not reported to spread vegetatively

Second Screening Results for Tree/tree-like shrubs

(A) Shade tolerant or known to form dense stands?> No. Not known to form dense stands. Reported to require sun or partial sunny conditions, suggesting possible shade intolerance

(B) Bird or clearly wind-dispersed?> Pods possibly wind-dispersed

(C) Life cycle <4 years? Unknown

Outcome = Evaluate