

Taxon: <i>Dendrocalamus giganteus</i> Munro	Family: Poaceae
Common Name(s): giant bamboo	Synonym(s): <i>Bambusa gigantea</i> Wall. ex Munro <i>Sinocalamus giganteus</i> (Munro) Keng <i>Sinocalamus giganteus</i> (Wall. ex Munro) Keng

Assessor: Chuck Chimera	Status: Assessor Approved	End Date: 22 Oct 2020
WRA Score: 0.0	Designation: L	Rating: Low Risk

Keywords: Unconfirmed Naturalization, Clumping Bamboo, Sympodial, Edible, Rarely Flowers

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	y
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		
302	Garden/amenity/disturbance weed	n=0, y = 1*multiplier (see Appendix 2)	n
303	Agricultural/forestry/horticultural weed	n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental weed	n=0, y = 2*multiplier (see Appendix 2)	n
305	Congeneric weed	n=0, y = 1*multiplier (see Appendix 2)	y
401	Produces spines, thorns or burrs	y=1, n=0	n
402	Allelopathic	y=1, n=0	n
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	n
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens	y=1, n=0	n
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
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	y
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)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	>3
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	y=1, n=-1	n
801	Prolific seed production (>1000/m ²)	y=1, n=-1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	n
803	Well controlled by herbicides		
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)		

Supporting Data:

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[No evidence of domestication] "The origin of <i>Dendrocalamus giganteus</i> is not known precisely, but could possibly be in southern Myanmar (Burma) and north-western Thailand. It is commonly planted in India, Sri Lanka, Bangladesh and southern China, and it has been introduced and planted in many botanical gardens. Its actual distribution in tropical Africa is unclear, but it has been recorded in Ghana, Benin, Kenya, Madagascar and Réunion."
102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	NA
103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	NA
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	High
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 20 Oct 2020]	"Native Asia-Temperate CHINA: China [Yunnan Sheng] Asia-Tropical INDO-CHINA: Myanmar, Thailand (n.w.)"
202	Quality of climate match data	High
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 20 Oct 2020]	
203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes

Qsn #	Question	Answer
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"Dendrocalamus giganteus occurs naturally in humid areas at slightly higher altitudes (up to 1200 m). It can, however, be grown successfully at low altitudes on rich alluvial soils. It tolerates light frost."
	Kottek, M., Grieser, J., Beck, C., Rudolf, B., & Rubel, F. (2006). World map of the Köppen-Geiger climate classification updated. Meteorologische Zeitschrift, 15(3), 259-263	Distribution within native and cultivated ranges occurs in 4 climatic groups (Cfa - C: warm temperate f: fully humid a: hot summer; Am - A: equatorial m: monsoonal; Aw -A: equatorial w: winter dry; Af - A: equatorial f: fully humid)

204	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 22 Oct 2020]	"Native Asia-Temperate CHINA: China [Yunnan Sheng] Asia-Tropical INDO-CHINA: Myanmar, Thailand (n.w.) Cultivated Africa WESTERN INDIAN OCEAN: Madagascar Asia-Temperate EASTERN ASIA: Taiwan Asia-Tropical INDIAN SUBCONTINENT: Bangladesh, Bhutan (s.), India [Assam, Manipur, Meghalaya, Nagaland, West Bengal, Arunachal Pradesh], India (n.) [Assam, Manipur, Meghalaya, Nagaland, West Bengal, Arunachal Pradesh], Sri Lanka, Nepal INDO-CHINA: Laos, Myanmar, Thailand, Vietnam MALESIA: Indonesia, Malaysia Uncertain Asia-Tropical MALESIA: Malaysia (possibly native in n.)"
	Imada, C. (2019). Hawaiian Naturalized Vascular Plants Checklist (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence

205	Does the species have a history of repeated introductions outside its natural range?	y
	Source(s)	Notes

Qsn #	Question	Answer
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 22 Oct 2020]	"Cultivated Africa WESTERN INDIAN OCEAN: Madagascar Asia-Temperate EASTERN ASIA: Taiwan Asia-Tropical INDIAN SUBCONTINENT: Bangladesh, Bhutan (s.), India [Assam, Manipur, Meghalaya, Nagaland, West Bengal, Arunachal Pradesh], India (n.) [Assam, Manipur, Meghalaya, Nagaland, West Bengal, Arunachal Pradesh], Sri Lanka, Nepal INDO-CHINA: Laos, Myanmar, Thailand, Vietnam MALESIA: Indonesia, Malaysia Uncertain Asia-Tropical MALESIA: Malaysia (possibly native in n.)"
	Imada, C.T., Staples, G.W. & Herbst, D.R. 2005. Annotated Checklist of Cultivated Plants of Hawai'i. http://www2.bishopmuseum.org/HBS/botany/cultivatedplants/ . [Accessed 22 Oct 2020]	" <i>Dendrocalamus giganteus</i> Munro (Confirmed) Common Names: Giant bamboo First Collected: 1951 Locations: Foster Botanical Garden Ho'omaluhia Botanical Garden Wahiawa Botanical Garden (Confirmed)"
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"The origin of <i>Dendrocalamus giganteus</i> is not known precisely, but could possibly be in southern Myanmar (Burma) and north-western Thailand. It is commonly planted in India, Sri Lanka, Bangladesh and southern China, and it has been introduced and planted in many botanical gardens. Its actual distribution in tropical Africa is unclear, but it has been recorded in Ghana, Benin, Kenya, Madagascar and Réunion."

301	Naturalized beyond native range	
	Source(s)	Notes
	Kull, C. A., Tassin, J., Moreau, S., Ramiarantsoa, H. R., Blanc Pamard, C., & Carrière, S. M. (2012). The introduced flora of Madagascar. <i>Biological Invasions</i> , 14(4), 875-888	"Table S1: Inventory of the introduced plants of Madagascar." [Dendrocalamus giganteus Wall. ex Munro naturalized]
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	[Cited as naturalized in some locations] "References: South Africa-AW-121, India- N-976, Philippines-nC-1099, La Reunion- W-1321, Madagascar-N-1000, India-N- 1345, Brazil-U-1559, Cambodia-N-1796, Ecuador-N-1796, Sri Lanka-N-1796, India- I-1826, India-W-1977."
	Negi, P. S., & Hajra, P. K. (2007). Alien flora of Doon Valley, Northwest Himalaya. <i>Current Science</i> 92(7): 968-978	[In contrast to Randall (2017)] "Naturalized and widely cultivated exotics are marked by asterisks in the enumeration." [Table 1. Exotics of the Doon Valley - Dendrocalamus gigantens listed, but not marked with an asterisk]
	Khuroo, A. A., Reshi, Z. A., Malik, A. H., Weber, E., Rashid, I., & Dar, G. H. (2012). Alien flora of India: taxonomic composition, invasion status and biogeographic affiliations. <i>Biological Invasions</i> , 14(1), 99-113	[Supplementary material 1 - Dendrocalamus giganteu - Nt = Naturalised]

Qsn #	Question	Answer
	Imada, C. (2019). Hawaiian Naturalized Vascular Plants Checklist (February 2019 update). Bishop Museum Technical Report 69. Bishop Museum, Honolulu, HI	No evidence
	WRA Specialist. (2020). Personal Communication	The origin of <i>Dendrocalamus giganteus</i> is not known precisely. Reports of naturalization may be in regions where it is possibly native, or introduced.

302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No confirmed evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No confirmed 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
	CABI. (2020). <i>Dendrocalamus strictus</i> (male bamboo) . In: Invasive Species Compendium. Wallingford, UK: CAB International. www.cabi.org/isc	" <i>D. strictus</i> is a giant bamboo species that has been extensively cultivated across tropical and temperate regions of the world (PROTA, 2015; USDA-ARS, 2015). It is a multipurpose bamboo used as raw material in paper mills, for light construction, furniture, musical instruments, agricultural implements, rafts, baskets, and household utensils. Young shoots are edible and consumed by humans. Leaves are used as forage and in traditional Asian medicine (Guadua Bamboo, 2015). It has escaped from cultivation and once established it grows forming dense clumps that are almost impenetrable because of the interlacing thorny branches. Dense clumps can also displace native vegetation and inhibit the movement of native animals. Despite this species being introduced worldwide, at present it has only been listed as invasive in Cuba (Oviedo Prieto et al., 2012)."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	Several species listed as naturalized and/or weeds

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

Qsn #	Question	Answer
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[No evidence] "Giant bamboo, with a short, thick rhizome and densely tufted stems; stem (culm) erect with arching tip, up to 30(–35) m tall, up to 30 cm in diameter, wall up to 25 mm thick, covered with a white waxy layer when young, becoming whitish to greyish green; internodes 25–55 cm long, lowermost ones shortest; nodes not swollen, lower ones bearing aerial roots. Leaves alternate, simple; stem leaves with sheath up to 50 cm × 50 cm, dark brown hairy, with small auricles, ligule up to 13 mm long and blade up to 38 cm × 9 cm; branch leaves with sheath glabrous outside, auricles small and glabrous, ligule 2–3 mm long, irregularly toothed, blade obliquely oblong, 20–50 cm × 3–10 cm, shortly stalked at base, apex acuminate, glabrous above, slightly rough, with distinct cross veins."

402	Allelopathic	n
	Source(s)	Notes
	Schulz, D. G., Fortes, A. M. T., Boiago, N. P., & Machado, A. (2010). Alelopatia de bambu (<i>Dendrocalamus giganteus</i> Munro). <i>Cultivando o Saber</i> , 3(3), 31-39	Aqueous leaf extracts did not significantly affect lettuce seed germination, although increased extract concentrations did affect timing and reduced germination rates

403	Parasitic	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"Giant bamboo, with a short, thick rhizome and densely tufted stems; stem (culm) erect with arching tip, up to 30(–35) m tall, up to 30 cm in diameter, wall up to 25 mm thick, covered with a white waxy layer when young, becoming whitish to greyish green; internodes 25–55 cm long, lowermost ones shortest; nodes not swollen, lower ones bearing aerial roots." [Poaceae. No evidence]

404	Unpalatable to grazing animals	n
	Source(s)	Notes
	Bhandari, M. S., Kaushal, R., Banik, R. L., & Tewari, S. K. (2015). Genetic evaluation of nutritional and fodder quality of different bamboo species. <i>Indian Forester</i> , 141 (3), 265-274	"Table 1 : Local information on fodder quality of bamboos" [Dendrocalamus giganteus - Fodder Quality = + fair]
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[Shoots palatable to people] "The young shoots are edible, but they are not widely consumed. They have a fair canning quality. In Thailand the large stem sheaths are made into hats."

405	Toxic to animals	n
	Source(s)	Notes
	Plants for a Future. (2020). <i>Dendrocalamus giganteus</i> . https://pfaf.org . [Accessed 22 Oct 2020]	"Known Hazards None known"
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"The young shoots are edible, but they are not widely consumed. They have a fair canning quality. In Thailand the large stem sheaths are made into hats."

Qsn #	Question	Answer
	Bhandari, M. S., Kaushal, R., Banik, R. L., & Tewari, S. K. (2015). Genetic evaluation of nutritional and fodder quality of different bamboo species. <i>Indian Forester</i> , 141 (3), 265-274	[No evidence] "Table 1 : Local information on fodder quality of bamboos" [Dendrocalamus giganteus - Fodder Quality = + fair]
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	n
	Source(s)	Notes
	PlantUse English contributors. (2020). <i>Dendrocalamus giganteus</i> (PROSEA). https://uses.plantnet-project.org . [Accessed 22 Oct 2020]	"No serious diseases or pests are known to attack <i>D. giganteus</i> . The fungus <i>Pycnoporus sanguinus</i> and powder-post beetles may attack dry harvested culms. Submerging in mud for 1-4 weeks after cutting may give some protection against diseases and pests. Sometimes young bamboo shoots suffer from sap-sucking aphids (<i>Oregma bambusae</i>) which may cover young shoots completely and cause them to die. Spraying kerosene oil in soap emulsion can control the pest. Witches' broom may also occur in <i>D. giganteus</i> but without causing much damage."

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Plants for a Future. (2020). <i>Dendrocalamus giganteus</i> . https://pfaf.org . [Accessed 22 Oct 2020]	"Known Hazards None known"
	Loupe, D., Oteng-Amoako, A.A. & Brink, M. (2008). <i>Plant Resources of Tropical Africa</i> 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"The young shoots are edible, but they are not widely consumed. They have a fair canning quality. In Thailand the large stem sheaths are made into hats."
	Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	PlantUse English contributors. (2020). <i>Dendrocalamus giganteus</i> (PROSEA). https://uses.plantnet-project.org . [Accessed 22 Oct 2020]	[Unknown] " <i>D. giganteus</i> grows naturally in humid tropical highlands, up to 1200 m altitude. It can, however, be grown successfully in tropical lowlands on rich alluvial soils. In northern Thailand it is found in natural forests with teak."

Qsn #	Question	Answer
409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes
	Plants for a Future. (2020). <i>Dendrocalamus giganteus</i> . https://pfaf.org . [Accessed 22 Oct 2020]	"It can grow in semi-shade (light woodland) or no shade. "
	Tropical Plants Database, Ken Fern. (2020). <i>Dendrocalamus giganteus</i> . http://tropical.theferns.info/viewtropical.php?id=Dendrocalamus+giganteus . [Accessed 22 Oct 2020]	"Succeeds in full sun or in light shade"

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	Plants for a Future. (2020). <i>Dendrocalamus giganteus</i> . https://pfaf.org . [Accessed 22 Oct 2020]	"Suitable for: light (sandy), medium (loamy) and heavy (clay) soils and prefers well-drained soil. Suitable pH: acid, neutral and basic (alkaline) soils." ... "Prefers a rich, alluvial soil[303]. Succeeds in most soils of at least moderate fertility[418]. Prefers a pH in the range 5.5 - 6.5, tolerating 4.5 - 7.5[418]."

411	Climbing or smothering growth habit	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"Giant bamboo, with a short, thick rhizome and densely tufted stems; stem (culm) erect with arching tip, up to 30(-35) m tall, up to 30 cm in diameter,"

412	Forms dense thickets	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[No evidence. A clumping bamboo] "Giant bamboo, with a short, thick rhizome and densely tufted stems" ... "Dendrocalamus giganteus occurs naturally in humid areas at slightly higher altitudes (up to 1200 m). It can, however, be grown successfully at low altitudes on rich alluvial soils. It tolerates light frost. "
	PlantUse English contributors. (2020). <i>Dendrocalamus giganteus</i> (PROSEA). https://uses.plantnet-project.org . [Accessed 22 Oct 2020]	[No evidence] "D. giganteus grows naturally in humid tropical highlands, up to 1200 m altitude. It can, however, be grown successfully in tropical lowlands on rich alluvial soils. In northern Thailand it is found in natural forests with teak."

501	Aquatic	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[Terrestrial] "Dendrocalamus giganteus occurs naturally in humid areas at slightly higher altitudes (up to 1200 m). It can, however, be grown successfully at low altitudes on rich alluvial soils. It tolerates light frost. "

502	Grass	y
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Qsn #	Question	Answer
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 21 Oct 2020]	Family: Poaceae Subfamily: Bambusoideae Tribe: Bambuseae Subtribe: Bambusinae

503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 21 Oct 2020]	Family: Poaceae Subfamily: Bambusoideae Tribe: Bambuseae Subtribe: Bambusinae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"Giant bamboo, with a short, thick rhizome and densely tufted stems; stem (culm) erect with arching tip, up to 30(-35) m tall, up to 30 cm in diameter, wall up to 25 mm thick, covered with a white waxy layer when young, becoming whitish to greyish green; internodes 25-55 cm long, lowermost ones shortest; nodes not swollen, lower ones bearing aerial roots."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	PlantUse English contributors. (2020). <i>Dendrocalamus giganteus</i> (PROSEA). https://uses.plantnet-project.org/ . [Accessed 22 Oct 2020]	" <i>D. giganteus</i> flowers gregariously and the flowering cycle is estimated to be 30-40 years; after flowering, the clump dies. In Indonesia it has been observed that clumps survive when flowering culms are cut down. Culms grown from seed reached 6-8 m height and 10 cm diameter 3 years after sowing. "

602	Produces viable seed	y
	Source(s)	Notes
	PlantUse English contributors. (2020). <i>Dendrocalamus giganteus</i> (PROSEA). https://uses.plantnet-project.org/ . [Accessed 22 Oct 2020]	" <i>D. giganteus</i> is normally propagated by clump division. If available it can be propagated by seed. Propagation by culm and branch cuttings is possible, although difficult. Artificial induction of roots before taking the cuttings is possible and reasonably successful. In an 8 ha plantation in Burma (Myanmar), 40-50 clumps were grown per ha."
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"Propagation is normally by clump division or rhizome planting. <i>Dendrocalamus giganteus</i> can also be propagated by seed."

603	Hybridizes naturally	
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Qsn #	Question	Answer
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown. No evidence found

604	Self-compatible or apomictic	
	Source(s)	Notes
	Ramanayake, S. M. S. D., & Yakandawala, K. (1998). Incidence of Flowering, Death and Phenology of Development in the Giant Bamboo (<i>Dendrocalamus giganteus</i> Wall. ex Munro). <i>Annals of Botany</i> , 82(6), 779-785	[Low seed set suggest potential incompatibility] "Observations were made on <i>Dendrocalamus giganteus</i> clumps in six locations in the Kandy district of Sri Lanka when 23 out of 111 clumps flowered from 1990 to 1996. Examination of fresh florets confirmed their description by Munro in 1868 (Clayton et al., 1994. In: Dassanayake MD, Fosberg FR, Clayton WD, eds. A revised handbook of the flora of Ceylon. Vol. VIII. New Delhi: Amerind Publishing, 1±458). Flowering behaviour was similar to that reported by Macmillan (1907, <i>Annals of the Royal Botanic Gardens, Peradeniya</i> . Vol IV:123±129) when the species first flowered after its introduction to Sri Lanka. Giant inflorescences bearing numerous florets developed in flowering clumps. Seed set was rare."

605	Requires specialist pollinators	n
	Source(s)	Notes
	Ramanayake, S. M. S. D., & Yakandawala, K. (1998). Incidence of Flowering, Death and Phenology of Development in the Giant Bamboo (<i>Dendrocalamus giganteus</i> Wall. ex Munro). <i>Annals of Botany</i> , 82(6), 779-785	"The large numbers of yellow anthers exerted from florets made the inflorescence very conspicuous (Fig. 2C). This, along with a slight odour, may attract the insects and bees that were seen visiting flowers. Insect pollination is, however, unusual among grasses."
	Recht, C. & Wetterwald, M. F. (2015). <i>Bamboos</i> . Pavilion Books Company Limited, London	[General description] "Wind carries the pollen from the bright yellow anthers to the stigmas, the long filaments assisting this process. After pollination the cereal-like grain develops from the ovary."

606	Reproduction by vegetative fragmentation	
	Source(s)	Notes
	PlantUse English contributors. (2020). <i>Dendrocalamus giganteus</i> (PROSEA). https://uses.plantnet-project.org . [Accessed 22 Oct 2020]	[Propagated vegetatively, Clumping bamboo; spreads locally] "D. <i>giganteus</i> is normally propagated by clump division. If available it can be propagated by seed. Propagation by culm and branch cuttings is possible, although difficult. Artificial induction of roots before taking the cuttings is possible and reasonably successful."

607	Minimum generative time (years)	>3
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). <i>Plant Resources of Tropical Africa</i> 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	" <i>Dendrocalamus giganteus</i> flowers gregariously and the flowering cycle is estimated to be 30–40 years. It has been stated that after flowering the clump dies, but in Sri Lanka it was observed that most clumps survived after flowering. In Indonesia clumps survived when flowering stems were cut down."

Qsn #	Question	Answer
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[Seeds produced after long, and indeterminate periods of vegetative growth. No means of external attachment] "Dendrocalamus giganteus flowers gregariously and the flowering cycle is estimated to be 30–40 years. It has been stated that after flowering the clump dies, but in Sri Lanka it was observed that most clumps survived after flowering. In Indonesia clumps survived when flowering stems were cut down."

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 22 Oct 2020]	"Cultivated Africa WESTERN INDIAN OCEAN: Madagascar Asia-Temperate EASTERN ASIA: Taiwan Asia-Tropical INDIAN SUBCONTINENT: Bangladesh, Bhutan (s.), India [Assam, Manipur, Meghalaya, Nagaland, West Bengal, Arunachal Pradesh], India (n.) [Assam, Manipur, Meghalaya, Nagaland, West Bengal, Arunachal Pradesh], Sri Lanka, Nepal INDO-CHINA: Laos, Myanmar, Thailand, Vietnam MALESIA: Indonesia, Malaysia"
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	"The origin of <i>Dendrocalamus giganteus</i> is not known precisely, but could possibly be in southern Myanmar (Burma) and north-western Thailand. It is commonly planted in India, Sri Lanka, Bangladesh and southern China, and it has been introduced and planted in many botanical gardens."

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[No evidence. Seeds produced after long, and indeterminate periods of vegetative growth] "Dendrocalamus giganteus flowers gregariously and the flowering cycle is estimated to be 30–40 years. It has been stated that after flowering the clump dies, but in Sri Lanka it was observed that most clumps survived after flowering. In Indonesia clumps survived when flowering stems were cut down."

704	Propagules adapted to wind dispersal	
	Source(s)	Notes
	Banik, R. L. (2015). Bamboo silviculture. In Bamboo (pp. 113-174). Springer, Cham	[General description. Wind may influence distance and direction of gravity-dispersed seeds] "Immediately after ripening, seeds fall on the ground during monsoon (later part of May–August) and start germinating within a week."

Qsn #	Question	Answer
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[Possibly. Seeds produced after long, and indeterminate periods of vegetative growth] "Dendrocalamus giganteus flowers gregariously and the flowering cycle is estimated to be 30–40 years. It has been stated that after flowering the clump dies, but in Sri Lanka it was observed that most clumps survived after flowering. In Indonesia clumps survived when flowering stems were cut down."

705	Propagules water dispersed	
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown. Seeds, when produced may be moved by water

706	Propagules bird dispersed	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[No evidence. Not fleshy-fruited. Seeds produced after long, and indeterminate periods of vegetative growth] "Fruit an oblong caryopsis (grain), 6–8 mm long, hairy above. ... Dendrocalamus giganteus flowers gregariously and the flowering cycle is estimated to be 30–40 years. It has been stated that after flowering the clump dies, but in Sri Lanka it was observed that most clumps survived after flowering. In Indonesia clumps survived when flowering stems were cut down."

707	Propagules dispersed by other animals (externally)	n
	Source(s)	Notes
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). Plant Resources of Tropical Africa 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[No evidence. Unlikely. Seeds produced after long, and indeterminate periods of vegetative growth] "Fruit an oblong caryopsis (grain), 6–8 mm long, hairy above. ... Dendrocalamus giganteus flowers gregariously and the flowering cycle is estimated to be 30–40 years. It has been stated that after flowering the clump dies, but in Sri Lanka it was observed that most clumps survived after flowering. In Indonesia clumps survived when flowering stems were cut down."

708	Propagules survive passage through the gut	n
	Source(s)	Notes
	Banik, R. L. (2015). Bamboo silviculture. In Bamboo (pp. 113-174). Springer, Cham	[Descriptions of other bamboo species may apply if or when Dendrocalamus giganteus seeds are produced] "The bamboo seeds, usually, are eaten heavily by rats, birds, wild boars, porcupines, deer and other animals and also by the local hill tribes and usually carry these far away from the seeding mother, thus assisting in dispersal."

801	Prolific seed production (>1000/m2)	n
	Source(s)	Notes

Qsn #	Question	Answer
	Ramanayake, S. M. S. D., & Yakandawala, K. (1998). Incidence of Flowering, Death and Phenology of Development in the Giant Bamboo (<i>Dendrocalamus giganteus</i> Wall. ex Munro). <i>Annals of Botany</i> , 82(6), 779-785	[Precocious flowering plants produced few seeds] "Giant inflorescences bearing numerous florets developed in flowering clumps. Seed set was rare. Except for two clumps that died, the others survived after flowering."
	Louppe, D., Oteng-Amoako, A.A. & Brink, M. (2008). <i>Plant Resources of Tropical Africa</i> 7(1). Timbers 1. PROTA Foundation, Wageningen, Netherlands	[Seed production is essentially absent for long periods of time, but may reach prolific numbers during infrequent flowering periods] " <i>Dendrocalamus giganteus</i> flowers gregariously and the flowering cycle is estimated to be 30–40 years. It has been stated that after flowering the clump dies, but in Sri Lanka it was observed that most clumps survived after flowering. In Indonesia clumps survived when flowering stems were cut down."

802	Evidence that a persistent propagule bank is formed (>1 yr)	n
	Source(s)	Notes
	Ramanayake, S. M. S. D., & Yakandawala, K. (1998). Incidence of Flowering, Death and Phenology of Development in the Giant Bamboo (<i>Dendrocalamus giganteus</i> Wall. ex Munro). <i>Annals of Botany</i> , 82(6), 779-785	"Seedlings were seen under a few flowering clumps." [Suggests possible rapid germination]
	Banik, R. L. (2015). Bamboo silviculture. In <i>Bamboo</i> (pp. 113-174). Springer, Cham	[General description] "Bamboo seeds are short lived and loss viability within 1-2 months of collection."

803	Well controlled by herbicides	y
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown. No evidence that this species has been controlled using herbicides. Chemical methods to control invasive bamboos would probably be effective if needed

804	Tolerates, or benefits from, mutilation, cultivation, or fire	y
	Source(s)	Notes
	PlantUse English contributors. (2020). <i>Dendrocalamus giganteus</i> (PROSEA). https://uses.plantnet-project.org . [Accessed 22 Oct 2020]	[Can be repeatedly cut and will regrow] "The harvesting of culms from young clumps may start 7 years after planting. All 3-year-old culms from mature clumps (15-16 years old) can be cut annually."

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y
	Source(s)	Notes
	WRA Specialist. (2020). Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits

- Broad climate suitability
- Grows, and could potentially spread, in regions with tropical climates
- Possibly naturalized, but region of origin uncertain
- Other *Dendrocalamus* species are invasive
- Tolerates many soil types
- Reproduces by seeds (rarely)
- Resprouts after repeated cutting and harvesting

Low Risk Traits

- No reports of naturalization in the Hawaiian Islands, and no evidence of negative impacts where cultivated
- Unarmed (no spines, thorns or burrs)
- Palatable to animals and people
- Non-toxic
- A clumping bamboo that spreads vegetatively only locally
- Reaches maturity after several decades of growth (flowering rarely observed)
- Lack of flowering for much of life cycle limits potential for long distance dispersal