

CAPULIN VOLCANO NATIONAL MONUMENT

2005 Annual Summary Sheet Report

Prepared by

Natural Resources Conservation Service

Los Lunas Plant Materials Center

Project #: NMPMC-S-0404-RA

I. Introduction

On August 30 2004, an agreement was made between Capulin Volcano National Monument (CVNM) of the U.S. Department of Interior (USDI) and the Natural Resources Conservation Service (NRCS) of New Mexico. This agreement declares that the Los Lunas Plant Materials Center (LLPMC) will produce seed of agreed upon native species for CVNM.

II. Accomplishments

Seed Production

In 2005, the LLPMC established seed fields using transplants grown from seed collected in 2004 at CVNM:

Common name	Scientific name	Agreement Acreage	2005 LLPMC Acreage	Harvest (Bulk lbs.)
Mountain muhly	<i>Muhlenbergia montana</i>	0.50 acre	0.50 acre	N/A
Blue grama	<i>Bouteloua gracilis</i>	0.50 acre	0.50 acre	N/A
Little bluestem	<i>Schizachyrium scoparium</i>	0.50 acre	0.50 acre	N/A
Western wheatgrass	<i>Pascopyrum smithii</i>	0.50 acre	0.14 acre	N/A
Sideoats grama	<i>Bouteloua curtipendula</i>	0.50 acre	0.00 acre	N/A

No seed was harvested from these seed fields in 2005.

III. Technology Development

- Mountain muhly–The seed that was collected at CVNM in 2004 had good fill.
- Blue grama– The seed that was collected at CVNM in 2004 had good fill.
- Little bluestem– The seed that was collected at CVNM in 2004 had good fill.
- Western wheatgrass–This seed was harvested at the CVNM in 2004. Western wheatgrass seed will have to be harvested in 2006 from the CVNM in order to to expand the Western wheatgrass seed production field at the LLPMC.
- Sideoats grama–The seed collected at the CVNM in 2004 had poor seed fill. As a result, the LLPMC could not grow transplants and was not able to establish a seed production field. If sideoats grama is to remain in the agreement, the seed will have to be collected from CVNM in 2006.

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CARLSBAD CAVERNS NATIONAL PARK
2005 Annual Summary Sheet Report
Prepared by
Natural Resources Conservation Service
Los Lunas Plant Materials Center
Project #: NMPMC-S-0403-RA

I. Introduction

On August 23, 2004 an agreement was made between Carlsbad Caverns National Park (CCNP) of the U.S. Department of Interior (USDI) and the Natural Resources Conservation Service (NRCS) of New Mexico. This agreement declares that the Los Lunas Plant Materials Center (LLPMC) will produce seed for CCNP for use in revegetation and restoration projects.

II. Accomplishments

Seed Production

The LLPMC established production seed fields using transplants grown from seed collected at CCNP in 2004:

Common name	Scientific name	Agreement Acreage	2005 LLPMC Acreage	Harvest (Bulk lbs.)
Sideoats grama	<i>Bouteloua curtipendula</i>	0.50 acre	0.25 acre	88.66
Blue grama	<i>Bouteloua gracilis</i>	0.50 acre	0.50 acre	N/A
Three-awn	<i>Aristida purpurea</i>	0.50 acre	0.25 acre	N/A

III. Technology Development

- Sideoats grama—This seed will be used to grow transplants in 2006 in order to expand the seed field to a full half acre.
- Blue grama—No seed was produced from the blue grama field in 2005.
- Three-awn—This seed was harvested in 2005 and was processed. The harvested three-awn seed will be used to expand the seed field in 2006 to a full half acre.

Greg Fenchel, manager of the LLPMC, traveled to CCNP in the fall of 2005 and collected two new species:

- Plains bristlegrass (*Setaria vulpiseta*)— This species has been added to the agreement. The collected Plains bristlegrass seed will be processed by the LLPMC and used to establish a 0.50 acre production field in 2006.
- Green sprangletop (*Leptochloa dubia*)—If green sprangletop is added to the agreement, a 0.50 acre production field will be established in 2006 at the LLPMC.

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GRAND CANYON NATIONAL PARK

2005 Annual Summary Sheet Report

Prepared by

Natural Resources Conservation Service

Los Lunas Plant Materials Center

Project #'s: NMPMC-S-0003-RA, NMPMC-S-0004-WO, NMPMC-S-0403-WO

I. Introduction

In July 1990, an agreement was made between the Grand Canyon National Park (GCNP) of the U.S. Department of Interior (USDI) and the Natural Resources Conservation Service (NRCS) of New Mexico. This agreement declares that the Los Lunas Plant Materials Center (LLPMC) will produce seed and propagate plants for the GCNP. Amendment No. 1 of 1999 and Amendment No. 2 of 2001 provides for seed production of two native grass species, and for growing transplants of 10 native tree and shrub species. Of the 10 native tree and shrub species, the LLPMC agreed to deliver 900 transplants to the GCNP. All transplants will be grown from seed collected from indigenous ecotypes at the GCNP.

II. Accomplishments

Seed Production

The LLPMC produced the following seed in 2005 for the GCNP:

Common Name	Scientific Name	Agreement Acreage	2005 LLPMC Acreage	Harvest (PLS lbs.)
Blue Grama	<i>Bouteloua gracilis</i>	0.50	0.54	8.26
Muttongrass	<i>Poa fendleriana</i>	1.00	1.65	30.58

Transplant Production

No transplants were distributed to GCNP in 2005.

III. Technology Development

- Blue grama—This production field was harvested in 2005, and seed production declined slightly from the 2004 harvest. The field was burned during the dormant period, and this could account for the decline. The field will not be burned in 2006, and it will receive high rates of fertilizer and water to evaluate the effect on seed production. The blue grama from GCNP continues to produce a low amount of forage and seed. There is a possibility the output from this collection might not change.
- Muttongrass—The three fields were harvested in 2005 and they produced a good amount of seed. The field established in 2003 had the best production. The muttongrass continues to receive high rates of fertilizer and irrigation to maintain seed production.

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HUBBELL TRADING POST NATIONAL HISTORIC SITE

2005 Annual Summary Sheet Report

Prepared by

Natural Resources Conservation Service

Los Lunas Plant Materials Center

Project #: NMPMC-0201-RA

I. Introduction

On August 13, 2004 an agreement was made between Hubbell Trading Post National Historic Site (HTPNHS) of the U.S. Department of Interior (USDI) and the Natural Resources Conservation Service (NRCS) of New Mexico. This agreement declares that the Los Lunas Plant Materials Center (LLPMC) will produce plants and cuttings of agreed upon native species for HTPNHS.

II. Accomplishments

Transplant production

The LLPMC provided the HTPNHS with 80, one-gallon transplants in 2005. The shipment consisted of 20 skunkbush sumac, 20 stretchberry, 20 Woods' rose and 20 netleaf hackberry.

III. Technology Development

This agreement has expired. Transplants will continue to be grown for HTPNHS by the LLPMC until the monies allocated in the agreement are exhausted.

PIPE SPRING NATIONAL MONUMENT

2005 Annual Summary Sheet Report

Prepared by

Natural Resources Conservation Service

Los Lunas Plant Materials Center

Project #: NMPMC-S-0402-WO

I. Introduction

On September 12, 2002, an agreement was made between Pipe Spring National Monument (PSNM) of the U.S. Department of Interior (USDI) and the Natural Resources Conservation Service (NRCS) of New Mexico. This agreement declares that the Los Lunas Plant Materials Center (LLPMC) will produce seed for PSNM.

II. Accomplishments

Seed Production

Common name	Scientific name	Agreement Acreage	2005 LLPMC Acreage	Harvest (Bulk lbs.)
Galleta	<i>Pleuraphis jamesii</i>	0.50	0.08	N/A
Indian ricegrass	<i>Acnatherum hymenoides</i>	0.50	0.42	N/A
Bottlebrush squirreltail	<i>Elymus elymoides</i>	0.50	0.22	N/A

All seed production fields will be expanded as much as possible in 2006 depending upon the amount of available seed.

III. Technology Development

- Galleta– The LLPMC harvested seed from the small galleta production field at the LLPMC in 2005. This seed will be processed during the winter months. The small galleta production block did produce a small amount of seed, but has not yet been cleaned.
- Indian ricegrass– The seed collected in 2004 at PSNM was used to increase the 0.25 acre production field to 0.42 acre. In December 2005, the LLPMC used a plot drill to plant the seed. As a result of this dormant seeding, approximately 70 percent of the seed was established. No seed was harvested in 2005 from the Indian ricegrass field, but a small amount of seed heads were produced which should enable harvesting in 2006.
- Bottlebrush squirreltail–This species was collected from the PSNM in 2004, and was added to the agreement in 2005. In 2005, this seed was used to grow transplants and to establish a 0.22 acre production field at the LLPMC. If viable seed is harvested at the PSNM in 2006, the 0.22 acre bottlebrush squirreltail production field will be expanded to 0.50 acre.

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ZION NATIONAL PARK
2005 Annual Summary Sheet Report
Prepared by
Natural Resources Conservation Service
Los Lunas Plant Materials Center
Project #: NMPMC-S-0301-WO

I. Introduction

On September 12, 2002, an agreement was made between the Zion National Park (ZNP) of the U.S. Department of Interior (USDI) and the Natural Resources Conservation Service (NRCS) of New Mexico. This agreement declares that the Los Lunas Plant Materials Center (LLPMC) will produce seed for the ZNP.

II. Accomplishments

Seed Production 2005

Common name	Scientific name	Agreement Acreage	2005 LLPMC Acreage	Harvest (Bulk lbs.)
Sand bluestem	<i>Andropogon hallii</i>	0.50	0.50	N/A
Cane bluestem	<i>Bothriochloa barbinodis</i>	0.50	0.50	2.56
Bottlebrush squirreltail	<i>Elymus elymoides</i>	0.50	0.41	65.54
Galleta	<i>Pleuraphis jamesii</i>	0.33	0.42	N/A
Muttongrass	<i>Poa fendleriana</i>	0.50	0.50	N/A
Indian ricegrass	<i>Acnatherum hymenoides</i>	0.50	0.42	N/A

Seed will be harvested from all established fields in 2006.

III. Technology Development

- Sand bluestem–The seed harvested in 2004 from the 0.16 acre production field at the LLPMC was used to grow transplants to expand the seed production field to 0.50 acre in 2005.
- Cane bluestem–Seed was harvested in 2005.
- Bottlebrush squirreltail–The seed collected in 2004 at the ZNP was used to grow transplants to continue the expansion of the LLPMC production field to 0.50 acres. On 10/4/2005, eight new rows (0.17 acres) of transplants were installed, increasing the bottlebrush squirreltail production field to 0.41 acres.
- Galleta– The seed collected in 2004 was used to grow transplants to establish a 0.25 acre production field for a total of 0.33 acres. The seed harvested in 2005 will be used to continue expansion of the production field in 2006.
- Muttongrass – The seed collected in 2004 at ZNP was used to grow transplants to establish a 0.50 acre seed production field. No seed of the muttongrass was harvested in 2005.
- Indian ricegrass–The seed collected at ZNP in 2004 was direct seeded on 12/30/2005, increasing the seed production field from 0.25 acres to 0.42 acres. The Indian ricegrass was not harvested in 2005, but will be harvested 2006 and used to expand the production field in 2007 to a full 0.50 acre.

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