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

Disporum megalanthum			
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)	y	1
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		
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	?	
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	n	-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		
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	4	Yes
C	10	Yes
total	24	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. Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 3. Hara, H (1988) A revision of the Asiatic species of the genus *Disporum* (*Liliaceae*). In: Bulletin No. 31. The Himalayan Plants, Volume 1. Edited by Ohba, H and Malla, SB. The University of Tokyo Bulletin, The University Museum, Tokyo.	1. Global plant hardiness zones (3?)4-9. 2. "Gansu, Hubei, Shaanxi, Sichuan". 3. "China (Hupeh, S Shensi, S Kansu, Szechuan) and SE Tibet".
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. Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 3. Hara, H (1988) A revision of the Asiatic species of the genus *Disporum* (*Liliaceae*). In: Bulletin No. 31. The Himalayan Plants, Volume 1. Edited by Ohba, H and Malla, SB. The University of Tokyo Bulletin, The University Museum, Tokyo.	1. Occurs in three climatic regions. 2. "Gansu, Hubei, Shaanxi, Sichuan". 3. "China (Hupeh, S Shensi, S Kansu, Szechuan) and SE Tibet".
2.04	Climate Source (http://www.climatesource.com/cn/fact_sheets/chinappt_xl.jpg).	For Gansu Province, the average annual precipitation is less than 2 in/yr -- 31.5 in/yr. For Hubei Province, the average annual precipitation is 31.5 in/yr -- 78.7 in/yr. For Shaanxi Province, the average annual precipitation is 11.8 in/yr -- 66.9 in/yr. For Sichuan Province, the average annual precipitation is 19.7 in/yr -- 78.7 in/yr. For Xizang Province [Tibet], the average annual precipitation is 2 inches/year -- greater than 196.9 inches/year.

2.05		no evidence
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05		no evidence
4.01	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	no evidence
4.02		
4.03	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	no evidence
4.04		
4.05	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	no evidence
4.06		
4.07		
4.08		
4.09		
4.1	USDA, National Resources Conservation Services (NRCS), Soil Survey Division, World Soil Resources (http://soils.usda.gov/use/worldsoils/mapindex/order.html).	The provinces of China and other country boundaries are not always well-defined on the soil orders map, but it is highly likely that the following soil order types occur in the regions of origin: aridisols, entisols, inceptisols, and ultisols (also, the rocky land soil order type occurs in these regions).
4.11	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	"Stem often slightly branched distally, 30-60 cm".
4.12	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press	"Stem often slightly branched distally, 30-60 cm".

	(Beijing) and Missouri Botanical Garden (St. Louis).	
5.01		terrestrial
5.02	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	Colchicaceae
5.03	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	Colchicaceae
5.04	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	"Rhizome short, with fleshy roots 2-3 mm thick".
6.01		no evidence
6.02		
6.03		
6.04		
6.05		
6.06	Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis).	"Rhizome short, with fleshy roots 2-3 mm thick".
6.07		
7.01		
7.02		no evidence
7.03		no evidence
7.04	1. Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 2. Hara, H (1988) A revision of the Asiatic species of the genus *Disporum* (*Liliaceae*). In: Bulletin No. 31. The Himalayan Plants, Volume 1. Edited by Ohba, H and Malla, SB. The University of Tokyo Bulletin, The University Museum, Tokyo.	1. "Berries 0.6-1.5 cm in diam., 4-6-seeded" [species description]; "fruit a berry, dark blue to black, 2(-6)-seeded. Seeds globose to ovoid" [genus description]. 2. "Berries subglobose, 6-15 mm in diameter, ? blue-black. Seeds globular, 2-4 mm in diameter, brownish". [no evidence of adaptations to wind dispersal]
7.05		
7.06	1. Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press	1. "Berries 0.6-1.5 cm in diam., 4-6-seeded" [species description]; "fruit a berry, dark blue to black, 2(-6)-

	(Beijing) and Missouri Botanical Garden (St. Louis). 2. Hara, H (1988) A revision of the Asiatic species of the genus *Disporum* (*Liliaceae*). In: Bulletin No. 31. The Himalayan Plants, Volume 1. Edited by Ohba, H and Malla, SB. The University of Tokyo Bulletin, The University Museum, Tokyo.	seeded. Seeds globose to ovoid" [genus description]. 2. "Berries subglobose, 6-15 mm in diameter, ? blue-black. Seeds globular, 2-4 mm in diameter, brownish".
7.07	1. Songyun, L and Tamura, MN (2000) *Disporum megalanthum*. Pp 154-158. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). 2. Hara, H (1988) A revision of the Asiatic species of the genus *Disporum* (*Liliaceae*). In: Bulletin No. 31. The Himalayan Plants, Volume 1. Edited by Ohba, H and Malla, SB. The University of Tokyo Bulletin, The University Museum, Tokyo.	1. "Berries 0.6-1.5 cm in diam., 4-6-seeded" [species description]; "fruit a berry, dark blue to black, 2(-6)-seeded. Seeds globose to ovoid" [genus description]. 2. "Berries subglobose, 6-15 mm in diameter, ? blue-black. Seeds globular, 2-4 mm in diameter, brownish". [no evidence of adaptations to external dispersal]
7.08		
8.01		
8.02		
8.03		
8.04		
8.05		