Project COPMC-S-0307CR Annual Report 2006 By: Manuel Rosales

## GREAT SAND DUNES NATIONAL MONUMENT AND PRESERVE COOPERATIVE AGREEMENT

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

**ACTIVITIES** – 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 (see attached pictures), 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 is progressing well. Because of excellent plant vigor, the Indian ricegrass was harvested twice this year.

On July 12, 2006, Fred Bunch, Phyllis Bovin, Ola Bovin, Jessica Hendrix and Russ Hass were at UCEPC to visit the production fields for the Great Sand Dunes National Monument and Preserve. Park personnel were pleased with the production 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** – 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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Blue grama & ring muhly on September 25, 2005



Blue grama & ring muhly on April 12, 2006



Blue grama & ring muhly on August/September, 2006

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Indian Ricegrass May 16, 2006



Indian ricegrass June 2006

**Photos by Manuel Rosales**