

Wisteria

Wisteria spp. Fabaceae



Biology



- Introduced to U.S. in 1800's from China and Japan
- Climbing, woody, perennial vines
- Native wisteria – *Wisteria frutescens*
- Japanese wisteria - *W. floribunda*
- Chinese wisteria – twines clockwise
- *W. sinensis* (China) –counterclockwise

Background

Economic Uses

- Still used extensively as an ornamental
- Fragrant and showy flowers



Distribution



- Found from Maine to Florida, as far west as Arkansas
- Found along roadways and disturbed areas, forest edges
 - generally as an escape from cultivation
- Found in north central Florida
- Prefers full sun, well-drained soils

Chinese Wisteria Distribution in Florida



Impacts



- Category II invasive species (FLEPPC)
 - Limited spread into undisturbed sites
- Although slow growth, very long-lived and persistent (>50 years)
- Creates a dense mat that covers forest floor
- Climb into trees and smother canopy

Identification

Mature Plant

- Legume vine
- Often >65 feet in height
- Stem diameter up to 15 inches
- Chinese wisteria
 - Dark gray bark
 - Twines counter clockwise
- Japanese wisteria
 - White bark
 - Twines clockwise



Leaves

- Pinnately compound
- Alternately arranged
- Each leaf contains 13-19 leaflets
 - Wavy margins
 - Prominent recessed veins



Flowers and Fruit

- Flowers are lavender, borne on 4 to 20 inch long racemes
- Flowering occurs as new leaves emerge
- Seedpods are velvety brown, 4 to 6 inches long
- Seeds are dark brown, poisonous



Management

Preventative

Cultural

Mechanical

Biological

Chemical

Preventative



1. Limit planting as an ornamental
2. Remove existing plants, including resprouts and before seeds are produced
3. Rouge out vines in abandoned areas

Cultural



1. Alternative landscape plants, such as the native wisteria to replace exotic wisteria species
2. Programs to educate homeowners about the problems associated with exotic wisteria and proper identification
3. Maintain good ground cover and mixture of plant species to reduce establishment

Biological



1. There are no known biological control agents available for wisteria management in Florida or the southeastern U.S.

Mechanical



1. Hand pull young seedlings, including all roots, repeated pulling for resprouts
2. Cut vine down at ground level, but must continue to control resprouting vines
3. Mowing is effective, although likely impractical, but must be repeated

Chemical - Foliar



1. Over-the-top applications for seedlings, resprouts and small vines
2. Thoroughly wet leaves with herbicide
 - ✓ Triclopyr – 2% solution
 - ✓ Glyphosate – 2 to 3% solution
 - ✓ Clopyralid - 0.5% solution
 - ✓ Use surfactant at 0.25%
3. Best results applied spring to summer

Chemical - Basal



1. Use 100% triclopyr solution with basal oil
2. Apply 12 to 15 inches above ground on stem
3. Wet thoroughly for good control, spray until run-off is noticeable at ground line

Chemical – Cut Stump



1. Cut stems horizontally at or near ground level
2. Apply 100% solution of glyphosate or triclopyr
3. Cover the entire cut stem
4. Marker (blue) dye is helpful



Useful Links

- Floridata Homepage:
http://www.floridata.com/main_fr.cfm?state=Welcome&viewsrc=welcome.htm
- University of Florida Center for Aquatic and Invasive Plants:
<http://aquat1.ifas.ufl.edu/welcome.html>
- University of Florida's Cooperative Extension Electronic Data Information Source: <http://edis.ifas.ufl.edu/index.html>

Useful Links

- USDA NRCS - PLANTS Database
<http://plants.usda.gov/index.html>
- Southeast Exotic Pest Plant Council
Invasive Plant Manual
<http://www.invasive.org/eastern/eppc/japwisteria.html>
- The Plant Conservation Alliance's Alien Plant Working Group: Weeds Gone Wild:
<http://www.nps.gov/plants/alien/index.htm>

Literature Cited

- Langeland, K.A. and K. Craddock Burks. 1998. Identification and Biology of Non-Native Plants in Florida's Natural Areas. IFAS Publication SP 257. University of Florida, Gainesville. 165 pp
- Miller, James H. 2003. Nonnative invasive plants of southern forests: a field guide for identification and control. Gen. Tech. Rep. SRS-62. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 93 p.