

La Semilla

A Newsletter from the Tucson Plant Materials Center

Fall 2008

NEWSLETTER FOR THE PMC



As hurricanes battered Texas and Louisiana this summer, similar winds of change were felt at the Tucson PMC. In May following U of A graduation, PMC staff were mourning the departure of Jace Householder all the way back to the family farm, who was a student intern the past two years and also acting PMC farm manager. In July, Mary moved to Bishop, CA to work on a reimbursable PMC project located out of the Mojave in California. Then the biggest shock wave hit this month of October, with Ramona accepting Regional PM Specialist position for the east region. The remaining staff is dedicated to maintaining ongoing projects, and we will do our best to help them through the transition, albeit remotely!

Ramona and Mary

TPMC Releases

'Loetta'
Arizona cottontop

Saltillo germplasm
Cane bluestem

'Stevan'
Plains bristlegrass

Cochise germplasm
Spike dropseed

Pima germplasm
Whiplash
pappusgrass

Vegas germplasm
Alkali sacaton

Moapa germplasm
Alkali muhly

NEW in 2008!
Batamote germplasm
Desert zinnia

Farm Developments

Updates to the farm include the plantings established in November 2007, after the new well was completed. This is a late date, even in the Tucson desert, to establish plugs. It wasn't until green shoots began to emerge in spring that we knew the plantings were successful. Bush muhly (*Muhlenbergia porteri*), planted as a composite of 25 collections from the Sonoran Desert (MLRA 30), is one of the few grasses that persists in this 4" precipitation zone. Desert zinnia (*Zinnia acerosa*), released this year as Batamote germplasm, was planted in two separate increase field designs

for a technology study. Wider row spacing and raised beds may provide commercial options for seed harvesting of this low-growing forb using the flail vac. Sand dropseed (*Sporobolus cryptandrus*) increase fields were also established last November as a reimbursable project with Zion National Park to restore areas of the park burned in a catastrophic fire. The Plains lovegrass (*Eragrostis intermedia*) composite field established in 2005, comprised of 30 accessions, was one field that did not survive the 2007 summer without well water, and had to be replaced this spring.

Also planted this spring was an intercenter biofuels study of four accessions of Tall wheatgrass (*Thinopyrum panicum*). It did not survive the summer—even with water—proof that it can be discounted as a promising cover crop in this region.



Batamote germplasm Desert zinnia

Desert Saltgrass Study to Increase Seed Production

In another partnership with the BLM-Las Vegas Office, Desert salt grass (*Distichlis spicata*), completes a suite of three desired riparian species for restoration in southern Nevada. This species has notoriously low seed production because it is dioecious (male and female plants are separate) and only the female plants produce seed. The PMC has taken advantage of this characteristic to investigate this species' seed production

potential by altering the sex ratio in plots on the farm. This spring, three plots of three different male to female plant ratios were installed: 1 to 3, 1 to 5 and 1 to 10, to determine the maximum ratio that allows for successful fertilization by fewer male plants of the surrounding numerous female plants. Successful fertilization will be determined by the amount of seed produced.

To propagate the field, tillers of both male and female plants

were collected by the BLM at three sites in southern Nevada, and sent on ice to the PMC. These few plants were increased by cloning in trays until sufficient plugs could be transplanted to fill a field at the PMC. Like the Alkali sacaton and Alkali muhly composites, distinct differences are apparent in the growing characteristics between accessions of salt grass collected from relatively nearby locations in southern Nevada.

Layering technique to increase salt grass tillers by cloning



Plant Materials Program Purpose

- Assemble, test, and release plant materials for conservation.
- Determine techniques for successful use and management of conservation species.
- Facilitate the commercial increase of conservation species.
- Provide for the timely development and transfer of effective applied plant science technology to solve conservation problems.
- Promote the use of plant science technology to meet the goals and objectives of the USDA and NRCS Strategic Plans.

Natives Showcased at Sierra Vista School



Students carefully arrange plugs before planting in one of eight plots of the native plant demonstration.

In May, the Tucson PMC was invited by the Hereford Conservation District and the NRCS Soil Conservationist to assist Apache Middle School in Sierra Vista with a native plant demonstration to enhance the school's grounds, teach the students about conservation, and provide examples of native grasses to the community as alterna-

tives for landscaping. Placed at the entrance of the school, it is an ideal location for showcasing eight of the most common native grasses found in southeast Arizona. Several teachers and staff, members of the Conservation District and 30 students participated in the planting of grass plugs into eight distinct plots, as well as seeding a separate plot. They got an earful about the benefits of native plants, of course. We hear the plots are thriving.

We Are On The Web!!

[Http://Plant-Materials.nrcs.usda.gov](http://Plant-Materials.nrcs.usda.gov)



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