



United States Department of Agriculture  
Natural Resources Conservation Service  
Plant Materials Program

'Bend'

## Sand Lovegrass

*Eragrostis trichodes* (Nutt.) Alph. Wood

A Conservation Plant Release by USDA NRCS Manhattan Plant Materials Center, Manhattan, KS



**Figure 1. Bend sand lovegrass plant with panicle type inflorescence. Photo R. Alan Shadow, East Texas PMC**

'Bend' sand lovegrass (*Eragrostis trichodes*) is a cultivar released cooperatively in 1971 by the Kansas Agricultural Experiment Station, Soil Conservation Service and Agriculture Research Service.

### Description

Sand lovegrass is a native, warm-season, perennial, bunch grass that is commonly found on sandy soil sites in the Great Plains. The erect reproductive stems are 18 to 48 inches tall. The panicle type seed heads are 6 to 12 inches long. The panicles are branched 3 or 4 times and the branches are curved alternately in opposite directions giving it an open, diffuse look. Leaves are flat to in rolled at the margins and display a prominent midrib. Leaf blades are 8 to 18 inches long and 1/2 inch wide and taper to a sharp point. The narrow leaf blade will roll inward under dry conditions to conserve moisture. Sand lovegrass has a shallow, widely spreading root system.

### Source

The original collections were made from the Arkansas and Cimarron River basins in south central Kansas and adjacent areas in Oklahoma. Two cycles of selection for vigor and persistence were conducted on non-irrigated sandy soils. Bend is described as uniform in maturity, a

good seed producer, with good establishment characteristics and is relatively free of diseases. Bend has acceptable dry matter yield and good seedling vigor.

### Conservation Uses

Bend sand lovegrass is a native, warm-season grass that is palatable and grazed by livestock in the central and southern Great Plains. It begins growth as much as two weeks before other warm-season grasses. Sand lovegrass remains green into the fall and retains fair forage value even after seed maturity. It is known to cure well on the stem and provide winter forage for livestock and wildlife. It is included in range reseeding to provide quick cover and early forage production. It also grows well in sandy soil situations and provides stability to fragile sites that tend to erode due to wind activity.

### Area of Adaptation and Use

Bend is adapted to sandy soil sites in Kansas, Oklahoma, eastern Colorado, and the panhandle of Texas. It grows best on north and east facing slopes and is sensitive to over grazing by livestock. Bend has good establishment characteristics and grows vigorously if not planted too deeply. Bend's dormant seed is considered a desirable characteristic when reseeding range lands, since seedlings will continue to emerge over a greater period of time.

### Establishment and Management for Conservation Plantings

Seedbed preparation should provide a weed free, firm surface on which to plant. Some warm-season grasses tolerate the use of the herbicide Atrazine, but that is not the case with sand lovegrass. Since seed size is small the depth of seeding (1/4 to 1/3 inch) is critical for establishment. Sand lovegrass seed units often display dormancy which has been shown to moderate under alternating temperature regimes and being moistened with a solution of Ca(NO<sub>3</sub>). Sand lovegrass should not be grazed closely at any time during the growing season. In fact early grazing is less detrimental to grass stands than a later summer or fall grazing period. The best stand persistence is found with rotational grazing once a year with a portion of leaf tissue remaining on the plants after grazing has ceased.

### Ecological Considerations

Sand lovegrass does not pose any known negative concerns to the environment. Its unique ability to grow and survive on sandy sites provides increased ground cover which reduces both wind and water erosion on these fragile soil sites. Grasshoppers, leafhoppers and other forage eating insects are very destructive to seedling stands. Rabbits and rodents are also damaging to seedling

stands. A species of subterranean root aphid (*Geoica utricularia*) has been found to significantly reduce forage yields in sand lovegrass experimental plots.

#### **Seed and Plant Production**

Seed of Bend is harvested with a standard combine and processed with a fanning mill. Seed units of sand lovegrass are extremely small with approximately 1.5 million seeds per pound. A five year average seed yield of Bend at Manhattan, Kansas was 175.7 pounds per acre. The average yield was reported with supplemental irrigation and fertility used as management tools.

#### **Availability**

*For conservation use:* Bend is widely available, from several commercial seed vendors.

*For seed or plant increase:* The Manhattan PMC maintains breeder and foundation seed stock. There is no Registered Class of seed for Bend.

*For more information, contact:*  
Manhattan Plant Materials Center  
3800 South 20<sup>th</sup> Street  
Manhattan, Kansas 66502  
(785) 539-8761 FAX (785) 539-2034  
<http://www.plant-materials.nrcs.usda.gov>

#### **Citation**

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov>>

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