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2009 Progress Report of Activities Upper Colorado Environmental Plant Center

Release of Colorow Germplasm



Colorow Germplasm in bloom, spring 2009

A selected germplasm class of black chokecherry *Prunus virginiana* L. var. *melanocarpa* (A. Nelson) Sarg. has been released by Upper Colorado Environmental Plant Center (UCEPC) for urban landscaping enhancement plantings, range and mined land reclamation plantings, shelterbelts, windbreaks and wildlife habitat enhancement plantings. Colorow Germplasm had the best performance out of the seven original chokecherry

collections. It had 100% survival, excellent vigor, heavy seed production and very light wildlife use in regards to browsing. However, it is a valuable plant for providing food, shelter, cover, and nesting habitat for wildlife. Its fruit is readily sought out by bear, birds, rabbits, rodents, and small mammals. The young immature plants are desirable to deer, elk, moose, bear, bighorn sheep, and pronghorn during the spring as well as winter months. During the spring months, while in bloom, black chokecherry provides an excellent source of nectar for many pollinators such as ants, butterflies, honeybees, flies, and hummingbirds.



Ripened fruit of Colorow Germplasm

Colorow Germplasm has been evaluated extensively for over 30 years in the Wyoming and Colorado western regions. The site of the seed source is near the proximity of the Roan Plateau and the Piceance Basin of western Colorado and eastern Utah. This area, along with southern Wyoming, is undergoing substantial disturbance from oil and gas

development. Colorow Germplasm is the first commercially available release to the public of black chokecherry. This selected class of germplasm was jointly released by Colorado State Agricultural Experiment Station, United States Department of Agriculture Natural Resources Conservation Service, and Upper Colorado Environmental Plant Center in 2009. UCEPC will maintain G1 seed. G1 seed and G2 plants will be available to growers and nurseries. Growers and nurseries may sell G1 seed or G2 plants. No seed beyond G1 or plants beyond G2 will be eligible for certification as Colorow Germplasm.

[Natives vs. Invaders Part Two](#)

Riparian ecosystems are ideal ecosystems for invasive plant specie infestations. There is an ever constant demand to use native plants for revegetating once infested sites. UCEPC, United States Department of Agriculture, the Tamarisk Coalition and the Young Ranch located in Mack, Colorado, are working cooperatively to rehabilitate a known riparian ecosystem where tamarisk *Tamarix* spp. has rigorously invaded and taken over the area. The Mack site is host to three different revegetation projects, one of which is a field evaluation plot.

On May 29, 2008, the site was prepared with a spring application of herbicide, Round-up, to eliminate existing weeds, cheatgrass, native forbs, and grasses. The site was plowed and disked by the property owner, Stan Young. On August 12 and 13, 2008, UCEPC staff and Grand Junction field office personnel planted 25 entries consisting of 15 species. Twenty-three grasses and two forbs were directly seeded into the plot using a Planet Junior. The total plot size for the three replications is 4275 square feet, 62.5 feet wide and 70 feet long. Borders and alleys around and in the plot were seeded with Hycrest. June 4, 2009, the field evaluation planting was evaluated for percent cover, height and vigor.

We are hoping that further evaluations and data collection from the Mack site will give us a better understanding of how well native grasses and forbs perform in a once infested tamarisk site.



REP 1 of the Mack Field Evaluation Planting in Mack, Colorado



Weeding the Field Evaluation Planting

[Plant Center Provides Agricultural Information](#)

There was a great response to the Annual Ag Day held at the New Castle Community Center on Wednesday, January 28, 2009. One hundred and nine participants spent the day learning how to protect and manage small acreages while hearing about a variety of national resource topics. Bookcliff, Southside and Mount Sopris Conservation Districts hosted Annual Ag Day. The agenda started with Terri Blanke, UCEPC, providing information on a Field Evaluation and demonstration planting done in cooperation with Mount Sopris Conservation District, St. Benedicts Monastery and the Natural Resources Conservation

Service Glenwood Field Office. The Snowmass and Harvey Gap plantings will provide valuable information to landowners about the best available species for wildfire replanting, wildlife habitat and riparian improvement in high elevation and Pinyon - juniper systems.



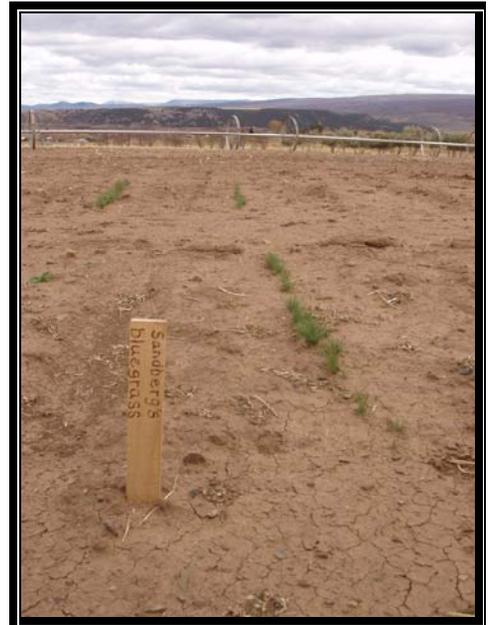
Applying plant materials near Harvey Gap, Colorado



Bluebunch wheatgrass from Piceance Basin

[Sage Grouse Project](#)

Conserving what remains of the Greater Sage Grouse and Gunnison Sage Grouse populations has and, still remains, a major challenge for the 11 Western states. Sage grouse inhabit a complex sagebrush ecosystem, which is home to a multitude of plant species. In an effort to aid in this conservation act, UCEPC began, in the growing season of 2008, collecting known preferred sage grouse plant materials based on observed diet behavior and shelter needs. In the growing season of 2009, a small demonstration plot was planted with nine plant materials. Two rows of each material were planted. Materials included basin wildrye *Leymus cinereus*, bluebunch wheatgrass *Pseudoroegneria spicata*, Sandberg's bluegrass *Poa secunda*, blue flax *Linum perenne*, sulfur buckwheat *Eriogonum umbellatum*, wild onion *Allium ascalonicum*, big sagebrush *Artemisia tridentata* and silver sagebrush *Artemisia cana*. Emergence was observed on all plant materials with the exception of the two sage species. Funding for this two-year project was made possible by a CIG grant (Conservation Innovation Grant) concerning wildlife habitat and grazing land health.



Sandberg's bluegrass collected from Piceance Basin

Sharing the Native American Ute Culture

Members from the Rio Blanco County Historical Society, The Hayden Historical Society, UCEPC staff and Kessley LaRose (Ute ethnobotanist and artist) met in Meeker, Colorado, at UCEPC on Friday, September 18, 2009, to exchange information and ideas about the landscaping for a memorial park, Milk Creek Battlefield, located near Meeker. LaRose, a Native American Ute, discussed with the group plants that Ute Indians used for medicinal purposes and for their daily diets. LaRose additionally gave a brief history lesson to the group on Ute culture. After the discussions, the group took a tour of UCEPC headquarters where Kessley and UCEPC staff harvested several bags of Louisiana sage *Artemisia ludoviciana* from a small plot. Kessley informed the group of the sage's importance to the Ute culture and how it is used in ceremonies.



Heather Plumb, Terri Blanke and Kessley LaRose harvesting Louisiana sage, UCEPC headquarters

Over A Decade of Partnering

UCEPC and the Colorado Division of Wildlife (CDOW) have been working together for the past 12 years to re-establish Antelope bitterbrush *Purshsia tridentata* in Maybell, Colorado. Antelope bitterbrush is regarded as an important browse species for deer, elk and antelope in that area. The Maybell bitterbrush area serves as a wintering ground for large herds of these animals. Antelope bitterbrush stands are very susceptible to fire and

several wildfires have burned through much of the area in the Upper Colorado region, changing the wintering patterns of the wildlife. Maybell and surrounding areas have experienced drastic ecosystem changes as a result of energy exploration. Antelope bitterbrush has a high priority for use in oil shale restoration and rangeland seeding for the Upper Colorado River Basin. Direct seeding, bare root, tublings and containerized bitterbrush plants are under evaluation at various locations to provide information for the most successful and practical methods of reestablishment. This spring, UCEPC supplied 300 antelope bitterbrush plants of various sizes to the CDOW for a revegetation project. The locations of the planting were in an area that has been disturbed several times due to pipeline activities. UCEPC will evaluate the plants for survival in the spring and summer of 2010.



Antelope bitterbrush for CDOW wildlife habitat improvement planting



Antelope bitterbrush spring 2009

Who We Are

UCEPC is a non-profit facility owned and operated by two conservation districts in northwest Colorado. The 269-acre Center is located at an elevation of 6500 feet with 16 inches of annual precipitation and a 90-day frost free growing season. UCEPC is unique in that it is the highest elevation center within the Plant Materials system. Our service area includes mountains, deserts, and plateaus of the Rocky Mountain West. UCEPC works to ensure an improved quality of life for people and those affected by human activities. We provide quality plant materials and associated technology to those engaged in natural resource management. Each of us understands the importance of plants in our lives. From a golf course fairway to a forested mountain; a houseplant to an alpine meadow, plants and their successful management, affect our quality of life. It is our mission to conserve or improve environmental conditions through the wise use of plants.



High Priority Areas

Presently, there are many plant species and projects at UCEPC, which our Technical Advisory Committee has identified as providing substantial benefit for resource conservation. These projects fall into one of five identified High Priority Areas:

- Revegetation of high altitude and disturbed land
- Increased productivity of rangeland and pastures
- Improved water quality
- Wildlife habitat
- Use of native plants in xeriscape and horticulture

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