Australia/New Zealand Weed Risk Assessment adapted for United States.

Data used for analysis published in: Gordon, D.R. and C.A. Gantz. 2008. Potential impacts on the horticultural industry of screening new plants for invasiveness. Conservation Letters 1: 227-235. Available at: http://www3.interscience.wiley.com/cgi-bin/fulltext/121448369/PDFSTART

Pseudodracontium harmandii			
Question number	**Question**	**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 U.S. climates (USDA hardiness zones; 0-low, 1-intermediate, 2-high)	2	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	2	
2.03	Broad climate suitability (environmental versatility)	n	0
2.04	Native or naturalized in regions with an average of 11-60 inches of annual precipitation	y	1
2.05	Does the species have a history of repeated introductions outside its natural range?	?	
3.01	Naturalized beyond native range	n	-1
3.02	Garden/amenity/disturbance weed	n	0
3.03	Weed of agriculture	n	0
3.04	Environmental weed	n	0
3.05	Congeneric weed	n	0
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic		
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals		
4.05	Toxic to animals	n	0
4.06	Host for recognised pests and pathogens		
4.07	Causes allergies or is otherwise toxic to humans	n	0
4.08	Creates a fire hazard in natural ecosystems		
4.09	Is a shade tolerant plant at some stage of its life cycle	?	
4.1	Grows on one or more of the following soil types: alfisols, entisols, or mollisols	y	1
4.11	Climbing or smothering growth habit	?	
4.12	Forms dense thickets		

5.01	Aquatic	n	0
5.02	Grass	n	0
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte	y	0
6.01	Evidence of substantial reproductive failure in native habitat	n	0
6.02	Produces viable seed		
6.03	Hybridizes naturally		
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators		
6.06	Reproduction by vegetative fragmentation	y	1
6.07	Minimum generative time (years)		
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
7.02	Propagules dispersed intentionally by people	?	
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		
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)	?	
8.01	Prolific seed production		
8.02	Evidence that a persistent propagule bank is formed (>1 yr)		
8.03	Well controlled by herbicides		
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05	Effective natural enemies present in U.S.		
Total Score			0

Outcome	**Accept**

section	**# questions answered**	**satisfy minimum?**
A	10	Yes
B	5	Yes
C	10	Yes
total	25	yes

Data collected 2008

Question number	Reference	Source data
1.01		used horticulturally, but no evidence of significant modification
1.02		
1.03		
2.01	1. PERAL NAPPFAST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFAST%20Global%20zones/10-year%20climate/PLANT_HARDINESS_10YR%20lgnd.tif). 2. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?30176).	1. Global hardiness zones 10-13. 2. Indo-China: Cambodia; Laos; Thailand; Vietnam
2.02		
2.03	1. Köppen-Geiger climate map (http://www.hydrol-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf). 2. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?30176).	1. One climatic region. 2. Indo-China: Cambodia; Laos; Thailand; Vietnam
2.04	1. World Trade Press (http://www.worldtradepress.com/Precipitation_Map_Cambodia.html). 2. Atlapedia Online (http://www.atlapedia.com/online/countries/).	1. Most of the country falls into the range of 49.2-98.4 inches/year, however there are small regions of 3.9-9.8 in/year, 29.5-49.2 in/year, and 98.4+ in/year. 2. For Laos: "average annual precipitation varying from 1,270 mm (50 inches) to 2,290 mm (90 inches) depending on the region."; For Thailand: "Average annual precipitation varies from 1,020 mm (40 inches) to 2,030 mm (80 inches) depending on the region."; For Vietnam: "Average annual precipitation in Hanoi is 1,830 mm (72 inches) with areas in the Annamite Mountains exceeding 4,060 mm (160 inches)."
2.05	B & T World Seeds (http://www.b-and-t-world-seeds.com/carth.asp?species=Pseudodracontium	Listed on the website (potentially sold

	%20harmandii&sref=537197).	internationally).
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05		no evidence
4.01	Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae - Aroideae - Thomsonieae*). Blumea 40: 217-235.	no description of these traits
4.02		
4.03	Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae - Aroideae - Thomsonieae*). Blumea 40: 217-235.	no description of parasitism
4.04		
4.05	Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae - Aroideae - Thomsonieae*). Blumea 40: 217-235.	no evidence
4.06		
4.07	Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae - Aroideae - Thomsonieae*). Blumea 40: 217-235.	no evidence
4.08		
4.09	Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae - Aroideae - Thomsonieae*). Blumea 40: 217-235.	"Often occurs in open forests or disturbed habitats".
4.1	USDA, National Resources Conservation Services (NRCS), Soil Survey Division, World Soil Resources (http://soils.usda.gov/use/worldsoils/mapindex/order.html).	Primarily ultisols in this region.
4.11	Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae - Aroideae - Thomsonieae*). Blumea 40: 217-235.	"Petiole up to 60-70 cm long, 2 cm diam. at base".
4.12		
5.01		terrestrial
5.02	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network -	Araceae

	(GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?30176).	
5.03	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?30176).	Araceae
5.04	1. Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae* - *Aroideae* - *Thomsonieae*). Blumea 40: 217-235. 2. Mayo, SJ, Bogner, J, and Boyce, PC (1997) The Genera of *Araceae*. Royal Botanic Gardens Kew, London.	1. "Tuber shortly or strongly elongate, up to 20 cm long". 2. "Tuber depressed-globose, napiform or irregularly elongate" [genus description].
6.01		no evidence
6.02		
6.03		
6.04		
6.05		
6.06	1. Serebryanyi, MM (1995) A taxonomic revision of *Pseudodracontium* (*Araceae* - *Aroideae* - *Thomsonieae*). Blumea 40: 217-235. 2. Mayo, SJ, Bogner, J, and Boyce, PC (1997) The Genera of *Araceae*. Royal Botanic Gardens Kew, London.	1. "Tuber shortly or strongly elongate, up to 20 cm long". 2. "Tuber depressed-globose, napiform or irregularly elongate" [genus description].
6.07		
7.01		
7.02	B & T World Seeds (http://www.b-and-t-world-seeds.com/carth.asp?species=Pseudodracontium%20harmandii&sref=537197).	Listed on the website (potentially sold internationally).
7.03		no evidence
7.04	1. Serebryanyi, MM (1995) A taxonomic revision of Pseudodracontium (Araceae - Aroideae - Thomsonieae). Blumea 40: 217-235. 2. Mayo, SJ, Bogner, J, and Boyce, PC (1997) The Genera of Araceae. Royal Botanic Gardens Kew, London.	1. "Berry red, up to 1.5 cm long, 1.3 cm diam., seed large, ovate, 10-13 mm long, 6-11 mm diam." 2. "Berry: ellipsoid…persisting, 1-seeded"; "Seed: ellipsoid, testa smooth…embryo large, ellipsoid…embryo absent" [genus description].
7.05		
7.06	1. Serebryanyi, MM (1995) A taxonomic revision of Pseudodracontium (Araceae - Aroideae - Thomsonieae). Blumea 40: 217-235. 2. Mayo, SJ,	1. "Berry red, up to 1.5 cm long, 1.3 cm diam., seed large, ovate, 10-13 mm long, 6-11 mm diam." 2. "Berry:

	Bogner, J, and Boyce, PC (1997) The Genera of Araceae. Royal Botanic Gardens Kew, London.	ellipsoid…persisting, 1-seeded"; "Seed: ellipsoid, testa smooth…embryo large, ellipsoid…embryo absent" [genus description].
7.07	1. Serebryanyi, MM (1995) A taxonomic revision of Pseudodracontium (Araceae - Aroideae - Thomsonieae). Blumea 40: 217-235. 2. Mayo, SJ, Bogner, J, and Boyce, PC (1997) The Genera of Araceae. Royal Botanic Gardens Kew, London.	1. "Berry red, up to 1.5 cm long, 1.3 cm diam., seed large, ovate, 10-13 mm long, 6-11 mm diam." 2. "Berry: ellipsoid…persisting, 1-seeded"; "Seed: ellipsoid, testa smooth…embryo large, ellipsoid…embryo absent" [genus description].
7.08	1. Serebryanyi, MM (1995) A taxonomic revision of Pseudodracontium (Araceae - Aroideae - Thomsonieae). Blumea 40: 217-235. 2. Mayo, SJ, Bogner, J, and Boyce, PC (1997) The Genera of Araceae. Royal Botanic Gardens Kew, London.	1. "Berry red, up to 1.5 cm long, 1.3 cm diam., seed large, ovate, 10-13 mm long, 6-11 mm diam." 2. "Berry: ellipsoid…persisting, 1-seeded"; "Seed: ellipsoid, testa smooth…embryo large, ellipsoid…embryo absent" [genus description].
8.01		
8.02		
8.03		
8.04		
8.05		