

**Scientific Name:** *Wisteria spp.*

**Common Name:** Wisteria

*Updated: 5/5/2016*

**A. Priority: C**

**Description** – Wisteria was brought to the United States in the first half of the 19th century as ornamental vines. A stunning bloomer, it is not difficult to understand why these plants became a favorite choice for garden arbors, gazebos, porches and walls. The drooping clusters of fragrant bluish purple or white flowers are absolute head-turners in the spring. These invasive vines are now found extensively throughout the eastern United States. Appearing not to be widely spread by seed, exotic wisteria colonizes primarily by the spread of runners that develop roots and shoots at short intervals. It is believed that the large seed size of these plants is a deterrent to animal dispersal though seeds may be carried downstream in water for great distances.

Wisteria has a deciduous, woody vine capable of growing up to 70 feet long and 10 inches in diameter. It has a whitish bark and the vines twine clockwise around the host plant (as viewed from the top). *Wisteria sinensis* twines counter-clockwise. It has alternate, compound leaves comprised of seven to 13 (Chinese) and 13 to 19 (Japanese) leaflets. Leaflets are tapered at the tip with wavy edges. Its flowers are showy, fragrant, and violet to blue-violet and bloom in April and May. Fruits are velvety brown, bean-like pods, 4 to 6 inches long.

**B. Damage and threats** – Because of the twining nature of these vines, they can out-compete trees and other vegetation for canopy space. A dense, nearly impenetrable thicket can result, inhibiting normal forest succession. Most infestations of exotic wisteria in natural areas have escaped from landscape plantings around old home sites. Once they escape, exotic wisteria can wreak havoc on surrounding native vegetation through shading and girdling. Climbing wisteria vines have the ability to strangle and kill mature trees, opening the forest canopy and making conditions more favorable to their own aggressive growth. Exotic wisteria thrives in full sunlight but can persist and reproduce in partial shade. These vines are commonly seen growing along forest edges and roadsides.

**C. Management Options**

**Mechanical Control:**

Wisteria can be controlled but not killed with mechanical controls, including pulling, stumping, or periodic mowing. Due to Wisteria's extensive runner and root system, only small initial infestations can be effectively controlled by pulling. The removal of all of the root system is required to prevent resprouting.

**Chemical Control:** Use of a systematic herbicide is the best option to control Wisteria. We recommend using aquatic formulations of herbicides in this region to limit potentially unwanted effects to the surrounding environment.

- a. **Foliar Spray** – This method involves spraying a dilute herbicide directly onto the plants leaves. Application needs to occur when foliage is present, sometime between full leaf and the onset of fall for full effectiveness. Caution should be taken when applying herbicide with this method as non-target plants can easily be killed by drift or overspray. Application should cover at least 80% of the leaves. To treat, use a 2-4% solution of aquatic triclopyr in water with a 0.5% non-ionic surfactant and apply directly to leaves until just before runoff. Air temperatures must be above 65 degrees and winds should be lower than 5 mph.
- b. **Cut Stump** – This method involves cutting the vine as close to  $\frac{3}{4}$  of an inch from the ground as possible (no more than 5in.) and immediately applying a systematic herbicide. If the vine is climbing cut it again 2-3 feet up so there is a large gap between the vines on the tree and those on the ground. It is best to use this method between summer and fall, but it may be used as long as the ground is not frozen. To treat using this method, apply a 50% formulation of aquatic glyphosate or triclopyr directly to the cut stump.
- c. **Basal Bark** - Basal bark treatment can be used on stems that are less than one inch in diameter at any time of year except during heavy sap flow in spring. It should not be used when snow or water prevent herbicide from being applied at the ground level or when stems are saturated. It is most useful during the dormant season. This method should be used judiciously since it takes a lot of chemical and can result in overspray. Apply a solution of 25 percent triclopyr and 75 percent mineral oil to the basal parts of the tree to a height of 12 to 16 inches from the ground. All treatments should be followed up the next year to monitor and control basal sprouts and root suckers.

#### **D. Recommended Management Strategy**

- a. We recommend treating all mature vines and climbing vines via the cut stump method as described above. If there are other invasives present and/or foliar applications of the ground level Wisteria will need to occur, we recommend just cutting the vines as described above and waiting for them to resprout.
- b. All smaller ground level infestations and resprouts from mechanical cutting can be foliar sprayed as described above.
- c. Repeat cut stump and foliar applications should be conducted at least yearly to ensure control.

#### **E. Additional and Updated Information**

For additional information including photographs and the most up to date control recommendations please visit [www.wachng.org/Plants](http://www.wachng.org/Plants).