



East Texas Plant Materials Center

2003 Activity Report

April 2004



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Who We Are

The East Texas Plant Materials Center (ETPMC) is part of the Natural Resources Conservation Service (NRCS), United States Department of Agriculture. The ETPMC is a joint venture between Soil and Water Conservation Districts in east Texas and northwestern Louisiana, NRCS, Stephen F. Austin State University, and US Forest Service. The ETPMC is located at the Stephen F. Austin Experimental Forest. The Plant Materials Center serves 48.2 million acres in east Texas and northwestern Louisiana. The topography is diverse ranging from level floodplains to strongly sloping forestlands and prairies.

What We Do

The mission of the ETPMC is to develop and transfer plant knowledge to NRCS field offices and land managers in both private and public sectors. The Center emphasizes using native plants as a way to address conservation issues and protect native ecosystems. Adapted plants are evaluated and tested by Plant Materials Center personnel. After a plant has been chosen for release, the Plant Materials Center produces foundation material for release to commercial growers. The new plants are promoted through their use in field plantings and demonstration projects.

New Plant Collections for 2003

The PMC continues assembling collections of native species: coralberry, pinkscale gayfeather, splitbeard bluestem, little bluestem, brownseed paspalum, indiagrass, and pinehill bluestem. The NRCS Field Office personnel play an important part in collecting seed for these assemblies. The PMC would like to thank NRCS personnel for seed collections in 2003. Seed collections will continue through the 2004 growing season. We plan to begin evaluation of these assemblies in the spring of 2005. We must have an adequate number of collections in an assembly before we begin evaluations.

Studies at the Center

Following are some highlights of the work being carried out at the Plant Materials Center.

Evaluation of Big bluestem and Sand bluestem Cultivars and Experimental Lines

This study was a cooperative effort with Dr. Tim Springer of the Agricultural Research Service. The objective of this study is to compare 'Kaw' big bluestem, 'Woodward' sand bluestem, seed sold as 'Woodward', and experimental lines of big and sand bluestem for forage and seed production. This was a regional study with four other Plant Materials Centers in Missouri, Kansas, Texas, and Mississippi participating in the evaluations. Dr. Springer will use the collected study data to help select a new cultivar. This study was completed in 2003.

Agroforestry Project

The PMC is cooperating with the Arthur Temple College of Forestry-Stephen F. Austin State University in an agroforestry project. Using fast growing trees in riparian areas provides a filter area to take up phosphorus and other nutrients before they reach water bodies and streams. This project addresses adaptation of six species to high phosphorus levels.

Six species of commercially available tree cultivars were purchased from nurseries in Texas, Louisiana, and Oklahoma. These species were cottonwood, black locust, pine, sweetgum, green ash, and sycamore. The trees were planted in February and March of 2003. They will be measured for rate of growth.



Coastal Prairie Plant Increase

In April, PMC staff planted six prairie species from Louisiana. Conservationists in Louisiana plan to use these species in the restoration of their coastal prairies. These species were cluster bushmint, slender mountain mint, wild indigo, compass plant, eastern beebalm, and meadow beauty. The PMC is collecting adaptation data for the plants. PMC staff is also collecting and cleaning seed from these species.



Cluster bushmint (left) meadow beauty (right)

Seed Production

The PMC maintains foundation seed fields for the following species: 'Crockett' herbaceous mimosa, Florida paspalum, 'Medina' eastern gamagrass, and 'Jackson' eastern gamagrass. The PMC is cooperating with the Texas Foundation Seed Service. Foundation class seed of 'Crockett' herbaceous mimosa, 'Harrison' Florida paspalum, and 'Medina' eastern gamagrass is available to commercial seed growers. Seed and information about these species is available at the Texas Foundation Seed Service website (<http://tfss.tamu.edu>) or phone (940) 552-6226.

In March 2003, an additional production block of 'Harrison' Florida paspalum was planted to increase seed production of this germplasm release. The first seed harvest was in October 2003.

The deertongue seed increase block was replanted in May 2003. Approximately 2800 deertongue were transplanted. Seed was harvested in August 2003.

All the seed production fields were subsoiled in November 2003. Subsoiling will increase water infiltration by fracturing the plow pan. Seed production fields were not burned in 2003.

The PMC is cooperating with the Native Prairies Association of Texas to increase seed of the following species: little bluestem, indiagrass, switchgrass, big bluestem, and gulf coast muhly. These species are being increased for prairie restoration in southeast Texas.

Germplasm Release

The PMC released Florida paspalum accession #9043874 from Harrison County, Texas in December 2003. 'Harrison' Florida paspalum germplasm can be used for studies in prairie restoration, native grazing mixtures, and for wildlife food and cover. Currently, the center is working toward a future release as a cultivar. Additional adaptation and performance data are needed for a cultivar release.



ETPMC Personnel and Earth Team Volunteers

Jim Stevens – ETPMC Manager
Melinda Brakie – Conservation Agronomist
Tim Allen – Biological Technician

Student Workers

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Earth Team Volunteers

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