

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>

<i>Tecoma guarume</i>			
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	n	0
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	n	-2
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	y	2
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	n	0
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	n	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		
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	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		
7.06	Propagules bird dispersed		
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			1

Outcome	Evaluate
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section	# questions answered	satisfy minimum?
A	11	Yes
B	6	Yes
C	9	Yes
total	26	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%20gnd.tif). 2. Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden. 3. Huxley, A (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London.	1. Global hardiness zones 8-10. 2. Endemic to Ica Department, Peru. 3. Peru.
2.02		
2.03	1. Köppen-Geiger climate map (http://www.hydro-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf). 2. Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden. 3. Huxley, A (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London.	1. One climatic region. 2. Endemic to Ica Department, Peru. 3. Peru.
2.04	World Trade Press (http://www.worldtradeexpress.com/Precipitation_Map_Peru.html).	In this district, average annual precipitation ranges from 0 to 3.9 in/yr.
2.05	1. Huxley, A (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London. 2. Top Tropicals (http://toptropicals.com/catalog/uid/Tecoma_elata.htm).	1. Species is listed in reference, which is a dictionary of gardening for the UK. 2. Tree is being sold under an incorrect synonym of <i>Tecoma guarume</i> (<i>Tecoma alata</i>).
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05	1. Holm, L, JV Pancho, JP Herberger, and DL Plucknett (1979) A Geographical Atlas of World Weeds. John Wiley and Sons, New York. 2.	1. <i>Tecoma stans</i> is a principal weed in Argentina and present as a weed in Nicaragua and the USA. 2. <i>Tecoma</i>

	Weber, E (2003) Invasive Plant Species of the World. CAB International, Oxon, United Kingdom.	<i>stans</i> is invasive in Africa, Chile, Argentina and the Mascarenes.
4.01	Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden.	no description of these traits
4.02		
4.03	Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden.	no description of parasitism
4.04		
4.05	Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden.	no evidence
4.06		
4.07	Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden.	no evidence
4.08		
4.09		
4.1	1. USDA, National Resources Conservation Services (NRCS), Soil Survey Division, World Soil Resources (http://soils.usda.gov/use/worldsoils/mapindex/order.html). 2. Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden.	1. Entisols occur in this region. 2. occurring in sandy areas
4.11	1. Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden. 2. Huxley, A (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London.	1. Shrub 1.5-3 m tall. 2. Glabrous shrub.
4.12		
5.01		terrestrial
5.02	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?80092).	Bignoniaceae

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?80092).	Bignoniaceae
5.04	1. Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden. 2. Huxley, A (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London.	1. Shrub 1.5-3 m tall. 2. Glabrous shrub.
6.01		no evidence
6.02		
6.03		
6.04		
6.05		
6.06		
6.07		
7.01		
7.02	1. Huxley, A (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London. 2. Top Tropicals (http://toptropicals.com/catalog/uid/Tecoma_elata.htm).	1. Species is listed in reference, which is a dictionary of gardening for the UK. 2. Tree is being sold under an incorrect synonym of <i>Tecoma guarume</i> (<i>Tecoma alata</i>).
7.03		no evidence
7.04	Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden.	"Seeds thin, bialate, 4-6 mm long, 9-15 mm wide, the wings hyaline-membranaceous, sharply demarcated from seed body".
7.05		
7.06		
7.07	Gentry AH (1992) Flora Neotropica. Monograph 25 (II). Bignoniaceae - Part II (Tribe Tecomeae). New York: The New York Botanical Garden.	"Fruit a linear capsule, tapering at ends...seeds thin, bialate, 4-6 mm long, 9-15 mm wide, the wings hyaline-membranaceous, sharply demarcated from seed body". [no evidence of adaptations to external dispersal]
7.08		
8.01		
8.02		
8.03		

8.04		
8.05		