

Project Number COPMC-S-0307CR
Annual Report 2007
By: Manuel Rosales

**GREAT SAND DUNES NATIONAL PARK
AND PRESERVE
COOPERATIVE AGREEMENT**

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INTRODUCTION - This report covers the activities of the Upper Colorado Environmental Plant Center (UCEPC) for 2007, as they relate to Interagency Project Number IA1211-03-001 for the production of seed materials for Great Sand Dunes National Park and Preserve. This agreement was signed into effect in February of 2003, and called for the production of two materials (blue grama and Indian ricegrass) through 2005 for revegetation uses within the park. In addition, an amendment to the above interagency agreement was signed in 2004. The amendment stipulated that UCEPC would establish two-tenths of an acre seed increase of ring muhly. In 2006, a second amendment was added to the agreement. The second amendment provided for an extension of the agreement through 2008 and reimbursement to UCEPC for cost incurred in FY06, while a third amendment was added to cover production and reimbursement for 2007.

ACTIVITIES (2005-2007) – The re-plantings of blue grama and ring muhly done in 2005 germinated well and were progressing very well during the growing season of 2005, however, during the winter of 2005-2006, ring muhly and blue grama suffered severe winter damage by frost heaving to the point that we thought we had lost them. Most plants were uplifted from the ground. However, despite their bad appearance, both plantings survived and produced some seed (see Results). In addition, six more rows of blue grama were replanted on August 2, 2006.

The 0.5 acre field of Indian ricegrass had done so well in 2006 that it was harvested twice and is progressing well, to the point that this year it was again harvested twice.

On July 12, 2006, Fred Bunch, Phyllis Bovin, Ola Bovin, Jessica Hendrix, and Russ Hass were at the UCEPC to visit the production fields for the Great Sand Dunes National Park and Preserve. Park personnel were pleased with the productions fields.

On November 16, 2006, a mixture of 18.1 pounds of pure live seed of Indian ricegrass (all the seed harvested in 2006) and 10.9 pounds of pure live seed of ‘San Luis’ slender wheatgrass were delivered to the park to re-vegetate a four acre field. In addition, 25 straw bales of ‘San Luis’ slender wheatgrass were delivered, along with the seed for use in the revegetation project

RESULTS –

2006-Growing Season: Despite the damage incurred during the winter, we were able to harvest and clean 20 pounds of blue grama, 14 grams of ring muhly and 31 pounds of Indian ricegrass for the 2006 growing season.

Seed from Indian ricegrass and blue grama collected at the park and sent for cleaning at UCEPC during 2006, resulted in 4.2 pounds of clean seed for Indian ricegrass and **no seed** for blue grama (seed heads were empty or had immature seed).

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2007-Growing season: On August 21, about 500 plugs of blue grama were hand-transplanted to fill gaps in the original field. In addition, on September 4, five rows of blue grama were inter-seeded to fill the gaps in the north side of field. Thrips (insects) were found on some of the blue grama seed and will be monitored closely during the growing season of 2008 since they can reduce the amount of seed produced. The following table presents production by species for 2007.

Species	Scientific name	Establishment Acres	Harvest Date	Clean weight
Blue grama	<i>Bouteloua gracilis</i>	1.0	10/9	17 lb
Indian ricegrass	<i>Achnatherum hymenoides</i>	0.5	7/5	38 lb
Ring muhly	<i>Muhlenbergia torreyi</i>	0.2	10/10	0.8 lb

Seed from Indian rice grass and blue grama collected at the park and cleaned at UCEPC during 2007, resulted in 3.5 pounds of clean seed for Indian ricegrass and 27 grams for blue grama.