



Southeast Exotic Pest Plant Council Invasive Plant Manual

Common Name: Mimosa

Scientific Name: *Albizia julibrissin* Durazz

Albizia julibrissin is commonly known as mimosa, silk tree, or silky acacia. This hardy tree is a popular ornamental because of its fragrant and showy flowers. The tree seeds prolifically and resprouts quickly when cut. It inhabits many of the cut-and-fill slopes along roads as well as disturbed areas and stream banks throughout Tennessee.

Height: Mimosa can reach heights of 6-12 m (20-40 ft). Sprouts can grow over one meter (3 ft) in a season. Trunks may be single or multiple stems.

Bark: The thin, light bark is nearly smooth.

Twigs: Moderately slender to stout twigs are somewhat fluted below nodes, and have many light-colored lenticels. Buds are superimposed and a terminal bud is absent.

Leaves: Feathery, fernlike deciduous leaves are 12.5-20.0 cm (5-8 in) long. Leaves are bipinnately compound with 10-25 pinnae and 40-60 leaflets per pinnae. Leaflets are asymmetric, with the midrib near one margin and parallel to it.

Flowers: Showy pink blossoms are 3.8-5.0 cm (1.5-2 in) long and are arranged in panicle heads at the ends of branches. They are composed of 15-25 sessile flowers with numerous, conspicuous stamen filaments. Their fragrance is strong and sweet. Blooms May-August.

Fruit: Flat, light brown, oval seeds are about 1.2 cm (0.5 in) long. they are borne in flat, linear, straw-colored pods about 15 cm (6 in) long that form large clusters. The pods ripen August-September and begin to disintegrate soon after, but remain on the trees into winter.

Life History

Mimosa seeds have impermeable seed coats that allow them to remain dormant for years. One study showed 90% viability after five years; another *Albizia* species had 33% germination of seeds after 50 years in open storage. The trees grow rapidly under good conditions but have weak, brittle wood and are short-lived. They

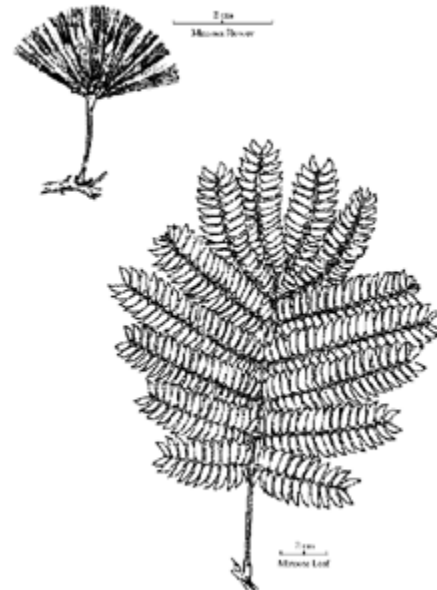


Photo by James H. Miller

resprout quickly if cut or top-killed.

Origin and Distribution

There are about 50 species of the genus in subtropical and tropical Asia, Africa, and Australia. Mimosa is native to Asia, from Iran to China and was introduced to the U.S. in 1745. It is established from Virginia to Louisiana, and in California



Photo by James H. Miller

Similar Species

Mimosa can be confused with other bipinnately compound legumes, especially in the smaller seedlings stages. Sensitive brier, *Shrankia microphylla* (Dry. ex Sm.) J.F. Machr., is a weakly arching perennial vine with prickly stems. Partridge pea, *Chamaecrista fasciculata* (Michx.) Green, is a non-woody, evenly pinnate annual herb.



Photo by James H. Miller

Habitat

Mimosa takes advantage of disturbed areas, often spreading by seed from ornamentals nearby or from seed brought in on fill dirt. It prefers full sun and is often seen along roadsides and open vacant lots in urban/suburban areas. Mimosa 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 its seeds are easily transported in water. Like many successful exotics, it is capable of growing in a wide range of soil conditions.



Photo by James H. Miller

Management Recommendations

Mechanical Controls

Cutting: Cut trees 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: Use this method 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 15 cm (6 in) above the ground. Be sure that the cut goes well into or below the cambium layer. This method will kill the top of the tree but resprouts are common and may require follow-up treatments for several years until roots are exhausted.

Hand Pulling: Mimosa is effectively controlled by manual removal of young seedlings. Plants should be pulled as soon as they are large enough to grasp, but before they produce seeds. Seedlings are best pulled after a rain when the soil is loose. The entire root must be removed since broken fragments may resprout.

Biological Controls

Mimosa Wilt: *Fusarium oxysporum* f. *perniciosum* is a fungus that attacks mimosa in the U.S. and is transferred through the soil. It infects its host through the root system and may be fatal to the tree. It is not used at present and further research is needed.

Herbicidal Controls

Foliar Spray Method: This method should be considered for large thickets of mimosa seedlings where risk to non-target species is minimal. Air temperature should be above 65°F to ensure absorption of herbicides.

Glyphosate: Apply a 2% solution of glyphosate 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. Glyphosate is a non-selective systemic herbicide that may kill non-target partially-sprayed plants.

Triclopyr: 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. Triclopyr is a selective herbicide for broadleaf species. In areas where desirable grasses are growing under or around mimosa, triclopyr can be used without non-target damage.

Cut Stump Method: This control method 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.

Glyphosate: Horizontally cut stems at or near ground level. Immediately apply a 50% solution of glyphosate and water to the cut stump, covering the outer 20% of the stump.

Triclopyr: Horizontally cut stems at or near ground level. Immediately apply a 50% solution of triclopyr and water to the cut stump, covering the outer 20% of the stump.

Basal Bark Method: This method is effective throughout the year as long as the ground is not frozen. Apply a mixture of 25% triclopyr and 75% horticultural oil to the basal parts of the tree to a height of 30-38 cm (12-15 in) from the ground. Thorough wetting is necessary for good control; spray until run-off is noticeable at the ground line.

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Last updated on Wednesday, November 05, 2003 at 01:20 PM
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