Verbena brasiliensis

**System:** Terrestrial

<table>
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<th>Kingdom</th>
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<th>Family</th>
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<td>Magnoliopsida</td>
<td>Lamiales</td>
<td>Verbenaceae</td>
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</table>

**Common name**
Brazillian 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 underside 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)

Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

**Review:** Filip Verloove, National Botanic Garden of Belgium
FULL ACCOUNT FOR: Verbena brasiliensis

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ALIEN RANGE

[5] AUSTRALIA


[1] COOK ISLANDS

[1] FIJI

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[1] SPAIN

[1] TAIWAN

[1] TANZANIA, UNITED REPUBLIC OF

[1] UNITED KINGDOM

[16] UNITED STATES

[1] ZIMBABWE

BIBLIOGRAPHY

18 references found for Verbena brasiliensis

Management information

Herbicide Information: Verbena bonariensis L. & brasiliensis Vell (Purpletop vervain) Herbicide Information

Summary: Available from:


Summary: Available from:


Summary: This article reviews the herbicide Oustar.

General information


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

Global Invasive Species Database (GISD) 2015. Species profile Verbena brasiliensis.


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


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


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

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


USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. 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’s (USDA’s) 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.


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


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


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].


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


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