

# Manhattan Plant Materials Center

Manhattan, Kansas



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

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## Blowout Reclamation

The Washington County, Colorado Soil Conservation District applied for and received a grant in 1999 to conduct a field trial to evaluate several materials and methods to stabilize and revegetate sandhill blowouts. The trial includes three blowout sites ranging in size from 1 to 8 acres. The first site was 8 acres and was reclaimed and seeded April 4, 2000. A second site was smaller at 1.5 acres and seeded September 18, 2000. A variety of mulches and seeding rates were utilized on the newly shaped and fenced sites. A seed mixture consisting of sand bluestem, prairie sandreed, switchgrass, western wheatgrass, indiagrass and alfalfa was applied at varying rates with a Truax drill. Individual plots seeded at different rates were covered with a commercially available erosion control mat or crop residue that was crimped into the soil. Plots were seeded first and then covered with selected mulch materials. The sites were evaluated in October 2001 for mulch retention and seedling establishment. No definitive differences were apparent between the mulches and seeding rates. Seedlings were apparent in drill rows at all of the sites. Positive seedling identification was made on western wheatgrass, switchgrass, and alfalfa. An abundance of volunteer blowout grass (*Redfieldia flexuosa*) was evident within the trial sites. The prevalence of blowout grass is an indicator of early stabilization of a disturbed site. If the positive conditions continue to improve significantly, then revegetation should be assured.

The Manhattan PMC has provided technical and moral support for the project from the beginning. Terry Conway (PMS) and Rich Wynia (PMC Manager) have visited the sites on two different occasions to observe the positive results and provide feedback to Conservation District and NRCS staff members. The PMC Staff is very interested in the techniques utilized to re-establish a permanent vegetative cover to these fragile grazing lands. The PMC's service area covers a large area of Nebraska that is also afflicted by blowout problems. The larger  
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goal for the Plant Materials Staff would be to provide the positive techniques achieved by the Akron District Staff to the wider audience of the Plant Centers Service area. That technology transfer could multiply the erosion control achieved to many other landowners that struggle with similar problems on their own property.

## Woody Seeding Trial

The Buffer Initiative combined with the Continuous Conservation Reserve Program has generated increased activity in the planting of woody species. Typically, woody plantings are established through the use of seedlings. Although this method is currently the most widely used, other establishment techniques such as direct seeding are being explored.

Direct seeding of woody species is an alternative method of establishment and offers several advantages over the use of seedlings:

- Undisturbed taproot formation, no nursery root pruning, and no transplant shock results in improved survival and growth.
- Potential for reduced costs compared to the use of seedlings.
- Potentially higher plant density may reduce the need for weed control and / or negate loss from wildlife predation.
- Direct seeding is faster and easier compared to planting trees.
- Potential use of seed from local sources may improve survival and growth.

Some drawbacks of direct seeding include:

- High quality seed of desired species may not always be available at the time when needed.
- Proper collection, storage, and handling techniques are necessary to maintain seed viability.
- Great loss or complete failure may occur where rodent populations are high.
- Weed control may be more difficult than with the planting of seedlings.

- Growing conditions may not be suitable for proper seed stratification and germination resulting in poor establishment.

One of the questions about direct seeding deals with the proper seeding rate. The rate may vary depending on species, seed quality, site conditions, predation potential, and seeding method used. There are nut planters available, which allow for fairly accurate seed rate calibration. However, many times these type planters are not available and the seed is simply broadcast on the surface, disked in, and culti-packed. Another commonly used method for seeding small areas is hand planting. This method consist of making a small hole in the soil surface with a planting bar, dropping the seed(s) in, and covering it up.

To compare different species, broadcast rates, planting methods, and weed control treatments, a woody seeding evaluation trial was established in November 2001 at the Manhattan Plant Materials Center. This was a cooperative study with the participation of the Kansas Forest Service, and Kansas State University and Extension. Woody species broadcast at different rates include green ash, sycamore, black walnut, bur oak, red oak, and pecan. Seeding methods included the hand plant method, and broadcast. With the broadcast method, walnut, pecan, bur and red oak were broadcast over the surface followed by a shallow disking operation. Following the disking operation, green ash and sycamore are broadcast over the surface followed by culti-packing. Weed control treatments will consist of evaluating the effects of both pre and / or post-emergent herbicides on establishment and growth of the seedlings.

Two different evaluation time periods will be used. The first evaluation period will consist of monitoring species for germination and establishment over a three-year time span. The second evaluation period will consist of monitoring species growth and response to various silvicultural treatments over a ten-year time span.

### SRM Annual Meeting

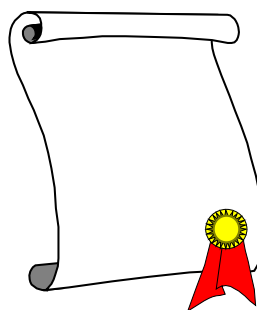
The 55th Annual Meeting of the Society for Range Management is scheduled for February 13-19, 2002. The theme for this year's meeting is Great Rivers; Great Plains; Great Opportunities. The central location for the meeting is beautiful and historic downtown Kansas City, Missouri, where the Missouri River does indeed meet the Plains. The Plenary Session is scheduled to begin at 9:00 AM on

February 15 and Technical Tours are scheduled for Tuesday, February 19th. To learn more about the meeting and to receive registration information go to the web site at [www.srm.org](http://www.srm.org).

### North American Prairie Conference Scheduled

The 18th North American Prairie Conference will be held June 23-27, 2002 in Kirksville, Missouri. The theme for the meeting is "Promoting Prairie" and presentations are encouraged on the topics relating to prairie, but especially: prairie biodiversity and its importance to society; prairie restoration and reconstruction; legislative and organizational initiatives to preserve prairie; prairie education and outreach; commercial ventures – backyard prairie and landscaping; prairie as pollution control and environmental improvement. For additional information on the conference and the Kirksville area, see the web site at <http://www.napc2002.org>.

### NRCS Rated High in Customer Satisfaction Survey



The federal government participated in the American Customer Satisfaction Index (ACSI) in 2001. The ACSI grades business and agencies with a numerical score from 0 to 100 based on customer expectations, perceived quality and perceived value. The survey is conducted by the University

of Michigan Business School's National Quality Research Center. The 2001 survey contained the broadest look at Federal Customer Service to date. Thirty-nine agencies selected 53 customer groups to be measured. The federal government had a mean ACSI score of 71.0. The Natural Resources Conservation Service's customer group received technical assistance from the agency. NRCS had an ACSI score of 81.0 a full ten points better than the federal average score. So give yourself a pat on the back. Apparently most of your customers are happy with the service you are providing. The article can be viewed at the web site [www.govexec.com](http://www.govexec.com).

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