

Manhattan Plant Materials Center

Manhattan, Kansas



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

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Roadside Management in Nebraska

The Nebraska Department of Roads (DOR) is one of the larger land management agencies in the state. Their operation is spread over 10,000 miles of highways and land area equates to 51,000 acres or about 80 sections of grassland to manage. They restore or cause to be restored between 1,500 and 2,000 acres of right of way per year. These restoration projects are spread across the state and usually involve sites with limited top soil availability. The soils range from valentine sands to excellent prairie soils of south central Nebraska to the glaciated hills of east central Nebraska. Thus the job of establishing cover on disturbed sites with highly variable soils and climate conditions is a challenging task.

The Nebraska DOR began using native grasses to stabilize roadsides in the 1960's. Wildflowers and forbs were added to the grass mix in the 1970's to increase the diversity and aesthetics of the plantings. This adapted mix of grasses, forbs, and flowers has important functions to perform. Erosion control and soil stability are the highest priorities. Other functions include overcoming weed competition, catch blowing snow, provide wildlife habitat, serve as an emergency hay bank during drought, and providing color and texture for travelers.

Upon completion of road construction the roadsides are seeded to native grasses and wildflowers. The establishment period for the roadside seeding will normally be a

2-year period during which fence to fence mowing will be done as often as necessary to control weeds. The vegetative stubble is maintained at a 5 to 6 inch level and weeds are not allowed to grow over a 12 inch maximum height before mowing. The roadside is then mowed at 3 to 5 year intervals to stimulate thatch decomposition and nutrient recycling, similar to the effect that fire has on plants.

Nebraska Department of Roads personnel feel fortunate to have a large selection of native species to work with across the state. The mixture of species used must change with the seeding location, soil type, and climate experienced at the particular site. The state of Nebraska has a highly trained group of scientists (University of Nebraska and Agriculture Research Service) that work well in sharing information and technology on conservation practices. Nebraska also has a technically sound seed industry that can produce the variety of plant materials necessary to accomplish the reseeding effort outlined here. This combination of government and private industry working side by side makes the job of reseeding disturbed areas in Nebraska much easier.

The large selection of native plant material that is available was made possible through the diligence and the vision of the NRCS and the Plant Materials Center personnel. These visionaries collected the seeds over large geographical areas and brought them to the Plant Materials Center for observation and selection. The selections were

screened at other PMC's and the area of adaptability was determined. The selections were named and released to commercial growers for increase and sale to the trade. The current CRP and roadside plantings are a fine testimonial to all the hard work that has been done by these dedicated men and women of the NRCS and the Plant Materials Program.

Dick Gray, Agronomist, Nebraska
Department of Roads

New Plant Releases

The Manhattan Plant Materials Center announces the release and availability of two native legume plant species. Reno Germplasm Illinois bundleflower is a tested class release while Riley Germplasm showy partridge pea is a source identified release.

Reno Germplasm Illinois bundleflower is a native, perennial legume that was originally collected near Cheney Lake in south central Kansas. The potential use for Reno Germplasm includes rangeland, critical areas, and recreational plantings in the Central Plains Region. It provides food and cover for wildlife and is readily eaten by all classes of livestock. Illinois bundleflower is rated by some as the most important native legume in the Great Plains.

Riley Germplasm showy partridge pea is a native, annual legume that was originally collected near Manhattan, Kansas. The potential use includes wildlife habitat improvement, critical area seeding for erosion control, and for roadsides, parks, and recreational area beautification plantings in the Central Plains Region. Seeds of the plant are considered to be important food for quail, pheasants, mallards, songbirds and field rodents. Showy partridge pea is commonly found on sandy or rocky areas within open prairies, disturbed areas, and along roadsides.

It cannot compete in established prairie grasslands, but frequently colonizes disturbed prairie sites and edges.

The Manhattan PMC maintains generation 1 class seed, which is equivalent to foundation seed. This material is available to interested commercial seed producers. A small amount of the material is available to NRCS field offices, conservation districts, and other local, state, and federal agencies for the purpose of research and or demonstration plantings. For more information, contact the Manhattan PMC at (785) 539-8761.

Cheney Reservoir Shoreline Stabilization Project

A four-year reimbursable agreement has been signed between NRCS Manhattan Plant Materials Center and the Bureau of Reclamation for the investigation and development of alternatives to address shoreline erosion occurring at Cheney Reservoir. Cheney Reservoir is located in south central Kansas and has experienced significant shoreline erosion since its construction in the 1960's. Shoreline erosion is a significant issue and concern at a number of locations where extensive facilities have already been developed and additional facilities are being recommended. PMC personnel will assist the Bureau of Reclamation and Kansas State Park officials design, implement, and evaluate several different treatments involving various bioengineering techniques and plant species for effectiveness in addressing shoreline erosion. For more information, contact Terry Conway, Plant Materials Specialist, at (785) 823-4541.

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