## Keywords: Low Risk, Ornamental Plant, Sterile Hybrid, Mediterranean Climate, Essential oil

Family: Lamiaceae

Print Date: 3/13/2013

Taxon: Lavandula × intermedia

Synonym: Lavandula × burnatii Briq. Common Name: bastard lavender

broadleaf barren lavender

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Dutch lavender lavandin

			lavandin		
Questiona		Assessor:	HPWRA OrgData	<b>Designation:</b> L	
Status:	Assessor Approved	Data Entry Person:	HPWRA OrgData	WRA Score -6	
101 Is the	species highly domesticated?			y=-3, n=0	
102 Has t	he species become naturalized wher	re grown?		y=1, n=-1	
103 Does	the species have weedy races?			y=1, n=-1	
	es suited to tropical or subtropical c itute "wet tropical" for "tropical or			(0-low; 1-intermediate; 2-high) (See Appendix 2)	Intermediate
202 Quali	ty of climate match data			(0-low; 1-intermediate; 2-high) (See Appendix 2)	Low
203 Broad	d climate suitability (environmental	versatility)		y=1, n=0	n
204 Nativ	e or naturalized in regions with trop	pical or subtropical climates		y=1, n=0	n
205 Does	the species have a history of repeate	ed introductions outside its nat	tural range?	y=-2, ?=-1, n=0	y
301 Natui	ralized beyond native range			y = 1*multiplier (see Appendix 2), n= question 205	
302 Gard	en/amenity/disturbance weed			n=0, y = 1*multiplier (see Appendix 2)	n
303 Agric	ultural/forestry/horticultural weed			n=0, y = 2*multiplier (see Appendix 2)	n
304 Envir	onmental weed			n=0, y = 2*multiplier (see Appendix 2)	n
305 Cong	eneric weed			n=0, y = 1*multiplier (see Appendix 2)	y
401 Produ	uces spines, thorns or burrs			y=1, n=0	n
402 Allelo	ppathic			y=1, n=0	
403 Paras	sitic			y=1, n=0	n
404 Unpa	latable to grazing animals			y=1, n=-1	y
405 Toxic	to animals			y=1, n=0	n
406 Host	for recognized pests and pathogens			y=1, n=0	
407 Cause	es allergies or is otherwise toxic to h	umans		y=1, n=0	n
408 Creat	tes a fire hazard in natural ecosystem	ms		y=1, n=0	n
409 Is a sl	hade tolerant plant at some stage of	its life cycle		y=1, n=0	n
410 Toler	ates a wide range of soil conditions	(or limestone conditions if not	a volcanic island)	y=1, n=0	y

 $Lavandula \times intermedia \ (Lamiaceae)$ 

411	Climbing or smothering growth habit	y=1, n=0	n
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, corn	ns, or tubers) y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	
602	Produces viable seed	y=1, n=-1	n
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	n
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	2
701	Propagules likely to be dispersed unintentionally (plants growing in he areas)	avily trafficked 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	n
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	n
803	Well controlled by herbicides	y=-1, n=1	
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	n
805	Effective natural enemies present locally (e.g. introduced biocontrol ag	y=-1, n=1	
	r	Designation: L WRA Score -6	

ıppor	ting Data:	
101	Agricultural and Horticultural Crops (except	[Is the species highly domesticated? Unknown] "Different varieties of this hybrid are more hardy and give a larger yield of oil, but of inferior quality, than that of Lavandula angustifolia." [Hardier varieties may be more likely to persist after or escape from cultivation]
102	2013. WRA Specialist. Personal Communication.	NA
103	2013. WRA Specialist. Personal Communication.	NA
201	2001. Hanelt, P. (ed.). Mansfeld's Encyclopedia of Agricultural and Horticultural Crops (except Ornamentals), Volume 1. Springer-Verlag, Berlin, Heidelberg, New York	[Species suited to tropical or subtropical climate(s) 1-Intermediate] "North-eastern Spain and southern France." [Mediterranean]
202	Agricultural and Horticultural Crops (except	[Quality of climate match data 1-Intermediate] "Grown in south-eastern France, Italy, Dalmatia, Romania, Hungary, the former Soviet Union (Crimea), southern England, Ireland, E tropical Africa and Argentina (Rio Negro, Mendoza) for the essential oil of the inflorescences." [Climate predominantly temperate & Mediterranean, but growing regions extend into tropical areas]
203	2013. Missouri Botanical Gardens. Lavandula x intermedia 'Grosso'. http://www.missouribotanicalgarden.org/gardensgardening/your-garden/plant-finder/plant-details/kc/a393/lavandula-x-intermediagrosso.aspx [Accessed 11 Mar 2013]	[Broad climate suitability (environmental versatility)? No] "Zone: 5 to 8"
204	2001. Hanelt, P. (ed.). Mansfeld's Encyclopedia of Agricultural and Horticultural Crops (except Ornamentals), Volume 1. Springer-Verlag, Berlin, Heidelberg, New York	[Native or naturalized in regions with tropical or subtropical climates? No] "Northeastern Spain and southern France." "Grown in south-eastern France, Italy, Dalmatia, Romania, Hungary, the former Soviet Union (Crimea), southern England, Ireland, E tropical Africa and Argentina (Rio Negro, Mendoza) for the essential oil of the inflorescences."
205	Agricultural and Horticultural Crops (except	[Does the species have a history of repeated introductions outside its natural range? Yes] "Grown in south-eastern France, Italy, Dalmatia, Romania, Hungary, the former Soviet Union (Crimea), southern England, Ireland, E tropical Africa and Argentina (Rio Negro, Mendoza) for the essential oil of the inflorescences."
301	2002. Preston, C.D./Pearman, D.A./Dines, T.D New Atlas of the British & Irish Flora: An Atlas of the Vascular Plants of Britain, Ireland, the Isle of Man and the Channel Islands. Oxford University Press,	[Naturalized beyond native range? Possibly] "The hybrid was introduced into cultivation in the 17th century and is extremely popular in gardens. It was not recorded from the wild, however, until 1984 and the map indicates it may be unevenly recorded. The hybrid is not very fertile, and most records of self-sown or bird-sown plants from walls, pavement cracks, banks and chalk pits, many of which are mapped here, are probably referable to L. angustifolia."
302	2012. Randall, R.P A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Garden/amenity/disturbance weed? No] No evidence
303	2012. Randall, R.P A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Agricultural/forestry/horticultural weed? No] No evidence
304	2012. Randall, R.P A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Environmental weed? No] No evidence

305	http://keyserver.lucidcentral.org/weeds/data/03030800-0b07-490a-8d04-0605030c0f01/media/Html/Lavandula_stoechas.htm [Accessed 27 Feb 2013]	[Congeneric weed? Yes] "Topped lavender (Lavandula stoechas) is regarded as a significant environmental weed in South Australia, and as an environmental weed in Victoria and Western Australia. It is also listed as a priority environmental weed in at least one Natural Resource Management region. This species invades mallee scrublands, lowland grasslands and disturbed grassy woodlands in the temperate regions of Australia. It can form dense stands in these habitats that eliminate all other ground flora, while also severely impeding the regeneration of the overstorey vegetation. Topped lavender (Lavandula stoechas) is a common environmental weed of the Greater Adelaide and Mount Lofty Ranges region, and is a serious problem in the Clare Valley, in south-eastern South Australia. It has been recorded is several conservation areas in this state (e.g. Ferguson Conservation Park, Greenhill Recreation Park, Belair Reserve and Cleland Conservation Park) and has also invaded remnant habitats where the few remaining colonies of the endangered white beauty spider orchid (Caladenia argocalla) are known to occur. In Victoria, topped lavender (Lavandula stoechas) is listed as an environmental weed in several local authority areas (e.g. in Knox City, Kingston City and Hume City). In Western Australia it is often found on roadsides, in wasteland, and along creeks and drainage lines between Perth and Manjimup, but also invades grassland, open woodlands and disturbed natural vegetation."
401	2007. Ecocrop. Lavandula intermedia. FAO, http://ecocrop.fao.org/ecocrop/srv/en/cropView?id =7175 [Accessed 13 Mar 2013]	[Produces spines, thorns or burrs? No evidence] "A small shrub reaching 80-120 cm in height and a diameter of more than 150 cm. The flowering shoots are usually branched and 60 90 cm long, while the leaves are 50-70 mm x 8 10 mm and not as pubescent, but more brighter green then for true lavender."
402	2013. WRA Specialist. Personal Communication.	[Allelopathic? Unknown]
403	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgibin/npgs/html/index.pl	[Parasitic? No] Lamiaceae
404	2013. Missouri Botanical Gardens. Lavandula x intermedia 'Grosso'. http://www.missouribotanicalgarden.org/gardensgardening/your-garden/plant-finder/plant-details/kc/a393/lavandula-x-intermediagrosso.aspx [Accessed 11 Mar 2013]	[Unpalatable to grazing animals? Probably Yes] "Tolerates: Dry Soil, Shallow, Rocky Soil, Drought, Air Pollution, Deer, Rabbits " [Probably unpalatable if it can tolerate deer & rabbits]
405	2008. Wagstaff, D.J International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Toxic to animals? No] No evidence
405	2013. WRA Specialist. Personal Communication.	[Toxic to animals? No evidence] Although oils in plant may reduce the palatability
406	2013. Missouri Botanical Gardens. Lavandula x intermedia 'Alba'. http://www.missouribotanicalgarden.org/gardensgardening/your-garden/plant-finder/plantdetails/kc/c613/lavandula-x-intermedia-alba.aspx [Accessed	[Host for recognized pests and pathogens?] "Susceptible to leaf spot and root rot."
407	2008. Wagstaff, D.J International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Causes allergies or is otherwise toxic to humans? No] No evidence
408	2013. Garden Wise Salt Lake City. Lavandula intermedia 'Provence'. http://www.slcgardenwise.com/eplant.php?plantnum=14829&return=l29_p91 [Accessed 13 Mar 2013]	[Creates a fire hazard in natural ecosystems? No] "Fire Resistant" [No evidence, and unlikely if plant is fire resistant]
409	2013. Missouri Botanical Gardens. Lavandula x intermedia 'Grosso'. http://www.missouribotanicalgarden.org/gardensgardening/your-garden/plant-finder/plant-details/kc/a393/lavandula-x-intermediagrosso.aspx [Accessed 11 Mar 2013]	[Is a shade tolerant plant at some stage of its life cycle? No] "Sun: Full sun "
409	2013. Shoot Gardening. Lavandula x intermedia 'Grosso' (Lavender 'Grosso'). http://www.shootgardening.co.uk/plant/lavandula-x-intermedia-grosso [Accessed 13 Mar 2013]	[Is a shade tolerant plant at some stage of its life cycle? No] "Light: Full Sun"

410	2007. Ecocrop. Lavandula intermedia. FAO, http://ecocrop.fao.org/ecocrop/srv/en/cropView?id =7175 [Accessed 13 Mar 2013]	[Tolerates a wide range of soil conditions? Yes] Soil PH: Min 5.8; Max 7.5;
410	2013. Shoot Gardening. Lavandula x intermedia 'Grosso' (Lavender 'Grosso'). http://www.shootgardening.co.uk/plant/lavandula-x-intermedia-grosso [Accessed 13 Mar 2013]	[Tolerates a wide range of soil conditions? Yes] "Soil types: Chalky, Loamy, Sandy" "Soil pH: Acid, Alkaline, Neutral"
411	2007. Ecocrop. Lavandula intermedia. FAO, http://ecocrop.fao.org/ecocrop/srv/en/cropView?id =7175 [Accessed 13 Mar 2013]	[Climbing or smothering growth habit? No] "A small shrub reaching 80-120 cm in height and a diameter of more than 150 cm."
412	2002. Preston, C.D./Pearman, D.A./Dines, T.D New Atlas of the British & Irish Flora: An Atlas of the Vascular Plants of Britain, Ireland, the Isle of Man and the Channel Islands. Oxford University Press,	[Forms dense thickets? No] No evidence
412	2013. WRA Specialist. Personal Communication.	[Forms dense thickets? No] No evidence from cultivated or natural settings found
501	2013. WRA Specialist. Personal Communication.	[Aquatic? No] Terrestrial
502	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgibin/npgs/html/index.pl	[Grass? No] Lamiaceae
503	2013. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi- bin/npgs/html/index.pl	[Nitrogen fixing woody plant? No] Lamiaceae
504	2007. Ecocrop. Lavandula intermedia. FAO, http://ecocrop.fao.org/ecocrop/srv/en/cropView?id =7175 [Accessed 13 Mar 2013]	[Geophyte (herbaceous with underground storage organs bulbs, corms, or tubers)? No] "A small shrub reaching 80-120 cm in height and a diameter of more than 150 cm."
601	2007. Ecocrop. Lavandula intermedia. FAO, http://ecocrop.fao.org/ecocrop/srv/en/cropView?id =7175 [Accessed 13 Mar 2013]	[Evidence of substantial reproductive failure in native habitat? NA]
602	2006. Beus, C Growing and Marketing Lavender. Farming the Northwest - EB2005. Washington State University, Pullman, WA cru.cahe.wsu.edu/CEPublications/eb2005/eb2005 pdf	[Produces viable seed? No] "Lavandula x intermedia cultivars (lavandins) are sterile hybrids obtained by crossing L. latifolia with L. angustifolia."
602	2013. Missouri Botanical Gardens. Lavandula x intermedia 'Grosso'. http://www.missouribotanicalgarden.org/gardensgardening/your-garden/plant-finder/plant-details/kc/a393/lavandula-x-intermediagrosso.aspx [Accessed 11 Mar 2013]	[Produces viable seed? No] "This hybrid does not produce viable seed." [This and other cultivars of lavandin are listed as sterile on the Missouri Botanical Garden website]
602	2013. What-About-Lavender.com. Propagate Lavender. http://www.what-about-lavender.com/propagate_lavender.html [Accessed 11 Mar 2013]	[Produces viable seed? No] "While many types of lavender can be propagated with seed, the Lavandins (Lavandula x intermedia) are hybrids of English Lavenders (Lavandula angustifolia and Spike Lavenders ( Lavandula latifolia and they are sterile. But any of these types of lavender can be easily propagated by taking cuttings."
603	2013. Missouri Botanical Gardens. Lavandula x intermedia 'Grosso'. http://www.missouribotanicalgarden.org/gardensgardening/your-garden/plant-finder/plant-details/kc/a393/lavandula-x-intermediagrosso.aspx [Accessed 11 Mar 2013]	[Hybridizes naturally? Unknown] "Lavandin (L. angustifolia x L. latifolia) is a popular hybrid lavender for the herb garden. Although it may be used for culinary purposes, it is more often used as an addition to sachets and potpourris."
604	2007. Ecocrop. Lavandula intermedia. FAO, http://ecocrop.fao.org/ecocrop/srv/en/cropView?id =7175 [Accessed 13 Mar 2013]	[Self-compatible or apomictic? Unknown. Related species is self-compatible] "L. stoechas is self-compatible, but self-pollination seldom if ever takes place because of very strong protandry (Devesa, Arroyo, and Herrera, 1985; Mufioz and Devesa, 1987)."
605	2013. What-About-Lavender.com. Propagate Lavender. http://www.what-about-lavender.com/propagate_lavender.html [Accessed 11 Mar 2013]	[Requires specialist pollinators? No] "(Lavandula x intermedia) are hybrids of English Lavenders (Lavandula angustifolia and Spike Lavenders (Lavandula latifolia and they are sterile." [Pollination is irrelvant]

606		[Reproduction by vegetative fragmentation? No] "(Lavandula x intermedia) are hybrids of English Lavenders (Lavandula angustifolia and Spike Lavenders (Lavandula latifolia and they are sterile. But any of these types of lavender can be easily propagated by taking cuttings." [No evidence of vegetative spread]
607	cru.cahe.wsu.edu/CEPublications/eb2005/eb2005.	[Minimum generative time (years)? Irrelevant since seeds are not produced] "Lavandula x intermedia cultivars (lavandins) are sterile hybrids obtained by crossing L. latifolia with L. angustifolia. As the name "intermedia" suggests, leaf width is intermediate between that of both parent species. Lavandins flower earlier than L. latifolia, but later than L. angustifolia"
607	2013. Shoot Gardening. Lavandula x intermedia 'Grosso' (Lavender 'Grosso'). http://www.shootgardening.co.uk/plant/lavandula-x-intermedia-grosso [Accessed 13 Mar 2013]	[Minimum generative time (years)? 2+] "Lavandula x intermedia 'Grosso' (Lavender 'Grosso')" - "2-5 years to maturity" [Time to maturity irrelevant if no seeds are produced]
701		[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No evidence] "Lavandula x intermedia cultivars (lavandins) are sterile hybrids obtained by crossing L. latifolia with L. angustifolia."
702	2001. Hanelt, P. (ed.). Mansfeld's Encyclopedia of Agricultural and Horticultural Crops (except Ornamentals), Volume 1. Springer-Verlag, Berlin, Heidelberg, New York	[Propagules dispersed intentionally by people? Yes] "Ornamental plant" [Cultivated and distributed intentionally]
703	2006. Beus, C Growing and Marketing Lavender. Farming the Northwest - EB2005. Washington State University, Pullman, WA cru.cahe.wsu.edu/CEPublications/eb2005/eb2005. pdf	[Propagules likely to disperse as a produce contaminant? No] "Lavandula x intermedia cultivars (lavandins) are sterile hybrids obtained by crossing L. latifolia with L. angustifolia."
704	2013. What-About-Lavender.com. Propagate Lavender. http://www.what-about-lavender.com/propagate_lavender.html [Accessed 11 Mar 2013]	[Propagules adapted to wind dispersal? No] "(Lavandula x intermedia) are hybrids of English Lavenders (Lavandula angustifolia and Spike Lavenders (Lavandula latifolia and they are sterile."
705	2013. What-About-Lavender.com. Propagate Lavender. http://www.what-about-lavender.com/propagate_lavender.html [Accessed 11 Mar 2013]	[Propagules water dispersed? No] "(Lavandula x intermedia) are hybrids of English Lavenders (Lavandula angustifolia and Spike Lavenders (Lavandula latifolia and they are sterile."
706	2006. Beus, C Growing and Marketing Lavender. Farming the Northwest - EB2005. Washington State University, Pullman, WA cru.cahe.wsu.edu/CEPublications/eb2005/eb2005. pdf	[Propagules bird dispersed? No] "Lavandula x intermedia cultivars (lavandins) are sterile hybrids obtained by crossing L. latifolia with L. angustifolia." [No evidence. Even if seeds were produced, Lavandula are not fleshy-fruited or otherwise adapted to bird dispersal]
707	2013. What-About-Lavender.com. Propagate Lavender. http://www.what-about-lavender.com/propagate_lavender.html [Accessed 11 Mar 2013]	[Propagules dispersed by other animals (externally)? No] "(Lavandula x intermedia) are hybrids of English Lavenders (Lavandula angustifolia and Spike Lavenders (Lavandula latifolia and they are sterile. But any of these types of lavender can be easily propagated by taking cuttings." [No seeds, and no evidence that vegetative material will be dispersed externally by animals]
708	2013. WRA Specialist. Personal Communication.	[Propagules survive passage through the gut? NA]
801	2006. Beus, C Growing and Marketing Lavender. Farming the Northwest - EB2005. Washington State University, Pullman, WA cru.cahe.wsu.edu/CEPublications/eb2005/eb2005. pdf	[Prolific seed production (>1000/m2)? No] "Lavandula x intermedia cultivars (lavandins) are sterile hybrids obtained by crossing L. latifolia with L. angustifolia."
802	2006. Beus, C Growing and Marketing Lavender. Farming the Northwest - EB2005. Washington State University, Pullman, WA cru.cahe.wsu.edu/CEPublications/eb2005/eb2005. pdf	[Evidence that a persistent propagule bank is formed (>1 yr)? No] "Lavandula x intermedia cultivars (lavandins) are sterile hybrids obtained by crossing L. latifolia with L. angustifolia."
		[Well controlled by herbicides? Unknown] No information on herbicide efficacy or

804	2013. Garden Wise Salt Lake City. Lavandula intermedia 'Provence'.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Does not tolerate heavy pruning] "Pruning a lavender bush to the point where it has no foliage will most
		ı likely kill it. If you need to prune it, try pruning in increments. In spring, cut back by
	m=14829&return=l29_p91 [Accessed 13 Mar	1/3 to stimulate new growth. After new foliage has grown in, cut back new growth
	2013]	by 1/3 again to stimulate more new new growth at base of the plant. If new growth does come in at the base, prune back to just above the new growth. Never prune out old wood unless the wood is completely dead."
805	2013. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

## **Summary of Risk Traits**

## High Risk / Undesirable Traits

- Questionably naturalized in England (but possibly misidentification)
- Related Lavandula taxa have become invasive
- Unpalatable to grazing animals
- Tolerates many soil conditions (and potentially able to exploit many different habitat types)

## **Low Risk / Desirable Traits**

- Widely cultivated, No negative impacts have been documented
- Unarmed (no spines, thorns or burrs)
- Non-toxic
- Landscaping and ornamental value
- Grown for essential oils
- Reportedly sterile hybrid
- Requires full sun