**Taxon:** Dombeya ×cayeuxii André **Family:** Malvaceae

**Common Name(s):** Mexican rosetree
pink snowball
pink-ball dombeya
pompomtree

**Synonym(s):**

**Assessor:** Chuck Chimera **Status:** Assessor Approved **End Date:** 6 Dec 2017

**WRA Score:** **-7.0** **Designation:** L **Rating:** Low Risk

**Keywords:** Large Shrub, Tropical, Ornamental, Hybrid, Infertile

| 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) | Low |
| 203 | Broad climate suitability (environmental versatility) | y=1, n=0 | n |
| 204 | Native or naturalized in regions with tropical or subtropical climates | y=1, n=0 | y |
| 205 | Does the species have a history of repeated introductions outside its natural range? | y=-2, ?=-1, n=0 | y |
| 301 | Naturalized beyond native range | y = 1*multiplier (see Appendix 2), n= question 205 | n |
| 302 | Garden/amenity/disturbance weed | n=0, y = 1*multiplier (see Appendix 2) | n |
| 303 | Agricultural/forestry/horticultural weed | n=0, y = 2*multiplier (see Appendix 2) | n |
| 304 | Environmental weed | n=0, y = 2*multiplier (see Appendix 2) | n |
| 305 | Congeneric weed | | |
| 401 | Produces spines, thorns or burrs | y=1, n=0 | n |
| 402 | Allelopathic | | |
| 403 | Parasitic | y=1, n=0 | n |
| 404 | Unpalatable to grazing animals | | |
| 405 | Toxic to animals | y=1, n=0 | n |
| 406 | Host for recognized pests and pathogens | | |
| 407 | Causes allergies or is otherwise toxic to humans | y=1, n=0 | n |
| 408 | Creates a fire hazard in natural ecosystems | y=1, n=0 | n |

| 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 | n |
| 412 | Forms dense thickets | y=1, n=0 | n |
| 501 | Aquatic | y=5, n=0 | n |
| 502 | Grass | y=1, n=0 | n |
| 503 | Nitrogen fixing woody plant | y=1, n=0 | 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 | n |
| 603 | Hybridizes naturally | | |
| 604 | Self-compatible or apomictic | | |
| 605 | Requires specialist pollinators | | |
| 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 | | |
| 705 | Propagules water dispersed | y=1, n=-1 | n |
| 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) | 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** |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | [An artificial hybrid, but not highly domesticated] "This species is considered to be a hybrid between Dombeya mastersii and D. wallichii but is often (wrongly) cited under the latter name. The mentioned parents are supposed to be native in Madagascar and tropical East Africa (Barrett)." |

| | | |
|---|---|---|
| **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** |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | "This species is considered to be a hybrid between Dombeya mastersii and D.wallichii but is often (wrongly) cited under the latter name. The mentioned parents are supposed to be native in Madagascar and tropical East Africa (Barrett)." |

| | | |
|---|---|---|
| **202** | **Quality of climate match data** | **Low** |
| | **Source(s)** | **Notes** |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | [No native range] "This species is considered to be a hybrid between Dombeya mastersii and D.wallichii but is often (wrongly) cited under the latter name. The mentioned parents are supposed to be native in Madagascar and tropical East Africa (Barrett)." |

| Qsn # | Question | Answer |
|---|---|---|
| **203** | **Broad climate suitability (environmental versatility)** | **n** |
| | **Source(s)** | **Notes** |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | "it grows best in more temperate climates." |
| | Desert Tropicals. 2017. Pink Ball Dombeya. http://www.desert-tropicals.com/Plants/Sterculiaceae/Dombeya_cayeuxii.html. [Accessed 5 Dec 2017] | "USDA: 10-11" |
| | Jarrett, A. 2003. Ornamental Tropical Shrubs. Pineapple Press Inc., Sarasota, FL | "Zone{s): 9-11" |

| | | |
|---|---|---|
| **204** | **Native or naturalized in regions with tropical or subtropical climates** | **y** |
| | **Source(s)** | **Notes** |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | [Artificial hybrid. Parent species from tropical regions] "This species is considered to be a hybrid between Dombeya mastersii and D. wallichii but is often (wrongly) cited under the latter name. The mentioned parents are supposed to be native in Madagascar and tropical East Africa (Barrett)." |

| | | |
|---|---|---|
| **205** | **Does the species have a history of repeated introductions outside its natural range?** | **y** |
| | **Source(s)** | **Notes** |
| | Soderholm, P. K. (1967). Evaluation of Dombeya intro ductions for new ornamentals for Florida. In Proc. Fla. State Hort. Soc. 80: 477-480 | "D. x cayeuxii Andre, P. I. 19897, was introduced by the U. S. Department of Agriculture from Madeira in 1907 and again from Cuba in 1935 as P. I. 110682." |
| | 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 5 Dec 2017] | "Locations:<br>Foster Botanical Garden (Confirmed)<br>Ho'omaluhia Botanical Garden<br>Waimea Arboretum & Botanical Garden" |
| | Dave's Garden. 2017. Tropical Hydrangea, Pink-Ball. Dombeya x cayeuxii. https://davesgarden.com/guides/pf/go/195298/. [Accessed 6 Dec 2017] | "Regional<br>This plant has been said to grow in the following regions:<br>North Port, Florida<br>Orlando, Florida<br>Saint Petersburg, Florida<br>Hawaiian Paradise Park, Hawaii<br>Hilo, Hawaii" |
| | Bishop Museum. 2017. Dombeya Xcayeuxii André. http://nsdb.bishopmuseum.org/TaxonName/1163660896#. [Accessed 5 Dec 2017] | 17 specimens in collections (15 from the Hawaiian Islands, 2 from French Polynesia). All apparently cultivated. |
| | Negi, P. S., & Hajra, P. K. 2007. Alien flora of Doon Valley, Northwest Himalaya. Current Science 92(7): 968-978 | Cultivated in India |

| | | |
|---|---|---|
| **301** | **Naturalized beyond native range** | **n** |
| | **Source(s)** | **Notes** |

| Qsn # | Question | Answer |
|---|---|---|
| | Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall | "Dombeya x cayeuxii ... References: India-N-976." [Cites Negi & Hajra, P. (2007) for evidence of naturalization. However, the cited reference does not confirm that this species is naturalized] |
| | Negi, P. S., & Hajra, P. K. 2007. Alien flora of Doon Valley, Northwest Himalaya. Current Science 92(7): 968-978 | "Naturalized and widely cultivated exotics are marked by asterisks in the enumeration." ... "Table 1. Exotics of the Doon Valley" [Dombeya cayuseii included in table, but not marked with an asterisk] |
| | Imada, C. 2012. Hawaiian Native and Naturalized Vascular Plants Checklist (December 2012 update). Bishop Musem Technical Report 60. Bishop Museum, Honolulu, HI | No evidence |
| | Wagner, W.L., Herbst, D.R.& Lorence, D.H. 2017. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/. [Accessed 5 Dec 2017] | No evidence to date |

| 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 | "Dombeya cayeuxii ... References: India-W" [Cited as a weed in IUCN (2017) Global Register of Introduced and Invasive Species (GRIIS) IUCN SSC Invasive Species Specialist Group. URL: http://griis.org/. This website cites Negi & Hajra (2007), and does not indicate that the species is a weed. The website further states that there is no evidence of impacts reported for this species] |
| | Global Register of Introduced and Invasive Species. 2017. Dombeya cayeuxii. http://griis.org/. [Accessed 5 Dec 2017] | Evidence of Impacts (Y/N) = No |

| 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 to date |

| 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 to date |

| 305 | Congeneric weed | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall | Dombeya acutangula, Dombeya burgessiae, Dombeya mastersii, Dombeya mollis, Dombeya platanifolia, Dombeya rotundifolia, Dombeya spectabilis, Dombeya tiliacea, Dombeya torrida and Dombeya wallichii listed as naturalized and/or weeds. Subsequent searches were unable to find evidence of negative impacts for any of the listed taxa. |

| Qsn # | Question | Answer |
|---|---|---|
| **401** | **Produces spines, thorns or burrs** | **n** |
| | **Source(s)** | **Notes** |
| | Alexander, E. J. 1954. Dombeya cayeuxii. Addisonia 23(1): 1-2 | [No evidence] "Domheya Cayeuxii is a large shrub to twenty feet in height with roughhairy branches which are green in youth and become brown with age. The leaves are very numerous, bright green, both blades and petioles covered with short, stiff hairs. The petioles are three to six inches long, with two triangular, wavy-margined and long-pointed stipules at the base: the blades are six to eight inches long and four to six inches wide, heart-shaped at the base, the margins with sharp unequal teeth and often with shallow, angulate lobes. The flowers are borne in a head at the end of six to eight inch-long, drooping stalks. The involucral bracts at the base of the head are oblong and pointed, five to eight in number, and one-half to three-fourths inch long. The individual flower stalks are three-fourths to an inch long. The sepals are pale silvery green in color and very thin in texture, narrowly lance shaped, about one-half inch long. The petals are five in number, bright pink becoming whitish towards the base; they are oblong but oblique on one side, three-fourths to an inch long. The stamens and staminodes are united into a tube about one-half inch long. The tube, filaments and staminodes are greenish white, the staminodes hair\'-margined, the anthers bright yellow. The pistil is about three-fourths inch long, with five recurved stigmas, the ovary rotund and bristly-hairy." |

| 402 | **Allelopathic** | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | WRA Specialist. 2017. Personal Communication | Unknown. No evidence found |

| 403 | **Parasitic** | **n** |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Alexander, E. J. 1954. Dombeya cayeuxii. Addisonia 23(1): 1-2 | "Domheya Cayeuxii is a large shrub to twenty feet in height with rough-hairy branches which are green in youth and become brown with age." [Malvaceae. No evidence] |

| 404 | **Unpalatable to grazing animals** | |
|---|---|---|
| | **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 | "Dombeya burgessiae ... bark and leaves eaten by black rhinos" [One of parent species palatable to browsing animals, suggesting hybrid may also be palatable] |

| 405 | **Toxic to animals** | **n** |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Louppe, D., Oteng-Amoako, A.A. & Brink, M. 2008. Timbers 1: volume 7 of plant resources of tropical Africa. PROTA, Wageningen, Netherlands | [Other species palatable to browsers] "Dombeya rotundifolia ... The leaves serve as fodder" |

| Qsn # | Question | Answer |
|---|---|---|
| | Wagstaff, D.J. 2008. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL | No evidence |
| | 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. Several species used medicinally |

| 406 | Host for recognized pests and pathogens | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Gilman, E.F. & Watson, D.G. 1993. Dombeya wallichii - Pinkball. Fact Sheet ST-232. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL. http://hort.ifas.ufl.edu/. [Accessed 6 Dec 2017] | [Unknown. One parent species not a major host of pests and pathogens]<br>"Pests - Aphids, soft scale, nematodes, and sooty mold are minor problems for Pinkball.<br>Diseases - No diseases are of major concern." |

| 407 | Causes allergies or is otherwise toxic to humans | n |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI | [No evidence] "Dombeya x cayeuxii is probably the most frequently cultivated dombeya in Hawai'i, and it makes a truly impressive specimen plant." |
| | 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** |
| | Wagner, W.L., Herbst, D.R.& Lorence, D.H. 2017. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/. [Accessed ] | [No evidence. Only known from cultivation] "This horticultural hybrid between D. wallichii B. D. Jackson and D. burgessiae was produced in Lisbon, Portugal, by H. A. F. Cayeux in 1895." ... "Dombeya x cayeuxii is probably the most frequently cultivated dombeya in Hawai'i" |

| 409 | Is a shade tolerant plant at some stage of its life cycle | n |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Jarrett, A. 2003. Ornamental Tropical Shrubs. Pineapple Press Inc., Sarasota, FL | "Exposure: full sun" |
| | Gildemeister, H. 2002. Mediterranean Gardening: A Waterwise Approach. University of California Press, Berkeley and Los Angeles, CA | "It requires sheltered, sunny locations ..." |
| | Dave's Garden. 2017. Tropical Hydrangea, Pink-Ball. Dombeya x cayeuxii. https://davesgarden.com/guides/pf/go/195298/. [Accessed 6 Dec 2017] | "Sun Exposure: Full Sun" |

| Qsn # | Question | Answer |
|---|---|---|
| **410** | **Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)** | **y** |
| | **Source(s)** | **Notes** |
| | Gildemeister, H. 2002. Mediterranean Gardening: A Waterwise Approach. University of California Press, Berkeley and Los Angeles, CA | "It requires sheltered, sunny locations, compost-rich garden soil, thick mulching, and watering once or twice a week in summer." |
| | Dave's Garden. 2017. Tropical Hydrangea, Pink-Ball. Dombeya x cayeuxii. https://davesgarden.com/guides/pf/go/195298/. [Accessed 6 Dec 2017] | "Soil pH requirements:<br>6.1 to 6.5 (mildly acidic)<br>6.6 to 7.5 (neutral)<br>7.6 to 7.8 (mildly alkaline)" |
| | Jarrett, A. 2003. Ornamental Tropical Shrubs. Pineapple Press Inc., Sarasota, FL | "Soil: tolerant of most but prefers rich loam" |

| 411 | Climbing or smothering growth habit | n |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Alexander, E. J. 1954. Dombeya cayeuxii. Addisonia 23(1): 1-2 | "Domheya Cayeuxii is a large shrub to twenty feet in height with rough-hairy branches which are green in youth and become brown with age." |

| 412 | Forms dense thickets | 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 | [Artificial hybrid. No evidence found] "This horticultural hybrid between D. wallichii B. D. Jackson and D. burgessiae was produced in Lisbon, Portugal, by H. A. F. Cayeux in 1895." ... "Dombeya x cayeuxii is probably the most frequently cultivated dombeya in Hawai'i, and it makes a truly impressive specimen plant." |

| 501 | Aquatic | n |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Alexander, E. J. 1954. Dombeya cayeuxii. Addisonia 23(1): 1-2 | [Terrestrial] "...a large shrub to twenty feet in height with rough-hairy branches which are green in youth and become brown with age." |

| 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 5 Dec 2017] | Family: Malvaceae<br>Subfamily: Dombeyoideae |

| Qsn # | Question | Answer |
|---|---|---|
| **503** | **Nitrogen fixing woody plant** | **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 5 Dec 2017] | Family: Malvaceae<br>Subfamily: Dombeyoideae |

| | | |
|---|---|---|
| **504** | **Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)** | **n** |
| | **Source(s)** | **Notes** |
| | Alexander, E. J. 1954. Dombeya cayeuxii. Addisonia 23(1): 1-2 | "Domheya Cayeuxii is a large shrub to twenty feet in height with rough-hairy branches which are green in youth and become brown with age." |

| | | |
|---|---|---|
| **601** | **Evidence of substantial reproductive failure in native habitat** | **n** |
| | **Source(s)** | **Notes** |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | [Artificial hybrid. No native range] "This species is considered to be a hybrid between Dombeya mastersii and D.wallichii but is often (wrongly) cited under the latter name. The mentioned parents are supposed to be native in Madagascar and tropical East Africa (Barrett)." |

| | | |
|---|---|---|
| **602** | **Produces viable seed** | **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 | "Frt not produced." |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | "Fruits dry, light brown capsules up to 1,5 cm in diameter." ... "Propagation from cuttings" [No mention of seeds] |
| | Dave's Garden. 2017. Tropical Hydrangea, Pink-Ball. Dombeya x cayeuxii. https://davesgarden.com/guides/pf/go/195298/. [Accessed 6 Dec 2017] | "Seed Collecting: N/A: plant does not set seed, flowers are sterile, or plants will not come true from seed" |

| | | |
|---|---|---|
| **603** | **Hybridizes naturally** | |
| | **Source(s)** | **Notes** |
| | Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI | [Unknown if hybrid can backcross with parents or other Dombeya species] "This horticultural hybrid between D. wallichii B. D. Jackson and D. burgessiae was produced in Lisbon, Portugal, by H. A. F. Cayeux in 1895." |

| | | |
|---|---|---|
| **604** | **Self-compatible or apomictic** | |

| Qsn # | Question | Answer |
|---|---|---|
| | **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 | "Frt not produced." [Possibly infertile] |
| | Humeau, L., Pailler, T., & Thompson, J. D. (1999). Variation in the breeding system of two sympatricDombeya species on La Réunion island. Plant Systematics and Evolution, 218 (1), 77-87 | [Unknown for Dombeya x cayeuxii, but fruit set absent or limited] "In contrast to males of D. delislei that are self-incompatible, the seven D. sp. trees are self-compatible. Self-compatibility is an ideal condition for a plant for establishing a population where population sizes are very small and pollinators lacking (Baker 1 955) as in these Dombeya species. Self-compatibility and high levels of selfing can also be selected in contact zones between taxa (Petit et al. 1 997) or populations (Antonovics 1968) as a mechanism of reproductive isolation and speciation (Grant 1 98 1 ). Although we have no information on the importance of self-compatibility in the establishment of D. sp., our data are consistent with the hypothesis of a complementary genetic breakdown of dioecy and self-incompatibility following hybridization. Elsewhere it is known that the expression of self-incompatibility can be disrupted following interspecific hybridization (Martin 1968)." |

| 605 | **Requires specialist pollinators** | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Kubitzki, K. & Bayer, C. (eds.). 2003. The Families and genera of vascular plants. Volume V. Flowering Plants. Dicotyledons: Capparales, Malvales and Non-betalain Caryophyllales. Springer Verlag, Berlin, Heidelberg, New York | [One parent species is bee pollinated. Dombeya x cayeuxii fruit not known] "Some Dombeyoideae exhibit secondary pollen presentation on petal tips (Trochetiopsis: Brodie et al. 1998) or staminodes (Dombeya species: Yeo 1993; Pentapetes). According to Yeo (1993), the flowers of Dombeya burgessiae are melittophilous; large drops of nectar are stored at the insertion of petals." |

| 606 | **Reproduction by vegetative fragmentation** | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Dave's Garden. 2017. Tropical Hydrangea, Pink-Ball. Dombeya x cayeuxii. https://davesgarden.com/guides/pf/go/195298/. [Accessed 6 Dec 2017] | "Propagation Methods:<br>From woody stem cuttings<br>From semi-hardwood cuttings<br>From hardwood cuttings" |
| | Dave's Garden. 2017. Question on Dombeya wallichii - Pink ball. https://davesgarden.com/community/forums/t/848676/. [Accessed ] | [One parent species spreads by root suckers. Unknown for Dombeya x cayeuxii, but no evidence found] "bedouin Fort Lauderdale, FL (Zone 10b) ... my Dobeya certainly is a 15'+ tree. I imagine that if you tie the very young stems according to a design you'd like them to follow, you may have (some) luck. But it suckers tremendously in zone 10 and I'm forever cutting these out of the ground, off the trunks too." |

| 607 | **Minimum generative time (years)** | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Jarrett, A. 2003. Ornamental Tropical Shrubs. Pineapple Press Inc., Sarasota, FL | "Growth rate: fast" |

| Qsn # | Question | Answer |
|---|---|---|
| | Carolus, B. 2002. Dombeya burgessiae Gerr. ex Harv. PlantZAfrica. SANBI. http://pza.sanbi.org/dombeya-burgessiae. [Accessed 6 Dec 2017] | [One parent species may flower in 3 years] "This species is both easy and very fast growing. Once planted out of its nursery bag it can attain its full size in as little as three years." |

| 701 | Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas) | n |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Kubitzki, K. & Bayer, C. (eds.). 2003. The Families and genera of vascular plants. Volume V. Flowering Plants. Dicotyledons: Capparales, Malvales and Non-betalain Caryophyllales. Springer Verlag, Berlin, Heidelberg, New York | [Generic description. No means of external attachment. Dombeya x cayeuxii fruit production may be absent or limited] "Dombeya ... Fruits loculicidally dehiscent, pericarp thin, pubescent, endocarp sometimes pubescent; seeds 1 to several per locule; endosperm abundant" |

| 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 | "Dombeya x cayeuxii is probably the most frequently cultivated dombeya in Hawai'i, and it makes a truly impressive specimen plant." |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | [Ornamental] "It makes a beautiful garden and street tree and is a sight to be remembered around Christmas whilst in full bloom." |

| 703 | Propagules likely to disperse as a produce contaminant | 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 | "Frt not produced." [Unlikely given limited or absent fruit production in cultivation] |

| 704 | Propagules adapted to wind dispersal | |
|---|---|---|
| | **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 | "Frt not produced." |
| | Rastogi, R. K. 2007. Diversity and Systematics of Seed Plants. Rastogi Publications, Meerut, India | "The winged or samaroid seeds of Pterospem1um and Dombeya are dispersed by wind." [Generic description. Dombeya x cayeuxi seed production may be absent or limited in cultivation] |

| Qsn # | Question | Answer |
|---|---|---|
| **705** | **Propagules water dispersed** | **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 | "Frt not produced." |
| | Kubitzki, K. & Bayer, C. (eds.). 2003. The Families and genera of vascular plants. Volume V. Flowering Plants. Dicotyledons: Capparales, Malvales and Non-betalain Caryophyllales. Springer Verlag, Berlin, Heidelberg, New York | "Fruits loculicidally dehiscent, pericarp thin, pubescent, endocarp sometimes pubescent; seeds 1 to several per locule" [Generic description. No evidence of adaptations for water dispersal] |

| 706 | **Propagules bird dispersed** | **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 | "Frt not produced." |
| | Kubitzki, K. & Bayer, C. (eds.). 2003. The Families and genera of vascular plants. Volume V. Flowering Plants. Dicotyledons: Capparales, Malvales and Non-betalain Caryophyllales. Springer Verlag, Berlin, Heidelberg, New York | "Fruits loculicidally dehiscent, pericarp thin, pubescent, endocarp sometimes pubescent; seeds 1 to several per locule" [Generic description. No evidence of adaptations for bird dispersal] |

| 707 | **Propagules dispersed by other animals (externally)** | **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 | "Frt not produced." |
| | Kubitzki, K. & Bayer, C. (eds.). 2003. The Families and genera of vascular plants. Volume V. Flowering Plants. Dicotyledons: Capparales, Malvales and Non-betalain Caryophyllales. Springer Verlag, Berlin, Heidelberg, New York | "Fruits loculicidally dehiscent, pericarp thin, pubescent, endocarp sometimes pubescent; seeds 1 to several per locule" [Generic description. No means of external attachment] |

| 708 | **Propagules survive passage through the gut** | **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 | "Frt not produced." |
| | Kubitzki, K. & Bayer, C. (eds.). 2003. The Families and genera of vascular plants. Volume V. Flowering Plants. Dicotyledons: Capparales, Malvales and Non-betalain Caryophyllales. Springer Verlag, Berlin, Heidelberg, New York | "Fruits loculicidally dehiscent, pericarp thin, pubescent, endocarp sometimes pubescent; seeds 1 to several per locule" [Generic description. No adaptations for zoochory] |

| 801 | **Prolific seed production (>1000/m2)** | **n** |
|---|---|---|

| Qsn # | Question | Answer |
|---|---|---|
| | **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 | "Frt not produced." |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | "Fruits dry, light brown capsules up to 1,5 cm in diameter." ... "Propagation from cuttings" [No mention of seeds] |
| | Dave's Garden. 2017. Tropical Hydrangea, Pink-Ball. Dombeya x cayeuxii. https://davesgarden.com/guides/pf/go/195298/. [Accessed 6 Dec 2017] | "plant does not set seed, flowers are sterile, or plants will not come true from seed" |

| 802 | **Evidence that a persistent propagule bank is formed (>1 yr)** | **n** |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Royal Botanic Gardens Kew. (2017) Seed Information Database (SID). Version 7.1. Available from: http://data.kew.org/sid/. [Accessed 6 Dec 2017] | "Dombeya burgessiae Harv. Orthodox p 4.283g" [One parent species reported to have orthodox seeds. Unknown if persistent seed banks are formed] |
| | 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 | "Frt not produced." |

| 803 | **Well controlled by herbicides** | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | WRA Specialist. 2017. Personal Communication | Unknown. No information on herbicide efficacy or chemical control of this hybrid |

| 804 | **Tolerates, or benefits from, mutilation, cultivation, or fire** | **y** |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Kunkel, G. 1978. Flowering Trees in Subtropical Gardens. Dr. W. Junk b.v., Publishers, The Hague - Boston - London | "Usually a large shrub and tree-shaped only when frequently pruned ... " [Tolerates frequent pruning] |

| 805 | **Effective natural enemies present locally (e.g. introduced biocontrol agents)** | |
|---|---|---|
| | **Source(s)** | **Notes** |
| | Staples, G.W. & Herbst, D.R. 2005. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI | [Unknown. No mention of natural enemies, pests or pathogens in the Hawaiian Islands] "Dombeya x cayeuxii is probably the most frequently cultivated dombeya in Hawai'i, and it makes a truly impressive specimen plant." |

**Summary of Risk Traits:**

High Risk / Undesirable Traits
• Able to grow in tropical climates
• Other Dombeya species may be weedy
• Tolerates many soil types
• Seeds (if produce) may be dispersed by wind & intentionally by people
• Tolerates frequent pruning

Low Risk Traits
• No reports of invasiveness or naturalization
• Unarmed (no spines, thorns, or burrs)
• Requires full sun
• Ornamental
• Artificial hybrid that may not produce fruit and seeds
• Lack of seed production reduces or eliminates potential for inadvertent dispersal