

Assessment date 6 October 2015

<b><i>Canna indica</i> ALL ZONES</b>		<b>Answer</b>	<b>Score</b>
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	y	2
3.03	Weed of agriculture	y	4
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	n	-1
4.05	Toxic to animals	n	0
4.06	Host for recognised pests and pathogens	y	1
4.07	Causes allergies or is otherwise toxic to humans	n	0
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.	unk	0
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	y	1
5.01	Aquatic	n	0
5.02	Grass	n	0
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte	y	1
6.01	Evidence of substantial reproductive failure in native habitat	n	0
6.02	Produces viable seed	y	1

6.03	Hybridizes naturally	y	1
6.04	Self-compatible or apomictic	y	1
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)	1	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	n	-1
7.05	Propagules water dispersed	y	1
7.06	Propagules bird dispersed	y	1
7.07	Propagules dispersed by other animals (externally)	unk	-1
7.08	Propagules dispersed by other animals (internally)	y	1
8.01	Prolific seed production	n	-1
8.02	Evidence that a persistent propagule bank is formed (>1 yr)	y	1
8.03	Well controlled by herbicides	unk	1
8.04	Tolerates, or benefits from, mutilation or cultivation	y	1
8.05		?	
<b>Total Score</b>			<b>27</b>
<b>Implemented Pacific Second Screening</b>			<b>no</b>
<b>Risk Assessment Results</b>			<b>High</b>

section	# questions answered	satisfy minimum?
A		11 yes
B		9 yes
C		21 yes
total		41 yes

	Reference	Source data
1.01	1. University of Florida IFAS Nassau County Extension. <a href="http://nassau.ifas.ufl.edu/horticulture/yuleeplants/canna.html">http://nassau.ifas.ufl.edu/horticulture/yuleeplants/canna.html</a> (Accessed: 18 August 2015) 2. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/wra/pacific/canna_indica_htmlwra.htm">http://www.hear.org/pier/wra/pacific/canna_indica_htmlwra.htm</a> (Accessed: 18 August 2015)	Although highly domesticated, no evidence that this resulted in reduced weediness. 1. "Present-day cannas have descended from the old-fashioned Indian Shot, <i>Canna indica</i> ... Cannas of today bear little resemblance to their ancestors. Their large flowers are available in such colors as ivory, yellow, rose, salmon, crimson and red. Many of their growth characteristics also have been modified to make cannas more suitable for landscape planting. There are dwarf cultivars now that grow only 1.8 feet (45 cm) in height and tall ones that attain a height of 6 feet (180 cm) as well as intermediate ones." 2. "(1)Formerly recognized as a distinct species called <i>C. edulis</i> , today the edible canna is considered to be a form of <i>C. indica</i> selected for production of a larger quantity of edible starch in the rhizome. It has been cultivated in Hawaii for use as a livestock feed, and during World War II it was grown as an emergency food plant. This form is more robust, reaching 6-10' in height and producing 20-40 stalks from the large rhizome, with red or yellow flowers about 3" long"
1.02		
1.03		
2.01	1. PERAL NAPPFAST Global Plant Hardiness. <a href="http://www.nappfast.org/Plant_hardiness/2012/PHZ%20update%201230%20yr%20%20300dpi.tif">http://www.nappfast.org/Plant_hardiness/2012/PHZ%20update%201230%20yr%20%20300dpi.tif</a> (Accessed: 10 August 2015) 2. Dave's Garden. <a href="http://davesgarden.com/guides/pf/go/477/">http://davesgarden.com/guides/pf/go/477/</a> (Accessed: 10 August 2015) 3. USDA Germplasm Resources Information Network. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858</a> (Accessed: 10 August 2015)	No computer analysis was performed. 1. Florida North Zone: Hardiness zones 8 and 9. Central Zone: Hardiness zones 9 and 10. South Zone: Hardiness zone 10. 2. Present in the following global plant hardiness zones: 8, 9, 10, and 11. 3. Native to Mexico, Antigua and Barbuda, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Netherlands Antilles, Puerto Rico, St. Kitts and Nevis, St. Vincent and Grenadines, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, French Guiana, Guyana, Suriname, Venezuela, Brazil, Bolivia, Colombia, Ecuador, Peru, Argentina, Paraguay, and Uruguay. Naturalized within Cape Verde, Portugal, Spain, Ethiopia, Guinea, Angola, Malawi, Mozambique, Zambia, Zimbabwe, South Africa, Madagascar, Mauritius, Mayotte, Reunion, Yemen, India, Nepal, Sri Lanka, Thailand, Philippines, Australia, New Zealand, Portugal, Spain, Florida, Louisiana, South Carolina, Texas, Hawaii, Micronesia, Palau, Cook Islands, French Polynesia, Pitcairn, Fiji, Samoa, and Tonga.
2.02		Well suited to all of the above hardiness zones.

2.03	<p>1. The University of Melbourne. Köppen-Geiger Climate Map of the World. <a href="http://people.eng.unimelb.edu.au/mpeel/koppen.html">http://people.eng.unimelb.edu.au/mpeel/koppen.html</a> (Accessed: 10 August 2015) 2. USDA Germplasm Resources Information Network. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858</a> (Accessed: 10 August 2015)</p>	<p>1. Present in the following Köppen-Geiger Climate zones: Af, Am, Aw, BWh, BWk, BSh, BSk, Csa, Csb, Cwa, Cwb, Cfa, and Cfb. 2. Native to Mexico, Antigua and Barbuda, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Netherlands Antilles, Puerto Rico, St. Kitts and Nevis, St. Vincent and the Grenadines, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, French Guiana, Guyana, Suriname, Venezuela, Brazil, Bolivia, Colombia, Ecuador, Peru, Argentina, Paraguay, and Uruguay. Naturalized within Cape Verde, Portugal, Spain, Ethiopia, Guinea, Angola, Malawi, Mozambique, Zambia, Zimbabwe, South Africa, Madagascar, Mauritius, Mayotte, Reunion, Yemen, India, Nepal, Sri Lanka, Thailand, Philippines, Australia, New Zealand, Portugal, Spain, Florida, Louisiana, South Carolina, Texas, Hawaii, Micronesia, Palau, Cook Islands, French Polynesia, Pitcairn, Fiji, Samoa, and Tonga.</p>
2.04	<p>1. Climate Charts. World Climate Maps. <a href="http://www.climate-charts.com/World-Climate-Maps.html#rain">http://www.climate-charts.com/World-Climate-Maps.html#rain</a> (Accessed: 10 August 2015)</p>	<p>1. Native to areas with rainfall in these ranges</p>
2.05	<p>1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Global Invasive Species Database. <a href="http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN">http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN</a> (Accessed: 11 August 2015)</p>	<p>1. "It was introduced widely and is now cultivated pantropically and in other warmer regions of the world. In many regions, including South-East Asia and the Pacific it has also become naturalized." 2. "Known introduced range: American Samoa, Commonwealth of the Northern Mariana Islands, Cook Islands, Federated States of Micronesia; may be present on other islands as well, Kosrae, Pohnpei, Yap, Caroline outer islands, Fiji, French Polynesia, Guam, Hawai'i, Kermadec Islands, Kiribati, Marshall Islands, Kwajalein, Majuro, New Caledonia, Niue, Norfolk Island, Palau, Pitcairn Island, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, Wallis and Futuna, New Zealand and Christmas Island."</p>
3.01	<p>1. USDA Germplasm Resources Information Network. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858</a> (Accessed: 10 August 2015) 2. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)</p>	<p>1. Naturalized within Cape Verde, Portugal, Spain, Ethiopia, Guinea, Angola, Malawi, Mozambique, Zambia, Zimbabwe, South Africa, Madagascar, Mauritius, Mayotte, Reunion, Yemen, India, Nepal, Sri Lanka, Thailand, Philippines, Australia, New Zealand, Portugal, Spain, Florida, Louisiana, South Carolina, Texas, Hawaii, Micronesia, Palau, Cook Islands, French Polynesia, Pitcairn, Fiji, Samoa, and Tonga. 2. "Locations within which <i>Canna indica</i> is naturalised include eastern and south-eastern Australia. New Zealand, southern USA, southern and eastern Africa, Hawaii and several other Pacific islands."</p>
3.02	<p>1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Global Invasive Species Database. <a href="http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN">http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN</a> (Accessed: 11 August 2015) 3. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)</p>	<p>1. "in Fiji it is naturalized and often frequent around villages, along roadsides, in coconut plantations, in clearings, and in forest near streams"; "In its native area, e.g. Nicaragua, it is recorded as 'frequent in woods and disturbed areas'" 2. "In Hawai'i, 'naturalised primarily in disturbed mesic to wet forest" 3. "Swamp and wetland edges, streambanks and other moist areas. Sometimes also found growing in old gardens, disturbed sites and waste areas."</p>

3.03	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/species/canna_indica/">http://www.hear.org/gcw/species/canna_indica/</a> (Accessed: 11 August 2015) 3. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)	1. "C. indica is noted as a persistent weed in abaca ( <i>Musa textilis</i> ) crops in the Philippines (Tabora, 1979), and is found in coconut ( <i>Cocos nucifera</i> ) plantations in Fiji." 2. Listed as an agricultural weed. 3. "In Hawaii it also a weed of plantation crops (e.g. coconut)"
3.04	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/species/canna_indica/">http://www.hear.org/gcw/species/canna_indica/</a> (Accessed: 11 August 2015) 3. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)	1. "C. indica grows in thickets, crowding out other plants."; "C. indica has a tendency to form clumps via vegetative spread of the rhizomes, and out-competes native vegetation, though there is no specific information on damage caused to the environment or biodiversity." 2. Listed as an environmental weed 3. "Canna indica forms large dense clumps, particularly in riparian zones (banks of watercourses), and replaces native freshwater and wetland species. It can restrict water movement, cause flooding, and limit access to waterways."
3.05	1. Global Compendium of Weeds. <a href="http://www.hear.org/gcw/scientificnames/scinamec.htm">http://www.hear.org/gcw/scientificnames/scinamec.htm</a> (Accessed: 11 August 2015)	1. <i>Canna flaccida</i> is listed as a noxious weed, <i>Canna generalis</i> is listed as an environmental weed, <i>Canna lutea</i> is listed as an environmental weed, and <i>Canna orchiodes</i> is listed as an environmental weed
4.01	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Global Invasive Species Database. <a href="http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN">http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN</a> (Accessed: 11 August 2015)	1&2. These features not listed in the description of the species
4.02	1. EBSCO Host Connection. Allelopathy Journal. <a href="http://connection.ebscohost.com/c/articles/43308318/allelopathic-effects-canna-indica-paddy-weeds">http://connection.ebscohost.com/c/articles/43308318/allelopathic-effects-canna-indica-paddy-weeds</a> (Accessed: 11 August 2015)	1. "Aqueous extracts (1, 2, 4, 8 %, w/v) from its powdered naturally withered aerial parts inhibited the seed germination and seedling growth of lettuce ( <i>Lactuca sativa</i> L.) and two major weed spp. [barnyardgrass ( <i>Echinochloa crusgalli</i> L.) and monchoria ( <i>Monocharia vaginalis</i> P.)]. All <i>C. indica</i> dried powders at 50, 100, 150 gm <sup>-2</sup> significantly inhibited the emergence and dry weights of weeds in paddy field but had no adverse effects on growth of transplanted rice. These results showed that <i>C. indica</i> plants might be used as a natural herbicide to control weeds in paddy field." --- however, this is in a laboratory setting with concentrated solutions
4.03		No evidence
4.04	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015)	1. "Uses list: Animal feed, fodder, forage Fodder/animal feed"; "Both leaves and the rhizomes can be used as cattle feed."
4.05	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015)	1. "Uses list: Animal feed, fodder, forage Fodder/animal feed"; "Both leaves and the rhizomes can be used as cattle feed."
4.06	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015)	1. "Generally, <i>C. indica</i> is a hardy plant with only a few diseases and pests. <i>Fusarium</i> , <i>Puccinia</i> and <i>Rhizoctonia</i> spp. are possible fungal diseases, and a number of common crop viruses can also infect the plant. Other species-specific strains have been identified and given species rank in India, <i>Cercospora cannae</i> (Kar and Ray, 1985) and <i>Puccinia cannacearum</i> (Bagyanarayana and Ramesh, 1999). Beetles and grasshoppers may feed on the foliage, and cutworms ( <i>Agrotis</i> spp.) attack the rhizomes."; " <i>C. indica</i> is also an alternative host for a number of crop pests, including Banana bunchy top virus, Cucumber mosaic virus, Tomato spotted wilt virus, and a range of pathogenic diseases."
4.07		no evidence

4.08	1. Australian Government. <a href="http://www.fire.tas.gov.au/publications/1709%20Brochure.pdf">http://www.fire.tas.gov.au/publications/1709%20Brochure.pdf</a> (Accessed: 11 August 2015)	1. "Moderate Flammability: These plants should be avoided in the Building Protection Zone. They should not be allowed dominate your garden and should be well maintained, being especially careful to remove dead material before it accumulates." --- insufficient evidence
4.09	1. Dave's Garden. <a href="http://davesgarden.com/guides/pf/go/477/">http://davesgarden.com/guides/pf/go/477/</a> (Accessed: 10 August 2015) 2. University of Florida IFAS Nassau County Extension. <a href="http://nassau.ifas.ufl.edu/horticulture/yuleeplants/canna.html">http://nassau.ifas.ufl.edu/horticulture/yuleeplants/canna.html</a> (Accessed: 18 August 2015)	1. "Sun Exposure: Full Sun" 2. "Cannas are essentially sun plants and will perform well if grown under full sun or semi-shaded areas."
4.10	1. Dave's Garden. <a href="http://davesgarden.com/guides/pf/go/477/">http://davesgarden.com/guides/pf/go/477/</a> (Accessed: 10 August 2015) 2. Plants for a Future. <a href="http://www.pfaf.org/user/Plant.aspx?LatinName=Canna+indica">http://www.pfaf.org/user/Plant.aspx?LatinName=Canna+indica</a> (Accessed: 11 August 2015)	1. "Water Requirements: Requires consistently moist soil; do not let dry out between waterings" 2. "Requires a deep rich well-drained soil in a sunny position"
4.11	1. USDA Plants Database. <a href="http://plants.usda.gov/core/profile?symbol=cain19">http://plants.usda.gov/core/profile?symbol=cain19</a> (Accessed: 11 August 2015)	1. "Habit: Forb/herb"
4.12	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)	1. "C. indica grows in thickets, crowding out other plants."; "C. indica has a tendency to form clumps via vegetative spread of the rhizomes, and out-competes native vegetation" 2. "Canna indica forms large dense clumps, particularly in riparian zones (banks of watercourses), and replaces native freshwater and wetland species. It can restrict water movement, cause flooding, and limit access to waterways."
5.01	1. USDA Germplasm Resources Information Network. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858</a> (Accessed: 10 August 2015)	1. "Family: Cannaceae"
5.02	1. USDA Germplasm Resources Information Network. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858</a> (Accessed: 10 August 2015)	1. "Family: Cannaceae"
5.03	1. USDA Germplasm Resources Information Network. <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858">http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?8858</a> (Accessed: 10 August 2015)	1. "Family: Cannaceae"
5.04	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. InTech. <a href="http://cdn.intechopen.com/pdfs-wm/32925.pdf">http://cdn.intechopen.com/pdfs-wm/32925.pdf</a> (Accessed: 18 August 2015)	1. "Rhizome branching horizontally, up to 60 cm long and 10 cm in diameter, with fleshy segments resembling corms, covered with scale leaves, and thick fibrous roots. Stem fleshy, arising from the rhizome, usually 1-1.5 m tall, often tinged with purple." 2. "geophytes such as species of the genus Canna"
6.01		No evidence of substantial reproductive failure
6.02	1. Dave's Garden. <a href="http://davesgarden.com/guides/pf/go/477/">http://davesgarden.com/guides/pf/go/477/</a> (Accessed: 10 August 2015) 2. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)	1. "Propagation Methods: From seed" 2. "This species reproduces by seed and vegetatively via its fleshy underground stems (rhizomes)."

6.03	<p>1. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/wra/pacific/canna_indica_htmlwra.htm">http://www.hear.org/pier/wra/pacific/canna_indica_htmlwra.htm</a> (Accessed: 11 August 2015) 2. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 18 August 2015)</p>	<p>1. "(1)Readily hybridizes with other species to form a wide spectrum of horticultural variants with showy flowers." 2. "The present-day ornamental garden <i>C. indica</i>, an assortment of probably over 1000 cultivars, most falling into two main groups of complex hybrids: <i>Canna indica</i> x <i>generalis</i> L.H. Bailey (principal progenitors are <i>C. indica</i>, <i>Canna glauca</i> L., <i>Canna iridiflora</i> Ruiz &amp; Pavon and <i>Canna warszewiczii</i> A. Dietr.: flowers up to 10 cm diameter, not tubular at base, petals not reflexed, staminodes and labellum erect or spreading) and <i>C. indica</i> x <i>orchiodes</i> L.H. Bailey (principal progenitors are <i>Canna flaccida</i> Salisb. and <i>C. indica</i> x <i>generalis</i> cvs Crozy <i>canna</i>: flowers up to 20 cm in diameter, tubular at base, petals reflexed, staminodes wavy and exceeded by the labellum). Many cultivars are available in these hybrid complexes, with handsome yellow, pink, orange, red or variegated flowers and green, crimson, purple or variegated foliage."</p>
6.04	<p>1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015)</p>	<p>1. "the species being autogamous"</p>
6.05	<p>1. Plant Systematics and Evolution. <a href="http://link.springer.com/article/10.1007%2Fs00606-010-0379-x">http://link.springer.com/article/10.1007%2Fs00606-010-0379-x</a> (Accessed: 11 August 2015) 2. The Plant Nursery, Inc. <a href="http://www.plantdelights.com/Article/Canna-Lily">http://www.plantdelights.com/Article/Canna-Lily</a> (Accessed: 18 August 2015)</p>	<p>1. Pollinated by hummingbirds 2. "Day-flowering <i>Canna</i> are pollinated by bees or hummingbirds"</p>
6.06	<p>1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Global Invasive Species Database. <a href="http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN">http://www.issg.org/database/species/ecology.asp?si=640&amp;fr=1&amp;sts=sss&amp;lang=EN</a> (Accessed: 11 August 2015) 3. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)</p>	<p>1. "but spread, at least locally, is more likely to be gradual via rhizomes" 2. "It is difficult to remove due to its spread by rhizomes" 3. "This species reproduces by seed and vegetatively via its fleshy underground stems (rhizomes)."</p>
6.07	<p>1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Smithsonian National Museum of Natural History. <a href="http://botany.si.edu/zingiberales/genera/genuspage.cfm?mygenus=Canna&amp;myfamily=Cannaceae">http://botany.si.edu/zingiberales/genera/genuspage.cfm?mygenus=Canna&amp;myfamily=Cannaceae</a> (Accessed: 18 August 2015)</p>	<p>1. "In tropical regions flowering starts a few months after planting and flowers continue to appear as long as the plant lives." 2. "Seeds germinate and produce reproductive shoots in a single growing season (less than 4 months)"</p>
7.01	<p>1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)</p>	<p>1. "in Fiji it is naturalized and often frequent around villages, along roadsides, in coconut plantations, in clearings, and in forest near streams"; Pathway Vectors: Soil, sand, gravel, etc. (Local) 2. "the seeds and rhizomes may also be spread by floods and in dumped garden waste"</p>
7.02	<p>1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)</p>	<p>1. "Protected over winter, it will also be found in many temperate countries as a garden ornamental"; "However, the principle means for long-distance dispersal, internationally and nationally, will be the sale and planting of <i>C. indica</i> as an ornamental species. Seed are also widely available via internet-based seed suppliers." 2. These plants have many desirable characteristics. "They come in beautiful and exotic yellow, orange, pink or red blossoms, sometimes with spots or flames on it. The blossoms of the cultivated varieties are much bigger than those of <i>Canna indica</i> (Bourne et al.1988). They come in many colours while the flowers of the wild-growing <i>Canna</i> only come in red and yellow. The seeds are used in jewellery such as bracelet and earrings."</p>
7.03		<p>no evidence</p>

7.04	1. Reedy Meadow Nursery. <a href="http://home.btconnect.com/reedynursery/page8.htm">http://home.btconnect.com/reedynursery/page8.htm</a> (Accessed: 11 August 2015)	1. See photo of seed pods. No mechanism present for enhanced wind dispersal.
7.05	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)	1. "Rhizomes along riverbanks may also be washed downstream, especially during flooding." 2. "the seeds and rhizomes may also be spread by floods and in dumped garden waste"
7.06	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. BioNET. <a href="http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm">http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_(Wild_Canna_Lily).htm</a> (Accessed: 18 August 2015)	1. "Seed may be bird-dispersed" 2. "The seeds are thought to be dispersed by birds"
7.07	1. Reedy Meadow Nursery. <a href="http://home.btconnect.com/reedynursery/page8.htm">http://home.btconnect.com/reedynursery/page8.htm</a> (Accessed: 11 August 2015)	1. See photo of seed pods. Unknown weather these pods are able to attach themselves to fur.
7.08	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015)	1. Pathway Causes: Digestion/excretion (Local)
8.01	1. InTech. <a href="http://cdn.intechopen.com/pdfs-wm/32925.pdf">http://cdn.intechopen.com/pdfs-wm/32925.pdf</a> (Accessed: 18 August 2015)	1. "C. indica presents 20-28 seeds"; "The life cycle of C. indica and other species of Canna is of about 9 months."
8.02	1. Pacific Island Ecosystems at Risk. <a href="http://www.hear.org/pier/wra/pacific/canna_indica_htmlwra.htm">http://www.hear.org/pier/wra/pacific/canna_indica_htmlwra.htm</a> (Accessed: 11 August 2015)	1. "(1)The seeds of Canna are able to survive extremely long dormant periods. Seeds from archaeological sites of an age of 600 years have proved still viable. (2)The seeds of Cannaceae are equipped with a special mechanism allowing them to survive long periods of unfavourable conditions. The seed coat of Canna is very hard and impermeable to water."
8.03	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015) 2. Moreton Bay Regional Council. <a href="https://www.moretonbay.qld.gov.au/uploadedFiles/moretonbay/environment/vegetation/canna-lily.pdf">https://www.moretonbay.qld.gov.au/uploadedFiles/moretonbay/environment/vegetation/canna-lily.pdf</a> (Accessed: 18 August 2015)	1. "Chemical control: No information is available on the use and efficacy of herbicides on C. indica." 2. "Officers to treat the weed with a metsulfuron methyl (600g/kg) herbicide (eg Brush-off®) at a rate of 1g per 10L of water plus a 100% non-ionic wetting agent (eg BS1000®) at a rate of 10ml per 10L of water. Apply as a foliar application, spraying to the point of runoff." No information on the efficacy.
8.04	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015)	1. "Invasiveness: Tolerates, or benefits from, cultivation, browsing pressure, mutilation, fire etc"
8.05	1. CABI. <a href="http://www.cabi.org/isc/datasheet/14575">http://www.cabi.org/isc/datasheet/14575</a> (Accessed: 10 August 2015)	1. "Generally, C. indica is a hardy plant with only a few diseases and pests. Fusarium, Puccinia and Rhizoctonia spp. are possible fungal diseases, and a number of common crop viruses can also infect the plant. Other species-specific strains have been identified and given species rank in India, Cercospora cannae (Kar and Ray, 1985) and Puccinia cannacearum (Bagyanarayana and Ramesh, 1999). Beetles and grasshoppers may feed on the foliage, and cutworms (Agrotis spp.) attack the rhizomes."; "Biological control: No attempts have been made at identifying potential biocontrol agents, and most pests that attack C. indica are generalists, however, new, species-specific fungi Cercospora cannae (Kar and Ray, 1985) and Puccinia cannacearum (Bagyanarayana and Ramesh, 1999) have been proposed from India, and which may merit further investigation."