Taxon: Allamanda cathartica

Family: Apocynaceae

Common Name(s): common trumpetvine
golden-trumpet
yellow allamanda

Synonym(s): Allamanda cathartica L. var. hendersonii (W. Bull ex Dombrain) L. H. Bailey & Raffill
Allamanda cathartica var. schottii (Pohl) L. H. Bailey & Raffill
Allamanda hendersonii W. Bull ex Dombrain
Allamanda nobilis T. Moore

Assessor: Chuck Chimera **Status:** Approved **End Date:** 12 Nov 2023

WRA Score: 12.0 **Designation:** H(HPWRA) **Rating:** High Risk

Keywords: Woody Vine/Shrub, Naturalized, Smothering, Toxic Sap, Rarely Seeds

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	y
302	Garden/amenity/disturbance weed	y = 1*multiplier (see Appendix 2), n = 0	n
303	Agricultural/forestry/horticultural weed	y = 2*multiplier (see Appendix 2), n = 0	n
304	Environmental weed	y = 2*multiplier (see Appendix 2), n = 0	y
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	y = 1, n = 0	y
408	Creates a fire hazard in natural ecosystems		

Qsn #	Question	Answer Option	Answer
409	Is a shade tolerant plant at some stage of its life cycle	y = 1, n = 0	n
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	y
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	y = 1, n = -1	n
605	Requires specialist pollinators	y = -1, n = 0	n
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	y
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	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)	y = 1, n = -1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides	y = -1, n = 1	y
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
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	[No evidence of domestication] "Widely cultivated in Puerto Rico, Vieques, and the Virgin Islands. Native to South America, but found throughout the tropics due to its cultivation as an ornamental."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2023). Personal Communication	N/A

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2023). Personal Communication	N/A

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
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Native to South America, but found throughout the tropics due to its cultivation as an ornamental."

202	Quality of climate match data	High
	Source(s)	Notes
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Widely cultivated in Puerto Rico, Vieques, and the Virgin Islands. Native to South America, but found throughout the tropics due to its cultivation as an ornamental."

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Gilman, E. F. (1999). Allamanda cathartica. Fact Sheet FPS-29. University of Florida IFAS. https://hort.ifas.ufl.edu. [Accessed 8 Nov 2023]	"USDA hardiness zones: 9B through 11"
	Missouri Botanical Garden. (2023). Allamanda cathartica. http://www.missouribotanicalgarden.org. [Accessed 8 Nov 2023]	"Zone: 10 to 11"
	Riffle, R.L. (1998). The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	"Zones 10-11"

Qsn #	Question	Answer
204	**Native or naturalized in regions with tropical or subtropical climates**	y
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Widely cultivated in Puerto Rico, Vieques, and the Virgin Islands. Native to South America, but found throughout the tropics due to its cultivation as an ornamental."

205	**Does the species have a history of repeated introductions outside its natural range?**	y
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Distribution: Widely cultivated in Puerto Rico, Vieques, and the Virgin Islands. Native to South America, but found throughout the tropics due to its cultivation as an ornamental."
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Range.–Allamanda is apparently native to northern Brazil, Guyana, Surinam, and probably French Guiana (Liogier 1995, Pacific Island Ecosystems at Risk 2002, Tropilab Inc. 2002). The species has been planted and has become naturalized throughout the tropics (Howard 1989)."
	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	"the most common allamanda in Hawai'i and is grown primarily in low-elevation areas on all the islands."

301	**Naturalized beyond native range**	y
	Source(s)	**Notes**
	Groves, R.H. & Hosking, J.R . (1997). Recent incursions of weeds to Australia 1971-1995. CRC for Australian Weed Management. Glen Osmond SA	"Allamanda cathartica Native of trop S Amer. First recorded in Qld in 1933 (BRI specimen). First recorded as naturalised in Qld in 1988 (BRI specimen). First recorded as naturalised in WA in 1993 (PERTH specimen). Introduced as an ornamental. Notes: Locally naturalised in wet tropical areas in Qld, for example next to the Bruce Highway between Cairns and Tully (NSW specimen). Distrib: Localised. Qld (North Kennedy, South Kennedy), WA (CK)."
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 10 Nov 2023]	"Naturalised in the coastal districts of Queensland, and most commonly found in the northern parts of the state. There are herbarium records of this species from the Cook, North Kennedy, South Kennedy, Port Curtis and Moreton pastoral districts. Also naturalised in the coastal districts of northern Western Australia. Naturalised overseas in China, south-eastern USA (i.e. Florida) and on several Pacific Islands (e.g. in American Samoa, Western Samoa, Fiji, Niue and Palau)."

Qsn #	Question	Answer
	USDA, Agricultural Research Service, National Plant Germplasm System. (2023). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/. [Accessed 10 Nov 2023]	"Naturalized Africa WESTERN INDIAN OCEAN: Reunion Asia-Tropical INDIAN SUBCONTINENT: Sri Lanka MALESIA: Malaysia, Philippines Australasia AUSTRALIA: Australia [Queensland (n.e.)] Northern America SOUTHEASTERN U.S.A.: United States [Florida] SOUTHERN MEXICO: Mexico [Campeche, Chiapas, Quintana Roo, Tabasco] Pacific NORTHWESTERN PACIFIC: Palau SOUTH-CENTRAL PACIFIC: French Polynesia SOUTHWESTERN PACIFIC: United States [American Samoa] Southern America CARIBBEAN: Netherlands Antilles, Antigua and Barbuda, Barbados, Dominica, Dominican Republic, Guadeloupe, Grenada, Haiti, St. Kitts and Nevis, Montserrat, Martinique, United States [Puerto Rico], St. Vincent and Grenadines CENTRAL AMERICA: Belize, Costa Rica, Guatemala, Honduras, Nicaragua, Panama, El Salvador"
	Csurhes, S. & Edwards, R. (1998). Potential environmental weeds in Australia: Candidate species for preventative control. Biodiversity Group, Environment Australia, Canberra, Australia	"Stanton (pers. comm.) reports that A. cathartica has become quite invasive in several National Parks of far north Queensland. It is becoming common along roadsides between Silkwood and Tully (north Qld)."
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"The species has been planted and has become naturalized throughout the tropics (Howard 1989). Ecology.—Wild and naturalized allamanda grows on riverbanks in Suriname (Tropilab Inc. 2002), on disturbed sites in Florida (Long and Lakela 1976), along roads (Liogier 1995), and on abandoned farms, house places, and around clandestine dumps in Puerto Rico (author's observation)."
	Murphy, M. (2023). Plant Pono Specialist. BIISC Early Detection Technician. personal communication. 22 May	[Hawaii Island. Voucher submitted to document naturalization] "Fruit hasn't been observed. But, it grows prolifically in vacant lots all over lower Puna/ S. Hilo and often colonizes large areas. Vines scrambling up 50 ft. It is seen growing across utility lines to the opposite side of the road. More than 35 individuals were observed in one bulldozed acre. It's common to see whole vacant acre-lots covered with golden trumpet allamanda. "

302	Garden/amenity/disturbance weed	n
	Source(s)	**Notes**
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 10 Nov 2023]	"Yellow allamanda (Allamanda cathartica) is regarded as an environmental weed in northern Queensland. "
	Murphy, M. (2023). Plant Pono Specialist. BIISC Early Detection Technician. personal communication. 22 May	[In Hawaii, reported as a weed of vacant lots] "Fruit hasn't been observed. But, it grows prolifically in vacant lots all over lower Puna/ S. Hilo and often colonizes large areas. Vines scrambling up 50 ft. It is seen growing across utility lines to the opposite side of the road. More than 35 individuals were observed in one bulldozed acre. It's common to see whole vacant acre-lots covered with golden trumpet allamanda. "

303	Agricultural/forestry/horticultural weed	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	CABI. (2023). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 10 Nov 2023]	"Summary of Invasiveness A. cathartica is a vine-like woody shrub included in the Global Compendium of Weeds (Randall, 2012). This species reproduces both sexually by seeds and vegetatively by cuttings (PIER, 2013). A. cathartica has been widely cultivated as an ornamental in tropical and subtropical regions of the world. Individuals are fast-growing plants and spread rapidly by layering. In addition, trimmings and plant fragments discarded from gardens have the potential to root easily and start new colonies in vacant lots and wild land (Francis, 2000). Currently, this species is listed as invasive in China, Guatemala, El Salvador, Honduras, Costa Rica, Nicaragua, Puerto Rico, Virgin Islands, Samoa, Fiji and French Polynesia and as an environmental weed in Australia. Where invasive, A. cathartica has the potential to modify native plant communities by out-competing native understorey plants."

304	Environmental weed	y
	Source(s)	**Notes**
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 10 Nov 2023]	" Yellow allamanda (Allamanda cathartica) is regarded as an environmental weed in northern Queensland. It is one of a number of exotic ornamental vines that have become invasive in this region after escaping from garden plantings. This species was first recorded as naturalised in Queensland in 1945. By 1992, it was recognised as a weed of roadsides in the wet tropics region of northern Queensland, but it was not then considered to be a high priority environmental weed. However, yellow allamanda (Allamanda cathartica) has continued to spread and is now widely naturalised in the rainforests of northern and central Queensland. It is now considered to be quite invasive in several National Parks in far northern Queensland and is common along roadsides between Silkwood and Tully. It also invades well-drained soils on the fringes of rainforests and paperbark swamps. In fact, yellow allamanda (Allamanda cathartica) was recently ranked among the top 25 species on a prioritised list of weeds of the wet and dry tropics regions in northern Queensland. It is also listed as a priority weed in the Far North Queensland Natural Resource Management region, is a locally declared plant in Cardwell Shire, is regarded as an "undesirable plant" in the wet tropics World Heritage Area, and is thought to be adversely impacting upon natural systems in the Townsville City area. This species also grows along creeks and roadsides, and in disturbed natural vegetation, in northern Western Australia. It was first recorded as naturalised in this state in 1993 and is also locally naturalised on creeklines on Koolan Island. Though it is not yet listed as naturalised in the Northern Territory, yellow allamanda (Allamanda cathartica) is also regarded as a potential weed in Aboriginal lands in the Northern Land Council area."
	Werren, G. (2001). Environmental Weeds of the Wet Tropics Bioregion: Risk Assessment & Priority Ranking. Rainforest CRC, Cairns, Australia	"others such as exotic Passiflora spp., Mimosa diplotricha, Momordica charantia and Allamanda cathartica exert at least intermittent competition and can form dense mats to adversely affect the growth of a range of native species"
	Murphy, M. (2023). Plant Pono Specialist. BIISC Early Detection Technician. personal communication. 22 May	[In Hawaii, reported to invade vacant lots, but has not been documented to invade or impact native ecosystems to date] "Fruit hasn't been observed. But, it grows prolifically in vacant lots all over lower Puna/ S. Hilo and often colonizes large areas. Vines scrambling up 50 ft. It is seen growing across utility lines to the opposite side of the road. More than 35 individuals were observed in one bulldozed acre. It's common to see whole vacant acre-lots covered with golden trumpet allamanda. "

Qsn #	Question	Answer
	Csurhes, S. & Edwards, R. (1998). Potential environmental weeds in Australia: Candidate species for preventative control. Biodiversity Group, Environment Australia, Canberra, Australia	[Regarded as an environmental weed in parts of Australia. In the past, not regarded as a high priority in parts of Australia] "Stanton (pers. comm.) reports that A. cathartica has become quite invasive in several National Parks of far north Queensland. It is becoming common along roadsides between Silkwood and Tully (north Qld). A. cathartica can be difficult to control using foliar applied herbicides because of its scambling habit. Humphries and Stanton (1992) listed A. cathartica as a weed of roadsides in the `wet tropics' region of north Queensland, but did not consider the plant to be a high priority environmental weed."

305	Congeneric weed	
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	Other species listed as weeds, but evidence of impacts is limited or lacking

401	Produces spines, thorns or burrs	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	"prickly fruiting capsule"
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	[Spiny fruit, but no documented evidence of problems associated with fruit.] "Shrub or woody vine, clambering or sometimes twining, much branched, 2-8 m in length, with abundant milky latex. Stems grayish, cylindrical, glabrous or puberulous. Leaves in whorls of 3 or 4; blades 8-13 × 1.5-3.5 cm, oblong, elliptical or oblanceolate, coriaceous, the apex acuminate, the base acute, the margins undulate and revolute; upper surface glabrous, dark green, shiny, with a prominent midvein; lower surface yellowish green, with the midvein thickened, prominent, and puberulous; petioles 5-10 mm long; stipules transformed into 4 small intrapetiolar glands. Flowers in axillary cymes, few-flowered. Calyx greenish, of 5 lanceolate sepals, 12-18 mm long; corolla infundibuliform, yellow, the tube 7-9 cm long, the limb ca. 8 cm in diameter, with five rounded, revolute lobes. Capsules ellipsoid, with numerous spines on the outside, infrequent; seeds numerous, oval, compressed, 1.2-1.5 cm long, with a discolorous, wing-like margin."
	WRA Specialist. (2023). Personal Communication	Fruit are spiny, but may be rarely produced in the Hawaiian Islands.

402	Allelopathic	
	Source(s)	Notes

Qsn #	Question	Answer
	Khanh, T. D. et al. (2022). Allelopathic Potential of Allamanda cathartica L. under Different Screening Conditions. Advanced Studies in Biology, 14(1), 75-83	[Potentially Yes. Extracts demonstrate allelopathic effects] "Allamanda cathartica is an ornamental plant and is widely distributed in many areas of the world. This study aims to determine the allelopathic effects of this plant (leaf and stem dried powders) under bioassays and greenhouse conditions against the growth of Echinochloa crus-galli and some indicator plants. At the applied dose (50g/L) of the leaf powders, the root length of E. crus-galli and Bidens pilosa was significantly reduced by over 90%. Interestingly, rice growth was negligibly inhibited and the elongation of shoot and root was stimulated. In a greenhouse trial, the average inhibition of E. crus-galli growth was reduced by 54.9% at a dose of 50g/m2 of the leaf powders. Moreover, the biomass of natural paddy weeds was significantly reduced by 46.4%. However, rice growth parameter was increased by about 20% at a dose of 12.5g/m2. The allelopathic property of the leaf powders showed higher than its stems. Consequently, our results indicated that A. cathartica possesses a strong allelopathic property and may be served this plant as a natural herbicide source to control paddy weeds and increase rice growth for sustainable agricultural production."

403	Parasitic	n
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	Apocynaceae. No evidence

404	Unpalatable to grazing animals	
	Source(s)	**Notes**
	Baker, L. A. (2010). State Survey of White-Tailed Deer (Odocoileus virginianus Zimmerman) Impacts on Residential Landscapes and the Green Industry of Alabama and an Evaluation of Commercial Deer Repellents. MSc Thesis. Auburn University, Auburn, AL	"Table 1. Compiled state extension lists of susceptible and resistant plant species to white-tailed deer damage" [Allamanda cathartica - "Vines & Groundcovers w/ rare damage"]
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 10 Nov 2023]	[Sap toxic to livestock, which may deter browsing] "All parts of this species are toxic to livestock and humans, and the sticky milky sap can cause skin irritation."

Qsn #	Question	Answer
405	Toxic to animals	y
	Source(s)	**Notes**
	Tokarnia, C. H., Armién, A. G., Peixoto, P. V., Barbosa, J. D., Brito, M. F., & Döbereiner, J. (1996). Experiments on the toxicity of some ornamental plants in cattle. Pesquisa Veterinária Brasileira, 16, 5-20	"Abstract: Due to inquiries about the toxicity of ornamental plants to farm data available in the literature on this subject, feeding experiments were performed in cattle with the following plants: Allamanda cathartica, Nerium oleander and Thevetia peruviana of the Apocynaceae family...The only plants which caused lethal poisoning were Allamanda cathartica, Nerium oleander, Thevetia peruviana and Rhododendron indicum."
	Quattrocchi, U. (2012). CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	"All parts of the plant exude an acrid milky sap. Considered poisonous on ingestion; leaves and stems purgative; all parts of the plant may cause irritant dermatitis in susceptible persons, the sap may irritate the eyes; bark juice emetic, verrmifuge and cathartic."
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 7 Nov 2023]	"All parts of this species are toxic to livestock and humans, and the sticky milky sap can cause skin irritation."

406	Host for recognized pests and pathogens	
	Source(s)	**Notes**
	CABI. (2023). CABI Compendium Invasive Species. https://www.cabidigitallibrary.org/product/qi. [Accessed 10 Nov 2023]	"Major host of:Candidatus Phytoplasma trifolii (clover proliferation phytoplasma) Min or host of: Corynespora cassiicola (target leaf spot of tomato) Wild host of: Ceroplastes rubens (red wax scale) Host of (source-data mining): Aleurocanthus woglumi (citrus blackfly); Aphis gossypii (cotton aphid); Bemisia tabaci (tobacco whitefly); Brevipalpus phoenicis (false spider mite); Cephaleuros virescens (algal spot of coffee); Cucumber mosaic virus (cucumber mosaic); Maconellicoccus hirsutus (pink hibiscus mealybug); Thrips nigropilosus (chrysanthemum thrips) Pests Recorded Aleurocanthus woglumi (citrus blackfly) Aphis gossypii (cotton aphid) Bemisia tabaci (tobacco whitefly) Brevipalpus phoenicis (false spider mite) Candidatus Phytoplasma trifolii (clover proliferation phytoplasma) Cephaleuros virescens (algal spot of coffee) Ceroplastes rubens (red wax scale) Corynespora cassiicola (target leaf spot of tomato) Cucumber mosaic virus (cucumber mosaic) Maconellicoccus hirsutus (pink hibiscus mealybug) Thrips nigropilosus (chrysanthemum thrips) "
	Gilman, E. F. (1999). Allamanda cathartica. Fact Sheet FPS-29. University of Florida IFAS. https://hort.ifas.ufl.edu. [Accessed 10 Nov 2023]	"Pest resistance: no serious pests are normally seen on the plant" ... "Pests and Diseases No pests or diseases are of major concern. Yellow Allamanda is only occasionally bothered by caterpillars or mites."

407	Causes allergies or is otherwise toxic to humans	y
	Source(s)	**Notes**

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	"All parts of the plant exude an acrid milky sap. Considered poisonous on ingestion; leaves and stems purgative; all parts of the plant may cause irritant dermatitis in susceptible persons, the sap may irritate the eyes; bark juice emetic, verrmifuge and cathartic. Toxin in the fruits and in the cell sap of the stem and leaves; ingesting the fruits may cause upset stomach. Used for malaria, jaundice and snakebites, usually used to treat different types of wounds in human beings. Antinematodal, antidermatophytic; the plant was once used as a cathartic, it showed strong fungitoxicity against some dermatophytes causing dermatomycosis to animals and human beings. Magico-religious beliefs, ritual."
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Because of its rapid growth, pruning is often necessary, which can expose gardeners to the toxic sap that causes dermatitis symptoms of rash, blisters, and itch. Although incidence is much less common, plant parts are also toxic if ingested. All parts contain the toxic iridoid lactone, allamandin (Ecology and Evolutionary Biology Conservatory 2002). In herbal medicine, teas prepared from leaves and roots are used as a strong purgative that must be used with caution (Liogier 1990)."

408	Creates a fire hazard in natural ecosystems	
	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	[Flammability unknown, but may increase fire risk as a ladder fuel during periods of drought] "It can be cultivated as a ground cover, an ornamental draped over a wall, or a climber on a pergola, fence, or tree."

409	Is a shade tolerant plant at some stage of its life cycle	n
	Source(s)	**Notes**
	Whistler, W.A. (2000). Tropical Ornamentals: A Guide. Timber Press, Portland, OR	"Fertile, moist, but well-drained soils in sunny places are preferred. Full sun is needed for optimal flowering."
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"The species is intolerant to intermediate in tolerance to shade."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	**Notes**
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Allamanda grows best in well drained, moist, sandy soils rich in organic matter (Barcellos 2002). It does not tolerate salty soils, highly alkaline conditions, and is killed by temperatures of -1 °C (Floridata 2002, Tropilab Inc. 2002)."
	Gilman, E. F. (1999). Allamanda cathartica. Fact Sheet FPS-29. University of Florida IFAS. https://hort.ifas.ufl.edu. [Accessed 10 Nov 2023]	"Soil tolerances: alkaline; acidic; clay; sand; loam"
	Tropilab Inc. (2023). Allamanda cathartica - Golden Trumpet Vine. https://tropilab.com/allamanda.html. [Accessed 10 Nov 2023]	"Tolerant of many soil types; no salt tolerance."

411	Climbing or smothering growth habit	y

Qsn #	Question	Answer
	Source(s)	**Notes**
	Murphy, M. (2023). Plant Pono Specialist. BIISC Early Detection Technician. personal communication. 22 May	"it grows prolifically in vacant lots all over lower Puna/ S. Hilo and often colonizes large areas. Vines scrambling up 50 ft. It is seen growing across utility lines to the opposite side of the road. More than 35 individuals were observed in one bulldozed acre. It's common to see whole vacant acre-lots covered with golden trumpet allamanda."
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Shrub or woody vine, clambering or sometimes twining, much branched, 2-8 m in length, with abundant milky latex."

412	**Forms dense thickets**	
	Source(s)	**Notes**
	Murphy, M. (2023). Plant Pono Specialist. BIISC Early Detection Technician. personal communication. 22 May	"More than 35 individuals were observed in one bulldozed acre. It's common to see whole vacant acre-lots covered with golden trumpet allamanda."
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Shrub or woody vine, clambering or sometimes twining, much branched"
	WRA Specialist. (2023). Personal Communication	Primarily climbing and smothering, but may locally dominate vacant lots and potentially impede movement or exclude other vegetation.

501	**Aquatic**	**n**
	Source(s)	**Notes**
	Liogier, H.A. (1995). Descriptive flora of Puerto Rico and adjacent islands: Spermatophyta, Volume IV. Melastomataceae to Lentibulariaceae. La Editorial, UPR, San Juan, Puerto Rico	[Terrestrial] "Banks, hillsides and along roads"

502	**Grass**	**n**
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	Apocynaceae

503	**Nitrogen fixing woody plant**	**n**
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	Apocynaceae

Qsn #	Question	Answer
504	**Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)**	n
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Shrub or woody vine, clambering or sometimes twining, much branched, 2-8 m in length, with abundant milky latex."

601	**Evidence of substantial reproductive failure in native habitat**	n
	Source(s)	**Notes**
	USDA, Agricultural Research Service, National Plant Germplasm System. (2023). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/. [Accessed 11 Nov 2023]	[No evidence] "Native Southern America NORTHERN SOUTH AMERICA: French Guiana, Guyana, Suriname, Venezuela BRAZIL: Brazil [Amapá, Amazonas, Bahia, Goiás, Maranhão, Pará, Paraná, Rio de Janeiro, São Paulo]"

602	**Produces viable seed**	y
	Source(s)	**Notes**
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Allamanda blooms all year in most habitats. Because capsules and seed are rarely produced by cultivated varieties, naturalization is usually by vegetative means."
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Capsules ellipsoid, with numerous spines on the outside, infrequent; seeds numerous, oval, compressed, 1.2-1.5 cm long, with a discolorous, wing-like margin."
	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	[Rarely, but presumably does on occasion] "Allamanda cathartica 'Hendersonii' [Syn.: A. cathartica var. hendersonii (W. Bull) Baillon & Raffill] is the most common allamanda in Hawai'i and is grown primarily in low-elevation areas on all the islands." ... "This cultivar, like the species, rarely produces fruit and seed in Hawai'i; it is propagated by short woody cuttings."

603	**Hybridizes naturally**	
	Source(s)	**Notes**
	WRA Specialist. (2023). Personal Communication	Unknown. No evidence found

604	**Self-compatible or apomictic**	n
	Source(s)	**Notes**
	Ghosh, C., Hazra, L., Nag, S. K., Sil, S., Dutta, A., Biswas, S., ... & Chatterjee, S. (2019). Allamanda cathartica Linn. Apocynaceae: A mini review. International Journal of Herbal Medicine, 7(4), 29-33	"Allamanda cathartica, mostly pollinated by insects, has hermaphroditic flowers. Flowers develop to be self-incompatible, and seeds are hardly produced by cultivated varieties [11]."
	East, E. M. (1940). The distribution of self-sterility in the flowering plants. Proceedings of the American Philosophical Society 82: 449-518	"In my own experiinents, Allamanda Blanchetii ADC., A. cathartica L. var. grandiflora (Larn.) Rafill, and A. cathartica L. var. Hendersonii (Bull) Rafill, proved to be self-sterile, though seeding when crossed."

Qsn #	Question	Answer
	Kadereit J., & Bittrich V. (eds). (2018). The Families and Genera of Vascular Plants, Volume XV. Flowering Plants Eudicots Apiales, Gentianales (except Rubiaceae). Springer, Cham, Switzerland	[Family description] "The complex flower construction suggests that the family is predominantly out-crossing (Albers and van der Maesen 1994). However, relatively few detailed studies have been conducted on breeding systems in the family except in Asclepiadoideae."

605	Requires specialist pollinators	n
	Source(s)	**Notes**
	Ghosh, C., Hazra, L., Nag, S. K., Sil, S., Dutta, A., Biswas, S., ... & Chatterjee, S. (2019). Allamanda cathartica Linn. Apocynaceae: A mini review. International Journal of Herbal Medicine, 7(4), 29-33	"Allamanda cathartica, mostly pollinated by insects, has hermaphroditic flowers. Flowers develop to be self-incompatible, and seeds are hardly produced by cultivated varieties [11]."
	Sreekala, R.P. & Sreedevi, A.K. (2001). Induced Seed Set in Allamanda cathartica L. Phytomorphology 51(2),: 173-180	"During the course of our study pollen carriers and pollinators including honeybees and butterflies with long proboscis were seen frequenting the flowers; this feature highlights the possibility of cross-pollination."
	Toledo, V. D. A. A. D., Fritzen, A. E. D. T., Neves, C. A., Ruvolo-Takasusuki, M. C. C., Sofia, S. H., & Terada, Y. (2003). Plants and pollinating bees in Maringá, State of Paraná, Brazil. Brazilian Archives of Biology and Technology, 46, 705-710	"T. spinipes may be the main pollinator of O. americanum because it was the only species collected on flowers of this plant. This bee can also be considered as a main pollinator of Allamanda (57.4%), D. wallichii (51.85%) and M. indica (48.39%), corresponding to about 50% of all floral visitors to each family (Table 1). A. mellifera was collected on the flowers of all plants except O. americanum."

606	Reproduction by vegetative fragmentation	y
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Allamanda blooms all year in most habitats. Because capsules and seed are rarely produced by cultivated varieties, naturalization is usually by vegetative means."
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"In Puerto Rico, the species has been planted widely, persists tenaciously, and spreads by layering as the vines extend. In addition, trimmings dumped in vacant lots and wildlands root readily and start new colonies."

607	Minimum generative time (years)	
	Source(s)	**Notes**
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Allamanda blooms all year in most habitats. Because capsules and seed are rarely produced by cultivated varieties, naturalization is usually by vegetative means." [Unknown, but probably flowers more than one year as this is a woody perennial. Ability to reproduce vegetatively may make time to maturity irrelevant]

Qsn #	Question	Answer
701	**Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)**	y
	Source(s)	**Notes**
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 10 Nov 2023]	"Yellow allamanda (Allamanda cathartica) is probably mainly spread in garden waste that is dumped along roadsides and in bushland. Its seeds are then dispersed from these initial infestations by wind and water. Stem segments may also be spread down waterways during floods."
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	[Spread unintentionally as garden waste] "In Puerto Rico, the species has been planted widely, persists tenaciously, and spreads by layering as the vines extend. In addition, trimmings dumped in vacant lots and wildlands root readily and start new colonies."

702	**Propagules dispersed intentionally by people**	y
	Source(s)	**Notes**
	Whistler, W.A. (2000). Tropical Ornamentals: A Guide. Timber Press, Portland, OR	"Allamanda cathartica, yellow allamanda, sometimes called common allamanda or golden trumpet, is native to South America but is widely cultivated for its large yellow flowers and is one of the most popular and attractive tropical ornamental shrubs."
	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	"the most common allamanda in Hawai'i and is grown primarily in low-elevation areas on all the islands."
	Acevedo-Rodríguez, P. (2005). Vines and Climbing Plants of Puerto Rico and the Virgin Islands. Contributions from the United States National Herbarium Volume 51: 1-483. Smithsonian Institution, Washington, D.C.	"Widely cultivated in Puerto Rico, Vieques, and the Virgin Islands. Native to South America, but found throughout the tropics due to its cultivation as an ornamental."

703	**Propagules likely to disperse as a produce contaminant**	n
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Major Pathway/s: Crop, Herbal, Ornamental Dispersed by: Humans, Escapee"
	WRA Specialist. (2023). Personal Communication	Not grown with produce, and most cultivars rarely produce seed

704	**Propagules adapted to wind dispersal**	y
	Source(s)	**Notes**
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Capsules, which rarely occur in cultivated varieties, are subglobose, 4 to 6 cm in diameter, and densely prickled. They contain many tan, flattened, winged seeds."
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 11 Nov 2023]	"Yellow allamanda (Allamanda cathartica) is probably mainly spread in garden waste that is dumped along roadsides and in bushland. Its seeds are then dispersed from these initial infestations by wind and water. Stem segments may also be spread down waterways during floods."
	WRA Specialist. (2023). Personal Communication	Winged-seeds adapted for wind dispersal, but may be rarely, or never, produced in cultivation, thereby limiting long-distance dispersal without human assistance or cultivation.

705	**Propagules water dispersed**	y

Qsn #	Question	Answer
	Source(s)	**Notes**
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 11 Nov 2023]	"Yellow allamanda (Allamanda cathartica) is probably mainly spread in garden waste that is dumped along roadsides and in bushland. Its seeds are then dispersed from these initial infestations by wind and water. Stem segments may also be spread down waterways during floods."

706	Propagules bird dispersed	n
	Source(s)	**Notes**
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	[No evidence. Adapted for wind dispersal] "Capsules, which rarely occur in cultivated varieties, are subglobose, 4 to 6 cm in diameter, and densely prickled. They contain many tan, flattened, winged seeds."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	**Notes**
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 11 Nov 2023]	"Yellow allamanda (Allamanda cathartica) is probably mainly spread in garden waste that is dumped along roadsides and in bushland. Its seeds are then dispersed from these initial infestations by wind and water. Stem segments may also be spread down waterways during floods."

708	Propagules survive passage through the gut	n
	Source(s)	**Notes**
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Capsules, which rarely occur in cultivated varieties, are subglobose, 4 to 6 cm in diameter, and densely prickled. They contain many tan, flattened, winged seeds." [Fruit, if produced, unlikely to be consumed by animals.]

801	Prolific seed production (>1000/m2)	n
	Source(s)	**Notes**
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Capsules, which rarely occur in cultivated varieties, are subglobose, 4 to 6 cm in diameter, and densely prickled. They contain many tan, flattened, winged seeds."
	Whistler, W.A. (2000). Tropical Ornamentals: A Guide. Timber Press, Portland, OR	"Fruit a subglobose capsule covered with soft spines but is infrequently formed in cultivation."
	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	[Allamanda cathartica 'Hendersonii'] "This cultivar, like the species, rarely produces fruit and seed in Hawai'i"
	WRA Specialist. (2023). Personal Communication	Rarity of fruit and seed production suggests that seeds will not be produced in high densities.

802	Evidence that a persistent propagule bank is formed (>1 yr)	

Qsn #	Question	Answer
	Source(s)	**Notes**
	Whistler, W.A. (2000). Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Seed longevity unknown, but probably irrelevant in the Hawaiian Islands due to limited or absent fruit and seed production] "Fruit a subglobose capsule covered with soft spines but is infrequently formed in cultivation."

803	Well controlled by herbicides	y
	Source(s)	**Notes**
	Csurhes, S. & Edwards, R. (1998). Potential environmental weeds in Australia: Candidate species for preventative control. Biodiversity Group, Environment Australia, Canberra, Australia	"A. cathartica can be difficult to control using foliar applied herbicides because of its scrambling habit."
	Queensland Government. (2023). Weeds of Australia - Allamanda cathartica. https://keyserver.lucidcentral.org/weeds/data/media/Html/allamanda_cathartica.htm. [Accessed 11 Nov 2023]	"A. cathartica has a very strong and extensive root system and therefore a combination of manual and chemical methods are recommended for its management. In the case of smaller infestations, plants should be removed manually and uprooted. All plant segments should be removed from infested areas to avoid re-sprouting. Larger infestations can be controlled by first digging out all plants. Later, all plant segments and re-sprouts should be sprayed with the herbicide triclopyr. Follow-up treatment and repeated applications of herbicide might be necessary to kill remaining plants and all re-sprouts (Queensland Department of Primary Industries and Fisheries, 2011)."
	Queensland Government. (2020). Yellow allamanda Allamanda cathartica. Invasive plant. The State of Queensland, Department of Agriculture and Fisheries, Queensland, AU	"Table 1. Herbicides for the control of yellow allamanda Situation: Non-agricultural areas, domestic and public service areas, commercial and industrial areas, bushland/ native forests, roadsides, rights-of-way, vacant lots, wastelands, wetlands, dunal and coastal areas Herbicide: Triclopyr 240 g/L + picloram 120 g/L (e.g. Access) Rate: 1 L per 60 L diesel Herbicide: Triclopyr 200 g/L + picloram 100 g/L (e.g. Slasher) or Triclopyr 200 g/L + picloram 100 g/L + aminopyralid 25 g/L (Tordon RegrowthMaster) Rate: 50 ml per 1 L water Registration details: APVMA permit PER11463 Permit expires 30/06/2023 Comments: Basal bark spray or cut stump to less than 10 cm above the ground"

Qsn #	Question	Answer
804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**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	"Its vigorous growth requires regular pruning to keep the plant in bounds and to maintain a dense, full appearance."
	Francis, J. K. (ed.). (2004). Wildland shrubs of the United States and its Territories: thamnic descriptions: volume 1. Gen. Tech. Rep. IITF-GTR-26. USDA, Forest Service, International Institute of Tropical Forestry, San Juan, PR, & USDA, Forest Service, Rocky Mountain Research Station, Fort Collins, CO	"Plants coppice vigorously when cut."
	Whistler, W.A. (2000). Tropical Ornamentals: A Guide. Timber Press, Portland, OR	"tolerates heavy pruning and is often grown in hedges or is trained as a vine on fences, arches, pergolas, or trellises."
	Queensland Government. (2020). Yellow allamanda Allamanda cathartica. Invasive plant. The State of Queensland, Department of Agriculture and Fisheries, Queensland, AU	"Yellow allamanda has a very strong and extensive root system and requires persistent effort to remove by hand. Dig out large areas using a garden fork and mattock. If stems are cut, the stump must be treated with a suitable herbicide to prevent reshooting. Hand weeded yellow allamanda must be hung up off the ground or preferably taken out of bushland areas as stem fragments can take root."

805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	
	Source(s)	**Notes**
	WRA Specialist. (2023). Personal Communication	Unknown

Summary of Risk Traits:

Allamanda cathartica, also called golden trumpet, is a tropical evergreen native to Brazil. It grows as a vine but can be pruned as a shrub. This plant thrives in hot, humid environments. It grows quickly and up to about 20 feet. It is now naturalized in several places around the world and is regarded as an environmental weed in Australia. In the Hawaiian Islands, fruit and seed production may be limited or absent, but the plant can spread by vegetative means and can climb up and potentially smother other vegetation. It also produces sap that is poisonous to animals and people if ingested or that can cause dermatitis when in contact with bare skin. There is now evidence that it may be naturalized or naturalizing on Hawaii Island.

High Risk / Undesirable Traits
• Thrives and spreads in regions with tropical climates
• Naturalized in several places around the world, including Hawaii Island.
• Currently spreading in vacant, disturbed lots on Hawaii island, with the potential to become an environmental weed if it establishes in native habitat
• An environmental weed in Australia, particularly in rainforests of northern and central Queensland.
• Fruit, if produced, covered in numerous spines.
• Potentially allelopathic.
• Possibly unpalatable to browsing animals.
• Sap is toxic to animals and people if ingested. All parts of the plant may cause irritant dermatitis in susceptible persons.
• Tolerates many soil types.
• Climbing and smothering growth habit.
• Reproduces by seeds (although rarely in the Hawaiian Islands).
• Capable of spreading vegetatively by rooting stems and dumped garden waste.
• Seeds, if produced, dispersed by wind, water, and intentional cultivation.
• Stem fragments may be spread down waterways during floods.
• Coppices and regrows and repeated cutting.

Low Risk Traits
• Grows best in high light environments (dense shade may inhibit spread)
• Reportedly self-incompatible.
• Reduced or absent fruit and seed production may limit accidental and long-distance dispersal.
• Herbicides may provide effective control.