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A Newsletter for the Tucson Plant Materials Center ☀ Spring 2012

Greetings from Tucson!

Our winter has been exciting here on the farm. We've seen our concrete lined irrigation ditches replaced with underground pipeline and seen a new pump and motor installed in our well. While we were unable to irrigate over the winter months, we found plenty of other projects to keep us busy. We've participated in outreach events and continued with the propagation of hundreds of containerized plants. As our peak seed production months approach, we urge you to stop by for a visit and a tour!

Sincerely, The Tucson PMC Staff



PMC Releases

'Loetta' Arizona cottontop
(*Digitaria californica*)

Saltillo germplasm
Cane beardgrass
(*Bothriochloa barbinodis*)

'Stevan' Plains bristlegrass
(*Setaria leucopila*)

Cochise germplasm Spike dropseed
(*Sporobolus contractus*)

Pima germplasm Whiplash pappusgrass
(*Pappaphorum vaginatum*)

Vegas germplasm Alkali sacaton
(*Sporobolus airoides*)

Moapa germplasm Scratchgrass
(*Muhlenbergia asperifolia*)

Batamote germplasm Desert zinnia
(*Zinnia acerosa*)

NEW in 2010!!
Bonita germplasm Plains lovegrass
(*Eragrostis intermedia*)

Farm Developments

The Tucson PMC gets a new irrigation system

After more than fifty years of irrigating with concrete lined ditches, we received a new buried pipe irrigation system. Thanks to a concurrent (but unfortunate) pump failure; we also received a new submersible motor and pump for our existing well.

Tucson Field Office staff and engineers from the State Office in Phoenix developed a system design based on our well output of 720 gallons per minute. The design specified ten inch PVC pipe with alfalfa valves every thirty feet or so to accommodate our bordered basins. The pipe size reduces velocity which should in turn

reduce erosion at the outlets. We now have nearly 4,700' of pipeline in eight segments which can be isolated with gate valves as needed.

The design was completed in August of last year, and construction started in November. The project was not without its problems; ranging from supplier shortages, having to raise the pipe to avoid a previously unknown buried water line, and no water to test the newly installed line due to the well pump failure. However, it's finished now, and we are looking forward to greater system efficiency, and no more ditch patching!



Figure 1: Removal of old concrete ditches



Figure 2: New alfalfa valves and pads

Collaborative PMC efforts

PMCs across the nation have been participating in a joint effort with Agricultural Research Service personnel to collect plant attribute data to support the Conservation Effects Assessment Project (CEAP). NRCS initiated the CEAP in 2003 with the intent to develop science supported methodologies that will allow NRCS to better estimate environmental benefits and effects

attributable to NRCS conservation practices. This year will be the second year that Tucson PMC personnel collect and compile light area index information and cuttings to be used for nutrient analysis on both our 'Loetta' Arizona cottontop (*Digitaria californica*) and our Moapa germplasm Scratchgrass (*Muhlenbergia asperifolia*).

Outreach

On October 21 and 22, PMC personnel set up an interactive exhibit at the Biodiversity Festival, a companion event to [Saguaro BioBlitz](#). Each year, National Geographic helps a different national park set-up a BioBlitz. A BioBlitz is a 24-hour event in which teams of volunteer scientists, families, students, teachers, and other community members work together to identify as many species of plants, animals, microbes, fungi, and other organisms as possible. Visitors to the PMC booth were shown how to plant and care for a native grass species and provided information on NRCS programs. Over 5,000 people attended the BioBlitz event.

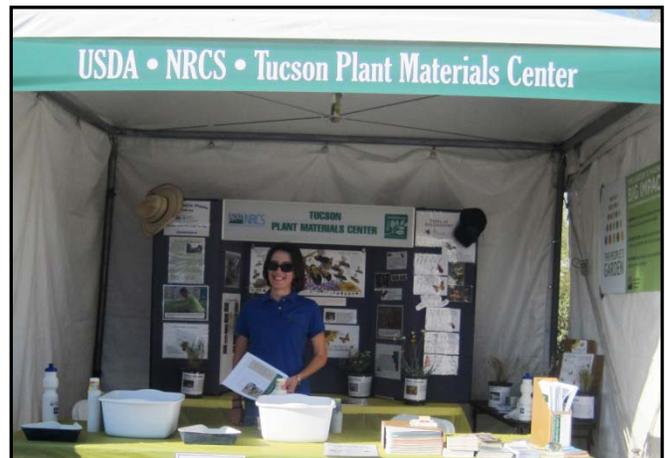


Figure 3: The PMC booth at Bioblitz



Figure 4: Leslie Glass, Plant Materials Program Webmaster, talks with a young booth visitor about native plants.

Pollinator Training Webinar

On March 26, the Tucson Plant Materials Center hosted a training webinar on pollinator conservation awareness for Arizona NRCS employees. Mace Vaughan, Xerces Society Pollinator Conservation Program Director and Joint Pollinator Conservation Specialist for the NRCS West National Technical Support Center, presented the training. Mace provided this training at the request of the PMC manager. Pollinators and other beneficial insects are the unsung champions of the agricultural world and it is said that one of every three bites of food we take is produced with the help of pollinators.

Specific topics covered by Mace during the webinar were: an overview of pollinator and beneficial insect habitat conservation; the latest findings from Xerces Society; and field trials with participating farmers from across the country. Mace also presented the updated technical resources available from the Arizona NRCS, as well as practical approaches to enhancing pollinator and beneficial insect populations on working farms. The Pollinator Conservation Awareness Training was well received by Arizona NRCS

employees and is preliminary to a Pollinator Conservation Short Course taking place in Tucson on April 19th, 2012.

Arizona Conservation Planning Course

The Tucson PMC hosted the Arizona State Conservation Planning Course February 27 to March 8. The course was divided into 2 sessions: the first week was for NRCS staff working with cropland and the second week was for staff working with rangeland. The course was designed to provide conservation planning training for working with individual clients or with groups.

The course covered the conservation planning process; developing complete plans on the entire unit; consideration of ecological, economic, and social concerns; on-site assistance; the effects and impacts of planned actions on-site and off-site; and partnership involvement. The PMC farm served as the sample-farm for the cropland session of the course. The PMC manager played the role of the farmer for the students to complete the benchmark inventory of the resources and how they are being managed.

At the end of the week, students were asked to develop a recommended Resource Management System and provide conservation practices to address the resource concerns on the PMC farm. For the rangeland field session of the course the students visited a nearby ranch to conduct the benchmark inventory of the resources. The PMC manager also provided the 20 participants a presentation about the Plant Materials Program, its capabilities, products and services, and the current activities at the center.

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