Silk Tree
Albizia julibrissin Durz.
Pea family (Fabaceae)

NATIVE RANGE
Iran to Japan (according to Hortus 3rd. ed.)

DESCRIPTION
Silk tree, also known as mimosa, or silky acacia, is a small to medium-sized tree that can grow up to 20-40 feet tall. The bark is light brown, nearly smooth, and generally thin with lens shaped areas along the stem. The attractive fern-like leaves of mimosa are finely divided, 5-8 inches long by about 3-4 inches wide, and alternate along the stems. Silk tree has showy and fragrant pink flowers, about 1½ inches long, that resemble pom-poms and are arranged in panicles at the ends of branches. Fruits are flat, straw-colored pods about 6 inches long containing light brown oval-shaped seeds about ½ inch in length. Pods ripen in August to September and begin to disintegrate soon after, but remain on the trees into winter.

ECOLOGICAL THREAT
Because silk tree can grow in a variety of soils, produce large seed crops, and resprout when damaged, it is a strong competitor to native trees and shrubs in open areas or forest edges. Dense stands of mimosa severely reduce the sunlight and nutrients available for other plants.

DISTRIBUTION IN THE UNITED STATES
Silk tree is naturalized from New Jersey to Louisiana and in California.

HABITAT IN THE UNITED STATES
Silk tree takes advantage of disturbed areas, often spreading by seed from nearby ornamentals or from contaminated fill dirt. It prefers full sun and is often seen along roadsides and open vacant lots in urban/suburban areas. Silk tree can tolerate partial shade but is seldom found in forests with full canopy cover, or at higher elevations (above 900 m or 3,000 ft), where cold hardiness is a limiting factor. It can, however, become a serious problem along riparian areas, where it becomes established along scoured shores and where its seeds are easily transported in water. Like many successful exotics, it is capable of growing in a wide range of soil conditions.

BACKGROUND
Silk tree was introduced to the U.S. in 1745. Silk tree continues to be a popular ornamental because of its fragrant and showy flowers.

BIOLOGY & SPREAD
Silk tree reproduces both vegetatively and by seed. Silk tree seeds have impermeable seed coats that allow them to remain dormant for many years. One study showed that 90% of the seeds were viable after five years and, for another species of mimosa, a third of its seeds germinated after 50 years in open storage. Seeds are mostly dispersed below or around the parent plant, but can be dispersed further by water. Silk trees grow rapidly under good conditions but are short-lived and have weak, brittle wood. If cut or top-killed, trees resprout quickly and sprouts can grow over three feet in a season.

MANAGEMENT OPTIONS
Silk tree can be controlled using a variety of mechanical and chemical controls.

Mechanical

Trees can be cut at ground level with power or manual saws. Cutting is most effective when trees have begun to flower to prevent seed production. Because mimosa spreads by suckering, resprouts are common after treatment. Cutting is an initial control measure and will require either an herbicidal control or repeated cutting for resprouts.

Girdling is effective on large trees where the use of herbicides is impractical. Using a hatchet, make a cut through the bark encircling the base of the tree, approximately six inches above the ground. Be sure that the cut goes well below the bark. This method will kill the top of the tree but resprouts are common and may require a follow-up treatment with a foliar herbicide. Hand pulling will effectively control young seedlings. Plants should be pulled as soon as they are large enough to grasp, but before they are old enough to flower. Seedlings are best pulled after a rain when the soil is loose. The entire root must be removed since broken fragments may resprout.

Chemical

Silk tree seedlings and small trees can be controlled by applying a 2% solution of glyphosate (e.g., Roundup®) or triclopyr (e.g., Garlon®) and water plus a 0.5% non-ionic surfactant to thoroughly wet all leaves. Systemic herbicides such as glyphosate and triclopyr can kill entire plants because the chemicals travel through a plant from the leaves and stems to the actively growing roots, where they prevent further cell growth. Use a low pressure and a coarse spray pattern to reduce damage from spray drift on non-target species. Use caution when applying these products, as glyphosate is a non-selective herbicide that may kill non-target plants that are only partially contacted. Triclopyr is a selective herbicide for many broadleaf plant species. Triclopyr is a selective herbicide for many broad-leaved plant species and should be considered for sites where native or other desirable grasses are meant to be conserved.

The cut-stump and basal bark herbicidal methods should be considered when treating individual trees or where the presence of desirable species preclude foliar application. Stump treatments can be used as long as the ground is not frozen. Horizontally cut stems at or near ground level. Immediately apply a 25% solution of glyphosate or triclopyr and water to the cut stump making sure to cover the outer 20% of the stump. Basal bark applications are effective throughout the year as long as the ground is not frozen. Apply a mixture of 25% triclopyr and 75% horticultural oil to the base of the tree trunk to a height of 12-15 inches from the ground. Thorough wetting is necessary for good control; spray until run-off is noticeable at the ground line.

USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

NOTICE: mention of pesticide products on this page does not constitute endorsement of any material.

CONTACT
For more information on the management of silk tree, please contact:

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SUGGESTED ALTERNATIVE PLANTS
Many small to medium-sized trees make excellent alternatives to silk tree. A few examples include serviceberry (*Amelanchier arborea*), redbud (*Cercis canadensis*), flowering dogwood (*Cornus florida*), river birch (*Betula nigra*), fringe tree (*Chionanthus virginicus*), American holly (*Ilex opaca*), and sweetgum (*Liquidambar styraciflua*). Check with the native plant society in your state for plant recommendations for your particular area.

OTHER LINKS
- http://www.invasive.org/search/action.cfm?q=Albizia%20julibrissin

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Plant Conservation Alliance's Alien Plant Working Group
Weeds Gone Wild: Alien Plant Invaders of Natural Areas
http://www.nps.gov/plants/alien/