

<i>Sansevieria trifasciata</i> (Snake plant, Bowstring hemp, Mother-in-law's-tongue)		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 FL 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 with mean annual precipitation of 40-70 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	n	0
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	n	0
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	?	
4.05	Toxic to animals	?	
4.06	Host for recognised pests and pathogens	n	0
4.07	Causes allergies or is otherwise toxic to humans.	n	0
4.08	Creates a fire hazard in natural ecosystems	n	0
4.09	Is a shade tolerant plant at some stage of its life cycle	y	1
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils).	y	1
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	n	0
5.01	Aquatic	n	0
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		
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators		
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)		
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n	-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	n	-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)	y	1
8.01	Prolific seed production		
8.02	Evidence that a persistent propagule bank is formed (>1 yr)		
8.03	Well controlled by herbicides	y	-1
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05	Effective natural enemies present in Florida, or east of the continental divide.		
Total Score		11	
Implemented Pacific Second Screening		No	
Risk Assessment Results		Reject	

	Reference	Source data
1.01		Widely cultivated, but no evidence of selection for reduced weediness.
1.02		
1.03		
2.01	1. PERAL NAPPFASST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFASST%20	No computer analysis was performed. 1. Global plant hardiness zones: 11-13 . 2. Native to Nigeria, Zaire (known
2.02		No computer analysis was performed. Native range is well known; refer to 2.01 source data.
2.03	1. Köppen-Geiger climate map (http://www.hydrol-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf). 2. Refer to all references in question 2.01.	1. Distribution in the native and naturalized/distributed ranges is very widespread and occurs in more than 3 climatic groups. Also refer to source data in question 2.01.
2.04	1. Globalis (http://globalis.gvu.unu.edu/).	Data for native range only. 1. Nigeria: 600mm - 3000mm (24"-118"); Zaire (Democratic Republic of the Congo): 400mm - 3000mm (16"-118").
2.05	1. Global Invasive Species Database, 2005. <i>Sansevieria trifasciata</i> . Available from: http://www.issg.org/database/species/ecology.asp?si=1797&fr=1&sts=sss&lang=EN [Accessed 28 February 2011]. 2. USDA/ARS-GRIN [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?15948).	1. Alien range: Anguilla, Australia, Bermuda, British Indian Ocean Territory, Christmas Island, Cook Islands, Ecuador, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Samoa, Solomon Islands, United States, United States Minor Outlying Islands, Wallis and Futuna. 2. Naturalized everywhere.
3.01	1. USDA/ARS-GRIN [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?15948). 2. Horticoxia professional software. http://www.horticoxia.com/ . 3. Csurhes, S. & R. Edwards. 1998. Potential Environmental Weeds in Australia: Candidate Species for Preventative Control. Biodiversity Group, Environment Australia, Canberra.	1. Naturalized everywhere. 2. Attributes: naturalizing, invasive. 3. Has naturalized in urban bushland around Brisbane and on nearby islands in Moreton Bay.
3.02		No evidence.
3.03		No evidence.
3.04	1. TNC Global Invasive Species Team page, http://www.invasive.org/gist/global/australia/aca.html .	1. Recognized as an environmental weed.
3.05	1. TNC Global Invasive Species Team page, http://www.invasive.org/gist/global/australia/aca.html .	1. <i>Sansevieria guineensis</i> is a weed in Australia and elsewhere, Australian Naturalized and/or Noxious Taxa.
4.01		
4.02		No evidence.
4.03		

4.04	1. Arnold, M.A. 2004. Intended for future inclusion in <i>Landscape Plants for Texas and Environs, 3rd edition</i> . http://aggie-horticulture.tamu.edu/syllabi/608/Lists/second%20ed/Sansevieriatrifasciata.pdf .	Not likely. 1. Sword-shaped leaves that more closely resemble a succulent of cacti than a garden perennial; plants are pleasantly coarse textured.
4.05	1. Cornell University Department of Animal Science's Plants Poisonous to Livestock, http://www.ansci.cornell.edu/plants/php/plants.php?action=indiv&byname=scientific&keynum=1 . 2. Arnold, M.A. 2004. Intended for future inclusion in <i>Landscape Plants for Texas and Environs, 3rd edition</i> . http://aggie-horticulture.tamu.edu/syllabi/608/Lists/second%20ed/Sansevieriatrifasciata.pdf .	1. Not listed on Cornell University Department of Animal Science's Plants Poisonous to Livestock list. 2. The plant is reportedly poisonous.
4.06	1. Missouri Botanical Garden, Kemper Center for Home Gardening. http://www.mobot.org .	1. No serious insect or disease problems.
4.07		No evidence.
4.08		
4.09	1. Hortycopia professional software. http://www.hortycopia.com/ .	1. Full shade to full sun.
4.10	1. Hortycopia professional software. http://www.hortycopia.com/ . 2. Arnold, M.A. 2004. Intended for future inclusion in <i>Landscape Plants for Texas and Environs, 3rd edition</i> . http://aggie-horticulture.tamu.edu/syllabi/608/Lists/second%20ed/Sansevieriatrifasciata.pdf .	1. Sandy, clay, loamy. 2. A highly versatile species surviving in soils with a wide range of pH, fertility and textures as long as they are not consistently poorly drained; as with most succulent-like plants they possess excellent drought tolerance and tolerance to soil and foliar salt exposure is also high.
4.11		
4.12		
5.01		Family: Agavaceae
5.02		Family: Agavaceae
5.03		Family: Agavaceae
5.04		Family: Agavaceae
6.01		No evidence.
6.02	1. Henley, A.R. et al. <i>Sansevieria Production Guide</i> . CFREC-A Foliage Plant Note RH-91-30. http://mrec.ifas.ufl.edu/foliage/folnotes/sansevie.htm .	1. Although several species can be propagated from seed, this technique is not employed because the large number of seeds needed by commercial growers is not available and normally plants can be produced faster by cutting or division.

6.03	1. Pate, J.B. et al. 1954. Interspecific and intervarietal hybridization in <i>Sansevieria</i> . <i>Journal of Heredity</i> , 45(2): 69-73.	1. Twenty-three crosses, involving <i>S. trifasciata</i> , <i>S. trifasciata</i> var. <i>laurentii</i> , <i>S. thyrsiflora</i> , <i>S. parva</i> , <i>S. longiflora</i> , <i>S. liberica</i> , <i>S. cylindrica</i> and <i>S. deserti</i> were made. All combinations were not possible because of species differences in season of flowering. Hybrids were obtained in four interspecific crosses: <i>S. trifasciata</i> × <i>S. parva</i> (also <i>S. trifasciata</i> var. <i>laurentii</i> × <i>S. parva</i>), <i>S. trifasciata</i> × <i>S. liberica</i> , <i>S. trifasciata</i> × <i>S. deserti</i> and <i>S. parva</i> × <i>S. deserti</i> and in the intervarietal cross of <i>S. trifasciata</i> × <i>S. trifasciata</i> var. <i>laurentii</i> . Maternal stimulation occurred in the cross of <i>S. trifasciata</i> × <i>S. cylindrica</i> .
6.04		
6.05		
6.06	1. Csurhes, S. & R. Edwards. 1998. Potential Environmental Weeds in Australia: Candidate Species for Preventative Control. Biodiversity Group, Environment Australia, Canberra. 2. The Department of Natural Resources and Mines. 2001. Eds : Di Ward, Steve Goosem, & Garry Werren. <i>Weed Pocket Guide: Agricultural and Environmental Weeds, Far North Queensland</i> . http://www.wettropics.gov.au/st/rainforest_explorer/Resources/Documents/8to9/WeedIDHandbook.pdf .	1. Perennial plant which produces from rhizomes. 2. Spreads by cuttings, pieces.
6.07		
7.01		
7.02	1. Csurhes, S. & R. Edwards. 1998. Potential Environmental Weeds in Australia: Candidate Species for Preventative Control. Biodiversity Group, Environment Australia, Canberra. 2. USDA/ARS-GRIN [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?15948). 3. The Department of Natural Resources and Mines. 2001. Eds : Di Ward, Steve Goosem, & Garry Werren. <i>Weed Pocket Guide: Agricultural and Environmental Weeds, Far North Queensland</i> . http://www.wettropics.gov.au/st/rainforest_explorer/Resources/Documents/8to9/WeedIDHandbook.pdf .	1. Widely planted as a garden ornamental and has probably been spread into new areas as as result of people dumping garden waste. 2. Economic importance: ornamental. 3. Spreads by humans.
7.03		
7.04		Seed does not have characteristics that adapted for wind dispersal.
7.05		

7.06	1. The Department of Natural Resources and Mines. 2001. <i>Eds : Di Ward, Steve Goosem, & Garry Werren. Weed Pocket Guide: Agricultural and Environmental Weeds, Far North Queensland .</i> http://www.wettropics.gov.au/st/rainforest_explorer/Resources/Documents/8to9/WeedIDHandbook.pdf .	1. Spreads by birds.
7.07		
7.08	1. The Department of Natural Resources and Mines. 2001. <i>Eds : Di Ward, Steve Goosem, & Garry Werren. Weed Pocket Guide: Agricultural and Environmental Weeds, Far North Queensland .</i> http://www.wettropics.gov.au/st/rainforest_explorer/Resources/Documents/8to9/WeedIDHandbook.pdf .	1. Spreads by animals.
8.01		
8.02		
8.03	1. Henley, A.R. et al. <i>Sansevieria Production Guide</i> . CFREC-A Foliage Plant Note RH-91-30. http://mrec.ifas.ufl.edu/foilage/folnotes/sansevie.htm .	1. At present there are no herbicides labeled for use on <i>Sansevieria</i> beds which selectively kill established weeds without damaging the crop. Research has demonstrated a few preemergence herbicides to be rather effective in <i>Sansevieria</i> stock if the beds are thoroughly weeded prior to application of the herbicide.
8.04		
8.05		