# Manhattan Plant Materials Center

A newsletter in support of the Plant Materials Program for Colorado, Kansas, Nebraska, and Oklahoma

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## Bismarck PMC Celebrates 70 Years of Conservation History

The Staff of the Bismarck PMC celebrated 70 years of conservation achievements with a field day on June 17, 2004. The day began at 8:00 A.M. with concurrent tours and demonstrations at the Plant Center. The tours involved viewing of the foundation seed fields, prairie landscaping, seed processing and the Lincoln-Oakes Nursery operation. Attendees could also preview a new national plant materials program video or learn about traditional black ash basket weaving. A program consisting of well wishing and congratulatory statements followed the morning tours. The highlight of the program was when Erling Jacobson, former NTC Plant Materials

Photo Credit: Jim Puppe, Fargo, ND

Specialist, presented Mrs. John McDermand and her daughter with a photo of a blossom from the 'McDermand' Ussurian pear tree. He thanked her for all the work she and John did to nurture and guide the plant materials program during the early years. John was the first full time employee of the Bismarck PMC. He transferred to Bismarck from the SCS Nursery located at Kearney, Nebraska in June of 1954. He served as manager of the PMC from 1954 to 1967 when he became the Plant Materials Specialist for Bismarck until 1974. More than twenty years of dedicated service to the conservation of natural resources and the plant materials program is an achievement worth noting. Thanks to John and Kay McDermand, Pioneers of the Plant Materials Program!

## PPFA Annual Meeting Held In Bismarck

The membership of the Plains and Prairie Forestry Association held its annual meeting in Bismarck, North Dakota on June 14-16, 2004. The theme of the meeting was "The Forests of Lewis and Clark—Then and Now". A diverse group of interesting speakers was arranged by local conference chair, Craig Stange (NRCS State Forester for North Dakota). Some speakers gave geologic and historic perspectives of the Missouri River. Other speakers provided the audience with assessments of the river's functions and that of its associated- forested riparian areas. Tours of the river's riparian areas revealed giant cottonwood trees 200-300 years old, abundant wildlife and even sandbar development. Although flow on the Missouri is mostly controlled by man made dams, there was some noticeable water flow along the river when the group stopped for lunch and a tour of the Cross Ranch Centennial State Park.

Since the theme of the meeting involved the Lewis and Clark Expedition, the group visited the North Dakota Lewis and Clark Interpretive Center. This Center provides an overview of the Lewis and Clark Journey, with special emphasis on the time spent in North Dakota during the winter of 1804-05. Lewis and Clark and their party actually spent more time in what is now North Dakota than in any other state. They spent the winter of 1804-05 in a hastily

constructed building named Fort Mandan surrounded by thousands of Mandan and Hidatsa Tribal members. It was during the winter that Lewis and Clark enlisted the aide of a French fur trader, Toussaint Charbonneau, and his adolescent Indian wife, Sakakawea or "bird woman", as guides on the rest of their historic journey to the Pacific.

## Woody Plant Materials for Drought Tolerance

The Southwest Experiment Station at Tribune, Kansas has been the site for monitoring establishment, persistence, and growth of 41 different woody species since 1992. The evaluation was utilized to test a wide range of plant materials for potential use in windbreak/shelter belt and wildlife plantings in the western portions of Kansas, Nebraska, Oklahoma and eastern Colorado.

The most successful native plants, evaluated for establishment and persistence, have been bur oak, New Mexico forestiera, Texas walnut, fourwing saltbush, big sagebrush, skunkbush sumac, buffalo currant and Arnold hawthorn. The most successful introduced species in terms of establishment and persistence have been Siberian pea shrub and Russian almond. These plants have had some extremely dry weather conditions recently. Their ability to persist even in very dry situations is a credit to their ability to survive in a hostile environment.

Study 20I026K – Evaluation of Hackberry

Common hackberry (*Celtis occidentalis*) is a small-to-medium sized tree (30 to 50 ft tall and 18 to 24 inch diameter) which varies greatly in response to environment. Hackberry is drought resistant and has survived extremely dry periods on the Great Plains. It is normally a long-lived species, believed to live for 150 to 200 years. A native of North American, common hackberry is found in the eastern ¾ of the Great Plains. Hackberry grows best on rich, moist soils along stream banks, on flood plains, and on rocky hillsides or in open woodlands.

There are no reliable seed sources for common hackberry adapted to western Kansas and Nebraska. Existing nursery stock is often of unknown origin and questionable quality and adaptability. Thus, the objective is to evaluate and select a superior accession of common hackberry for windbreak and wildlife plantings in western Kansas and Nebraska and northeastern Colorado. In 1981 a field evaluation planting was established with 43 accessions at the Southwest Kansas Agricultural Research Extension Center in Tribune, KS. The planting has suffered from the drought in western Kansas since the 20-year notes had been collected. Evaluations in 2003 focused on crown loss and survival. After the study assessment was made, plots were selected where 2 or more entries displayed 30% or less crown loss. The best individual trees from 16 accessions were flagged.

Final selection consisted of 13 accessions with no more than 20% crown loss. All selected accessions were of western Kansas or Nebraska origin. Vegetative material was collected from 31 trees in the hope of asexually propagating the materials. Vegetative materials were deleafed, dipped in IBA and placed in flats under mist conditions to try to induce rooting. No rooting took place from any of the materials collected. Another attempt at asexual propagation may involve budding or grafting of the selected materials onto common hackberry rootstocks.

## Mark Janzen New Plant Materials Specialist

Mark Janzen became the new Plant Materials Specialist in Salina, Kansas effective June 28, 2004. He graduated from Tabor College in Hillsboro, Kansas in 1984 with a dual degree in Agriculture and Business. After college and prior to working with the Soil Conservation Service, he farmed and was assistant manager at a rural elevator in northwest Kansas. In 1987, he began his career with the former Soil Conservation Service as a soil conservationist at Emporia (Lyon County Kansas). In 1989, he accepted the district conservationist position in Gove County Kansas. From 1991 until the present he served as district conservationist in Kiowa County Kansas prior to becoming the Plant Materials Specialist in Salina. "I am excited about my new duties and responsibilities, says Mark and I am looking forward to meeting many of you in the future".

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