

**MANHATTAN PLANT
 MATERIALS CENTER**
 Manhattan, Kansas



'Prairie Gold'
 Maximilian
 sunflower seed
 increase field

**INSIDE
 THIS ISSUE:**

Kansas	2
Natural Resources Conference	
Proper Tree Selection	2
Technical Documents	3
Mission Statement	3

Riley Germplasm Partridge Pea Re-released as 'Riley'

The Manhattan, Kansas, Plant Materials Center (PMC) Staff released Riley Germplasm showy partridge pea back in 1999 as a source identified type release. This pre-varietal release was used in critical area and roadside beautification plantings in the PMC's service area. Riley Germplasm was the only source identified release that the Manhattan PMC had ever made. It was also the only annual legume species ever released from Manhattan. The PMC Staff continued to work with other Centers that had released partridge peas for commercial increase. An intercenter strain trial (ICST) was established with PMCs from Mississippi, south and east Texas, Florida, Georgia, and Kansas. All planted similar plots of Riley Germplasm, 'Comanche', and Lark

Selection partridge peas. Evaluations for stand, vigor, seed production, and seed maturity were carried out independently at the six individual locations from 2002-2004. 'Riley' exhibited earlier seed set than Comanche



and Lark Selection in the Southern Plains and southeastern United States and was unaffected by late summer drought in this region. Comanche and Lark Selection were poor seed producers at Manhattan and received seed production ratings of 8.7 and 8.0, respectively. Riley, however,

was rated at 2.7 for the three-year period with a rating scale of 1 to 9, with 1 being the very best rating. Riley attained excellent stand and vigor ratings at Coffeerville, Mississippi, and Manhattan, Kansas, and excellent seed production ratings at Coffeerville, Manhattan, and Americus, Georgia. The ICST results indicated that Riley would be an important partridge pea release for the Midwest and Southern Plains for conservation of natural resources. These tests provided enough difference between the three lines that we could justify elevating the material to a cultivar release and then discontinue the Riley Germplasm release for the PMC. It is believed that this is the first occasion that a pre-varietal release has been elevated to cultivar status in the Plant Materials Program.

Vegetative Protection



Vegetated berm of a flood control dam, Rice County, Kansas

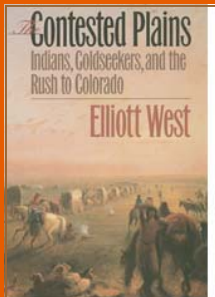
The Manhattan PMC has been actively involved in providing technical assistance and plant materials to the Upper Little Arkansas Watershed in Rice County, Kansas.

Several years ago a vegetative planting of prairie cordgrass (*Spartina pectinata*), common reed (*Phragmites australis*) along with a seeding of 'Kanlow' switchgrass (*Panicum virgatum* L.) was completed on a flood control dam for erosion control. Today, this seeding is actively providing a vegetative barrier to reduce the

wave impact on the dam.

Careful planning is needed when utilizing vegetative materials for erosion control. Materials such as prairie cordgrass and common reed do have the potential to spread. In the plantings on the dam, cattle grazing helps to keep the vegetation contained to the planted area.

Kansas Natural Resources Conference



Dr. West's most recent book

The first Kansas Natural Resources Conference is being organized by six professional organizations: the Kansas Chapter of The Soil and Water Conservation Society, Great Plains Society of American Foresters, Kansas Alliance for Wetlands and Streams, Kansas Chapter of The American Fisheries Society, Kansas Chapter of The Wildlife Society, and Kansas Section of The Society for Range

Management. It will be held February 21-23, 2008, at the Airport Hilton in Wichita. The conference theme is: Where Do Trees Belong in Kansas? The Role of Trees on the Kansas Landscape. Conference information is available on the Web at <http://k-state.edu/fisheries/KNRC>

Award-winning author Dr. Elliot West, University of Arkansas, will be the plenary speaker. Dr. West will be on hand to discuss the historic distribution of

trees in prairie ecosystems. Dr. West has written several books related to the western frontier. He has received numerous awards for his most recent book *The Contested Plains Indians, Goldseekers, and the Rush to Colorado*.

There is a call for papers. They are due December 7.

This conference provides a great opportunity for professional development.

"it is obvious that the bur oak is better adapted"



Oak species comparison at Tribune, Kansas

Proper tree selection is an important step for the long-term success of a windbreak planting. When making your selection, consideration of soil type, hardiness zone, and area rainfall are all very important.

As illustrated in the photo, the tree in the foreground is a white oak (6.2 feet tall) and the tree in the background is a 'Lippert' bur oak (15.6 feet tall). Both trees were planted April 19, 1995, in a tree planting site west of Tribune, Kansas. Average annual rainfall for Tribune is approximately 16 inches. Both trees are alive, but it is obvious that the bur oak is better adapted to the site.

According to Kansas Forestry Technical Note: KS-10, white oak is recommended for

planting in Soil Suitability Group 1 in central Kansas and soil suitability groups 1-5 in eastern Kansas. Tribune, located in western Kansas, is outside of the planting recommendations for white oak. By observing the growth and health of the tree, it becomes obvious why white oak is not recommended for western Kansas.

If you are wanting information concerning recommended trees in your state, refer to the electronic Field Office Technical Guide (eFOTG). Most information will be found in Section IV within the applicable conservation practice specifications.

"The best time to plant a tree is twenty years ago. The second best time is now."

Anonymous

Proper Tree Selection



Tree Facts

Two mature trees provide enough oxygen for a family of four.

Trees are the longest living and largest living organisms on earth.

Trees enhance the aesthetics of our environment. Their grandeur, tenacity, and beauty are probably the most enjoyable aspects of trees.

<http://www.treeinbox.com/Tree%20Facts.htm>



Manhattan Plant Materials Center

3800 South 20th Street

Manhattan, Kansas 66502

Phone: 785-539-8761

Fax: 785-539-2034

E-mail: richard.wynia@ks.usda.gov

**SEEKING VEGETATIVE SOLUTIONS
TO CONSERVATION PROBLEMS**

The mission of the Plant Materials Program is to develop and transfer state-of-the-art plant science technology to meet customer and resource needs. The primary products produced by the program include the production of improved varieties of plants for commercial use and the development of plant science technology for incorporation into the electronic Field Office Technical Guide (eFOTG).



Technical Reports

The U.S. Department of Agriculture Natural Resources Conservation Service, National Plant Data Center (NPDC) has released some interesting technical reports in 2007. They can be located and downloaded from the NPDC Web site at: <http://npdc.usda.gov/>. The technical reports can be found by clicking on the "Publications" tab. The first report is entitled: A Eastern gamagrass (*Tripsacum dactyloides*), a plant for forage, conservation, and bioenergy. This is a very complete report on the current knowledge about eastern gamagrass. It is a 45-page

document that covers the description, uses, establishment, management, and many other interesting facts about this unique warm-season grass. James Henson is the species coordinator and the main driving force behind getting this document published and up on the PLANTS Web site. The second technical report is entitled: Traditional Ecological Knowledge: An Important Facet of Natural Resources Conservation. This eight-page report was authored by M. Kat Anderson, NPDC Ethnoecologist. This report provides a definition of

ethnobiology and traditional ecological knowledge. It explores the knowledge of indigenous cultures and how American Indian tribes have practiced natural resource management for millennia. It explains how the author has rediscovered the indigenous traditional knowledge and why this knowledge is important to modern day resource conservation. These technical reports are interesting and may be a source of information that you can use as a conservation professional.

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