

Assessment date 16 October 2018 Prepared by Sullivan and Lieurance

| <i>Ipomoea cairica</i> (Mile-a-Minute) Central and South Zone | | Answer | Score |
|--|--|---------------|--------------|
| 1.01 | Is the species highly domesticated? | n | 0 |
| 1.02 | Has the species become naturalised where grown? | | |
| 1.03 | Does the species have weedy races? | | |
| 2.01 | Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10 | 2 | |
| 2.02 | Quality of climate match data (0-low; 1-intermediate; 2-high) | 2 | |
| 2.03 | Broad climate suitability (environmental versatility) | y | 1 |
| 2.04 | Native or naturalized in habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches | y | 1 |
| 2.05 | Does the species have a history of repeated introductions outside its natural range? | y | |
| 3.01 | Naturalized beyond native range | y | 2 |
| 3.02 | Garden/amenity/disturbance weed | unk | |
| 3.03 | Weed of agriculture | n | 0 |
| 3.04 | Environmental weed | y | 4 |
| 3.05 | Congeneric weed | y | 2 |
| 4.01 | Produces spines, thorns or burrs | n | 0 |
| 4.02 | Allelopathic | unk | 0 |
| 4.03 | Parasitic | n | 0 |
| 4.04 | Unpalatable to grazing animals | unk | -1 |
| 4.05 | Toxic to animals | y | 1 |
| 4.06 | Host for recognised pests and pathogens | unk | 0 |
| 4.07 | Causes allergies or is otherwise toxic to humans | y | 1 |
| 4.08 | Creates a fire hazard in natural ecosystems | unk | 0 |
| 4.09 | Is a shade tolerant plant at some stage of its life cycle | n | 0 |
| 4.10 | Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols. | y | 1 |
| 4.11 | Climbing or smothering growth habit | y | 1 |
| 4.12 | Forms dense thickets | y | 1 |
| 5.01 | Aquatic | n | 0 |

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| 5.02 | Grass | n | 0 |
| 5.03 | Nitrogen fixing woody plant | n | 0 |
| 5.04 | Geophyte | n | 0 |
| 6.01 | Evidence of substantial reproductive failure in native habitat | n | 0 |
| 6.02 | Produces viable seed | y | 1 |
| 6.03 | Hybridizes naturally | unk | -1 |
| 6.04 | Self-compatible or apomictic | n | -1 |
| 6.05 | Requires specialist pollinators | n | 0 |
| 6.06 | Reproduction by vegetative propagation | y | 1 |
| 6.07 | Minimum generative time (years) | unk | -1 |
| 7.01 | Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas) | y | 1 |
| 7.02 | Propagules dispersed intentionally by people | y | 1 |
| 7.03 | Propagules likely to disperse as a produce contaminant | n | -1 |
| 7.04 | Propagules adapted to wind dispersal | y | 1 |
| 7.05 | Propagules water dispersed | y | 1 |
| 7.06 | Propagules bird dispersed | y | 1 |
| 7.07 | Propagules dispersed by other animals (externally) | n | -1 |
| 7.08 | Propagules dispersed by other animals (internally) | n | -1 |
| 8.01 | Prolific seed production | n | -1 |
| 8.02 | Evidence that a persistent propagule bank is formed (>1 yr) | unk | -1 |
| 8.03 | Well controlled by herbicides | y | -1 |
| 8.04 | Tolerates, or benefits from, mutilation or cultivation | unk | -1 |
| 8.05 | Effective natural enemies present in U.S. | ? | |
| Total Score | | | 11 |
| Implemented Pacific Second Screening | | | NO |
| Risk Assessment Results | | | HIGH |

| section | # questions answered | satisfy minimum? |
|---------|----------------------|------------------|
| A | | 10 yes |
| B | | 8 yes |
| C | | 19 yes |
| total | | 37 yes |

Assessment date 16 October 2018 Prepared by Sullivan and Lieurance

| <i>Ipomoea cairica</i> (Mile-a-Minute) North Zone | | Answer | Score |
|--|--|---------------|--------------|
| 1.01 | Is the species highly domesticated? | n | 0 |
| 1.02 | Has the species become naturalised where grown? | | |
| 1.03 | Does the species have weedy races? | | |
| 2.01 | Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10 | 1 | |
| 2.02 | Quality of climate match data (0-low; 1-intermediate; 2-high) | 2 | |
| 2.03 | Broad climate suitability (environmental versatility) | y | 1 |
| 2.04 | Native or naturalized in habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches | y | 1 |
| 2.05 | Does the species have a history of repeated introductions outside its natural range? | y | |
| 3.01 | Naturalized beyond native range | y | 1 |
| 3.02 | Garden/amenity/disturbance weed | unk | |
| 3.03 | Weed of agriculture | n | 0 |
| 3.04 | Environmental weed | y | 2 |
| 3.05 | Congeneric weed | y | 1 |
| 4.01 | Produces spines, thorns or burrs | n | 0 |
| 4.02 | Allelopathic | unk | 0 |
| 4.03 | Parasitic | n | 0 |
| 4.04 | Unpalatable to grazing animals | unk | -1 |
| 4.05 | Toxic to animals | y | 1 |
| 4.06 | Host for recognised pests and pathogens | unk | 0 |
| 4.07 | Causes allergies or is otherwise toxic to humans | y | 1 |
| 4.08 | Creates a fire hazard in natural ecosystems | unk | 0 |
| 4.09 | Is a shade tolerant plant at some stage of its life cycle | n | 0 |
| 4.10 | Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols. | y | 1 |
| 4.11 | Climbing or smothering growth habit | y | 1 |
| 4.12 | Forms dense thickets | y | 1 |
| 5.01 | Aquatic | n | 0 |

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|---|--|-----|-------------|
| 5.02 | Grass | n | 0 |
| 5.03 | Nitrogen fixing woody plant | n | 0 |
| 5.04 | Geophyte | n | 0 |
| 6.01 | Evidence of substantial reproductive failure in native habitat | n | 0 |
| 6.02 | Produces viable seed | y | 1 |
| 6.03 | Hybridizes naturally | unk | -1 |
| 6.04 | Self-compatible or apomictic | n | -1 |
| 6.05 | Requires specialist pollinators | n | 0 |
| 6.06 | Reproduction by vegetative propagation | y | 1 |
| 6.07 | Minimum generative time (years) | unk | -1 |
| 7.01 | Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas) | y | 1 |
| 7.02 | Propagules dispersed intentionally by people | y | 1 |
| 7.03 | Propagules likely to disperse as a produce contaminant | n | -1 |
| 7.04 | Propagules adapted to wind dispersal | y | 1 |
| 7.05 | Propagules water dispersed | y | 1 |
| 7.06 | Propagules bird dispersed | y | 1 |
| 7.07 | Propagules dispersed by other animals (externally) | n | -1 |
| 7.08 | Propagules dispersed by other animals (internally) | n | -1 |
| 8.01 | Prolific seed production | n | -1 |
| 8.02 | Evidence that a persistent propagule bank is formed (>1 yr) | unk | -1 |
| 8.03 | Well controlled by herbicides | y | -1 |
| 8.04 | Tolerates, or benefits from, mutilation or cultivation | unk | -1 |
| 8.05 | Effective natural enemies present in U.S. | ? | |
| Total Score | | | 7 |
| Implemented Pacific Second Screening | | | NO |
| Risk Assessment Results | | | HIGH |

| section | # questions answered | satisfy minimum? |
|---------|----------------------|------------------|
| A | | 10 yes |
| B | | 8 yes |
| C | | 19 yes |
| total | | 37 yes |

| | Reference | Source data |
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| 1.01 | | Cultivated, but no evidence of selection for reduced weediness |
| 1.02 | | Skip to question 2.01 |
| 1.03 | | Skip to question 2.01 |
| 2.01 | <p>1. Dave's Garden (http://davesgarden.com/guides/pf/go/53527/ [accessed Oct 10 2017]). 2. USDA Agricultural Research Service (http://planthardiness.ars.usda.gov/PHZMWeb/ [assessed 10 Oct 2017]). 3. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=20148</p> | <p>No computer analysis was performed. 1. Suited to USDA Hardiness Zone 9b: to -3.8 °C (25 °F) USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F) 2. North Florida USDA Hardiness zones are 8a, 8b, 9a and 9b. 3. Native to AFRICA East Tropical Africa: Kenya Macaronesia: Cape Verde Northeast Tropical Africa: Eritrea; Ethiopia; Somalia Northern Africa: Egypt South Tropical Africa: Malawi; Mozambique; Zambia; Zimbabwe Southern Africa: Botswana; South Africa; Swaziland, ASIA-TEMPERATE Arabian Peninsula: Yemen China: China - Fujian, - Guangdong, -Guangxi, - Hainan, - Yunnan Eastern Asia: Japan - Ryukyu Islands; Taiwan Western Asia: Israel; Jordan, ASIA-TROPICAL Indian Subcontinent: India; Nepal; Pakistan; Sri Lanka Indo-China: Myanmar; Thailand; Vietnam Malesia: Indonesia; Malaysia; Philippines Papuasias: Papua New Guinea, AUSTRALASIA New Zealand: New Zealand</p> |
| 2.02 | | No computer analysis was performed. Native range is well known; refer to 2.01 source data. |
| 2.03 | <p>1. Köppen-Geiger climate map (http://koeppen-geiger.vu-wien.ac.at/pdf/kottek_et_al_2006_A4.pdf [accessed 10 Oct 2017]). 2. Global Biodiversity Information Facility (https://www.gbif.org/species/2928531 [assessed 10 Oct 2017]). See source data for 2.01.</p> | <p>1. Distribution in native and cultivated ranges occurs in at least three climate zones. (Csb, Aw, Cwb, Cfb, etc.)</p> |
| 2.04 | <p>1. World Climate Maps (http://www.climate-charts.com/World-Climate-Maps.htm [assessed 12 Oct 2017]) 2. Global Biodiversity Information Facility (https://www.gbif.org/species/2928531 [assessed 12 Oct 2017])</p> | <p>1. The native range includes precipitation averages from 30 inches to 100 inches.</p> |
| 2.05 | <p>1. Global Biodiversity Information Facility (https://www.gbif.org/species/2928531 [assessed 10 Oct 2017]) 2. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0048829#abstract0 3. USDA Plants Database (https://plants.usda.gov/core/profile?symbol=IPCA [assessed 19 Oct 2017])</p> | <p>1. Multiple records outside native range including North and South America, and Australia. Seeds are most likely purchased online from China. 2. <i>Ipomoea cairica</i> is expanding into high salinity salt marshes in Southern China.</p> |

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| 3.01 | <p>1. Weber, E. (2003). Invasive Plant Species of the World: A reference guide to environmental weeds. United Kingdom: CABI. 2.USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=20148</p> | <p>See 2.01 for native distribution range. 1. Naturalized in Tropical Africa, New Zealand, Southeastern USA, Western USA, Tropical South America, Chile, Argentina and Cape Verde. 2. ASIA-TOPICAL Papuaia: Solomon Islands, AUSTRALASIA Australia: Australia, EUROPE Southeastern Europe: Malta, NORTHERN AMERICA Southeastern U.S.A.: United States - Florida, - Louisiana Southern Mexico: Mexico - Oaxaca Southwestern U.S.A.: United States - California, PACIFIC North-Central Pacific: United States - Hawaii Northwestern Pacific: Micronesia South-Central Pacific: French Polynesia Southwestern Pacific: Fiji; New Caledonia; Tonga, SOUTHERN AMERICA Brazil: Brazil Caribbean: Jamaica Central America: Honduras Northern South America: Guyana; Venezuela Southern South America: Argentina; Chile; Paraguay; Uruguay Western South America: Bolivia; Colombia; Ecuador; Peru</p> |
| 3.02 | <p>1.Hornsby Hire Councils Bushland and Biodiversity Team (http://www.hornsby.nsw.gov.au/media/documents/environment-and-waste/bushland-and-biodiversity/weeds/information-sheets/Morning-Glory-Coastal-Information-Sheet.pdf [assessed 16 Oct 2017])</p> | <p>1. Known to spread from gardens to neighboring properties due to its quick growing vines.</p> |
| 3.03 | | |
| 3.04 | <p>1. Weber, E. (2003). Invasive Plant Species of the World: A reference guide to environmental weeds. United Kingdom: CABI. 2. Yu, H., Liu, J., He, WM. et al. Biol Invasions (2011) 13: 747. https://doi.org/10.1007/s10530-010-9865-x 3.Queensland Government (https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/weeds-diseases/invasive-plants/other/coastal-morning-glory [assessed 12 Oct 2017])</p> | <p>1. Long climbing stems can smother vegetation preventing the vegetation from growing and reproducing. 2. Known to alter habitats by climbing over plant species and suppressing their growth. 3. Considered an environmental weed causing habitat destruction, biodiversity reduction, and overwhelming native vegetation.</p> |
| 3.05 | <p>1. A Geographical Atlas of World Weeds (Holm et al. 1979) 2.UF IFAS Center for Aquatic and Invasive Plants (https://plants.ifas.ufl.edu/plant-directory/ipomoea-aquatica/ [assessed 22 Oct 2017]) 3. USDA Natural Resources Conservation Service (https://plants.usda.gov/java/invasiveOne?startChar=I [22 Oct 2017])</p> | <p>There are multiple congeners which include <i>Ipomoea aquatica</i> and <i>Ipomoea purpurea</i>.</p> |
| 4.01 | <p>1. Flora of China (http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200018844 [assessed 12 Oct 2017])</p> | |

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| 4.02 | 1. Ferguson, J. J., Rathinasabapathi, B., Chase, C. A., (2003 July). Allelopathy: How Plants Suppress Other Plants https://edis.ifas.ufl.edu/pdffiles/HS/HS18600.pdf | 1. When exposed to higher temperatures, the allelopathic potential of <i>Ipomoea cairica</i> increases. In order for a plant species to be considered allelopathic, the allelochemicals must be present in the environment in a concentration large enough to provoke harm to other plant species in the area. Although <i>Ipomoea cairica</i> has allelopathic potential, it does not produce sufficient concentration of allelochemicals to cause harm to its surrounding and is therefore not considered to be allelopathic under these circumstances. 2. Exhibits allelopathic potential and under lab conditions it negatively impacts the germination and development of <i>Bidens pilosa</i> L., <i>Echinochloa crus-galli</i> (L.) Beauv., <i>Euphorbia heterophylla</i> L. and <i>Ipomoea grandifolia</i> . |
| 4.03 | | |
| 4.04 | http://www.sciencedirect.com/science/article/pii/S0378874105007063#aep-bibliography-id36 | No evidence. In Brazil it is common to find <i>Ipomoea cairica</i> in grazelands which were once used for growing crops. |
| 4.05 | 1. The American Society for the Prevention of Cruelty to Animals (https://www.asPCA.org/pet-care/animal-poison-control/horse-plant-list [assessed 20 Oct 2017]) 2. Pet Poison Helpline (http://www.petpoisonhelpline.com/poison/morning-glory/ [assessed 22 Oct 2017]) | 1. The <i>Ipomoea</i> spp. is toxic to horses if ingested. 2. <i>Ipomoea</i> spp. is poisonous to dogs and cats when large quantities of seeds are ingested. The seeds contain lysergic alkaloids which can cause incoordination, diarrhea, anemia and hepatic failure. |
| 4.06 | | No evidence. |
| 4.07 | 1. Bruneton, J. (1999). Toxic Plants: Dangerous to Humans and Animals. Paris, France: Lavoisier 2. California Poison Control System 2010 (http://calpoison.org/hcp/KNOW%20YOUR%20PLANTS-plant%20list%20for%20CPCS%2009B.pdf [assessed 19 Oct 2017]) 3. State of New South Wales Profitable and Sustainable Primary Industries (https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0008/112796/garden-plants-poisonous-to-people.pdf [assessed 19 Oct 2017]) | 1. Seeds of Convolvulaceae (<i>Ipomoea</i> spp.) have hallucinogenic effect on humans, like LSD. The structure of the ergolines synthesized by <i>Ipomoea</i> sp. resembles a structure similar to LSD. There is one known case in which the consumption of Convolvulaceae seeds resulted in death. 2. The seeds of the <i>Ipomoea</i> spp. have a toxic plant rating of 4 out of 4 according to the California Poison Control System 2010. If large quantities of the seeds are ingested the heart, liver, kidneys or brain could be negatively impacted. Ingestion of the seeds has the potential to be life threatening. 3. <i>Ipomoea indica</i> seeds are known to cause visual distortion, restlessness and nausea if ingested. |
| 4.08 | | No evidence. |
| 4.09 | 1. Yu, H., Liu, J., He, W.M. et al. <i>Biol Invasions</i> (2011) 13: 747. https://doi.org/10.1007/s10530-010-9865-x 2. Daves Garden (https://davesgarden.com/guides/pf/go/53527/ [assessed 19 Oct 2017]) | 1. Adapted to a sunny and wet environment. 2. Requires full sun exposure. |
| 4.10 | 1. Weeds of Byron Shire (www.byron.nsw.gov.au/files/species/weeds/Five-leaved_Morning_Glory.pdf [assessed 19 Oct 2017]) 2. International Society for Horticulture Science (http://www.actahort.org/books/1000/1000_18.htm http://tropical.thefems.info/viewtropical.php?id=Ipomoea+cairica [assessed 19 Oct 2017]) | 1. Tolerates wide variety of soil types. 2. Found naturally in poor and degraded soils. |

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| 4.11 | 1. Weber, E. (2003). Invasive Plant Species of the World: A reference guide to environmental weeds. United Kingdom: CABI. 2. Yu, H., Liu, J., He, WM. et al. Biol Invasions (2011) 13: 747. https://doi.org/10.1007/s10530-010-9865-x 3. http://europemc.org/abstract/cba/645815 4. Hornsby Hire Councils Bushland and Biodiversity Team (http://www.hornsby.nsw.gov.au/media/documents/environment-and-waste/bushland-and-biodiversity/weeds/information-sheets/Morning-Glory-Coastal-Information-Sheet.pdf [assessed 16 Oct 2017]) | 1. Long climbing stems can smother native vegetation. 2. Suffocates plants as it climbs over them, altering habitats. 3. "It forms dense tangles that smother other more desirable plants and is costly to remove." |
| 4.12 | 1. Hornsby Hire Councils Bushland and Biodiversity Team (http://www.hornsby.nsw.gov.au/media/documents/environment-and-waste/bushland-and-biodiversity/weeds/information-sheets/Morning-Glory-Coastal-Information-Sheet.pdf [assessed 16 Oct 2017]) 2. New South Wales Department of Primary Industries (http://weeds.dpi.nsw.gov.au/Weeds/Details/89 [assessed Oct 12 2017]) | 1. Formation of dense tangles. 2. Known to form a dense mat of vegetation over ground or supporting figure. |
| 5.01 | Flora of China (http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200018844 [assessed 16 Oct 2017]) | |
| 5.02 | Flora of China (http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200018844 [assessed 16 Oct 2017]) | |
| 5.03 | 1. ZUHARAH, W. F., AHBIRAMI, R., DIENG, H., THIAGALETCHUMI, M., & FADZLY, N. (2016). EVALUATION OF SUBLETHAL EFFECTS OF <i>Ipomoea cairica</i> LINN. EXTRACT ON LIFE HISTORY TRAITS OF DENGUE VECTORS. <i>Revista Do Instituto de Medicina Tropical de São Paulo</i> , 58, 44. http://doi.org/10.1590/S1678-9946201658044 | Not a member of a family known to fix nitrogen. 1. It is an herbaceous perennial; therefore, it does not meet the woody requirement in the question. |
| 5.04 | Flora of China (http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200018844 [assessed 16 Oct 2017]) | |
| 6.01 | | No evidence. |
| 6.02 | 1. Weeds of Australia Biosecurity Queensland Edition (https://keyserver.lucidcentral.org/weeds/data/media/html/ipomoea_cairica.htm [assessed 22 Oct 2017]) | 1. This plant reproduces vegetatively by rooting along its stems and also produces seeds. |
| 6.03 | | |
| 6.04 | 1. Sood, R., Prabha, K., Govil, S. et al. <i>Euphytica</i> (1982) 31: 333. 2. Maimoni-Rodella, R.C.S., & Yanagizawa, Y.A.N.P.. (2007). Floral biology and breeding system of three <i>Ipomoea</i> weeds. <i>Planta Daninha</i> , 25(1), 35-42. https://dx.doi.org/10.1590/S0100-83582007000100004 https://doi.org/10.1007/BF00021648 | 1. "Exhibits sporophytic self-incompatibility" 2. Melittophilous weed relying on non-specific pollinators. |

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| 6.05 | <p>1. LEONARDO GALETTO, GABRIEL BERNARDELLO; Floral Nectaries, Nectar Production Dynamics and Chemical Composition in Six Ipomoea Species (Convolvulaceae) in Relation to Pollinators, <i>Annals of Botany</i>, Volume 94, Issue 2, 1 August 2004, Pages 269–280, https://doi.org/10.1093/aob/mch137 2. http://europemc.org/abstract/cba/645815 3. Schlising RA. 1970. Sequence and timing of bee foraging in flowers of Ipomoea and Aniseia (Convolvulaceae). <i>Ecology</i> 51: 1061–1067.</p> | <p>1. Visited by a wide variety of pollinators including bees, hawk moths, beetles, butterflies, long-tongued flies, and bats. 2. Carpenter bees are proven to be an effective pollinator, while flies and butterflies are not as habitual. 3. In Costa Rica the bee families Anthophoridae, Apidae, Colletidae, and Halictidae are commonly found pollinating Ipomoea species.</p> |
| 6.06 | <p>1. Yu, H., Liu, J., He, WM. et al. <i>Biol Invasions</i> (2011) 13: 747. https://doi.org/10.1007/s10530-010-9865-x 2. Environmental Weeds of Australia for Biosecurity Queensland (https://keyserver.lucidcentral.org/weeds/data/media/Html/ipomoea_cairica.htm [assessed 12 Oct 2017])</p> | <p>1. Spreads across ground scapes by stolons and reproduces through re-sprouting stems. 2. "Plant reproduces vegetatively by rooting along its stems."</p> |
| 6.07 | <p>1. Hornsby Hire Councils Bushland and Biodiversity Team (http://www.hornsby.nsw.gov.au/media/documents/environment-and-waste/bushland-and-biodiversity/weeds/information-sheets/Morning-Glory-Coastal-Information-Sheet.pdf [assessed 16 Oct 2017])</p> | <p>1. Has the ability to flower all year around. Fruit capsule matures over the summer.</p> |
| 7.01 | <p>1. Weeds of Australia Biosecurity Queensland Edition (https://keyserver.lucidcentral.org/weeds/data/media/Html/ipomoea_cairica.htm [assessed 22 Oct 2017]) 2. City of Gold Coast Australia (http://www.goldcoast.qld.gov.au/documents/bf/weed-profile-coastal-morning-glory.pdf [assessed 16 Oct 2017])</p> | <p>1. Stems unintentionally dispersed through garden waste and water runoff. 2. Humans and garden dumpings are responsible for dispersal of seeds and stems.</p> |
| 7.02 | <p>1. http://www0.nih.go.jp/JJID/57/176.pdf 2. New South Wales Department of Primary Industries (http://weeds.dpi.nsw.gov.au/Weeds/Details/89 [assessed Oct 12 2017])</p> | <p>1. Ornamental plant that is commonly used as fencing in domesticated areas. 2. Cultivated as a garden ornamental.</p> |
| 7.03 | | <p>No evidence. Unlikely to contaminate produce or interfere with horticulture activity.</p> |
| 7.04 | <p>1. Weber, E. (2003). <i>Invasive Plant Species of the World: A reference guide to environmental weeds</i>. United Kingdom: CABI. 2. Environmental Weeds of the Redlands (https://www.redland.qld.gov.au/.../id/.../environmental_weeds_of_the_redlands.pdf [assessed 22 Oct 2017])</p> | <p>1. Seeds are dispersed by wind or water. 2. Dispersed by wind, water and humans.</p> |
| 7.05 | <p>1. Weber, E. (2003). <i>Invasive Plant Species of the World: A reference guide to environmental weeds</i>. United Kingdom: CABI. 2. Hornsby Hire Councils Bushland and Biodiversity Team (http://www.hornsby.nsw.gov.au/media/documents/environment-and-waste/bushland-and-biodiversity/weeds/information-sheets/Morning-Glory-Coastal-Information-Sheet.pdf [assessed 16 Oct 2017]) 3. City of Gold Coast Australia (http://www.goldcoast.qld.gov.au/documents/bf/weed-profile-coastal-morning-glory.pdf [assessed 16 Oct 2017])</p> | <p>1. Seeds are dispersed by wind or water. 2. "The seeds are easily dispersed by water garden refuse." 3. Ipomoea cairica seeds are dispersed by humans, rubbish dumping, vegetative reproduction, water and gravity.</p> |
| 7.06 | <p>1. Weeds of Byron Shire (www.byron.nsw.gov.au/files/species/weeds/Five-leaved_Morning_Glory.pdf [assessed 19 Oct 2017])</p> | <p>1. Seeds are dispersed by water and birds.</p> |

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| 7.07 | 1. Pacific Island Ecosystems at Risk (http://www.hear.org/pier/species/ipomoea_cairica.htm [assessed 22 Oct 2017]) 2. Weeds of Australia Biosecurity Queensland Edition (https://keyserver.lucidcentral.org/weeds/data/media/Html/ipomoea_cairica.htm [assessed 22 Oct 2017]) | There is evidence that seeds have silky hairs, which could be used to attach to animals externally. However, there is no evidence that clearly states that propagules are dispersed externally by animals. 1. Long silky hairs along the margin 2. Partially covered in hairs |
| 7.08 | | No evidence. It is unlikely that <i>Ipomoea cairica</i> seeds would be dispersed internally by animals as seeds are not encased in a fruit, which is typical of seeds dispersed by animals and is poisonous to cats, dogs and horses. |
| 8.01 | Weber, E. (2003). <i>Invasive Plant Species of the World: A reference guide to environmental weeds</i> . United Kingdom: CABI. | No evidence. It is not apparent that there is prolific seed production. Each flower produces 2 to 4 seeds. |
| 8.02 | Kew Royal Botanical Gardens (http://data.kew.org/sid/SidServlet?ID=31300&Num=moL [assessed 16 Oct 2017]) | No data available for species. Of 61 known taxa of genus <i>Ipomoea</i> , 98.36% Orthodox. |
| 8.03 | 1. Weber, E. (2003). <i>Invasive Plant Species of the World: A reference guide to environmental weeds</i> . United Kingdom: CABI. 2. New South Wales Department of Primary Industries (http://weeds.dpi.nsw.gov.au/Weeds/Details/89 [assessed Oct 12 2017]) | 1. Effective when long vines are removed manually and the lower lying areas of the plant are sprayed with herbicides. 2. Suggested herbicide use includes: Glyphosate, Glyphosate with Metsulfuron-methyl, Dichlorprop, and Picloram. |
| 8.04 | The Western Australian FloraBase (https://florabase.dpaw.wa.gov.au/browse/profile/6620 [assessed 16 Oct 2017]) | Likely, but insufficient data to answer. 1. Stems have the ability to resprout after being ripped or cut. |
| 8.05 | | No evidence. |