

Mimosa strigillosa

Family: Fabaceae

Mim-MOH-suh strig-ill-OH-sa

Mimosa; powderpuff; sunshine mimosa; sensitive plant



A curbside display of mimosa.



Long peduncle supports the inflorescence.

Mimosa

Synonyms (Discarded Names): None found

Origin: Florida, Texas and northern Mexico

USDA Zone: 8B-11 (leaf damage at 15°F)

Growth Rate: Fast

Flowering Months: Spring through summer

Leaf Persistence: Evergreen

Salt Tolerance: Moderate

Drought Tolerance: High

Soil: Moist; dry once established

Nutritional Requirements: Low

Potential Pests: None serious

Typical Dimensions: Spreading; up to 1 foot high

Propagation: Rooted cuttings; seeds

Human hazards: None

Uses: A mat-forming groundcover that withstands foot traffic and mowing; larval food source for the little sulphur butterfly.



A portion of this front yard is taken up by mimosa

Natural Geographic Distribution

Mimosa strigillosa is commonly called powderpuff, for the shape of its showy flowers. It is also referred to as mimosa, sunshine mimosa and sensitive plant. Mimosa has been vouchered by The Atlas of Florida vascular Plants from Leon County in the north to Miami-Dade County to the south. However, no sample has been collected and vouchered for Collier, Palm Beach, Broward and Monroe Counties. It is assumed that the species can also be found in those southern counties. Mimosa is absent from Alabama and the western Florida panhandle. It often occurs in disturbed areas, along roadsides and at the edge of pine flatwoods with well-drained, sandy soils. It is well adapted to growing in full sun to high pine shade.

Ecological Function

Mimosa strigillosa is a legume whose roots can produce nodules (small knots) in association with nitrogen fixing bacteria, thus adding nitrogen to the soil. The plant's rapid spread, dense, mat-like habit and deep root system make it a good plant for erosion control. Mimosa is a larval food source for the little sulphur butterfly (*Pyrisitia lisa*), which feed on the foliage.

Morphology

Mimosa is a thornless, mat-forming, perennial plant usually growing 3 to 4 inches tall. It spreads by rhizomes. Leaves are alternate, bipinnate, with 3 to 6 pairs of opposite pinnate, and as many as 21 pairs of small leaflets. The leaves are larger in partial shade, up to 11 inches long and 4 inches wide and smaller in full sun, commonly 3.5 inches long and 2 inches wide. The leaflets are remarkably sensitive to touch, folding up within one or two seconds after being disturbed. Thus, the name sensitive plant. The showy, pinkish, globose to shortly cylindric inflorescence are present from spring through summer. Situated on long slender peduncle, they are about one inch long. They are comprised of many florets each having fused petals and 10 or fewer free pink stamens. Every stamen is tipped with a golden colored pollen. Many of these inflorescence give way to small, flattened, oblong pods with minute bristles. Mature pods are brown and they open to expel seeds.



It spreads by criss-crossing, fast growing rhizomes.



The bipinnate leaf remains open when not disturbed.



The plant has a dense, mat-like habit.



The leaf quickly closes when touched.



The developing inflorescence.



A fully formed inflorescence.



The inflorescence is made up of many florets with 10 or fewer free pink colored stamens.



One or more flat seed pods with minute bristles are sometimes produced from the inflorescence.



A seed squeezed from the pod.

Growth Habit

Mimosa spread by rhizomes that produce long tap roots at the nodes. It grows in most well-drained soil and is highly drought tolerant once established, making it also suitable for dry, sandy areas. Mimosa is perennial, but top growth will die back in north Florida in the winter. Dieback becomes less severe from north to south, and is negligible or absent in south Florida. Plantings that do not die in winter might become somewhat thin and yellow. Even in south Florida, it usually becomes sparse during the months of winter. Mimosa is difficult to control in restricted areas and is best grown with definite boundaries, such as pavement or sidewalks, where it can be more easily edged.

Reproduction

Seeds have a hard seedcoat and need to be scarified to allow quick germination. Unscarified seeds can take up to one year to germinate. Sow seeds 1/4 inch deep in late summer or early fall for flowers the following summer. Irrigate seedlings for two to four weeks to prevent soil from drying out. Plantings can also be established from rooted sprigs.

Planting and Maintenance Guidelines

Carefully select the area for planting. Well established plants may be difficult to eradicate because of the mimosa deep growing roots. They may be planted any time of year, but will grow and spread more rapidly in summer months than in winter months. Mimosa grow best in full sun but will tolerate some shade. Mimosa can be planted in bare ground or a herbicide can be used to completely kill grass and other vegetations. If the latter is done, do not remove the dead sod or vegetations or disturb the soil.

Among the dead sod, or on bare ground, plant small mimosa plants about 2 to 4 feet apart depending upon how quickly you want the groundcover to develop. As few as four or five pots of mimosa planted in the landscape can cover 200 to 300 square feet in less than a full growing season. In bare spots, apply about 3 inches of coarse mulch to suppress weed growth. Water to establish. A light application of fertilizer beneath the mulch and extra water can help to jump start this plant to stay ahead of weed growth. Stems take root as they grow along the ground, overlapping one another to form a dense mat. Once established, it is a very drought tolerant and is able to withstand foot traffic and mowing, if necessary. Mimosa can also be interplanted with lawn grass. Grasses will grow through it and can be mowed without affecting the usually lower growing mimosa.

The roots of mimosa has a symbiotic relationship with a nitrogen fixing bacteria in the soil that may negate or reduce the need for fertilizer applications. The bacteria form nodules on the roots of the plant. Roots are likely to form nodules fastest where plants already exist or previously existed because the nitrogen fixing bacteria might already be in the soil. Mimosa may become yellowish if it does not nodulate, a process that might take a year or two. Plantings can be fertilized to mitigate yellowing, but this will delay or prevent nodulation. However, fertilization appears to stimulate flowering. Use a low rate of controlled-release fertilizer that will last throughout the summer. Fertilizers should contain no or low amounts of phosphorus unless results of a soil test show that phosphorus is deficient in your soil.

Despite its rapidly spreading nature mimosa is not overly competitive. Aggressive weeds will out compete it. A weed management program is necessary to maintain a uniform look. A grass herbicide such as Fusilate or Plateau can be used prior to full vegetative cover. Personal communication from a landscaper indicates that Roundup at half-strength can help control weeds. On the latter, several small areas should be used for testing prior to application.



First day of planting mimosa groundcover. One gallon plants were used, with a 2 to 3 inch layer of coarse mulch covering the bare ground.



Mimosa groundcover 6 months later.

References

Biophilia Nature Center, Native Nursery & Bookstore. <http://www.biophilia.net/>, accessed 11 Feb. 2010.

Norcini, Jeffrey and Aldrich, James. Native Wildflowers: *Mimosa strigillosa*. University of Florida, Gainesville, Florida. ENH 1075/EP343. 2009. <http://edis.ifas.ufl.edu/ep343>

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