You Ain't From Around Here! Exotic Invasive of the Quarter: Japanese spiraea *Spiraea japonica*

By: Jennifer Gagnon, Virginia Tech

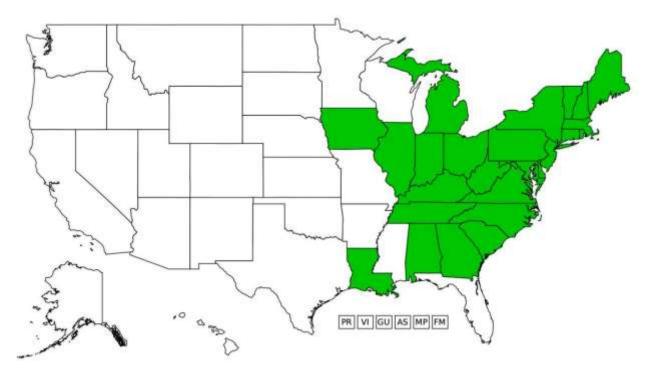
There's really no denying it. I'm a plant person. Deep in my heart. Plants make me happy. Virginia Tech's Annual Horticulture Club Plant Sale is one of my favorite days of the year. As such, I try to know the name and origin of plants I grow in my yard. When we moved to our property 3 years ago, I noticed a lovely flowering shrub I didn't recognize. I asked my husband, also a plant person, what it was. He laughed because he knew all too well it was the exotic invasive, Japanese spiraea. He was familiar with it from a project he worked on with a graduate student. The student was doing a survey on the pervasiveness of this exotic invasive on Buffalo Mountain, a Natural Area Preserve in Floyd County. Needless to say, I was disappointed.



Japanese spiraea will grow in shade, but they prefer full-sun. Ours has doubled in size since we removed the 100-year-old <u>Norway maple, another exotic invasive</u>, that was shading it. Photo by: Jennifer Gagnon, Virginia Tech.

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Not surprisingly, this species, in the rose family and native to Japan, Korea, and China, was intentionally brought to the US as an ornamental in 1870. Today, it is naturalized throughout much of the eastern and midwestern US. Naturalized plants are non-natives that do not need human help to reproduce and maintain themselves. Non-native invasive plants also reproduce and spread without human help, so they also are naturalized. Invasives are a small, but troublesome, sub-category of naturalized plants. Unfortunately, Japanese spiraea falls into this small sub-category.



Current range of Japanese spiraea in North America. Map from: EDDMapS. 2019. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at http://www.eddmaps.org.

Japanese spiraea is one of more than 80 species of spiraea found in the temperate region of the northern hemisphere. Most are popular garden shrubs. They have a low, round, compact form and showy flowers, making them a seemingly nice addition to any yard.

Spiraea is commonly found along streams and rivers, in bogs, and other wetland habitats. This species also likes highly disturbed soils. As such, power line rights of way, forest edges, early successional fields, and roadsides provide ideal habitat.

Like most exotic invasive species, Japanese spiraea is very adaptable to a wide range of growing conditions. While it prefers full sun, it can also tolerate partial shade. And while it prefers a rich, moist, loam soil, it will also grow in a wide variety of other soil types.

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Each plant produces hundreds of seeds every year. These are efficiently dispersed by water and can stay viable in soil for many years. Once established, Japanese spiraea grows quickly and forms dense stands that may invade canopy gaps in adjacent woodlands. It may also replace the native and federally threatened species, Virginia spiraea or Virginia meadowsweet (*Spiraea virginiana*), that also grows along riparian areas.

The Virginia Department of Conservation and Recreation's Invasive Plant Species List from 2014 ranks Japanese spiraea as a medium-risk invasive. This is better than it being a high-risk invader, such as tree-of-heaven. But it is still problematic.

How to identify Japanese spiraea

Form: Perennial, deciduous shrub with slender, erect stems. Up to 6.5 feet tall.

Stem: Brown to reddish-brown round stems range from smooth to densely hairy on the branchlets. Buds are very small, rounded to triangular, and somewhat flattened. **Leaves:** Alternate, lanceolate to lanceolate-ovate, with serrated (like a saw) edges. They are 3 – 4.5 inches long, 1.2 - 1.6 inches wide, and smooth.

Flowers: Inflorescence is a compound corymb with wide spreading branches. Flowers are pale to deep pink, 0.2 inches wide, with stamens much longer than the petals. Blooms June – August.

Fruit: 0.09 – 0.1 inch-long seeds are borne in a smooth and lustrous capsule.

Native look-alike: *Spiraea virginiana*: Virginia meadowsweet. This is a federally threated species. You can distinguish it from the Japanese spiraea by its white flowers. There are only isolated populations in southern Appalachia.





Japanese spiraea leaves may have serrated edges like the ones pictured (top) or they may be smooth. The flowers are borne in flat-topped bunches (bottom). Photos by Jennifer Gagnon, Virginia Tech.

How to Control Japanese spiraea

Mechanical: Mowing or cutting can be used to control new, small populations or populations in areas where herbicides cannot be used. These mechanical treatments will not eradicate the plant, but annual mowing will keep its growth under control and prevent seed production.

Chemical: Both foliar (applying chemical to the leaves) and cut stump (applying chemical to recently cut stumps) are suitable application methods for controlling Japanese spiraea with herbicides.

Foliar herbicide application is suitable for large thickets of Japanese spiraea where there is little non-target vegetation.

Glyphosate: Apply a 2% solution of glyphosate and water plus a 0.5% non-ionic surfactant to thoroughly wet all leaves. Glyphosate is a non-selective systemic herbicide that may kill partially-sprayed non-target plants, so apply carefully.

Triclopyr: Apply a 2% solution of triclopyr and water plus a 0.5% non-ionic surfactant to thoroughly wet all leaves. Triclopyr is a selective herbicide for broadleaf species. In areas where desirable grasses are growing under or around spiraea, triclopyr can be used without killing the desired vegetation.

The cut stump method should be considered when treating individual bushes or where the presence of desirable species preclude foliar application.

Glyphosate: Horizontally cut spiraea stems at or near ground level. Immediately apply a 25% solution of glyphosate and water to the cut stump making sure to cover the entire surface.

Triclopyr: Horizontally cut spiraea stems at or near ground level. Immediately apply a 25% solution of triclopyr and water to the cut stump making sure the entire surface is covered.

Cultural: Of course, if you look on sites such as Amazon, you will find multiple sellers of this exotic invasive plant. In fact, you can purchase 520 seeds for \$23.60. There are many varieties of spiraea in the horticultural trade. Simply choosing native species instead can help control this exotic invasive species.

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I know the question that has been in your mind since you started reading this article is: "What did you do with the Japanese spiraea in your yard?" I must sheepishly admit it is still alive and well. My justification? The seeds are spread by water. And it is not planted anywhere near flowing water. I have been keeping an eye out for invasions along our roads in other disturbed areas and so far, there doesn't appear to be a problem. And it is lovely. But rest assured, if it becomes a problem, it will be removed.

Jennifer Gagnon is an Extension Associate, 540-231-6391, jaganon@vt.edu.

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