

The ETPMC News is a publication of the USDA Natural Resources Conservation Service East Texas Plant Materials Center

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## Technology Development

Herbaceous mimosa, *Mimosa strigillosa* Torr. & A. Gray, is a warm season, native, perennial, legume that has shown great potential as a warm season forage plant. In a recent study conducted at 4 locations by Dr. Jim Muir of Texas AgriLife; Crockett germplasm had the highest dry matter yield when compared to two prairie acacia cultivars and one paniced tickclover. The ETPMC released Crockett germplasm herbaceous mimosa with intended use in, but not limited to, Conservation Practices: 342 Critical Area Planting, 543 Land Reclamation Abandoned Mine Land, and 645 Upland Wildlife Habitat Management. Its performance



Crockett germplasm herbaceous mimosa

in the trial conducted by Dr. Muir has led the ETPMC to further explore this plants potential for use in other conservation practices. A shade tolerance study is being developed to help determine the amount of sunlight needed to insure a healthy, productive stand of mimosa which should aid in determining its application to other conservation practices such as Conservation Practice 381 Silvopasture Establishment.

## Perennial Peanuts



ETPMC manager Alan Shadow and Roy Mills (Left) harvest rhizomes of perennial

peanut, *Arachis glabrata* Benth., is an introduced legume from South America that shows great potential for use in the southeastern United States as a warm season forage and landscape plant. It favors sandy soils with a pH of 5.8 to 7.0. Crude protein ranges from 13 to 20 percent with up to 70 percent *in vitro* digestibility. Studies at Mississippi State University showed steers grazing perennial peanuts had almost double the daily weight gains compared to those grazing bahiagrass. Demonstration plots at the ETPMC have proven to be very drought tolerant, requiring virtually no supplemental irrigation, and have shown no sign of disease. Their extreme drought hardiness and low maintenance have increased their use

in the landscape industry. Perennial peanuts have been used in roadside medians, lawns, and parks with great success by some municipalities. As water use rights become increasingly restrictive, the perennial peanuts may become a much more viable turf option than traditional grasses such as St.

Augustine. Mr. Roy Mills, seen above, recently attended The Texas Small Farmers and Ranchers meeting held at the ETPMC, and was interested in using perennial peanuts on his farm as forage for livestock.

## Feral Hogs

Feral hogs were introduced to the US mainland in the early 1500's by Hernando De Soto. Their population has exploded since then; becoming a nuisance that may be blamed for hundreds of millions of dollars in damages annually. Current population estimates range between 3 and 6 million nationally with half of those residing in Texas. Feral hogs destroy native habitat, increase erosion via rooting and wallowing along riparian areas, destroy crops, compete with native wildlife for resources, and carry diseases that can be passed to livestock, game animals, and humans. Sows are sexually mature at 6 months of age and can produce two litters of 6-12 piglets a year. Research indicates feral swine populations must be reduced by 70 percent each year simply to keep up with their reproduction. Young are fiercely protected by sows and have virtually no natural predators, other than man, once they reach sub adulthood. The ETPMC has recently seen hog activity in its fields. A group of hogs could easily wipe out a study in the course of one night grubbing, digging and plowing for roots and insect larva, or break off irrigation risers with their constant rubbing or quest for water in times of drought.



Two young boar hogs foraging in fields at the ETPMC

## New Transplanter Increases Productivity

One of the most time consuming tasks at the ETPMC is moving irrigation pipe to different seed production fields of plant releases. In times of drought it becomes a never-ending cycle of moving pipe from one field to the next in an effort to supply enough moisture to ensure seed fill. To circumvent this problem the ETPMC used its recently acquired vegetable transplanter to move foundation seed plots to new fields under permanent irrigation. Seedlings of releases were grown out in the greenhouse over the winter and transplanted this spring. This allows for quicker establishment of seed production/foundation fields, guarantees a complete stand of plants, and decreases weed competition by allowing the use of pre-emergent herbicides. New fields were planted in a matter of a few hours and irrigated immediately upon completion. Now irrigation of seed production fields is as easy as turning a T-valve at the head of each irrigation line; freeing staff to work on studies and products to support NRCS field office operations.



ETPMC staff transplanting seedlings to new foundation fields

## Featured Plant – Elderberry (*Sambucus nigra*)

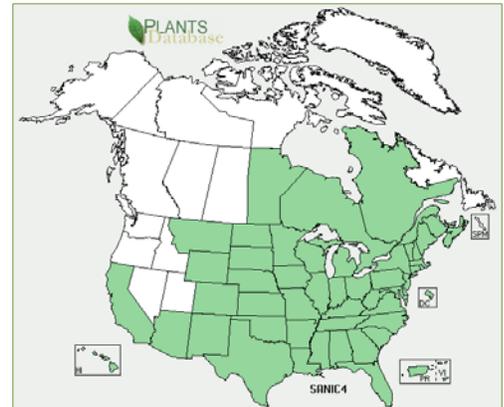


Elderberry plant in full bloom at the ETPMC, fruit seen inset photo, courtesy of Rose lake PMC

Elderberry is native plant with many useful applications and cultural significance. It is widely adapted and can be found throughout most of North America. It provides cover and soft mast for wildlife as well as forage for browsers. The foliage and/or fruit are utilized by

livestock, deer, elk, moose, bear, and a multitude of birds. The foliage becomes more palatable in the fall as other

warm season plants tend to become less palatable. It is primarily used for stream bank stabilization and provides an important mid story layer for wildlife habitat enhancement. The fragrant white flowers attract pollinators, and have been used to make teas, battered and deep fried, or used in pancake and fritter batters. Native Americans utilized this plant heavily for tools, food, and medicines. The berries are very high in vitamin C and were stored as an important winter food source. Other uses of the plant included arrow shafts, tinder, blow guns, musical instruments, twirling sticks for fire starting, a wide assortment of medicines, dyes, and basketry. Elderberry is still used today in many herbal remedies, and the fruits can be made into wine, jellies, sauces, and pies. Species with red berries are toxic to humans and consumption should be avoided.



Distribution map of elderberry from the Plants Database website

## Who We Are

The USDA Natural Resources Conservation Service (NRCS) collects, selects and releases plants and develops plant technology to address our nation's most critical soil and water problems through the agency's Plant Materials Program. The East Texas Plant Materials Center in Nacogdoches, Texas serves east Texas, western Louisiana, southwest Arkansas, and southeast Oklahoma. The Plant Materials Center is a partnership between the NRCS, US Forest Service, Stephen F. Austin State University, and Soil and Water Conservation Districts in east Texas and western Louisiana.

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