***Spiraea japonica*** 简体中文 正體中文

**System:** Terrestrial

| Kingdom | Phylum | Class | Order | Family |
|---|---|---|---|---|
| Plantae | Magnoliophyta | Magnoliopsida | Rosales | Rosaceae |

**Common name** Japanese meadowsweet (English), Japanese spiraea (English)

**Synonym** *Spiraea bumalda* , Burv.
*Spiraea japonica* , var. *alpina* Maxim.

**Similar species** *Spiraea viginiana, Spiraea betulifolia*

**Summary** Spiraea japonica is a deciduous, perennial shrub native to Asia that has been introduced to the United States as an ornamental. It aggressively invades disturbed areas and forms dense stands that outcompete native species. Spiraea japonica is found growing along streams, rivers, forest edges, roadsides and fields. It often spreads locally when its hardy seeds are transported along watercourses and in fill dirt.

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**Species Description**
*S. japonica* is a deciduous shrub that grows 1.2m to almost 2m in height and about the same in width. It has slender erect stems that are brown to reddish-brown, round in cross-section and sometimes hairy. The leaves are generally an ovate shape about 2.5cm to 7.5cm long, have toothed margins, and alternate along the stem. The seeds measure about 2.5mm in length and are found in small lustrous capsules (Remaley, 1998). Clusters of rosy-pink flowers are found at the tips of the branches (flowers are white to rosy-pink for natural populations native to Asia). *S. japonica* is naturally variable in form and there are many varieties of it in the horticulture trade. (Nine varieties have been described within the species so far, and southwest China is the center for biodiversity of the species (Zhang *et al.* 2002).

**Lifecycle Stages**
*S. japonica* has a perennial life cycle, and its seeds can last for many years in the soil (Remaley, 1998).

**Uses**
*S. japonica* is a common ornamental. The tall forms are grown as hedges, low screens, or foundation shrubs and the low-growing forms are used as groundcovers or in borders. The plant has been used as traditional medicine by native people, and extracts from the plants were found to be bioactive (Xiaojiang Hao *et al.* 2003).

**Habitat Description**
A common habitat for this genus in general seems to be in riparian areas, bogs, or other wetland habitats (Ogle 1991).*S. japonica* is found growing along streams, rivers, forest edges, roadsides, successional fields, and power line right-of-ways. Growing populations will creep into meadows, forest openings, and other sites (Remaley, 1998). According to Scheper (2000), *S. japonica* prefers full sun but can tolerate partial shade. It prefers lots of water during the growing season but cannot tolerate saturated soils for extended periods of time. *S. japonica* will grow in a wide variety of soils, including those on the alkaline side, but it prefers a rich, moist loam.

**Reproduction**
A single plant produces hundreds of small seeds that are naturally dispersed (Remaley, 1998).

**Nutrition**
Scheper (2000) states that *S. japonica* responds well to manure supplements and thrives on organic mulch.

**General Impacts**
Japanese spirea have become naturalized and occupy habitats similar to those of native spireas (Ogle 1991). *S. japonica*, according to Remaley (1998), can rapidly take over disturbed areas. Once established, *S. japonica* grows quickly and forms dense stands that outcompete much of the existing native herbs and shrubs. The seeds can last for many years in the soil, making its control and the restoration of native vegetation especially difficult.

**Management Info**
Mechanical: Mowing/Cutting: This method is appropriate for small initial populations or environmentally sensitive areas where herbicides cannot be used. Repeated mowing or cutting will control the spread of spiraea, but it may not eradicate it. Stems should be cut at least once per growing season prior to seed production and as close to ground level as possible.
Chemical: Foliar spray options are suitable for large thickets of Japanese spiraea and where risk to non-target species is minimal. Air temperature should be above 18 degrees Celsius or 65 degrees Fahrenheit to ensure absorption of herbicides. Glyphosate and Triclopyr are other herbicides used. Glyphosate is a non-selective systemic herbicide that may kill partially-sprayed non-target plants. Apply a 2% solution of glyphosate and water plus a 0.5% non-ionic surfactant to thoroughly wet all leaves. Triclopyr is a selective herbicide for broadleaf species and can be used where desirable grasses are growing in proximity to the area being sprayed. Apply a 2% solution of triclopyr and water plus a 0.5% non-ionic surfactant to thoroughly wet all leaves. Use a low pressure and coarse spray pattern to reduce spray-drift damage to non-target species. The cut stump method is used when individual plants are being treated, and in cases where foliar application cannot be used. The stems must be cut to the ground and a 25% solution of glyphosate or triclopyr must be applied making sure that the entire surface is covered.

**Pathway**
*Spiraea japonica* is a popular ornamental shrub (Remaley, 1998).

**Principal source:** *Japanese Spiraea* (Remaley, 1998)

**Compiler:** National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

**Review:** Zhang Zhaoyang, Kunming Institute of Botany, Chinese Academy of Sciences Helongtan, Kunming, Yunnan China

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**ALIEN RANGE**

**[1]** JAPAN
**[1]** KOREA, REPUBLIC OF
**[1]** KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
**[19]** UNITED STATES

**BIBLIOGRAPHY**
**9** references found for **Spiraea japonica**

**Managment information**

Remaley, Tom 1998. *Japanese Spiraea*. Plant Conservation Alliance, Alien Plant Working Group.
**Summary:** A report on the description, native range, USA distribution, ecological threat, habitat, reproduction, management, and alternative ornamentals.
Available from: http://www.nps.gov/plants/alien/fact/spja1.htm [Accessed 5 September 2003]
SE-EPPC (Southeast Exotic pest plant Council), Undated. Japanese Spirea.
**Summary:** Japanese Spiraea profile with management options and ecology.
Available from: http://www.se-eppc.org/subject.cfm?sub=3076 [Accessed November 30 2004]

**General information**

ITIS (Integrated Taxonomic Information System), 2005. Online Database *Spiraea japonica*
**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.cbif.gc.ca/pls/itisca/taxastep?king=every&p_action=containing&taxa=Spiraea+japonica&p_format=&p_ifx=plglt&p_lang= [Accessed March 2005]
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Available from: http://ecos.fws.gov/docs/recovery_plans/1992/921113a.pdf [Accessed November 30 2004]
Xiaojiang Hao *et al.* 2003. The chemistry and biochenistry of *Spiraea japonica* complex. Current Medicinal Chemistry (10)