

**United States Department of Agriculture** 

Natural Resources Conservation Service Plant Materials Program

# **Crockett Germplasm** herbaceous mimosa

## Mimosa strigillosa Torr. and Gray

A Conservation Plant Release by USDA NRCS East Texas Plant Materials Center, Nacogdoches, TX



Figure 1. Crockett Germplasm herbaceous mimosa at the East Texas Plant Materials Center.

Crockett Germplasm herbaceous mimosa (*Mimosa strigillosa* Torr. and Gray) was released through the USDA Natural Resources Conservation Service (NRCS) East Texas Plant Materials Center (ETPMC) in 2006 in cooperation with Stephen F. Austin State University Arthur Temple College of Forestry and Agriculture, and Soil and Water Conservation Districts of East Texas and northwestern Louisiana.

## Description

Crockett Germplasm is a perennial, warm season, legume which grows to a height of 6 to 8 inches with a sprawling growth form. The deciduous, bi-pinnate foliage is dark green with four to six pinnae pairs containing 10 to 15 leaflets each. The attractive blooms resemble a pink cotton ball, lending to the plant's common name, "powder puff". Each bloom produces four to five seed pods that contain two to three seed each. Mature seeds are olive brown with a hard seed coat. There are 47,000 seeds per pound, and the seeds measure approximately 5 mm long and 3 mm wide. Crockett Germplasm exhibits drought tolerance, folding its leaves and closing stomata to conserve moisture during dry, hot periods.

## Source

Crockett Germplasm was originally collected from the Trinity River bottoms of Houston County, Texas, and was selected due to superior seedling vigor, foliage density, rate of spread, drought tolerance and seed production.

## **Conservation Uses**

Crockett Germplasm is a beneficial plant for use in wildlife habitat improvement, native landscaping, mine land reclamation, pollinator habitat, and for increasing diversity in native plantings. Productions fields at the ETPMC attract a wide array of pollinating and foraging insect in late spring. This, combined with its low growing nature, create excellent bugging areas for wild turkey poults and other large bird species. Its drought tolerance and attractive blooms make it an excellent choice for use in xeriscaping, and its low, sprawling, growth form make it useful for road side plantings. It has also been used to replace turf grass in some areas, and improves soil health due to its deep penetrating roots and nitrogen fixation abilities.

## Area of Adaptation and Use



## Figure 2. Adaptation range of Crockett Germplasm herbaceous mimosa.

Crockett Germplasm will tolerate a wide array of soils, including clays, but favors sandy loams. It is most productive on soils with a slightly acidic to neutral pH, but can be found on soils with a pH as low as 4.7.

## Establishment and Management for Conservation Plantings

Crockett Germplasm can be established vegetatively or by seed. Seeding is the recommended method for establishment of large stands. Seed should be lightly scarified and inoculated with mimosa spec. 1 *Rhizobia* inoculum to ensure nitrogen fixation, and create uniform stands. Seed should be planted approximately <sup>1</sup>/<sub>4</sub> inch deep at a seeding rate of 8 PLS (pure live seed) lb/acre for a monoculture planting. Increase the seeding rate to 10-15 PLS lb/acre if using the broadcast method of planting. Seed mixes should be adjusted accordingly to the percent desired using the above planting rates. Soil should be amended before planting based on soil tests. The pH should be adjusted such that it is above 5.0, preferably as close to 7 as possible.

Seed should be planted in early spring, April through May. Crockett Germplasm favors sites exposed to full sun, but will tolerate slight amounts of shade. Under favorable conditions, seedling emergence should occur about three weeks after planting.

Protect the area from livestock grazing during the first year of establishment. Crockett Germplasm will tolerate occasional burning in the spring to control brush and /or weeds.

#### Seed and Plant Production

Due to its spreading growth form, herbaceous mimosa cannot be maintained in rows. Seed should be drilled on a level, firm, weed-free seedbed and allowed to sprawl. In a typical growing season at the ETPMC, Crockett Germplasm flowers in June and is harvested in late July or August via direct combining. The combine header must be run very low to the ground, making fire ant and gopher mounds a problem during harvest. Fire ant bait is broadcasted in the production fields at the ETPMC.

Weeds may be controlled by timely mowing during the spring. Mowing also increases the amount of flowering and seed set. Glyphosate may be use to control cool season weeds and any residual warm season resprouts after the plants goes dormant in the fall.

During favorable years a second seed crop may set after the first harvest. Mature pods, ready for harvest, are brown and dry. The mature stems do not stay attached to the plant runner indefinitely and will fall off after a week or two.



Figure 3. Photo showing various stages of seed development from bloom to seed pod.

Harvested seed is scalped, and dried using forced air or by spreading on a concrete floor in front of fans. Once dry, the seed is run through a hammer mill to break open the seed pods. Air screen cleaners do an excellent job of cleaning the seed, and fields produce approximately 150 pounds of cleaned seed per acre at the ETPMC.

Availability

For conservation use: Seed of Crockett Germplasm herbaceous mimosa is commercially available from native seed producers.

For seed or plant increase: Breeder seed is available through the Texas Foundation Seed Service.

*For more information, contact:* East Texas Plant Materials Center 6598 FM 2782 Nacogdoches, Texas 75964 Phone: (936) 564-4873 Fax: (936) 552-7924 http://plant-materials.nrcs.usda.gov/etpmc/

#### Citation

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