## UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE CAPE MAY PLANT MATERIALS CENTER CAPE MAY COURT HOUSE NEW JERSEY 08210

#### NOTICE OF RELEASE OF

# DUNE CREST GERMPLASM COASTAL LITTLE BLUESTEM A SOURCE IDENTIFIED CLASS OF NATURAL GERMPLASM

The Natural Resources Conservation Service, U.S. Department of Agriculture announces the naming and release of Source Identified germplasm of Dune Crest Coastal Little Bluestem, (*Schizachyrium littorale* (Nash) Bickn. This germplasm was identified by the USDA NRCS Plant Materials Center in Cape May New Jersey and has been assigned Accession number 9094763

Collection Site Information: Dune Crest coastal little bluestem germplasm is a composite, bulk harvest germplasm resulting from 6 parental populations. The collection sites span the entire length of the New Jersey shoreline and Delaware. The sites were located at:

Township of Sea Bright, Middlesex County, New Jersey assigned Accession number 9094762. Collected from sand dune along sea wall adjacent to NPS Sandy Hook Unit; N Latitude 40 23' 41.77" W Latitude 73 58' 14.19". Soil series Hooksan Sand, dry 0-3' above sea level; plants in association include seaside goldenrod, bayberry, sea rocket and minor invasive weeds such as camphor and Queen Anne's lace.

Town of Barnegat Light, Ocean County, New Jersey assigned Accession number 908322. Collected from sand dune along 13<sup>th</sup> Street N Longitude 39 45' 13.20" and W Latitude 74 06' 12.12". Soil series Hooksan Sand, dry 0-3' above sea level; plants in association include seaside goldenrod, bayberry, sea rocket and minor invasive weeds such as camphor and Queen Anne's lace.

Town of Brigantine, Atlantic County, New Jersey assigned Accession number 9088321. Materials were collected from sand dunes along 37<sup>th</sup> street. N longitude 39 23' 21.55" W Latitude 74 23' 15.17"

Borough of Avalon, Cape May County, New Jersey assigned Accession number 9088326. Materials were collected from sand dunes along 48<sup>th</sup> street path. N. Latitude 39 04' 58.84" W. Longitude 74 43' 50.55"

Wildwood Crest Coast Guard Station, Cape May County New Jersey assigned Accession number 9088325. Collected from sand dunes where the channel and the ocean meet. N. Latitude 38 56' 32.73" and W. Longitude 74 51' 58.41"

Delaware State Park, Delaware assigned Accession number 9094761. Seed was collected from back dune area adjacent to Savage Ditch Road and Route 1 south of Dewey Beach Delaware.

**Description:** Resembling Schizachyrium scoparium but culms more compressed, with broad, keeled, overlapping lower sheaths, often bluish-glaucous, the flat tufts crowded on a slender rhizome, decumbent or bent at base; blades 4 to 6 mm wide; rachis joints and pedicels copiously long-villous

Method of Breeding and Selection: Vegetative propagules from each parental line were started in the greenhouse and transplanted to the field. Equal numbers of plants were installed in rows which were then randomized to encourage cross pollination. Materials are harvested using a Flail-Vac Prairie Harvester. No selections were made in order to maintain the broadest possible genetic pool.

**Ecological Considerations and Evaluation:** An Environmental Evaluation of Plant Materials Releases which included a Scoring of Criteria for Impact, Management, Need and Biological Characteristics was conducted.

The resulting determination indicated that the material can be recommended for use within proximity to its native habit.

Conservation Use: This plant is intended for use in diversifying plant communities in coastal sand dune systems, beach replenishment projects and back dune areas needing more stabilization. Like most species it has evolved under and survived in harsh conditions and will most likely perform well when applied to disturbed sites such as sand and gravel mines.

Area of Adaptation: Coastal little bluestem is very well adapted to dry, well to excessively drained, infertile secondary dunes. It does not tolerate large amounts of sand accretion. This grass has excellent drought tolerance once established, some salt spray tolerance and poor flood tolerance. It grows preferentially on sites with pH 7.0 and slightly higher.

Establishment in Coastal Dune Systems: Successful establishment of Dune Crest was accomplished by vegetative propagules in an inter-state; interagency technology planting conduced in association with Maryland Department of Natural Resources.

Availability of Plant Materials: Foundation seed is available by contacting:

USDA NRCS Cape May PMC 1536 Route Nine North Cape May Court House, New Jersey 08210

#### References:

Hitchcock, A.S. 1950. Manual of the Grasses of the United States. U.S. Government Printing Office, Washington D.C.

USDA, NRCS. 2007. The PLANTS Database (http://plants.usda.gov, 22 August 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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August 23, 2007

## Signatures for release of:

# Dune Crest Germplasm Coastal Little Bluestem Schizachyrium littorale (Nash.) Bickn.

**Thomas Drewes** 

State Conservationist

United States Department of Agriculture Natural Resources Conservation Service Somerset, NJ 9-6-07

Date

Diane Gelburd, Ph.D.

Director, Ecological Sciences Division United States Department of Agriculture Natural Resources Conservation Service Washington, D.C. Date