Kansas State University
Agricultural Experiment Station
Manhattan, Kansas

and

United States Department of Agriculture
Soil Conservation Service
Plant Sciences Division
Washington, D. C.

and

United States Department of Agriculture
Agricultural Research Service
Plant Science Research Division
Beltsville, Maryland

Notice of the Release of a Variety of Sand Lovegrass

Name: Bend sand lovegrass, Eragrostis trichodes (Nutt.) Wood.

Origin: Seed collections from natural stands in the Arkansas and Cimarron river basins in southcentral Kansas and northcentral Oklahoma.

Selection and Breeding: Two cycles of selection for vigor and persistence on unirrigated sandy soils. Over 200 superior plants tracing to 11 original accessions composited to produce final strain. Tested as Kansas Experimental Strain 3.

Description: A perennial bunchgrass similar in general appearance to local wild strains in southcentral Kansas. In tests at Manhattan and St. John, Kansas it has been vigorous and has compared favorably with other strains in production of dry matter. 'Bend' is uniform in maturity, is a good seed producer, establishes well, and, at Manhattan, Kansas, is relatively free of disease.

Conservation Use or Potential: For use in grass seeding mixtures for grazing and stabilization on sandy soils. Adapted primarily to the Arkansas River basin of southcentral Kansas and adjacent areas of northcentral Oklahoma.

Availability of Seed: Foundation seed is available at the SCS Plant Materials Center, Manhattan, Kansas.

Lloyd W. Smith — 10/19/71

Director — Date
Kansas Agricultural Experiment Station

D. M. Whitt — 11/15/71

Director — Date
Plant Sciences Division, SCS
U. S. Department of Agriculture

Hugo O. Graumann — 11/5/71

Director — Date
Plant Science Research Division, ARS
U. S. Department of Agriculture

TECHNICAL NOTES

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE
SALINA, KANSAS

PLANT SCIENCE TECHNICAL REFERENCES - FOR IN SERVICE USE ONLY

TECHNICAL NOTE - Plant Materials KA-15 December 20, 1971

Re: Release of 'Bend' Sand Lovegrass, Eragrostis trichodes (Nutt.) Wood

'Bend' sand lovegrass is a tall, leafy, warm season, perennial bunchgrass adapted to sandyland in Kansas and adjoining areas of Oklahoma. Its northern area of adaptation has not been determined.

The improved strain of sand lovegrass was released cooperatively by the Kansas Agricultural Experiment Station, Soil Conservation Service, and Agricultural Research Service. It has been tested as Kansas Experimental Strain 3.

Origin: The original seed collections were made from natural stands in the Arkansas and Cimarron River basins in south central Kansas and north central Oklahoma. The area receives an average precipitation of less than 22 inches annually.

Method of Breeding and Selection: Two cycles of selection for vigor and persistence were made on unirrigated sandy soil. From these selections, over two hundred superior plants tracing to eleven original accessions were composited to produce the strain released as 'Bend'.

Description: 'Bend' is similar in general appearance to local native strains in south central Kansas and north central Oklahoma. In tests at Manhattan and St. John, Kansas, 'Bend' has compared favorably with other strains in the production of dry matter. 'Bend' is uniform in maturity and a good seed producer. It establishes well and, at Manhattan, is relatively free of disease.

Conservation Use or Potential: Sand lovegrass is used as a component in grass seeding mixtures on sandy soils, as a surface stabilization grass on the margins of sand "blow-outs", and occasionally as a pasture grass on more favorable sites in planned grazing systems. Because of its color, nature, and appearance, it has potential use as a component of low maintenance environmental planting on sandy soils.

AC-3
DC
FS(A)
FS(B)
FS(R)
FS(PM)
PS
ASCS
PMC
RC&DPO
RDS

Released: Yes. Formally released cooperatively by the Kansas Agricultural Experiment Station, Agricultural Research Service, and the Soil Conservation Service and approved November 1971.

Breeder Seed: Maintained by Kansas State University. Foundation seed is available in limited amounts at the Soil Conservation Service Plant Materials Center, P. O. Box 829, Manhattan, Kansas 66502. It is expected that quantities of seed will be available on the commercial market in spring 1973 or 1974 at the latest.

General Information: This tall, leafy, warm season, perennial bunchgrass has been reported growing in ten central Great Plains states, primarily from Illinois westward to Colorado and southward into Texas.

Sand lovegrass reproduces by seed, and the old bunches increase in size by tillering and sometimes rooting at the nodes of basal stems. It produces a fairly dense root system and bears seed on culms 2 to 5 feet tall in early fall. Seed heads are 6 to 15 inches long, rather loose, and sprangled with spikelets 4 to 6 flowered and from 1/4 to 1/8 inch long. Seedlings volunteer readily in favorable seasons. It is sometimes found on heavier soils but is generally considered a short-lived perennial on these sites.

Sand lovegrass is one of the preferred grass species by livestock and decreases quickly when grazed continuously and shorter than 5 to 8 inches during the growing season. It responds to proper use in planned grazing systems.

Seed can be harvested from field plantings with a combine when managed favorably. Dryland spaced-row plantings with cultivation can produce yields of about 100 pounds. Managed irrigated row planting with 40 to 60 pounds of nitrogen per acre can produce seed yields upwards of 300 pounds per acre. Seed size is extremely small and a pound averages about 1,500,000 seeds. It is best planted with a special drill in the spring at a depth of not more than 1/4 inch. Recommended seeding rates of sand lovegrass with other adapted grasses on sandyland is relatively low.

Prepared by:

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Donald R. Robertson
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