

UNITED STATES DEPARTMENT OF AGRICULTURAL
NATURAL RESOURCES CONSERVATION SERVICE
LOS LUNAS PLANT MATERIALS CENTER

And

NEW MEXICO STATE UNIVERSITY
AGRICULTURAL SCIENCE CENTER AT LOS LUNAS
LOS LUNAS, NEW MEXICO

And

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ALBUQUERQUE AREA OFFICE

The Natural Resources Conservation Service (NRCS), United States Department of Agriculture, the New Mexico State University Agricultural Science Center at Los Lunas, and the United States Department of the Interior, Bureau of Reclamation at Albuquerque Area Office announce the release of a selected class of alkali muhly (*Muhlenbergia asperifolia* (Nees & Meyen ex Trin.) Parodi) for the southwestern United States.

As a selected release this germplasm will be referred to as the Westwater Germplasm of alkali muhly. It has been assigned the NRCS accession number 9066232. Westwater Germplasm is released as a selected class of certified seed (natural track).

The alternative release procedure is justified because existing commercial seed sources of alkali muhly do not exist. Seed of this species is needed for the ecosystem restoration and enhancement of vast, newly-cleared areas of saltcedar and other exotic species in the riparian zones of the Rio Grande, the Pecos River, and the Canadian River in New Mexico. The potential for use is high. No commercial cultivars of alkali muhly have been previously released.

Collection Site Information: Westwater Germplasm was originally collected as seed in 1993, 1.5 miles north of San Juan Power Plant, south of the town of Fruitland, New Mexico. Plants were growing in a damp arroyo bottom on clay loam soil of the Blancot soil series.

Legal Description: R30W T30N S6NW ¼

Elevation: 1574 meters

Description: Westwater Germplasm is a native, warm-season perennial sod grass with plants decumbent up to 60 cm tall having open panicles and spikelets. The foliage is yellow-green and the flower is purple.

Methods of Breeding and /or Selection: One collection was seeded in 1994 at the Los Lunas Plant Materials Center and evaluated for survival under agronomic conditions. After three years of evaluation, plants were selected for hardiness and seed was harvested from these plants. This seed was then sown into a second field. These plants were evaluated for hardiness for five years. In 2003, seed was collected from the hardiest plants to establish the Westwater Germplasm field of alkali muhly.

Ecological Considerations and Evaluation: Westwater Germplasm alkali muhly is a selection of naturally occurring germplasm. Westwater Germplasm meets the assessment of a plant, which will not become invasive based on the guidelines adopted by the NRCS Plant Materials Program.

Anticipated Conservation Use: The potential use of the Westwater Germplasm includes: erosion control, wildlife food and cover, restoration of disturbed sites, and increasing plant diversity of riparian areas.

Anticipated Area of Adaptation: Alkali muhly is found in association with riparian plant communities throughout the western and central United States. It is commonly found on damp, marshy, often alkaline soils, along irrigation ditches, and banks and streams. Westwater Germplasm is potentially adapted for use throughout the above areas.

Availability of Plant Materials: Breeder and/or foundation seed will be maintained at the NRCS Los Lunas Plant Materials Center. Seed will be distributed to interested growers through the New Mexico Crop Improvement Association.

Reference:

1. Hitchcock, A.S. and Agnes Chase, 1951. Manual of Grasses of the United States. United States Government Printing Office. Washington, D.C.
2. Martin, W.C. and Hutchins. 1980. A Flora for New Mexico. J. Kramer. Vaduz, West Germany.

Prepared by:

Gregory Fenchel, USDA-NRCS Los Lunas Plant Materials Center, 1036 Miller Street SW, Los Lunas, New Mexico 87031

L. Micheal English, NMSU Agricultural Science Center, 1036 Miller Street SW, Los Lunas, New Mexico 87031.

David Dreesen, USDA-NRCS Los Lunas Plant Materials Center, 1036 Miller Street SW, Los Lunas, New Mexico 87031

Danny Goodson, USDA-NRCS Los Lunas Plant Materials Center, 1036 Miller Street SW, Los Lunas, New Mexico 87031

Signature for the release of:
Westwater Germplasm Alkali Muhly (*Muhlenbergia asperifolia*)

Rosendo Trevino III, State Conservationist
United States Department of Agriculture
Natural Resource Conservation Service
Albuquerque, New Mexico

Date

Donald L. Birx, Vice President for Research
New Mexico State University
Las Cruces, New Mexico

Date

Leroy A. Daugherty, Associate Dean & Director
Agricultural Experiment Station
New Mexico State University
Las Cruces, New Mexico

Date

Connie L. Rupp, Area Manager
Bureau of Reclamation
555 Broadway NE, Suite 100
Albuquerque, New Mexico

Date

Diane Gelbund, Director, Ecological Science Division
United States Department of Agriculture
Natural Resources Conservation Service
Washington, D.C.

Date