

<i>Ailanthus altissima</i> (Tree of heaven)		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 in regions with an average of 11-60 inches of annual precipitation		
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		
3.04	Environmental weed	y	4
3.05	Congeneric weed	n	0
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic	y	1
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	n	-1
4.05	Toxic to animals		
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	y	1
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.	y	1
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	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	n	-1
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)	2	0
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	y	1
7.05	Propagules water dispersed	y	1
7.06	Propagules bird dispersed	n	-1
7.07	Propagules dispersed by other animals (externally)		
7.08	Propagules dispersed by other animals (internally)		

8.01	Prolific seed production	y	1
8.02	Evidence that a persistent propagule bank is formed (>1 yr)	y	1
8.03	Well controlled by herbicides	y	-1
8.04	Tolerates, or benefits from, mutilation or cultivation	y	1
8.05	Effective natural enemies present in U.S.		
Total Score		35	
Implemented Pacific Second Screening		n/a	
Risk Assessment Results		High risk	

Section	Number of questions answered	Satisfy minimum?
A	13	yes
B	12	yes
C	24	yes
Total	49	yes

	Reference	Source data
1.01	0	
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, Oregon State University 2012. USDA Plant Hardiness Zone Map: Florida (http://planthardiness.ars.usda.gov/PHZMWeb/ , 4 April 2013). 3. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 4. "Ailanthus altissima." hortycopia.com. Hortycopia, 2011. Web. 14 May 2013.
2.02		Refer to all references in 2.01.
2.03	1	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.
2.04		1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]
2.05		1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2].
3.01	2	1. "Tree-of-heaven". Invasive Alien Plant Species of Virginia. Department of Conservation and Recreation, Richmond, VA. Online. accessed 14 May 2013. 2. "Ailanthus altissima". Missouri Botanical Garden: Gardening Help. Http://www.missouribotanicalgarden.org accessed 14 May 2013. 3. Howell, C.J. & J.W.D. Sawyer. 2006. New Zealand Naturalised Vascular Plant Checklist. Wellington, New Zealand. PDF. 4. 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?2072).

3.02		2	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. "Tree-of-heaven". Invasive Alien Plant Species of Virginia. Department of Conservation and Recreation, Richmond, VA. Online. accessed 14 May 2013. 3. Popay, I., Champion, P., and Trevor James. 2010. An Illustrated Guide to Common Weeds of New Zealand. 3rd Edition. New Zealand Plant Protection Society.
3.03			
3.04		4	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. Weber, Ewald. 2003. Invasive Plant Species of the World: A Reference Guide to Environmental Weeds. CABI Publishing.
3.05		0	
4.01		0	
4.02		1	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. Heisey, Rod. 1996. Identification of an allelopathic compound from <i>Ailanthus altissima</i> (Simaroubaceae) and characterization of its herbicidal activity. <i>American Journal of Botany</i> 83(2): 192-200.
4.03		0	
4.04		-1	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]
4.05			
4.06			1. "Ailanthus altissima". horticopia.com . Horticopia, 2011. Web. 14 May 2013.
4.07			1. Ballero M, Ariu A, Falagiani Piu PG (2003) Allergy to <i>Ailanthus altissima</i> (tree of heaven) pollen. <i>Allergy</i> 58:532-533
4.08			1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]
4.09		1	1. "Ailanthus altissima." horticopia.com . Horticopia, 2011. Web. 14 May 2013. 2. "Ailanthus altissima". Missouri Botanical Garden: Gardening Help. Http://www.missouribotanicalgarden.org accessed 14 May 2013.

4.10		1	1. "Ailanthus altissima." hortycopia.com. Hortycopia, 2011. Web. 14 May 2013. 2. Fryer, Janet L. 2010. Ailanthus altissima. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 3. "Ailanthus altissima". Missouri Botanical Garden: Gardening Help. Http://www.missouribotanicalgarden.org accessed 14 May 2013.
4.11		0	1. "Ailanthus altissima." hortycopia.com. Hortycopia, 2011. Web. 14 May 2013.
4.12		1	1. Fryer, Janet L. 2010. Ailanthus altissima. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. "Ailanthus altissima". Missouri Botanical Garden: Gardening Help. Http://www.missouribotanicalgarden.org accessed 14 May 2013. 3. Weber, Ewald. 2003. Invasive Plant Species of the World: A Reference Guide to Environmental Weeds. CABI Publishing.
5.01		0	
5.02		0	
5.03		0	
5.04		0	
6.01		0	
6.02		1	1. ISSG Database, http://www.issg.org/database/species/ . Accessed: 5/14/2013. 2. PCA fact sheet: Tree of Heaven. Plant Conservation Alliance's Alien Plant Working Group. Http://www.nps.gov/plants/alien/ . Accessed 5/14/2013
6.03			
6.04		-1	1. Invasive Plant Atlas of New England (Invasive.org [accessed 6/5/2013])
6.05		0	1. Fryer, Janet L. 2010. Ailanthus altissima. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]
6.06		1	1. Fryer, Janet L. 2010. Ailanthus altissima. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. PCA fact sheet: Tree of Heaven. Plant Conservation Alliance's Alien Plant Working Group. Http://www.nps.gov/plants/alien/ . Accessed 5/14/2013.
6.07		0	1. Fryer, Janet L. 2010. Ailanthus altissima. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2].
7.01			
7.02			
7.03		-1	

7.04		1	1. Hu SY (1979) <i>Ailanthus</i> . <i>Arnoldia</i> 39(2):29-50. 2. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. "Tree-of-heaven". <i>Invasive Alien Plant Species of Virginia</i> . Department of Conservation and Recreation, Richmond, VA. Online. accessed 14 May 2013.
7.05		1	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]
7.06		-1	1. ISSG Database, http://www.issg.org/database/species/ . Accessed: 5/14/2013.
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7.08			
8.01		1	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. "Tree-of-heaven". <i>Invasive Alien Plant Species of Virginia</i> . Department of Conservation and Recreation, Richmond, VA. Online. accessed 14 May 2013.
8.02		1	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2].
8.03		-1	1. "Tree-of-heaven". <i>Invasive Alien Plant Species of Virginia</i> . Department of Conservation and Recreation, Richmond, VA. Online. accessed 14 May 2013. 2. PCA fact sheet: Tree of Heaven. Plant Conservation Alliance's Alien Plant Working Group. Http://www.nps.gov/plants/alien/ . Accessed 5/14/2013.
8.04		1	1. Fryer, Janet L. 2010. <i>Ailanthus altissima</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocy Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2013, June 2]. 2. "Tree-of-heaven". <i>Invasive Alien Plant Species of Virginia</i> . Department of Conservation and Recreation, Richmond, VA. Online. accessed 14 May 2013.
8.05			