Taxon: Canavalia sericea A. Gray **Family:** Fabaceae

Common Name(s): silky jackbean **Synonym(s):** C. sericea A,Gray var. cuspidata
C. sericea A.Gray var. yunckeri O.Deg.

Assessor: Chuck Chimera **Status:** Assessor Approved **End Date:** 25 Oct 2017

WRA Score: 2.0 **Designation:** EVALUATE **Rating:** Evaluate

Keywords: Tropical Vine, Perennial, Coastal, Ornamental, Water-Dispersed

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	n
301	Naturalized beyond native range	y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed		
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	y=1, n=0	n
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	y=1, n=0	n

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	n
411	Climbing or smothering growth habit	y=1, n=0	y
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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation		
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	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)	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**
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106 -181	"Trailing on coral sand beaches and coastal rocks, climbing on coastal shrub thickets." [A wild plant that is sometimes intentionally cultivated, but with no evidence of domestication reported]

102	**Has the species become naturalized where grown?**	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	NA

103	**Does the species have weedy races?**	
	Source(s)	**Notes**
	WRA Specialist. 2017. 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. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 19 Oct 2017]	"Native: Australasia Australia: Australia - Queensland Pacific North-Central Pacific: United States - Hawaii Northwestern Pacific: Marshall Islands - Arno Southwestern Pacific: Fiji; Tonga"

202	**Quality of climate match data**	**High**
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 19 Oct 2017]	

203	**Broad climate suitability (environmental versatility)**	**n**
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"in Hawai'i naturalized on beaches or slightly inland, 0-2 m"
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106 -181	"Trailing on coral sand beaches and coastal rocks, climbing on coastal shrub thickets." [Coastal tropical climate]

Qsn #	Question	Answer
	Ghazanfar, S. A., Keppel, G., & Khan, S. (2001). Coastal vegetation of small islands near Viti Levu and Ovalau, Fiji. New Zealand Journal of Botany, 39(4), 587-600	[Climate is representative of Canavalia sericea's natural distribution] "Overall the climate is oceanic, with sea level air temperatures averaging about 22°C in July and 26°C in January. Annual rainfall ranges between 2000 mm and 3000 mm on small islands (Ash 1992). However, on smaller islands, microclimatic conditions such as effect of wind and sea conditions can play a major role on the overall climate." ... "The first zone above the high tide mark is composed of creepers and gasses. The most common creeper is Ipomoea pes-caprae followed by Canavalia rosea, C. sericea, and Vigna marina. The common grasses in this zone are Lepturus repens, Paspalum vaginatum, and Thuarea involuta."

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Native from Queensland, Australia, New Caledonia, and Fiji to Micronesia, the Society and Austral islands; in Hawai'i naturalized on beaches or slightly inland, 0-2 m, at least from Kahuku to Pounders Beach, O'ahu, and Waihe'e Beach to Kahului, West Maui. Introduced from Rarotonga to the Bishop Estate Nursery on O'ahu by G. P. Wilder in 1930 (Sauer, 1964)."
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 19 Oct 2017]	"Native: Australasia Australia: Australia - Queensland Pacific North-Central Pacific: United States - Hawaii Northwestern Pacific: Marshall Islands - Arno Southwestern Pacific: Fiji; Tonga"

205	Does the species have a history of repeated introductions outside its natural range?	n
	Source(s)	**Notes**
	Malcolm, P. 2012. Canavalia sericea. The IUCN Red List of Threatened Species 2012: e.T19892334A20035815. http://dx.doi.org/10.2305/IUCN.UK.2012.RLTS.T19892334A20035815.en. [Accessed 23 Oct 2017]	"Canavalia sericea is widely distributed across the South Pacific Islands and in the east coast of Queensland (Australia); introduced and naturalized in Hawaii."

301	Naturalized beyond native range	y
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"in Hawai'i naturalized on beaches or slightly inland, 0-2 m, at least from Kahuku to Pounders Beach, O'ahu, and Waihe'e Beach to Kahului, West Maui. Introduced from Rarotonga to the Bishop Estate Nursery on O'ahu by G. P. Wilder in 1930 (Sauer, 1964)."
	Wagner, W.L. & Herbst, D.R. (1995). Contributions to the flora of Hawaii. IV. New records and name changes. Bishop Museum Occasional Paper 42: 14-15	"The following collection represents a new island record of this species on Kauai. It also is naturalized on Oahu and Maui. Material examined. Kauai: Kawaihau District, Aliomanu, a vine at back of beach creeping across sand, ca. 5 ft . . . locally common with Scaevola, 3 Jan 1990, Flynn & Schaeffer 3727 (BISH)."

Qsn #	Question	Answer
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106 -181	"The species was introduced from Rarotonga to the Bishop Estate Nursery on Oahu by Gerritt P. Wilder in 1930 and subsequently has naturalized itself along the coast of Oahu and Maui. The flowers are used for leis in Hawaii, like other Canavalia species. The Micronesian collections are all very recent and may also represent progeny of artificial introductions."

302	Garden/amenity/disturbance weed	
	Source(s)	**Notes**
	Malcolm, P. 2012. Canavalia sericea. The IUCN Red List of Threatened Species 2012: e.T19892334A20035815. http://dx.doi.org/10.2305/IUCN.UK.2012.RLTS.T19892334A20035815.en. [Accessed 23 Oct 2017]	"It was introduced to Hawaii, where it is classified as an environmental weed." [Naturalized, but impacts in Hawaiian Islands are unconfirmed]
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	[Cited as a weed of unspecified & unverified impacts] "References: United States of America-CE- 617, United States of America-N-101, United States of America-N-301, United States of America-N-839, United States of America-N-1292, Polynesia, West-A-87, Global-CD-1611."
	Holm, L. G., Pancho, J.V., Herberger, J.P. & Plucknett, D.L. 1979. A Geographical Atlas of World Weeds. John Wiley and Sons, New York, NY	Canavalia sericea is categorized as X - "Present as a weed (the species is present and behaves as a weed, but its rank of importance is unknown)"

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**
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"Canavalia cathartica ... highly invasive weed, mainly in coastal habitats, on beaches, behind the beach in coastal thickets"
	Waterhouse, D.F. 1997. The major invertebrate pests and weeds of agriculture and plantation forestry in the Southern and Western Pacific. The Australian Centre for International Agricultural Research (ACIAR), Canberra	Canavalia rosea is considered to be a major weed of sandy and rocky beaches in the Southern and Western Pacific.

401	Produces spines, thorns or burrs	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[No evidence] "Perennial climbers. Leaflets coriaceous, broadly elliptic to broadly obovate or suborbicular, 7-12 cm long, 6-11.3 cm wide, upper surface moderately appressed silky pubescent, lower surface densely so, apex rounded to truncate, base truncate to very broadly cuneate."

402	Allelopathic	n
	Source(s)	**Notes**
	Hanelt, P. (ed.). 2001. Mansfeld's Encyclopedia of Agricultural and Horticultural Crops, Volume 2. Springer-Verlag, Berlin, Heidelberg, New York	"Canavalia sericea ... As cover plant for cocos plantations grown on islands of S Polynesia." ... "Further species of the genus had been tried as green manure or forage plants in experimental cultivations or are recommended for such purposes." [No evidence of allelopathy]

403	Parasitic	n
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Perennial climbers." [Fabaceae. No evidence]

404	Unpalatable to grazing animals	
	Source(s)	**Notes**
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106-181	[Other Canavalia species are palatable. Unknown for C. sericea] "Two species, C. gladiata and C. ensiformis, have been widely cultivated in modern times, usually on a small scale or merely experimental basis as fodder and cover crops"

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, although other Canavalia species have toxic seeds

406	Host for recognized pests and pathogens	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Unknown

Qsn #	Question	Answer
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, although other Canavalia species have toxic seeds

408	**Creates a fire hazard in natural ecosystems**	**n**
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"naturalized on beaches or slightly inland, 0-2 m" [No evidence. Could possibly act as a fuel ladder, but otherwise does not occur in particularly fire prone habitat]

409	**Is a shade tolerant plant at some stage of its life cycle**	**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	"Silky jack bean makes a lovely ground cover or sand binder in a beachfront garden and would likely do well in any sunny, dry, leeward site with sandy, well-drained soil."
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106 -181	[Occurs in high light, coastal environments] "Trailing on coral sand beaches and coastal rocks, climbing on coastal shrub thickets."

410	**Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)**	**n**
	Source(s)	**Notes**
	Smith, A.C. 1985. Flora Vitiensis Nova: A New Flora of Fiji (Spermatophytes Only). Volume 3. National Tropical Botanical Garden, Lawai, HI	"A prostrate or scrambling vine occurring near sea level on beaches, along rocky coasts, or in coastal thickets."
	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	"Silky jack bean makes a lovely ground cover or sand binder in a beachfront garden and would likely do well in any sunny, dry, leeward site with sandy, well-drained soil."
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106 -181	[Sandy soils] "Trailing on coral sand beaches and coastal rocks, climbing on coastal shrub thickets."

411	**Climbing or smothering growth habit**	**y**
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Perennial climbers. Leaflets coriaceous, broadly elliptic to broadly obovate or suborbicular, 7-12 cm long, 6-11.3 cm wide, upper surface moderately appressed silky pubescent, lower surface densely so, apex rounded to truncate, base truncate to very broadly cuneate."

Qsn #	Question	Answer
412	**Forms dense thickets**	**n**
	Source(s)	**Notes**
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106-181	"Trailing on coral sand beaches and coastal rocks, climbing on coastal shrub thickets." [A vine that grows on coastal thicket vegetation]

501	Aquatic	n
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Terrestrial] "Perennial climbers ... in Hawai'i naturalized on beaches or slightly inland, 0-2 m, at least from Kahuku to Pounders Beach, O'ahu, and Waihe'e Beach to Kahului, West Maui. Introduced from Rarotonga to the Bishop Estate Nursery on O'ahu by G. P. Wilder in 1930 (Sauer, 1964)."

502	Grass	n
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 22 Oct 2017]	Family: Fabaceae (alt.Leguminosae) Subfamily: Papilionoideae Tribe: Phaseoleae Subtribe: Diocleinae

503	Nitrogen fixing woody plant	n
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Non-woody] "Perennial climbers. Leaflets coriaceous, broadly elliptic to broadly obovate or suborbicular, 7-12 cm long, 6-11.3 cm wide, upper surface moderately appressed silky pubescent, lower surface densely so, apex rounded to truncate, base truncate to very broadly cuneate."

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Perennial climbers. Leaflets coriaceous, broadly elliptic to broadly obovate or suborbicular, 7-12 cm long, 6-11.3 cm wide, upper surface moderately appressed silky pubescent, lower surface densely so, apex rounded to truncate, base truncate to very broadly cuneate."

Qsn #	Question	Answer
601	**Evidence of substantial reproductive failure in native habitat**	**n**
	Source(s)	**Notes**
	Malcolm, P. 2012. Canavalia sericea. The IUCN Red List of Threatened Species 2012: e.T19892334A20035815. http://dx.doi.org/10.2305/IUCN.UK.2012.RLTS.T19892334A20035815.en. [Accessed 19 Oct 2017]	"Canavalia sericea is listed as Least Concern since it is widely distributed across its natural range on beaches of the southern Pacific Islands and Australia. It was introduced to Hawaii, where it is classified as an environmental weed. Furthermore, it has been recently recorded in several locations where it appears to be a common species and it is known to occur in protected areas."

602	**Produces viable seed**	**y**
	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	"It sets abundant seed, however, and can become invasive."
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide, the hilum 9-12 mm long."

603	**Hybridizes naturally**	
	Source(s)	**Notes**
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106 -181	[Unknown for C. sericea] "No systematic experiments have been conducted on crossability or hybrid sterility in the genus, although there have been casual artificial crosses yielding fertile hybrids, e.g. Lyon's cross between C. ensiformis and C. plagiosperma, the spectacular recombinations of seed characters in the progeny shown by specimens in the Bishop Museum Herbarium. Obvious natural hybrids are not especially common in Canavalia, but in various areas where two members of a sub- genus overlap some intermediate, individually variable specimens have been col- lected that appear to be fertile hybrids. The most prolific of these misalliances is that between C. maritima and C. cathartica, two sea dispersed coastal species with somewhat different ecology but tremendous geographic overlap. Over most of the shared area hybrids are infrequent and no threat to the discreteness of the species, but in the Australian-Melanesian region apparent hybrids are abundant. This region is rather marginal for both species and perhaps the hybrids are under less selective disadvantage there."

604	**Self-compatible or apomictic**	
	Source(s)	**Notes**

Qsn #	Question	Answer
	Sahai, K. (2009). Reproductive biology of two species of Canavalia DC.(Fabaceae)—A non-conventional wild legume. Flora, 204(10), 762-768	[Unknown for C. sericea. Other species in genus may be self-incompatible] "The reproductive biology of two important species of Canavalia, i.e. Canavalia gladiata and Canavalia virosa, was investigated in detail by studying floral phenology, floral biology including fruit and seed set, breeding system and pollinator's activity." ... "Both the species flower and set their seed primarily from August to December. The study of pollen-pistil interaction indicated the existence of morphological protandry in both species, and pollen germination occurred only after rupture of the stigmatic surface. This suggests that some form of self incompatibility operates in these species."

605	Requires specialist pollinators	n
	Source(s)	**Notes**
	Sahai, K. (2009). Reproductive biology of two species of Canavalia DC.(Fabaceae)—A non-conventional wild legume. Flora, 204(10), 762-768	"Honeybees (Apis mellifera) occasionally visited flowers, but small black ants (Monomorium minimum) and big black ants (Campylomma verbasci) were the frequent visitors for C. gladiata and C. virosa, respectively ,and mainly behaved as primary nectar robbers."
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Flowers typical of genus and likely pollinated by same insects as other Canavalia species] "Flowers usually 6-14 in pseudoracemes up to 10 cm long; calyx 15- 16 mm long, sparsely appressed pubescent, upper edge constricted just behind apex, upper lip 9-11 mm long, the 2 lobes connate along upper edge except in the distal 3.5-5 mm, lowest lobe subulate, ca. 2.5 mm long; corolla dark pink, standard with a white spot at base, 35-42 mm long, wing petals 30-34 mm long, keel petals 32-36 mrn long."

606	Reproduction by vegetative fragmentation	
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Perennial climbers." [Reproduces by water-dispersed seeds. Unknown if vines or fragments root or act as propagules]

607	Minimum generative time (years)	
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Perennial climbers." [Unknown. Other Canavalia species reach maturity in <1 year]

Qsn #	Question	Answer
701	**Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)**	**n**
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Pods and seeds lack means of external attachment] "Pods compressed, 10-17 cm long, 2.5-3 cm wide, with a longitudinal sutural ridge and an additional longitudinal ridge 5-6 mm below the upper suture. Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide, the hilum 9-12 mm long."

702	**Propagules dispersed intentionally by people**	**y**
	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	"It is often difficult to say whether plants found on beaches have been actively cultivated or are growing there naturally by way of ocean dispersal of seeds. Silky jack bean makes a lovely ground cover or sand binder in a beachfront garden and would likely do well in any sunny, dry, leeward site with sandy, well-drained soil."

703	**Propagules likely to disperse as a produce contaminant**	**n**
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[No evidence. Unlikely given large fruit & seed size] "Pods compressed, 10-17 cm long, 2.5-3 cm wide, with a longitudinal sutural ridge and an additional longitudinal ridge 5-6 mm below the upper suture. Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide, the hilum 9-12 mm long."

704	**Propagules adapted to wind dispersal**	**n**
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Water dispersed] "Pods compressed, 10-17 cm long, 2.5-3 cm wide, with a longitudinal sutural ridge and an additional longitudinal ridge 5-6 mm below the upper suture. Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide, the hilum 9-12 mm long."

705	**Propagules water dispersed**	**y**
	Source(s)	**Notes**

Qsn #	Question	Answer
	Staples, G.W., Herbst, D.R & Imada, C.T. 2000. Survey of invasive or potentially invasive cultivated plants in Hawai'i. Bishop Museum Occasional Papers 65: 1-35	"In coastal marine habitats the problem of water-borne dispersal is a little different. As noted above, very few higher plant species adapted to marine environments reached the Hawaiian Islands on their own, but some of those brought here by humans have spread very effectively inter- and intra-island by floating in seawater. Unlike the freshwater plants described above, these plants nearly all disperse by sexually propagated seeds or fruits capable of surviving immersion in salt water. Among familiar examples are ironwood trees (Casuarina equisetifolia), tree heliotrope (Tournefortia argentea), silky jack bean (Canavalia sericea), and several kinds of mangroves (Combretaceae, Rhizophoraceae, Sterculiaceae). Curiously, the level of public concern for invasion of coastal marine habitats by non-native higher plant species is seldom expressed with the same intensity as it is for inland terrestrial or aquatic ones."
	Sauer, J. (1964). Revision of Canavalia. Brittonia, 16(2), 106 -181	"Seeds to 17 X 10 X 7 mm, oblong, moderately compressed, dark brown, buoyant and impermeable to water for at least 2 months"

706	Propagules bird dispersed	n
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Buoyant seeds water-dispersed] "Pods compressed, 10-17 cm long, 2.5-3 cm wide, with a longitudinal sutural ridge and an additional longitudinal ridge 5-6 mm below the upper suture. Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide, the hilum 9-12 mm long."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[No evidence & no means of external attachment] "Pods compressed, 10-17 cm long, 2.5-3 cm wide, with a longitudinal sutural ridge and an additional longitudinal ridge 5-6 mm below the upper suture. Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide, the hilum 9-12 mm long."

708	Propagules survive passage through the gut	n
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Seeds unlikely to be consumed] "Pods compressed, 10-17 cm long, 2.5-3 cm wide, with a longitudinal sutural ridge and an additional longitudinal ridge 5-6 mm below the upper suture. Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide, the hilum 9-12 mm long."

Qsn #	Question	Answer
801	**Prolific seed production (>1000/m2)**	**n**
	Source(s)	**Notes**
	Wagner, W.L., Herbst, D.R.& Sohmer, S.H. 1999. Manual of the flowering plants of Hawaii. Revised edition. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	"Seeds dark brown, buoyant, ellipsoid, moderately compressed, 16-19 mm long, 10-12 mm wide" [No evidence. Unlikely given relatively large seed size]

802	**Evidence that a persistent propagule bank is formed (>1 yr)**	
	Source(s)	**Notes**
	Royal Botanic Gardens Kew. (2017) Seed Information Database (SID). Version 7.1. Available from: http://data.kew.org/sid/. [Accessed]	[Possibly Yes. Other species produce seeds that remain viable for >1 year] "Storage Behaviour: No data available for species. Of 7 known taxa of genus Canavalia, 85.71% Orthodox(p/?), 14.29% Uncertain"

803	**Well controlled by herbicides**	
	Source(s)	**Notes**
	WRA Specialist. 2017. 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. 2017. Personal Communication	Unknown

805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits
• Thrives in tropical climates
• Naturalized on Kauai, Oahu, Maui & Hawaii Islands
• Reported as a weed of unspecified impacts
• Other Canavalia species are invasive
• Reproduces by seeds
• Seeds dispersed by water & intentionally by people
• Missing information on important aspects of this plant's reproductive biology limit the accuracy of the risk prediction

Low Risk Traits
• Despite naturalization and weediness, no confirmed reports of negative impacts were found
• Unarmed (no spines, thorns, or burrs)
• Ornamental
• Distribution appears to be limited to coastal habitats with high light levels and sandy, well-drained soils
• Aside from water and intentional cultivation, large seeds unlikely to be accidentally dispersed

Second Screening Results for Vines & Lianas

(A) Reported as a weed of cultivated lands?> Unknown. Reported as a weed of unspecified impacts
(B) Unpalatable to grazers Or known to form dense stands?> Palatability Unknown
(C) Shade tolerant or known to form dense stands?> No. Requires full sun. A vine that does not form dense stands
(D) Bird- Or clearly wind- dispersed?> No. Water Dispersed
Outcome = Evaluate (due to inability to answer all of the second screening questions)