

Verbena brasiliensis [简体中文](#) [正體中文](#)

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Lamiales	Verbenaceae

Common name Brazilian vervain (English), gin case (English)

Synonym *Verbena quadrangularis*, Vell.
Verbena litoralis, var. *brasiliensis* Vell.
Verbena bonariensis, auct. non L.
Verbena litoralis, var. *pycnostachya* Schauer
Verbena litoralis, var. *brevibracteata* (Kuntze) N. O'Leary

Similar species *Verbena bonariensis*, *Verbena litoralis*

Summary *Verbena brasiliensis* is a herb native to South America. It displaces native vegetation through most of its non-native range and is considered invasive. Management for *Verbena brasiliensis* includes avoiding its introduction into new areas and using herbicide where necessary.



[view this species on IUCN Red List](#)

Species Description

Verbena brasiliensis is an annual or short-lived perennial herb with erect, hispid, quadrangular stems of 1-2.5 metres in height. Upper branches are 4-9cm long, opposite, and ascending. Opposite, elliptic leaves are simple and serrate, 4-10cm long by 0.8-2.5cm wide. Leaves are generally hispid, with veins on undersides bearing large bristles. Bracted flowers are borne on terminal, loosely arranged spikes which are 0.5-4.5cm long by 4-5cm wide and are arranged in triads. Lanceolate bracts subtend the 5-lobed calyx, which is 2-3.5mm long, with lobes united nearly to the apex. The bluish purple corolla is salverform, zygomorphic, and is exserted from the calyx slightly. The tube is 2.75-3.25mm long and lobes are less than 1mm in length. Bracts, calyx, and corolla tube are all pubescent. Anthers are attached in the upper part of the corolla tube. Fruit is a schizocarp which usually produces 2 brown nutlets, 1.2-1.9mm long (Radford, Ahles, and Bell, 1968, Yeo, 1990).

Habitat Description

Verbena brasiliensis is a facultative wetland species that can be found both in wetland/riparian areas as well as in drier, upland habitat (USDA, 2007). In its native areas it is found in dry fields and arable land as a weedy species (Verloove, 2006), but in areas in which it is invasive it thrives in riverine areas or roadsides, old fields, and other disturbed areas (Hoagland and Johnson, 2004; Verloove, 2006).

Reproduction

Verbena brasiliensis reproduces sexually by the production of seeds.

General Impacts

Verbena brasiliensis is an invasive plant that may threaten native plants species by displacing them (SE-EPPC, 2007). It is considered a significant invasive species of the mid-south United States (Maddox, Byrd, and Madsen, 2005), and is prohibited on National Forest System Lands of the United States (SE-EPPC, 2007).

Management Info

Preventative measures: In an effort to manage the species, *Verbena brasiliensis* should not be planted or sold as an ornamental (SE-EPPC, 2007).

Chemical: The herbicide Triclopyr 480. has been used in Gauteng, South Africa for the eradication of *V. brasiliensis* (GEMCA, 2009). 2,4-D (2,4-D L.V. 4 ESTER & 2,4-D L.V. 6 ESTER) is reported to provide good control of *V. brasiliensis*.

A new herbicide Oustar (a new pre-mixed blend of hexazinone (Velpar DF) & sulfometuron (Oust XP)) was tested at six sites in the southeastern US for herbaceous weed control and resultant loblolly pine seedling performance. Certain Oustar (0.91 and 1.33 kg) treatments were found colonized by *V. brasiliensis* more than plots treated with other rates (Yeiser *et al* 2004). It is observed that *V. brasiliensis* is tolerant of sulfometuron and hexazinone, the active ingredients in Oustar (DuPont, 2002, 2003 in Yeiser *et al* 2004).

The [Weed Control Methods Handbook](#) provides you with detailed information about the tools and techniques available for controlling invasive plants, or weeds, in natural areas. This Handbook is divided into eight chapters, covering a range of different control methods: manual, mechanical, promoting competition from native plants, grazing, biocontrol, herbicides, prescribed fire, solarization, flooding, and other, more novel, techniques. Each control method has advantages and disadvantages in terms of its effects against the target weed(s), impacts to untargeted plants and animals, risks to human health and safety, and costs.

Pathway

In Belgium and Britain *Verbena brasiliensis* may have been introduced with cereal and wool trade, respectively.

Principal source: Southeast Exotic Pest Plant Council (SE-EPPC) Website. Bugwood Network, The University of Georgia. Viewed July 25 2007

Verloove, 2006. *Verbena brasiliensis* (Verbenaceae), a new record for the flora of Georgia (former USSR)

Compiler: National Biological Information Infrastructure (NBII), Comité français de l'IUCN (IUCN French Committee) & IUCN SSC Invasive Species Specialist Group (ISSG)

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ALIEN RANGE

[5] AUSTRALIA
[1] COOK ISLANDS
[1] GEORGIA
[1] INDONESIA
[1] JAPAN
[1] MADAGASCAR
[1] MOZAMBIQUE
[2] NEW ZEALAND
[1] PORTUGAL
[1] SOUTH AFRICA
[1] TAIWAN
[1] UNITED KINGDOM
[1] ZIMBABWE

[1] CONGO, THE DEMOCRATIC REPUBLIC OF THE
[1] FIJI
[1] HONG KONG
[2] ITALY
[1] KENYA
[1] MEXICO
[1] NEW CALEDONIA
[1] PAPUA NEW GUINEA
[1] REUNION
[1] SPAIN
[1] TANZANIA, UNITED REPUBLIC OF
[16] UNITED STATES

BIBLIOGRAPHY

18 references found for *Verbena brasiliensis*

Management information

Global Invasive Species Database (GISD) 2024. Species profile *Verbena brasiliensis*. Available from: <https://www.iucngisd.org/gisd/species.php?sc=1213> [Accessed 19 April 2024]

[Herbicide Information: *Verbena bonariensis* L. & *brasiliensis* Vell \(Purpletop vervain\) Herbicide Information](#)

Summary: Available from:

http://el.erdc.usace.army.mil/pmis/mergedProjects/Herbicides/html/verbena_bonariensis_l_brasiliensis_vell_purpletop_vervain_herbicide_information.htm [Accessed 26 July 2010]

[The Greater Eastern Magaliesberg Conservancy Association \(GEMCA\), 2009. Conservation Projects: Pompom eradication programme](#)

Summary: Available from: http://www.gemca.co.za/index.php?option=com_content&task=view&id=13&Itemid=27#verbena [Accessed 26 July 2010]

Yeiser, J.L., T.L.L. Temple Chair, A.W. Ezell. 2004. Oustar herbicide for efficient herbaceous weed control and enhanced loblolly pine seedling performance in the southeastern US. *Forest Ecology and Management*, 192: 207-215.

Summary: This article reviews the herbicide Oustar.

General information

[Green, P.S. 1994. *Verbena brasiliensis*. Flora of Australia Online. Australian Biological Resources Study, Canberra. Viewed 26 July 2007.](#)

Summary: This website provides descriptions and facts about the flora of Australia.

Available from: <http://www.anbg.gov.au/abrs/abif/flora/stdtdisplay.xsql?pnid=5798> [Accessed 26 July 2007].

Hoagland, B.W. and F. Johnson. 2004. The Vascular Flora of Red Slough and Grassy Slough Wildlife Management Areas, Gulf Coastal Plain, McCurtain County, Oklahoma. *Castanea*, 69 (4): 284-296.

Summary: An article documenting the results of an inventory of the flora at the Red Slough and Grassy Slough Wildlife Management Areas in Oklahoma.

[ITIS \(Integrated Taxonomic Information System\), 2005. Online Database *Verbena brasiliensis*](#)

Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.

Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=32086 [Accessed 25 July 2007].

Maddox, V., J. Byrd, and J. Madsen. 2005. Significant Invasive Species of the Mid-South States. 2005 Proceedings of the Symposia of the Southern Weed Science Society, 58: 254.

Summary: This abstract gives an overview of the twelve species identified that pose a significant threat to the mid-south United States.

Munir, A.A. 2002. A taxonomic revision of the genus *Verbena* L. (Verbenaceae) in Australia. *Journal of the Adelaide Botanic Gardens* 20: 21-23.

O Leary, N., Mulgura, M.E. & Morrone, O. 2007. Revisión taxonómica de las especies del género *Verbena* (Verbenaceae): serie *Pachystachyae*. *Annals of the Missouri Botanical Gardens* 94: 571-622.

Radford, A.E., Ahles, H.E., and Bell, C.R. 1968. *Manual of the Vascular Flora of the Carolinas*. Chapel Hill, NC: The University of North Carolina Press.

Summary: A dichotomous key and guide to the vascular flora of the Carolinas.

[Southeast Exotic Pest Plant Council \(SE-EPPC\) Website. Bugwood Network, The University of Georgia. Viewed July 25 2007.](#)

Summary: A website that provides information about the exotic pest plants of the southeast United States.

Available from: <http://www.se-eppc.org/fslist.cfm> [Accessed 25 July 2007].

[Tye, Alan. Invasive Plant Problems and Requirements for Weed Risk Assessment in the Galapagos Islands. Department of Plant and Invertebrate Sciences, Charles Darwin Research Station, Isla Santa Cruz, Galapagos, Ecuador.](#)

Summary: A paper assessing invasive weeds and their future impact on the Galapagos Islands, Ecuador.

Available from: <http://www.hear.org/iwraw/1999/papers/tyefinal.pdf> [Accessed 03 August 2007].

[USDA, ARS, National Genetics Resources Program. Germoplasm Resources Information Network - \(GRIN\) \[Online Database\]. 23 July 2007. *Verbena brasiliensis* Vell. National Germoplasm Resources Laboratory, Beltsville, Maryland.](#)

Summary: GRIN taxonomic data provide the structure and nomenclature for accessions of the National Plant Germplasm System (NPGS), part of the National Genetic Resources Program (NGRP) of the United States Department of Agriculture (USDA) Agricultural Research Service (ARS). In GRIN Taxonomy for Plants all families and genera of vascular plants and over 40,000 species from throughout the world are represented, especially economic plants and their relatives. Information on scientific and common names, classification, distribution, references, and economic impacts are provided.

Available from: <http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?408277> [Accessed 23 July 2007].

[USDA, NRCS. 2007. The PLANTS Database *Verbena brasiliensis* \(<http://plants.usda.gov>, 25 July 2007\). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.](#)

Summary: A website that provides standardized information on the plants of the US.

Available from: <http://plants.usda.gov/java/profile?symbol=VEBR2> [Accessed 25 July 2007].

Verloove, Filip. 2006. *Verbena brasiliensis* (Verbenaceae), a new record for the flora of Georgia (former USSR). *Systematics and Geography of Plants*, 76 (2): 185-189.

Summary: An article explaining that *Verbena brasiliensis* has been determined to be in Georgia (former USSR).

Wu, S., C. Hsieh, S. Chaw, and M. Rejmanek. 2004. Plant invasions in Taiwan: Insights from the flora of casual and naturalized alien species. *Diversity and Distributions*, 10: 349-362.

Summary: An article discussing the potential invasive qualities of casual and naturalized alien species in Taiwan.

[w TROPICOS. 2007. *Verbena brasiliensis*. The Missouri Botanical Garden s online VAST \(Vascular Tropicos\) nomenclature database and associated authority files. Accessed 02 August 2007.](#)

Summary: This database provides nomenclature and distribution information of vascular plant and bryophyte species.

Available from: http://mobot.mobot.org/cgi-bin/search_pick?name=Verbena+brasiliensis [Accessed 02 August 2007].

Yeo, P.F. 1990. A re-definition of *Verbena brasiliensis*. *Kew Bull*, 45 (1): 101-120.

Summary: An article reviewing *V. brasiliensis* and its close congeners *V. bonariensis* and *V. litoralis*. Differentiates between the species by giving lengthy descriptions of their morphology. Also provides an extensive world-wide distribution list.