

**Taxon:** Ligustrum obtusifolium Siebold & Zucc.

**Family:** Oleaceae

**Common Name(s):** border privet  
obtuse-leaved privet

**Synonym(s):** Ligustrum regelianum Koehne

**Assessor:** Chuck Chimera

**Status:** Assessor Approved

**End Date:** 23 Aug 2017

**WRA Score:** 8.5

**Designation:** H(HPWRA)

**Rating:** High Risk

**Keywords:** Ornamental Shrub, Temperate, Environmental Weed, Toxic, Bird-Dispersed

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y=-3, n=0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
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)	Low
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	y
204	Native or naturalized in regions with tropical or subtropical climates	y=1, n=0	n
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	y
302	Garden/amenity/disturbance weed	n=0, y = 1*multiplier (see Appendix 2)	y
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)	y
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		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals	y=1, n=-1	n
405	Toxic to animals	y=1, n=0	y
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	y
408	Creates a fire hazard in natural ecosystems		
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	y

Qsn #	Question	Answer Option	Answer
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	n
412	Forms dense thickets	y=1, n=0	y
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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	n
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	3
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		
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	y
801	Prolific seed production (>1000/m2)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides	y=-1, n=1	y
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)		

**Supporting Data:**

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Sterile cultivars exist which would limit invasiveness, but the wild type that has been used in landscaping is capable of naturalizing and has become invasive, and has not been domesticated.

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	NA

201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	Low
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 21 Aug 2017]	"Native: Asia-Temperate China: China - Zhejiang, - Heilongjiang, - Jiangsu, - Liaoning, - Shandong Eastern Asia: Japan - Hokkaido, - Honshu, - Kyushu, - Shikoku; Korea"

202	Quality of climate match data	High
	Source(s)	Notes
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 21 Aug 2017]	

203	Broad climate suitability (environmental versatility)	y
	Source(s)	Notes
	Missouri Botanical Garden. 2017. <i>Ligustrum obtusifolium</i> . <a href="http://www.missouribotanicalgarden.org/">http://www.missouribotanicalgarden.org/</a> . [Accessed 22 Aug 2017]	"Zone: 3 to 7" [Grows in 5 hardiness zones]

204	Native or naturalized in regions with tropical or subtropical climates	n
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Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 23 Aug 2017]	"Native: Asia-Temperate China: China - Zhejiang, - Heilongjiang, - Jiangsu, - Liaoning, - Shandong Eastern Asia: Japan - Hokkaido, - Honshu, - Kyushu, - Shikoku; Korea"
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	"Preferred Climate/s: Mediterranean" [No reports of naturalization in regions with tropical/subtropical climates]
	Wagner, W.L., Herbst, D.R. & Lorence, D.H. 2017. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. <a href="http://botany.si.edu/">http://botany.si.edu/</a> . [Accessed 23 Aug 2017]	No evidence to date

<b>205</b>	<b>Does the species have a history of repeated introductions outside its natural range?</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	" <i>L. obtusifolium</i> is native to the mountains of Japan, China and Korea (Flora of China Editorial Committee, 2014; USDA-ARS, 2014). It has been introduced widely into the USA, into Colombia and Egypt and is also present in Austria and Germany where it has been reported as an ornamental in Vienna and Berlin (Sukopp, 2006; Kelcey and Müller, 2011)."

<b>301</b>	<b>Naturalized beyond native range</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	" <i>L. obtusifolium</i> was introduced into the USA as early as 1860 (Maddox et al., 2010) and has currently naturalized in at least 20 states (USDA-NRCS, 2014). <i>L. obtusifolium</i> is reportedly found in the Amur river area of the Russian Far East and was sent to St. Petersburg, Russia and thence to Paris, France (Faxon, 1903)."

Qsn #	Question	Answer
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"However, in the United States all privets are nonnative and most have escaped from cultivation. They are native from Europe to North Africa and east to Asia and Australia. Amur [ <i>Ligustrum obtusifolium</i> Sieb. & Zucc. var. <i>suave</i> (Kitagawa) Kitagawa], Chinese ( <i>Ligustrum sinense</i> Lour.), and waxyleaf ( <i>Ligustrum quihoui</i> Carrière) privets are native to China; border ( <i>Ligustrum obtusifolium</i> Sieb. & Zucc. var. <i>obtusifolium</i> ) and California ( <i>Ligustrum ovalifolium</i> Hassk.) privets are native to Japan; common or European privet ( <i>Ligustrum vulgare</i> L.) is native to Europe and North Africa; glossy privet ( <i>Ligustrum lucidum</i> Ait.) is native to China, Korea, and Japan; and Japanese privet ( <i>Ligustrum japonicum</i> Thunb.) is native to Korea and Japan. The most common species in the southern portion of the middle southern region is Chinese privet, although Amu, border, California, common or European, glossy, Japanese, and waxyleaf or Quihoui privets also have escaped (USDA–NRCS 2009). In the southern United States, most privet species readily escape cultivation and naturalize in areas surrounding sites of cultivation. Chinese, common, and waxyleaf privet form dense monocultural stands once established." ... "Border, California, and waxyleaf privets are less common and have escaped in Tennessee, Mississippi, and Arkansas, respectively."
	Nesom, G. L. (2009). Taxonomic overview of <i>Ligustrum</i> (Oleaceae) naturalized in North America north of Mexico. <i>Phytologia</i> , 91(3), 467-482	" <i>Ligustrum ovalifolium</i> , <i>L. obtusifolium</i> and <i>L. tschonoskii</i> are the species naturalized in the USA with corolla tubes longer than the lobes."

302	Garden/amenity/disturbance weed	y
	Source(s)	Notes
	Dave's Garden. 2017. Border privet - <i>Ligustrum obtusifolium</i> . <a href="http://davesgarden.com/guides/pf/go/78039">http://davesgarden.com/guides/pf/go/78039</a> . [Accessed 23 Aug 2017]	"On Feb 6, 2011, RosemaryK from Lexington, MA (Zone 6a) wrote: I have been digging the roots of this plant for the past 20 years. The hedge I had to remove was clearly never successful. It is invasive."
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"Privets can be highly aggressive, often forming nuisance thickets. They often are found on disturbed ground, in old fields, along fencerows and rights-of-way, on ditch banks, along forest margins, or in open-canopy forests. Often, more than one species occur together, complicating identification."

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	CABI, 2017. <i>Invasive Species Compendium</i> . Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	" <i>L. obtusifolium</i> forms dense thickets which can be difficult to control and may alter habitats and outcompete native plant species." [Impacts natural areas]
	Randall, R.P. (2017). <i>A Global Compendium of Weeds</i> . 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

304	Environmental weed	y
	Source(s)	Notes

Qsn #	Question	Answer
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"L. obtusifolium is a deciduous shrub native to Japan, China and Korea. It has been introduced widely into the USA where it has established in stream valleys, old fields, forest gaps and disturbed urban and suburban forest remnants. It is listed as invasive in several states in the USA including Indiana, Connecticut, New Hampshire and Massachusetts. L. obtusifolium forms dense thickets which can be difficult to control and may alter habitats and outcompete native plant species. " ... "L. obtusifolium can form dense thickets which can alter habitats and enable establishment of new stands (Swearingen et al., 2010). These thickets can outcompete and inhibit indigenous species in North America decreasing biodiversity (Swearingen et al., 2010)."
	Missouri Botanical Garden. 2017. <i>Ligustrum obtusifolium</i> . <a href="http://www.missouribotanicalgarden.org/">http://www.missouribotanicalgarden.org/</a> . [Accessed 22 Aug 2017]	"This plant is listed as an exotic invasive species to Missouri and the Midwest by the Midwest Invasive Plant Network. The species should not be planted in the Midwest."

305	Congeneric weed	y
	Source(s)	Notes
	Swearingen, J.B., Slattery, B., Reshetiloff, K. & Zwicker, S. (2010). Plant Invaders of Mid-Atlantic Natural Areas, 4th ed. National Park Service and U.S. Fish and Wildlife Service, Washington, DC.	"Border privet - <i>Ligustrum obtusifolium</i> Sieb. & Zucc. California privet - <i>L. ovalifolium</i> Hassk. Chinese privet - <i>L. sinense</i> Lour. European privet - <i>L. vulgare</i> L." ... All four privet species featured here have been reported to be invasive in the mid-Atlantic region; some are recognized as invasive elsewhere in the eastern U.S. and nationwide. They thrive in floodplains, fields, disturbed forests and forest edges."
	Swarbrick, J. T., Timmins, S. M., & Bullen, K. M. (1999). The biology of Australian weeds. 36. <i>Ligustrum lucidum</i> Aiton and <i>Ligustrum sinense</i> Lour. Plant Protection Quarterly, 14 (4), 122-130	"they ( <i>L. lucidum</i> and <i>L. sinense</i> ) are more or less serious environmental weeds."

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[No evidence] "Shrubs 0.5–3 m, deciduous and many branched. Branch-lets minutely pilose to pubescent or puberulent. Petiole 1–2 mm, glabrous or pubescent; leaf blade oblong, oblong-lanceolate, elliptic, ovate to long obovate-elliptic, or oblanceolate, 0.8–6 × 0.4–2.5 cm, papery, scattered pilose to glabrous or sparsely pubescent, base cuneate or broadly so, apex acute or obtuse, mucronulate, sometimes slightly retuse; primary veins 3–5(–7) on each side of midrib, often obscure or abaxially slightly raised."

402	Allelopathic	
	Source(s)	Notes
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	Unknown. No evidence

403	Parasitic	n
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Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Shrubs 0.5–3 m, deciduous and many branched." [Oleaceae. No evidence]

404	Unpalatable to grazing animals	n
	<b>Source(s)</b>	<b>Notes</b>
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"A recent study indicates that border privet might have a chemical defense against herbivores (Konno et al. 1999)."
	CABI, 2017. <i>Invasive Species Compendium</i> . Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	"It is also toxic towards a number of mammalian herbivores including horses."
	Jayasekara, P., & Takatsuki, S. (2000). Seasonal food habits of a sika deer population in the warm temperate forest of the westernmost part of Honshu, Japan. <i>Ecological Research</i> , 15(2): 153-157	[Consumed by sika deer] "The material recovered from the rumen contents of the sika deer contained: leaves of bamboo ( <i>Pleioblastus chino</i> Makino), monocotyledonous herbs ( <i>Ophiopogon</i> spp.), forbs ( <i>Polygala</i> spp., <i>Clematis terniflora</i> DC. <i>Phaseolus</i> sp.), shrubs ( <i>Ardisia japonica</i> Blume, <i>Ligustrum obtusifolium</i> Sieb. et Zucc., <i>Ligustrum</i> spp., <i>Ilex crenata</i> Thunb., <i>Eurya japonica</i> Thunb.), trees ( <i>Albizia julibrissin</i> Durazz., <i>Quercus</i> spp.), a liana ( <i>Trachelospermum asiaticum</i> Nakai) and a fern ( <i>Polysticum</i> sp.)."

405	Toxic to animals	y
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. <i>Invasive Species Compendium</i> . Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	"It is also toxic towards a number of mammalian herbivores including horses."

406	Host for recognized pests and pathogens	
	<b>Source(s)</b>	<b>Notes</b>
	Swearingen, J.B., Slattery, B., Reshetiloff, K. & Zwicker, S. (2010). <i>Plant Invaders of Mid-Atlantic Natural Areas</i> , 4th ed. National Park Service and U.S. Fish and Wildlife Service, Washington, DC.	"Known pests that affect privets include a foliage-feeding insect native to Europe ( <i>Macrophya punctumalbum</i> ), a fungal leaf spot ( <i>Pseudocercospora ligustri</i> ) and a common root crown bacteria ( <i>Agrobacterium tumefaciens</i> )."
	Missouri Botanical Garden. 2017. <i>Ligustrum obtusifolium</i> . <a href="http://www.missouribotanicalgarden.org/">http://www.missouribotanicalgarden.org/</a> . [Accessed 23 Aug 2017]	"No serious insect or disease problems. Some susceptibility to a number of potential disease problems, including anthracnose, crown gall, twig blight, leaf spots, powdery mildew, cankers and root rots. Aphids, leaf miners, scale, thrips, mealybugs, whitefly, nematodes, Japanese beetles, weevils and mites may appear."

Qsn #	Question	Answer
407	<b>Causes allergies or is otherwise toxic to humans</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	"All parts of <i>L. obtusifolium</i> are toxic to humans causing nausea, vomiting, diarrhoea and abdominal pain (Wagstaff, 2008)."
	Pollen Library. 2017. Border Privet ( <i>Ligustrum obtusifolium</i> ). <a href="http://www.pollenlibrary.com/Specie/Ligustrum+obtusifolium/">http://www.pollenlibrary.com/Specie/Ligustrum+obtusifolium/</a> . [Accessed 23 Aug 2017]	"Allergenicity: Border Privet ( <i>Ligustrum obtusifolium</i> ) is a severe allergen."

408	<b>Creates a fire hazard in natural ecosystems</b>	
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	" <i>L. obtusifolium</i> forms dense thickets which can be difficult to control and may alter habitats and outcompete native plant species." [Unknown. Thickets may increase fuel load and fire risk in fire-prone habitats]

409	<b>Is a shade tolerant plant at some stage of its life cycle</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	" <i>L. obtusifolium</i> grows best in full sun to light shade. It can be found in woodland and forest edges, roadways, old fields and disturbed areas in moist to dry-mesic conditions."
	Hargrave, R., Selleck, E. and Fallone, K. 2009. Controlling Invasive Species in Woodlots. Forest Connect Fact Sheet Series. Cornell University Cooperative Extension and New York State Department of Environmental Conservation. <a href="http://www.ForestConnect.info">www.ForestConnect.info</a>	"Privet <i>Ligustrum obtusifolium</i> ... Habitat = Full Sun to Full Shade, Forest Edge and Interior"
	Missouri Botanical Garden. 2017. <i>Ligustrum obtusifolium</i> . <a href="http://www.missouribotanicalgarden.org/">http://www.missouribotanicalgarden.org/</a> . [Accessed 22 Aug 2017]	"Sun: Full sun to part shade"

410	<b>Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	" <i>L. obtusifolium</i> can grow in soils containing loam or clay-loam, but is highly tolerant of other soil types such as light (sandy), medium (loamy) and heavy (clay). It is tolerant of a wide pH range, from acidic through neutral to alkaline soils (PFAF, 2014)."
	Missouri Botanical Garden. 2017. <i>Ligustrum obtusifolium</i> . <a href="http://www.missouribotanicalgarden.org/">http://www.missouribotanicalgarden.org/</a> . [Accessed 22 Aug 2017]	"Tolerant of a wide range of soils, except wet ones."



Qsn #	Question	Answer
411	<b>Climbing or smothering growth habit</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Shrubs 0.5–3 m, deciduous and many branched."
412	<b>Forms dense thickets</b>	y
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"L. obtusifolium forms dense thickets which can be difficult to control and may alter habitats and outcompete native plant species."
	Missouri Botanical Garden. 2017. Ligustrum obtusifolium. <a href="http://www.missouribotanicalgarden.org/">http://www.missouribotanicalgarden.org/</a> . [Accessed 22 Aug 2017]	"Plants will naturalize by self-seeding in optimum growing conditions, and may form thickets in areas where growth is not controlled."
501	<b>Aquatic</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[Terrestrial] "Shrubs 0.5–3 m, deciduous and many branched." ... "Hills, gullies, woods; 100–600 m."
502	<b>Grass</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 21 Aug 2017]	Family: Oleaceae Tribe: Oleeeae
503	<b>Nitrogen fixing woody plant</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. <a href="http://www.ars-grin.gov/npgs/index.html">http://www.ars-grin.gov/npgs/index.html</a> . [Accessed 21 Aug 2017]	Family: Oleaceae Tribe: Oleeeae
504	<b>Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)</b>	n
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Shrubs 0.5–3 m, deciduous and many branched."
601	<b>Evidence of substantial reproductive failure in native habitat</b>	n

Qsn #	Question	Answer
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	[No evidence from native range] "Hills, gullies, woods; 100–600 m. Heilongjiang, Jiangsu, Liao-ning, Shandong, Zhejiang [Japan, Korea]."

602	Produces viable seed	y
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"L. obtusifolium reproduces by seed and can also regenerate and spread from root and stump re sproutings. A study by Gleditsch and Carlo (2010) found L. obtusifolium to have the second highest total fruit crop in central Pennsylvania after Lonicera species."
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"Other privets, such as border and glossy privet, also can establish well from seed. In an old field in Illinois, border privet averaged over 2,400 plants per acre (Remaley and Bargerion 2003), which illustrates its invasive potential."

603	Hybridizes naturally	
	<b>Source(s)</b>	<b>Notes</b>
	Johnson, S. B. (2009). Privet species—are we sitting on species time bombs?. In Proceedings of the 15th Biennial NSW Weeds Conference, Narrabri	[Unknown] "Hybrids between the various species of <i>Ligustrum</i> have not been reported (Swarbrick et al. 1999), with one possible exception between <i>L. ovalifolium</i> and <i>L. sinense</i> (Goulding 1973)."

604	Self-compatible or apomictic	
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Panicles terminal, 1.5–4 × 1.5–3 cm, densely flowered. Pedicel 0–2 mm, puberulent, pubescent or glabrous. Calyx 1–2 mm, puberulent, pubescent, or glabrous. Corolla 5–10 mm; tube 1.5–2.5 × as long as lobes. Stamens reaching about middle of corolla lobes; anthers lanceolate, 2–3 mm."
	Aguirre-Acosta, N., Kowaljow, E., & Aguilar, R. (2014). Reproductive performance of the invasive tree <i>Ligustrum lucidum</i> in a subtropical dry forest: does habitat fragmentation boost or limit invasion?. <i>Biological Invasions</i> , 16(7), 1397-1410	[Unknown for <i>L. obtusifolium</i> . Other species are self-compatible] "It is a fast-growing, self-compatible, hermaphrodite tree that offers a massive yield of fleshy fruits in late autumn and throughout the winter" ... "The species has a mixed mating system, where the combination of self-compatibility with massive flowering production facultatively assures reproduction via autogamous and geitonogamous crosses (Montaldo 1993)."

Qsn #	Question	Answer
605	<b>Requires specialist pollinators</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Panicles terminal, 1.5–4 × 1.5–3 cm, densely flowered. Pedicel 0–2 mm, puberulent, pubescent or glabrous. Calyx 1–2 mm, puberulent, pubescent, or glabrous. Corolla 5–10 mm; tube 1.5–2.5 × as long as lobes. Stamens reaching about middle of corolla lobes; anthers lanceolate, 2–3 mm."
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"The flowers of <i>L. obtusifolium</i> attract honeybees ( <i>Apis</i> species) and other bees, the red admiral butterfly ( <i>Vanessa atalanta</i> ) and other local butterflies and moths."

606	<b>Reproduction by vegetative fragmentation</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Swearingen, J.B., Slattery, B., Reshetiloff, K. & Zwicker, S. (2010). Plant Invaders of Mid-Atlantic Natural Areas, 4th ed. National Park Service and U.S. Fish and Wildlife Service, Washington, DC.	"can spread locally through root sprouting."
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"Once established, privets can produce sprouts from roots that are underground or near the surface, or from stumps. This is particularly true for Chinese privet, but it also has been reported in glossy and Japanese privet (Miller 2003). It can be difficult to control an established stand of privet."

607	<b>Minimum generative time (years)</b>	<b>3</b>
	<b>Source(s)</b>	<b>Notes</b>
	Office of Plant Industries and Pest Management. 2015. Weed Risk Assessment for <i>Ligustrum obtusifolium</i> Siebold and Zucc.(1846) (Oleaceae) – Border privet. Maryland Department of Agriculture, Annapolis, MD. <a href="http://mda.maryland.gov/">http://mda.maryland.gov/</a> . [Accessed 23 Aug 2017]	"Three years to maturity was cited in Hilty (2012)."

701	<b>Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"The fruits of <i>L. obtusifolium</i> are dispersed by birds (Serviss, 2014). Swearingen et al. (2010) reports that birds and other animals can excrete the seeds undamaged where they can germinate to produce new plants." [No evidence, or means of external attachment]

Qsn #	Question	Answer
702	<b>Propagules dispersed intentionally by people</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"Accidental introduction of <i>L. obtusifolium</i> into new areas is unlikely. However, deliberate introduction into new areas is more likely as the species is part of the ornamental plant trade and readily available for sale on the internet. Once introduced to a region, the seeds can be dispersed by birds. In temperate climates <i>L. obtusifolium</i> may fruit prolifically (USDA Forest Service, 2005; Gleditsch and Carlo, 2010)."

703	<b>Propagules likely to disperse as a produce contaminant</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"Accidental introduction of <i>L. obtusifolium</i> into new areas is unlikely." ... "The fruits of <i>L. obtusifolium</i> are dispersed by birds (Serviss, 2014)."

704	<b>Propagules adapted to wind dispersal</b>	<b>n</b>
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit purple-black, subglobose to broadly ellipsoid, 5–8 × 4–6 mm."

705	<b>Propagules water dispersed</b>	
	<b>Source(s)</b>	<b>Notes</b>
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"Privets can be highly aggressive, often forming nuisance thickets. They often are found on disturbed ground, in old fields, along fencerows and rights-of-way, on ditch banks, along forest margins, or in open-canopy forests." [Buoyancy unknown. Occurrence along ditch banks could facilitate secondary dispersal by water]

706	<b>Propagules bird dispersed</b>	<b>y</b>
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit purple-black, subglobose to broadly ellipsoid, 5–8 × 4–6 mm."
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"Some, if not all, privet species primarily are dispersed by birds and other animals, which eat fruit and disperse the seeds."
	Swearingen, J.B., Slattery, B., Reshetiloff, K. & Zwicker, S. (2010). <i>Plant Invaders of Mid-Atlantic Natural Areas</i> , 4th ed. National Park Service and U.S. Fish and Wildlife Service, Washington, DC.	"Spreads: by birds that consume fruits and excrete seeds undamaged in new locations"

Qsn #	Question	Answer
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"The fruits of <i>L. obtusifolium</i> are dispersed by birds (Serviss, 2014). Swearingen et al. (2010) reports that birds and other animals can excrete the seeds undamaged where they can germinate to produce new plants. It has been suggested that the berries the berries are eaten to a limited extent by the eastern bluebird ( <i>Sialia sialis</i> ), the American tree sparrow ( <i>Spizella arborea</i> ) and the cedar waxwing ( <i>Bombycilla cedrorum</i> ) (Martin et al., 1951; Hilty, 2014)."

707	Propagules dispersed by other animals (externally)	n
	<b>Source(s)</b>	<b>Notes</b>
	Wu, Z. Y. & P. H. Raven, eds. 1996. Flora of China. Vol. 15 (Myrsinaceae through Loganiaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis	"Fruit purple-black, subglobose to broadly ellipsoid, 5–8 × 4–6 mm." [No means of external attachment]
	CABI, 2017. Invasive Species Compendium. Wallingford , UK: CAB International. www.cabi.org/isc	"The fruits of <i>L. obtusifolium</i> are dispersed by birds (Serviss, 2014). Swearingen et al. (2010) reports that birds and other animals can excrete the seeds undamaged where they can germinate to produce new plants."
	Office of Plant Industries and Pest Management. 2015. Weed Risk Assessment for <i>Ligustrum obtusifolium</i> Siebold and Zucc.(1846) (Oleaceae) – Border privet. Maryland Department of Agriculture, Annapolis, MD. <a href="http://mda.maryland.gov/">http://mda.maryland.gov/</a> . [Accessed 23 Aug 2017]	"There is no evidence, research or documentation that fruit are adapted for external dispersal on animals. Based on the morphology of fruit, this dispersal mechanism seems unlikely."

708	Propagules survive passage through the gut	y
	<b>Source(s)</b>	<b>Notes</b>
	Swearingen, J.B., Slattery, B., Reshetiloff, K. & Zwicker, S. (2010). Plant Invaders of Mid-Atlantic Natural Areas, 4th ed. National Park Service and U.S. Fish and Wildlife Service, Washington, DC.	"Spreads: by birds that consume fruits and excrete seeds undamaged in new locations"
	Fukui, A. W. (1995). The role of the brown-eared bulbul <i>Hypsypetes amaurotis</i> as a seed dispersal agent. <i>Researches on Population Ecology</i> , 37(2), 211-218	"Table 1. Seeds tested for physical surface injury by passed through the bulbul. No injury was observed." [Includes <i>Ligustrum obtusifolium</i> - No. of seeds tested = 537]

801	Prolific seed production (>1000/m2)	
	<b>Source(s)</b>	<b>Notes</b>
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"Other privets, such as border and glossy privet, also can establish well from seed. In an old field in Illinois, border privet averaged over 2,400 plants per acre (Remaley and Barger 2003), which illustrates its invasive potential." [Seed densities unknown]

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	<b>Source(s)</b>	<b>Notes</b>

Qsn #	Question	Answer
	Munger, G. T. 2003. <i>Ligustrum</i> spp. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory. <a href="http://www.fs.fed.us/database/feis">http://www.fs.fed.us/database/feis</a> . [Accessed 23 Aug 2017]	"Seed banking: Chinese privet and European privet do not form seed banks. Nearly all germination occurs during the 1st growing season following dispersal" [Related taxa do not form persistent seed banks]
	Shelton, M. G., & Cain, M. D. (2002). Potential carry-over of seeds from 11 common shrub and vine competitors of loblolly and shortleaf pines. <i>Canadian journal of forest research</i> , 32(3), 412-419	"Seeds of privet ( <i>Ligustrum vulgare</i> L.) showed no viability after the first winter of field storage," ... "The seed coat of privet was soft and easily torn, while the seed coat of common greenbrier appeared to be a thin membrane that was easily cut." ... "Of the 11 species evaluated in this study, only privet showed no carry-over beyond the first winter of field storage."
	Baskin, C.C. & Baskin, J.M. 2014. <i>Seeds Ecology, Biogeography, and Evolution of Dormancy and Germination</i> . Second Edition. Academic Press, San Francisco, CA	"TABLE 10.11 Dormancy in seeds of shrubs (including bamboos) of moist warm temperature woodlands." [ <i>L. obtusifolium</i> - PD = Nondeep Physiological Dormancy] [May require cold stratification for germination]

803	Well controlled by herbicides	y
	Source(s)	Notes
	CABI, 2017. <i>Invasive Species Compendium</i> . Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	"Chemical Control. Herbicide applications by foliar spraying in late autumn or early spring with glyphosate, triclopyr, or metsulfuron can be used to treat <i>L. obtusifolium</i> . In addition to this cut stump applications using glyphosate or triclopyr and basal bark applications of triclopyr are also recommended (Douce et al., 2005). Treatment of the basal 12–15 inches of woody stem with triclopyr in oil is another alternative (Rhoads and Block, 2011)."
	Swearingen, J.B., Slattery, B., Reshetiloff, K. & Zwicker, S. (2010). <i>Plant Invaders of Mid-Atlantic Natural Areas</i> , 4th ed. National Park Service and U.S. Fish and Wildlife Service, Washington, DC.	"Do not plant privets. Small plants can be dug out pulled out by hand or with the help of a mattock or heavy Weed Wrench® type tool. Larger plants can be cut repeatedly or treated with a systemic herbicide. Herbicide can be sprayed on foliage or applied to bark or cut stems and stumps"

804	Tolerates, or benefits from, mutilation, cultivation, or fire	y
	Source(s)	Notes
	CABI, 2017. <i>Invasive Species Compendium</i> . Wallingford, UK: CAB International. <a href="http://www.cabi.org/isc">www.cabi.org/isc</a>	" <i>L. obtusifolium</i> reproduces by seed and can also regenerate and spread from root and stump re sproutings. "
	Maddox, V., Byrd Jr, J., & Serviss, B. (2010). Identification and control of invasive privets ( <i>Ligustrum</i> spp.) in the middle southern United States. <i>Invasive Plant Science and Management</i> , 3(4), 482-488	"Once established, privets can produce sprouts from roots that are underground or near the surface, or from stumps. This is particularly true for Chinese privet, but it also has been reported in glossy and Japanese privet (Miller 2003). It can be difficult to control an established stand of privet."

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown

**Summary of Risk Traits:**

High Risk / Undesirable Traits

- Grows in 5 hardiness zones in temperate climates, demonstrating environmental versatility
- Naturalized in at least 20 states in the continental United States (but no evidence in Hawaiian Islands to date)
- A garden and environmental weed on the mainland US
- Other *Ligustrum* species are invasive
- Toxic to animals (horses) and people
- Shade tolerant
- Tolerates many soil types
- Forms dense stands, excluding other vegetation
- Reproduces by seeds & vegetatively by suckering
- Seeds dispersed by birds, other frugivorous animals & intentionally by people
- Able to resprout from cut stumps

Low Risk Traits

- Unarmed (no spines, thorns, or burrs)
- Browsed by deer (palatable despite reports of toxicity)
- Ornamental
- Reaches maturity in 3+ years
- Herbicides may provide effective control