

A Conservation Plant Released by the Natural Resources Conservation Service  
 E. "Kika" de la Garza Plant Materials Center, Kingsville, Texas and  
 Texas Native Seeds, Caesar Kleberg Wildlife Research Institute,  
 Texas A&M University-Kingsville, Kingsville, Texas

# Dilley Germplasm Slender grama

## *Bouteloua repens* (Kunth) Scribn. & Merr.

Dilley Germplasm slender grama [*Bouteloua repens* (Kunth) Scribn. & Merr.] was a cooperative release between Texas Native Seeds, the E. "Kika" de la Garza Plant Materials Center, and Texas A&M AgriLife Research Station, Beeville, Texas in 2007. It is a selected plant material class of certified seed.

### Description

Slender grama is a warm season, perennial grass native to southern Texas. It is low-growing at 1-2 ½ feet in height. The grass flowers and produces seed throughout the year (Fig. 1). Slender grama will readily reseed itself, and individual plants are long lived.



Figure 1. Dilley Germplasm slender grama

### Source

Dilley Germplasm slender grama is a blend of 4 collections from the Rio Grande Plain of Texas. These collections were chosen from a comparison with 9 total collections. Collections comprising this release were selected for seed quality and production, plant vigor, forage production, and adaptability throughout the South Texas area.

### Conservation Uses

Dilley Germplasm was developed for use in highway right-of-way seeding, native rangeland restoration, and wildlife plantings in the Rio Grande Plain Coastal Sand Plain of Texas.

### Area of Adaptation and Use

Dilley Germplasm persists on sand, sandy loam, clay, and clay loam soil types, and it is compatible in plantings with other native species. Slender grama is considered an early invader or increaser plant on most range sites, and it competes well with introduced species. Dilley Germplasm's fast seed production, establishment, and spreading habit make it an excellent planting choice for highly disturbed sites like highway rights-of-way or areas susceptible to erosion. The poor forage value of Dilley Germplasm increases its utility in erosion control and in disturbed areas in which grazing animals cannot be excluded.

Dilley Germplasm has shown good performance in the Rio Grande Plain and Coastal Sand Plain (MLRA 83) and Gulf Coast Prairies and Marshes (MLRA 150) of south Texas. Although testing in adjacent ecoregions is lacking, adaptability in the southern Post Oak Savannah (MLRA 78) is possible but may be limited.

### Establishment and Management for Conservation Plantings

Begin seedbed preparation well in advance of planting. Plant in early fall (August) in south Texas. Establish a clean, weed-free seedbed by either tillage or herbicides. Prior to planting, the site should be firm and have accumulated soil moisture. Plant Dilley Germplasm using a grass drill equipped with picker wheels to evenly distribute the seed and prevent clogging of the planter tubes. Although seed can be broadcast seeded, the relatively light seed weight makes proper distribution difficult and additional practices to encourage good seed-to-soil contact, such as cultipacking and harrowing, may be necessary after planting. Plant seed ¼ inch deep. It is better to plant too shallow than too deep. For calibration purposes, Dilley Germplasm slender grama contains approximately 116,300 seeds per bulk pound. A seeding rate of 5-8 pounds of pure live seed (PLS) per acre is recommended. In planting mixtures, reduce the rate according to the percent of Dilley Germplasm desired in the seed mixture.

Do not graze Dilley Germplasm for 1 year after planting to allow plant to fully establish. Allow established plants to produce seed annually to ensure stand health. Mowing or burning old growth while dormant helps to stimulate seed and forage production. Plants can be mowed to 3 inches yearly with no adverse effects.

### **Ecological Considerations**

No severe insect or disease problems have been observed in slender grama once established. Dilley Germplasm is a composite of naturally occurring germplasm and no breeding, selection or genetic manipulation was used in the development of this release.

### **Seed and Plant Production**

Dilley Germplasm produces multiple seed crops per year in south Texas. Seed is harvested with a Flail Vac or similar brush-type harvester, or a combine equipped with a Shelbourne header. The use of slow travel and RPM speeds while harvesting results in relatively clean seed, needing little cleaning or processing. The quantity and quality of seed harvests vary greatly depending on location and field conditions, but averages 45% pure live seed (PLS). Slender grama has produced as much as 250 lb/acre of clean seed but averages around 125 lb/acre. Dormant seed averages 60-85%. Seed production of Dilley Germplasm is best started using greenhouse grown transplants, planted on bedded rows. Rapid spread and growth have been observed in transplant established production fields providing seed harvests by the second year and sometimes as quick as the first year. Transplants facilitate better weed control in the seed production fields. The first harvest is typically made in early May with the last harvest occurring in October.

### **Availability**

*For conservation use:*

Seed is available from native seed dealers in south Texas. Seed of Dilley Germplasm slender grama is identified by PI number 659327 and accession number 9093399.

*For seed or plant increase:* First generation (G0) seed is produced and maintained by Texas Native Seeds. All commercial seed fields of Dilley Germplasm must be isolated from other cultivated varieties and wild populations of *Bouteloua repens*. G1 and G2 seed fields have a 7-year production limit, after which time, fields must be replanted using the appropriate seed generation (G0 or G1).

### **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>>

*For more information, contact:*

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