Year 2012 Progress Report of Activities

Issued January 2012

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Following are highlights of some of the activities of the PMC for 2012. Please contact the PMC for more detailed information.

New Seed Releases with STN

In 2012, *South Texas Natives* and the USDA-NRCS E. "Kika" de la Garza Plant Materials Center completed three cooperative releases. All are a selected plant material class of certified seed (natural track). No intentional breeding, selection or genetic manipulation was carried out within these populations.

Hoverson Germplasm Deer Pea Vetch

Hoverson Germplasm deer pea vetch (*Vicia ludoviciana* Nutt.) is a cool season annual legume that has climbing stems. This selection originated from LaSalle County in South Texas. Hoverson Germplasm deer pea vetch flowers in early spring and seed ripens as early as May in South Texas. Hoverson Germplasm is a native alternative to commonly used non-native medics as a cool season forage.

Hoverson Germplasm deer pea vetch is recommended for use in upland wildlife, highway right-of-way, energy exploration, and range plantings in South Texas. Deer pea vetch is a cool season annual legume that provides forage and seeds utilized during winter and spring by bobwhite quail, Rio Grande turkey, white-tailed deer, and livestock. Hoverson Germplasm has shown excellent competitive ability with many introduced exotic grasses. Hoverson originated from a clay soil. Best performance of this seed source has been observed on medium to heavy textured soils. The area of known adaptation of Hoverson Germplasm includes the Rio Grande Plain, Coastal Sand Plain, and Gulf Coast Prairies and Marshes Ecoregions of Texas.

Rio Grande Germplasm Prairie Acacia

Rio Grande Germplasm prairie acacia (*Acacia angustissima* (Mill.) Kuntze var. *hirta* (Nutt.) B.L. Rob.) is a blend of 3 native populations collected in the south Texas counties of McMullen, Webb, and Dimmitt. Prairie acacia, also known as fern acacia, is a native, perennial member of the legume family. It is a semi-woody sub-shrub often forming colonies from its rhizomes. Mature foliage height of this release ranges from 3 to 4 feet tall. Prairie acacia's white to cream flowers bloom from May to November.

The collections included in this release had the tallest and widest growth form, best foliage production, good seed production, and good seed germination when compared to other prairie acacia collections

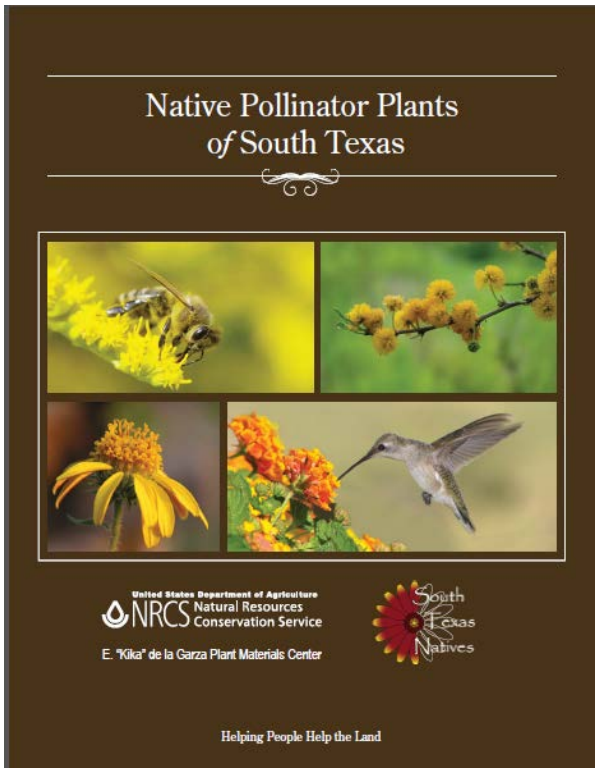
made in south Texas. Rio Grande Germplasm prairie acacia is recommended for upland wildlife, range plantings and native landscaping in south Texas. It produces high quality forage for all types of grazing livestock. Crude protein of prairie acacia leaves have ranged from 16 to 29% with good digestibility. The literature reports some toxicity to sheep and other animals when fed at high concentrations. Prairie acacia provides good forage for wildlife. It also provides cover for fawns and seed for upland game birds. Rio Grande Germplasm will likely perform best in the Rio Grande Plain. However, based on the natural distribution of prairie acacia, it will likely do well in the Gulf Prairies and Marshes, the Edwards Plateau, the Trans Pecos eco-regions of Texas and adjacent portions of northern Mexico. Best performance in planting trials has been observed on medium to fine textured soils.

South Texas Germplasm Sideoats Grama

South Texas Germplasm sideoats grama (*Bouteloua curtipendula* (Michx.) Torr. var. *caespitosa* Gould & Kapadia) is a blend of 6 native populations collected in Atascosa, Frio, Medina, Uvalde, and Val Verde Counties of South Texas. Sideoats grama is the State Grass of Texas, and is a warm-season, native, perennial bunch grass that grows 3-4 feet tall. The plants produce seed from May through October in South Texas. South Texas Germplasm has superior plant vigor, seed production, and biomass production compared to available sideoats grama releases when grown in South Texas.

South Texas Germplasm sideoats grama is recommended for use in upland wildlife, highway right-of-way, energy exploration, and range plantings in South Texas. Sideoats grama is a common plant on many ecological sites in South Texas. Sideoats grama produces abundant forage and provides suitable nesting habitat for bobwhite quail, and cover for other wildlife species. South Texas Germplasm has shown good competitive ability with many introduced exotic grasses. Populations in the release originated from fine sandy loam, loamy fine sand, sandy clay loam, gravelly loam, and clay loam soils. Best performance in planting trials has been observed on medium to fine textured soils. The area of known adaptation of South Texas Germplasm is the Rio Grande Plain, Coastal Sand Plain, and Gulf Coast Prairies and Marshes Ecoregions of Texas.

New Pollinator Brochure



Native Pollinator Plants of South Texas Brochure

USDA-NRCS E. "Kika" de la Garza Plant Materials Center and *South Texas Natives* produced a brochure in 2012 listing our top twenty plant choices for enhancing pollinator habitat. The brochure includes distribution, growing requirements, and other helpful information. Copies of the brochure are located at the State Office, Zone Three Office, all three Texas Plant Materials Centers, and at *South Texas Natives*. Our thanks to Jamie Moeller at the Texas State Office for turning our data in to an aesthetic and useable form!

2012 Field Day

Tour of PMC Research Plots During the Field Day

The E. "Kika" de la Garza Plant Materials Center (PMC) and its partner *South Texas Natives* (STN) held a field day and landowner recognition dinner on October 24 and 25 of 2012. They felt it was time to recognize both the landowners and plant collectors that have been vital to the commercial seed releases of native species for south Texas. In the year 2012, we also saw the 20th year that John Lloyd-Reilley has been at the helm managing the PMC. He has seen the availability of adapted, native plants for south Texas go from zero to 24.

On the evening of October 24th, a landowner recognition dinner was hosted by Dr. Fred Bryant, executive director of the Caesar Kleberg Wildlife Research Institute at the Tio and Janell Kleberg Wildlife Research Park in Kingsville. Mr. Memo Benavides, a well-known south Texas landowner and PMC advisory board member, introduced the guest speaker, U.S. Representative Mr. Henry Cuellar. Mr. Cuellar emphasized the evenings theme that partnerships of government agencies, public universities and private individuals is critical to meeting local economic needs as well as conservation objectives. The four evening speakers, Dr. Fred Bryant, Mr. Salvador Salinas, Texas NRCS state conservationist, Mr. John Lloyd-Reilley, PMC Manager and Mr. Forrest Smith, Director of South Texas Natives, all spoke to how local, conservation leadership combined with a voluntary cooperative approach has been a major factor in the success of STN. The STN approach unites a science based program with cost effective solutions and this garners strong support from the landowners of south Texas.

And because of this support the evening's program was focused on recognizing those landowners whose trust and support allowed the collectors of plant material on their property that eventually resulted in a commercial seed release. Also recognized with a gift during the evening program was Mr. Don Gohmert, past NRCS Texas state conservationist. The PMC advisory board recognized Mr. Gohmert for his leadership, direction and unwavering support and contributions to the NRCS Plant Materials Program.

On Thursday, October 25th, a field day was held at the "Kika" de la Garza PMC. Landowners, land managers and the general public had the opportunity to learn about the latest conservation plant releases, plant technology and conservation use of different seed mixes for south Texas. The field day included two presentations. One was on "How to Develop a Native Seed Mix" by Keith Pawelek and the other was "Providing Pollinator Habitat" by Shelly Maher. There was an off-site tour of a successful, native, range planting at the Greg Smith Ranch. On-site tours included discussions of endangered species restoration by Dr. Sandra Rideout-Hanzek, developing seed releases for South Texas and growing cover crops and biofuels by Mr. Bruce Henderson. The field day included a luncheon program that recognized Stephen Deiss for providing the most collections of any Texas NRCS employee. The program also recognized those individuals whose plant collection resulted in one of the 24 commercial releases. There were 17 individuals responsible for those releases. The following lists the collectors and collection sites of seeds included in STN and PMC Native Seed Releases.

Keith Pawelek (STN) Describes the Functions of a Seed Drill

Collection Sites of Seeds Included in STN and PMC Native Seed Releases

Atascosa Germplasm Texas grama
Westwind Ranch
74 Ranch

Catarina Blend Bristlegrass
Unknown (older NRCS collections)

Dilley Germplasm slender grama
Piloncillo Ranch
Richard Lucas Ranch
Cerrito Prieto Ranch

Chaparral Germplasm hairy grama
Welder Wildlife Foundation Refuge
La Paloma Ranch
Chaparral Wildlife Management Area

Goliad Germplasm orange zexmenia
Lake Amistad Recreational Area-National Park Service
Romeo Garza Ranch
Cerrito Prieto Ranch
Cibola Ranch
Baluarte Ranch
Fort Sam Houston, Camp Bullis-U.S. Army

Hidalgo Germplasm multiflowered false Rhodesgrass
Cerrito Prieto Ranch
McBride Ranch
Jones Alta Vista Ranch
Seeligson Ranch
Tres Corrales Ranch

Hoverson Germplasm deer pea vetch
Eddie Knight Ranch

La Salle Germplasm Arizona cottontop
Shiner Ranch
7 C's Ranch
Piloncillo Ranch
Harris Ranch
San Pedro Ranch
Chaparral Wildlife Management Area
Welder Ranch
Arroyo Velano Ranch
Faith Ranch

Mariah Germplasm hooded windmillgrass
La Paloma Ranch

Maverick Germplasm pink pappusgrass
San Pedro Ranch
Cerrito Prieto Ranch
Anaconcho Ranch
Piloncillo Ranch
Bentsen Ranch
Temple Ranch

Oso Germplasm Halls panicum
Corpus Christi Botanical Gardens
Loma Portero Cercado - USFW

Rio Grande Germplasm prairie acacia
San Pedro Ranch

South Texas Germplasm sideoats grama
Smith Ranch
Shiner Ranch

STN-496 Germplasm redseed plantain
Briggs Ranch Golf Course

STN-561 Germplasm Hookers plantain
Roadside collection

Zapata Germplasm Rio Grande clammyweed
Piloncillo Ranch
Rafael Flores Ranch

Webb Germplasm whiplash pappusgrass
Dos Amigos Ranch
Cerrito Prieto Ranch
Arroyo Velano Ranch

Welder Germplasm shortspike windmillgrass
Welder Wildlife Foundation Refuge

Collectors of Seeds Iincluded in STN and PMC Native Seed Releases

Leslie Brenek - Lavaca Germplasm Canada Wildrye

Steve Nelle - Catarina Blend Bristlegrass

Willard Dearing - Catarina Blend Bristlegrass

Leroy Wolff - Catarina Blend Bristlegrass

Jack Henson - Goliad Germplasm Orange Zexmenia

Erasmo Montemayor - Goliad Germplasm Orange Zexmenia

Suzanna Hernandez - Goliad Germplasm Orange Zexmenia

Poncho Ortega Jr. - Chaparral Germplasm Hairy Grama, Dilley Germplasm Slender Grama, Maverick Germplasm Pink Pappusgrass, and Hidalgo Germplasm Multiflowered False Rhodes Grass

Jimmy Rutledge - Rio Grande Germplasm Prairie Acacia

Charity Lawson - Goliad Germplasm Orange Zexmenia and Rio Grande Germplasm Prairie Acacia

Cody Lawson - Goliad Germplasm Orange Zexmenia, LaSalle Germplasm Arizona Cottontop, Dilley Germplasm Slender Grama, Atascosa Germplasm Texas Grama, Zapata Germplasm Rio Grande Clammyweed, Divot Tallowweed Blend, Maverick Germplasm Pink Pappusgrass, Webb Germplasm Whiplash Pappusgrass, Hidalgo Germplasm Multiflowered False Rhodes Grass, South Texas Germplasm Sideoats Grama, and Rio Grande Germplasm Prairie Acacia

Paula Maywald - Mariah Germplasm Hooded Windmillgrass, Goliad Germplasm Orange Zexmenia, LaSalle Germplasm Arizona Cottontop, Dilley Germplasm Slender Grama, Atascosa Germplasm Texas Grama, Maverick Germplasm Pink Pappusgrass, Hidalgo Germplasm Multiflowered False Rhodes Grass, South Texas Germplasm Sideoats Grama, and Rio Grande Germplasm Prairie Acacia

Keith Pawelek - LaSalle Germplasm Arizona Cottontop, Zapata Germplasm Rio Grande Clammyweed, Maverick Germplasm Pink Pappusgrass, and Rio Grande Germplasm Prairie Acacia

Forrest Smith - Goliad Germplasm Orange Zexmenia, Chaparral Germplasm Hairy Grama, LaSalle Germplasm Arizona Cottontop, Dilley Germplasm Slender Grama, Atascosa Germplasm Texas Grama, Zapata Germplasm Rio Grande Clammyweed, Divot Tallowweed Blend, Maverick Germplasm Pink Pappusgrass, Webb Germplasm Whiplash Pappusgrass, Hidalgo Germplasm Multiflowered False Rhodes Grass, South Texas Germplasm Sideoats Grama, and Rio Grande Germplasm Prairie Acacia

John Lloyd-Reilley - Welder Germplasm Shortspike Windmillgrass, Maverick Germplasm Pink Pappusgrass, and Oso Germplasm Hall's Panicum.

Shelly Maher - Oso Germplasm Hall's Panicum.

John Lloyd-Reilley (left) Presents an Award to Stephen Deiss

Seed Collections Needed

The PMC will be seeking new collections of several species in 2013 including: big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), Virginia wildrye (*Elymus virginicus*), partridge pea (*Chaemaecrista fasciculata*), and Engelmann's daisy (*Engelmannia peristenia*). Species description sheets as well as seed collecting protocols can be found on the Texas Plant Materials Program website (http://www.tx.nrcs.usda.gov/technical/pmc/) or contact the PMC for more information.

About the PMC

The Kika de la Garza Plant Materials Center (PMC) is a 91-acre facility established to provide cost-effective vegetative solutions for soil and water conservation problems. This means identifying plants and developing techniques for successful conservation use. It also means assisting in the commercial development of these plants and promoting their use in natural resource conservation and other environmental programs.

The PMC was established in 1981. It is one of 27 centers located throughout the United States. The

PMC is operated by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), in cooperation with an Advisory Board from Texas A&M University-Kingsville, the Caesar Kleberg
Wildlife Research Institute (CKWRI), South Texas Association of Soil & Water Conservation Districts, and the Gulf Coast Association of Soil & Water Conservation Districts.

The Kika de la Garza PMC serves approximately 27 million acres of the southern portion of Texas.

Program Emphasis

The mission of the Kika de la Garza PMC is to develop and transfer plant science technology to solve natural resource problems in the South Texas area. Plant testing and plant selection as well as the development of new plant science technologies are the primary products of our program. The PMC conducts plantings and studies at the Center and off-Center with cooperating partners. The PMC works with NRCS Field Offices and Resource Conservation and Development (RC&D) groups, Conservation Districts, federal and state agencies, and private landowners.

Our current program emphasis at the PMC is in the following areas:

- Rangeland Habitat Restoration and Enhancement
- Coastal Shoreline Stabilization
- Coastal Habitat Restoration and Enhancement
- Erosion Control/Water Quality Improvement on Agricultural Land
- Biofuels

Current Availability of South Texas Ecotype Releases

Common Name	Scientific Name	Available From	Date Available
Lavaca Germplasm Canada Wildrye	*Elymus canadensis*	Turner Seed Company Douglass W. King Co.	Now Fall 2014
Falfurrias Germplasm Big Sacaton	*Sporobolus wrightii*	Douglass W. King Co.	Now
Kinney Germplasm False Rhodes Grass	*Trichloris crinita*	Douglass W. King Co.	Now
Catarina Blend Bristlegrass	*Setaria leucopila* & *Setaria vulpiseta*	Pogue Agri Partners, Douglass W. King Co., Bamert Seed Co. Turner Seed Company	Now
Mariah Germplasm Hooded Windmillgrass	*Chloris cucullata*	Douglass W. King Co.	Now
Welder Germplasm Shortspike Windmillgrass	*Chloris subdolichostachya*	Turner Seed Company Douglas King Seed Co.	Now
Dilley Germplasm Slender Grama	*Bouteloua repens*	Douglass W. King Co.	Now
Chaparral Germplasm Hairy Grama	*Bouteloua hirsuta*	Douglass W. King Co.	Now
Atascosa Germplasm Texas Grama	*Bouteloua rigidiseta*	Douglass W. King Co.	Now
La Salle Germplasm Arizona Cottontop	*Digitaria californica*	Pogue Agri Partners Douglas King Seed Co.	Now
Zapata Germplasm Rio Grande Clammyweed	*Polanisia dodecandra* ssp. *riograndensis*	Douglas King Seed Co.	expected in Fall 2013
Divot Talloweed Blend	*Plantago hookeriana* & *Plantago rhodosperma*	Pogue Agri Partners	expected in Fall 2014
Maverick Germplasm Pink Pappusgrass	*Pappophorum bicolor*	Pogue Agri Partners	Now
Webb Germplasm Whiplash Pappusgrass	*Pappophorum vaginatum*	Douglass W. King Co.	Now
Hidalgo Germplasm Multiflower False Rhodes Grass	*Trichloris pluriflora*	Douglas King Seed Co.	expected in Fall 2013
Oso Germplasm Hall's Panicum	*Panicum hallii* var. *filipes*	Douglas King Seed Co.	expected in Summer 2013
South Texas Germplasm Sideoats Grama	*Bouteloua curtipendula* var. *caespitosa*	Douglas King Seed Co.	expected in Fall 2013
Rio Grande Germplasm Prairie Acacia	*Acacia angustissima* var. *hirta*	Douglas King Seed Co.	Limited amount expected in Fall 2013
Hoverson Germplasm Deer Pea Vetch	*Vicia ludoviciana*	Douglas King Seed Co.	expected in Fall 2014