

YEAR 2005

PROGRESS REPORT OF ACTIVITIES

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James E. 'Bud' Smith Plant Materials Center, Knox City, Texas

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Who We Are

The James E. "Bud" Smith Plant Materials Center (PMC) at Knox City, Texas, was established in late 1964 and is one of 27 Centers located throughout the United States. The Center is responsible for developing conservation plants and cultural techniques for use on targeted Major Land Resource Areas (MLRA) in Texas and Oklahoma.

The area served in Texas includes all or portions of nine MLRAs ranging in size from 800,000 acres to over 23 million acres. The area served in southwestern Oklahoma comprises parts of five MLRAs in 27 counties totaling over 16 million acres.

The Center is located approximately 4 miles NW of Knox City, Texas, in the Rolling Red Plains Land Resource Area.

The mission of the Plant Materials Program is to develop and transfer effective state-of-the-art plant science technology to meet customer and resource needs. Plant and technology development objectives of the Knox City PMC include:

- Erosion Control - wind and water
- Range and Pasture Improvement
- Wildlife Habitat Improvement
- Water Quality

Following is a highlight of 2005 activities.



Reaching Out

Restoring Natives Workshop

The International Society for Range Management held its annual meeting in Ft worth, Texas in February 2005. The Texas Plant Materials Program took the opportunity to present a workshop titled "Restoring Natives" to conference attendees.

Personnel from all three plant materials centers and the (retired) plant materials specialist covered various topics including planning your needs, plant selection, buying seed and plants, and installation and management.

Participants gained insight on how to use native plants for new restoration projects and how to enhance existing rangelands.

Two plant materials exhibit booth were also developed for the conference. The National Plant Materials Exhibit and an exhibit on the Plant Materials Centers in Texas both displayed information on how the plant materials program assists rangelands.

Plant Materials for Restoration - American Assn of Seed Control Officials (AASCO), Austin, TX

The American Association of Seed Control Officials met in Austin, Texas in July of 2005. AASCO consists of state official who develop and regulate individual states seed laws.

The Knox City PMC presented a program to the group on plant materials for restoration. Emphasis of the program was to educate individuals on how the plant materials program operates on a national level to develop and release new and improved plants for conservation restoration.

In a year that experienced everything from hurricanes to drought and wildfires many states were concerned with where and how plant materials can be found to assist with environmental restoration efforts. The presentation provided participants an opportunity to learn about the Plant Materials program and how it could assist with local needs.

Native Plants for Low Input Landscapes

In May 2005 the Knox City PMC hosted a tour for the Haskell County Garden Club. The program and tour at the PMC was used to educate attendees on the use of low-input native plants in landscape settings. The drought of the previous years had everyone thinking about how to avoid using excess water on their lawns and how to establish low input landscape plantings. Participants were shown what native plants from the Rolling Plains could be incorporated into a native landscape. Native trees were discussed and information was given to the group on how to use, install, and manage a native plant landscape.

Baylor County Ag Appreciation Day

During April the Baylor County Cooperative Extension hosts an Agriculture Appreciation Day. The annual event previews new and innovative businesses and ideals in the agricultural industry. For the past 9 years the Knox City PMC has supported the day by setting up a booth displaying items of interest from the NRCS Plant Materials Program. In 2005 the Center provided information on the Plant Materials Program at Knox City. Over 1500 people attend the event each year.

Knox County Veterans Memorial

Throughout Texas many Counties are establishing Veterans Memorials to those who have served our county so proudly. The Knox County Veterans Memorial was completed in 2000, and the Veterans Memorial Committee requested the assistance of the Knox City PMC to assist them with the establishment of some type of ground cover on the site. In 2002 the Center worked with committee members to establish a permanent cover of buffalograss. The committee purchased seed from donated funds and the PMC applied the seed to the site with the Center's hydroseeding equipment. In

2005 personnel from the Knox City PMC provided follow-up assistance to the Committee on how the planting had progressed as well as other plants that could be incorporated.

Drip Irrigation for Home and Garden

In March 2005 the Knox City PMC and the Knox County Cooperative Extension Horticultural Committee sponsored a program to educate people on the use of drip irrigation in landscapes and gardens. Speakers from Taylor County Master Gardeners talked about gardening vegetables, mulches, and insect and disease control. Morris Houck of the PMC presented information on using drip irrigation for gardens, lawns and in the landscape.

Dyess Air Force Base Wildlife Habitat Improvement

In 2004 the US Army Corp of Engineers (COE) approached the Knox City PMC to assist with a wildlife habitat improvement project on Dyess Air Force Base at Abilene, Texas. After assessing needs the COE and PMC developed and installed a demonstration planting using native trees and shrubs to determine adaptability. A prepared seed mixture composed of native grasses, forbs and legumes was hydroseeded within the demo area to enhance the site.



Range and Pasture Plant ID Contest

In 2005 the Knox City PMC provided a site for the tri-county range and pasture plant ID contest. The Wichita-Brazos Soil and Water Conservation District (Knox County) and the Haskell and Anson FFA Chapters hosted the invitational contest to give FFA and 4H students and opportunity to practice before attending district contest.



palatable when plants are green. It will cure well and provide adequate dry forage for cattle. It must be managed accordingly to avoid overgrazing. Wildlife can utilize the plants for food and cover. Selection PMT-389 Arizona cottontop was placed into the open market for production back in the late 60's. This selection was never formally released. Plans include re-evaluating PMT-389 possible selecting within the original population for improved seed germination and than releasing as a select or tested class of certified seed.

Giant sandreed, *Calamovilfa gigantea*, is a native perennial, warm season, rhizomatous grass that is useful in the stabilization and revegetation of sandy soils.

Five accessions were selected and combined because of their similarity and overall rating for vigor, survivability, abilities to spread, and seed production. The five collections composite is currently being increased and will have a new accession number of 9065015.

Up Coming Plant Releases – 3-5 years

Arizona cottontop, *Digitaria californica*, is a native, perennial, warm-season, bunchgrass that is common to the southwestern US. Arizona cottontop grows best on gravelly and sandy loam soils. This grass species can be planted in pure stands or as a component in a seed mix.



Possible uses of AZ cottontop include rangeland plantings. Its forage value is good and most



Showy menodora, *Menodora longiflora* is a native, warm-season, perennial herb or small shrub. It is native throughout west Texas, and is an important component of range sites in these areas. It is valuable as a wildlife food and cover species. Showy menodora may be included in range and wildlife seeding mixes. This selection of showy menodora was originally collected near Brackettville, Texas, and has a PI number of 477967.



Havard panicum, *Panicum havardii* is a tall, warm season perennial grass with an extensive rhizome system. Eleven collections were combined and given the composite number of 9065020. 9065020 is currently undergoing field increase.

Parental lines include;

- 9049593-Crane Co., TX
- 9064950-Andrews Co., TX
- 9049592-Crane Co., TX
- 9004621-Andrews Co., TX
- 9003951-Winkler Co., TX
- 9049541-Crane Co., TX
- 9049287-Andrews Co., TX
- 9064880-Ward Co., TX
- 9064960-Crane Co., TX
- 9064890-Crane Co., TX
- 9001480-(Ward Co., Andrews Co., Winkler Co., composite)

Prairie acacia, *Acacia angustissima* is a native perennial, warm-season legume. It is native throughout central and west Texas, and into Oklahoma. Prairie acacia is an important component of range sites in these areas. It is valuable as a wildlife food and cover species. Prairie acacia may be included in CRP or EQIP plantings, and range seeding mixes. This selection of prairie acacia is a combination of 17 collections and has an accession number of 9085672.

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