Family: ***Oleaceae***

Taxon: ***Jasminum grandiflorum***

Synonym: *Jasminum floribundum R. Br. ex Fresen.* ***Common Name*** royal jasmine
Spanish jasmine

Questionaire : current 20090513 **Assessor:** Chuck Chimera **Designation:** L
Status: Assessor Approved **Data Entry Person:** Chuck Chimera **WRA Score** 2

101	**Is the species highly domesticated?**	**y=-3, n=0**	**n**
102	**Has the species become naturalized where grown?**	**y=1, n=-1**	
103	**Does the species have weedy races?**	**y=1, n=-1**	
201	**Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"**	**(0-low; 1-intermediate; 2-high) (See Appendix 2)**	**High**
202	**Quality of climate match data**	**(0-low; 1-intermediate; 2-high) (See Appendix 2)**	**High**
203	**Broad climate suitability (environmental versatility)**	**y=1, n=0**	**n**
204	**Native or naturalized in regions with tropical or subtropical climates**	**y=1, n=0**	**y**
205	**Does the species have a history of repeated introductions outside its natural range?**	**y=-2, ?=-1, n=0**	**y**
301	**Naturalized beyond native range**	**y = 1*multiplier (see Appendix 2), n= question 205**	
302	**Garden/amenity/disturbance weed**	**n=0, y = 1*multiplier (see Appendix 2)**	**n**
303	**Agricultural/forestry/horticultural weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**n**
304	**Environmental weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**n**
305	**Congeneric weed**	**n=0, y = 1*multiplier (see Appendix 2)**	**y**
401	**Produces spines, thorns or burrs**	**y=1, n=0**	**n**
402	**Allelopathic**	**y=1, n=0**	**n**
403	**Parasitic**	**y=1, n=0**	**n**
404	**Unpalatable to grazing animals**	**y=1, n=-1**	
405	**Toxic to animals**	**y=1, n=0**	**n**
406	**Host for recognized pests and pathogens**	**y=1, n=0**	**n**
407	**Causes allergies or is otherwise toxic to humans**	**y=1, n=0**	**n**
408	**Creates a fire hazard in natural ecosystems**	**y=1, n=0**	**n**
409	**Is a shade tolerant plant at some stage of its life cycle**	**y=1, n=0**	**n**
410	**Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)**	**y=1, n=0**	**y**
411	**Climbing or smothering growth habit**	**y=1, n=0**	**y**

412	Forms dense thickets	y=1, n=0	n
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	n
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	
605	Requires specialist pollinators	y=-1, n=0	y
606	Reproduction by vegetative fragmentation	y=1, n=-1	y
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	1
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	n
706	Propagules bird dispersed	y=1, n=-1	y
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	
801	Prolific seed production (>1000/m2)	y=1, n=-1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	
803	Well controlled by herbicides	y=-1, n=1	y
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y=-1, n=1	

Designation: L **WRA Score** 2

Supporting Data:

101	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	In India and China, jasmine has been cultivated for local use since antiquity.
201	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	The exact origin of J. grandiflorum is not known; wild populations occur from China, Burma (Myanmar), Nepal and Bhutan through India, Pakistan and Arabia (Saudi Arabia, Oman, Yemen) to eastern Africa (Egypt, Sudan, Ethiopia, Eritrea, Somalia, Uganda and Kenya)…J. grandiflorum is widely cultivated in warm temperate, subtropical and tropical climates all over the world for its scented flowers, as an ornamental and as a source of oil.
202	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	The exact origin of J. grandiflorum is not known; wild populations occur from China, Burma (Myanmar), Nepal and Bhutan through India, Pakistan and Arabia (Saudi Arabia, Oman, Yemen) to eastern Africa (Egypt, Sudan, Ethiopia, Eritrea, Somalia, Uganda and Kenya)…J. grandiflorum is widely cultivated in warm temperate, subtropical and tropical climates all over the world for its scented flowers, as an ornamental and as a source of oil.
203	2010. Dave's Garden. PlantFiles: Poet's Jasmine. Dave's Garden, http://davesgarden.com/guides/pf/go/1638/	Hardiness: USDA Zone 8a: to -12.2 °C (10 °F) USDA Zone 8b: to -9.4 °C (15 °F) USDA Zone 9a: to -6.6 °C (20 °F) USDA Zone 9b: to -3.8 °C (25 °F) USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F)
204	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	The exact origin of J. grandiflorum is not known; wild populations occur from China, Burma (Myanmar), Nepal and Bhutan through India, Pakistan and Arabia (Saudi Arabia, Oman, Yemen) to eastern Africa (Egypt, Sudan, Ethiopia, Eritrea, Somalia, Uganda and Kenya)…J. grandiflorum is widely cultivated in warm temperate, subtropical and tropical climates all over the world for its scented flowers, as an ornamental and as a source of oil.
205	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	J. grandiflorum is widely cultivated in warm temperate, subtropical and tropical climates all over the world for its scented flowers, as an ornamental and as a source of oil.
301	1987. Fosberg, F. R./Sachet, M-H.. Flora of Mauipiti, Society Islands. The Smithsonian Institution, Washington, D. C.	Ordinarily a planted ornamental, but found apparently naturalized at one place on the NW shore of Maupiti, flowering but not seen setting fruit. [questionably naturalized]
301	2000. Liogier, A. H./ Martorell, L. F.. Flora of Puerto Rico and adjacent islands: a systematic synopsis. La Editorial, UPR, San Juan, Puerto Rico	Occasionally persistent after cultivation, Puerto Rico [not naturalized]
301	2005. Acevedo-Rodríguez, P.. Vines and Climbing Plants of Puerto Rico and the Virgin Islands. 51: 1-483.Smithsonian Institution, Washington, D.C.	Status: Exotic, cultivated, uncommon. Distribution: Although not very common, it is cultivated in our gardens. Species native to Arabia, but widely cultivated throughout the tropics [not evidence of naturalization]
301	2007. Randall, R.. Global Compendium of Weeds - Jasminum grandiflorum [Online Database]. Hawaii Ecosystems at Risk Project (HEAR), http://www.hear.org/gcw/species/jasminum_grandiflorum/	Listed as a casual alien in Puerto Rico, but reference suggests plant is only persistent after cultivation [insufficient evidence for naturalization or weediness]
301	2010. WRA Specialist. Personal Communication.	Evidence for naturalization is inconclusive
302	2007. Randall, R.. Global Compendium of Weeds - Jasminum grandiflorum [Online Database]. Hawaii Ecosystems at Risk Project (HEAR), http://www.hear.org/gcw/species/jasminum_grandiflorum/	No evidence as a garden, amenity or disturbance weed
303	2007. Randall, R.. Global Compendium of Weeds - Jasminum grandiflorum [Online Database]. Hawaii Ecosystems at Risk Project (HEAR), http://www.hear.org/gcw/species/jasminum_grandiflorum/	No evidence as a weed of agriculture, forestry or horticulture

304	2007. Randall, R.. Global Compendium of Weeds - Jasminum grandiflorum [Online Database]. Hawaii Ecosystems at Risk Project (HEAR), http://www.hear.org/gcw/species/jasminum_grandiflorum/	No evidence as an environmental weed
305	2001. Langeland, K.A./Stocker, R.K.. Control of Non-native Plants in Natural Areas of Florida. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL http://mrec.ifas.ufl.edu/ldspmgt/Ldsp%20Turf%20Mgmt/PDFfiles/WG20900.pdf	Jasmines produce a large number of bird- and mammal-dispersed seeds with very high germination; highly invasive. [report is referring to Jasminum dichotomum and J. fluminense]
401	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	No spines, thorns or burrs present.
402	2003. Fujii, Y./Parvez, S. S./Parvez, M.M./Ohmae, Y./Iida, O.. Screening of 239 medicinal plant species for allelopathic activity using the sandwich method. Weed Biology and Management. 3: 233–241.	We studied the leaf litter of a large number of medicinal plants using the sandwich method. For the present paper we examined 239 plant species of different families for their allelopathic effects under laboratory conditions. [J. grandiforum did not exhibit significant allelopathic effects]
403	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Not parasitic
404	2004. Crescent Bloom. Jasminum grandiflorum. http://www.crescentbloom.com/Plants/Specimen/JA/Jasminum%20grandiflorum.htm	Deer resistant: no [contradicts other reference which suggests tolerance to deer]
404	2010. Backyard Gardener. Jasminum grandiflorum. http://www.backyardgardener.com/plantname/pda_de7b.html	Tolerances:deer, heat & humidity [Unknown if tolerance to deer indicates unpalatable leaves, or it plant is capable of withstanding heavy browsing]
405	2004. Crescent Bloom. Jasminum grandiflorum. http://www.crescentbloom.com/Plants/Specimen/JA/Jasminum%20grandiflorum.htm	Internal poison: no; Dermatologic poison: no; Livestock poison: no [No evidence of toxicity]
406	2008. Sheela, V.L.. Flowers for Trade: Vol.10. Horticulture Science Series. New India Publishing, New Delhi, India	Bud worms are sometimes problems in jasmines…Leaf spot is reported to be a serious malady affecting jasmines. [general pests and pathogens]
406	2010. Mani, M.. Origin, introduction, distribution and management of the invasive spiralling whitefly Aleurodicus dispersus Russell in India. Karnataka Journal of Agricultural Sciences. 23: 59-75.	Abstract: The spiraling whitefly Aleurodicus dispersus Russell poses threat to many crops in India. Aleurodicus dispersus, native to Caribbean islands and Central America probably came to India either from Sri Lanka or the Maldives. In India, it was first reported in 1993 at Thiruvananthapuram on tapioca and later from several other parts of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh and Maharashtra. The pest is highly polyphagous infesting about 280 plant species in India. Eggs are laid in a typical spiral pattern from which the whitefly derives its common name. Nymphs and adults suck the sap from the leaves causing damage to several crops in peninsular India. Development of spiraling whitefly from egg to adult occupies 20 to 30 days. Heavy sporadic rains and cool temperatures result in a temporary reduction in A. dispersus population. The population of spiraling whitefly is found to be relatively higher during summer months and the density of the whitefly is positively correlated with maximum temperature and negatively correlated with relative humidity. Application of chemicals like dimethoate, triazhophos, monocrotophos, and cultural practices like pruning of the infested plants cause only temporary reduction in the population of spiraling whitefly. Survey revealed the presence of 45 predators and two parasitoids namely Encarsia guadeloupae Viggiani and Encarsia haitiensis Dozier. Both these accidentally introduced E. haitiensis and E. guadeloupae are likely to cover all the spiraling whitefly areas and cause remarkable reduction in the population of A. despersus in India as witnessed in other countries. [J. grandiflorum one of many hosts affected by this whitefly]
406	2010. WRA Specialist. Personal Communication.	Not known to be an important alternate host of serious pests or pathogens
407	2004. Crescent Bloom. Jasminum grandiflorum. http://www.crescentbloom.com/Plants/Specimen/JA/Jasminum%20grandiflorum.htm	Internal poison: no; Dermatologic poison: no; Livestock poison: no [No evidence of human toxicity]
408	2010. WRA Specialist. Personal Communication.	No evidence of increased fire risk from J. grandiflorum

409	2010. Backyard Gardener. Jasminum grandiflorum. http://www.backyardgardener.com/plantname/pda_de7b.html	Light Range:Part Sun to Full Sun
409	2010. Dave's Garden. PlantFiles: Poet's Jasmine. Dave's Garden, http://davesgarden.com/guides/pf/go/1638/	Sun Exposure: Full Sun
410	2008. Pradeepkumar, T./ Kumar, P.. Management of Horticultural Crops: Vol.11 Horticulture Science Series: In 2 Parts. New India Publishing, New Delhi, India	Jasmine can be planted on a wide range of soils. Well drained rich sandy loam and red loam soil are the best suited. Clayey soil results in increased vegetative growth and reduced flowering.
410	2010. Dave's Garden. PlantFiles: Poet's Jasmine. Dave's Garden, http://davesgarden.com/guides/pf/go/1638/	Soil pH requirements: 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral)
411	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Evergreen scrambler or weak climber…Pruning helps shapes the plant and restrain its scrambling tendencies.
411	2010. Backyard Gardener. Jasminum grandiflorum. http://www.backyardgardener.com/plantname/pda_de7b.html	Fast growing, strong climbing, evergreen vine.
412	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	A climbing plant [Answer Yes to Question 4.11]
501	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Terrestrial plant [not aquatic]
502	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Oleaceae [not a grass]
503	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Oleaceae [not nitrogen fixing]
504	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Evergreen scrambler or weak climber [not a geophyte]
601	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Seed set is usually very low and pollen sterility frequently above 75%. [evidence from cultivation, but no evidence of substantial reproductive failure in native range]
602	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Seed set is usually very low and pollen sterility frequently above 75%. [produces viable seed, but at low numbers]
602	2005. Staples, G. W./Herbst, D. R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI.	Fruit rare in cultivation
603	2010. WRA Specialist. Personal Communication.	Ability to hybridize unknown
604	1908. Knuth. P.. Handbook of Flower Pollination. Clarendon Press, Oxford, U.K.	Species of Jasminum listed as cleistogamous, [but unknown for J. grandiflorum]
605	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	corolla tubular, tube 15-22 mm long, attached at about the middle of the corolla tube [floral morphology & low seed set suggest J. grandiflorum has similar specialized pollinator requirements as other Jasminum species]

605	2004. Corlett, R.T.. Flower visitors and pollination in the Oriental (Indomalayan) Region. Biological Reviews. 79: 497–532.	Other species with white, scented, tubular flowers believed to be pollinated by sphingids are Jasminum angustifolium (Oleaceae), Catunaregam spinosa (Rubiaceae) and Carissa carandas (Apocynaceae) in India (Raju, 1988; Raju, Reddi & Das, 1997), but this combination of floral characters is widespread in the region and many other examples of hawkmoth pollination may have been overlooked.
606	2008. Pradeepkumar, T./ Kumar, P.. Management of Horticultural Crops: Vol.11 Horticulture Science Series: In 2 Parts. New India Publishing, New Delhi, India	Suckers: Those suckers arising from the base of plants can be uprooted and used as planting materials.
607	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	J. grandiflorum grows slowly the first 2 years after planting, but first flowering starts at the age of 6 months.
701	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Fruit a 2-lobed berry, lobes ellipsoid, 10 mm x 8 mm, black when ripe. [no evidence of unintentional spread of propagules]
702	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	J. grandiflorum is widely cultivated in warm temperate, subtropical and tropical climates all over the world for its scented flowers, as an ornamental and as a source of oil.
703	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Fruit a 2-lobed berry, lobes ellipsoid, 10 mm x 8 mm, black when ripe. [no evidence of produce contamination]
704	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Fruit a 2-lobed berry, lobes ellipsoid, 10 mm x 8 mm, black when ripe. [not adapted for wind dispersal]
705	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Fruit a 2-lobed berry, lobes ellipsoid, 10 mm x 8 mm, black when ripe. [no evidence of or apparent adaptations for water dispersal]
706	1994. Ghazanfar, S. A.. Handbook of Arabian medicinal plants. CRC Press, Boca Raton, FL	Fruit (berry) fleshy, 2-lobes, purple-black when ripe, each lobe 1-seeded.
706	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Fruit a 2-lobed berry, lobes ellipsoid, 10 mm x 8 mm, black when ripe. [fleshy-fruited]
707	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Fruit a 2-lobed berry, lobes ellipsoid, 10 mm x 8 mm, black when ripe. [no means of external attachment for external animal dispersal]
708	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Fruit a 2-lobed berry, lobes ellipsoid, 10 mm x 8 mm, black when ripe. [fleshy-fruited]
801	1999. Plant Resources of South-East Esia 19, Essential-oil Plants. Prosea Foundation, Bogor, Indonesia	Seed set is usually very low and pollen sterility frequently above 75%.
802	2010. WRA Specialist. Personal Communication.	Longevity of seed bank unknown
803	2001. Langeland, K.A./Stocker, R.K.. Control of Non-native Plants in Natural Areas of Florida. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL http://mrec.ifas.ufl.edu/ldspmgt/Ldsp%20Turf%20Mgmt/PDFfiles/WG20900.pdf	Individual vines of any size can receive a cut stump treatment with 50% Garlon 3A or 10% Garlon 4, or a basal bark application of 10% Garlon 4. Because basally-applied Garlon 4 does not translocate beyond a few rooted nodes it is often necessary to pull runners back to the main stem, cut and apply Garlon 3A or Garlon 4 to the cut stem. Re-treatment of areas is usually necessary. Newly emerged seedlings can be hand pulled. [No control methods found for J. grandiflorum, but methods described for J. dichotomum and J. fluminense are applicable]
804	2010. WRA Specialist. Personal Communication.	Unknown whether J. grandiflorum tolerates or benefits from, mutilation, cultivation, or fire
805	2010. WRA Specialist. Personal Communication.	Unknown whether effective natural enemies present locally (e.g. introduced biocontrol agents)