

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

# Atascosa Germplasm

## Texas grama

### *Bouteloua rigidiseta* Steud.

Atascosa Germplasm Texas grama (*Bouteloua rigidiseta* Steud.) 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

Texas grama is a warm season perennial grass native to southern Texas. This low-growing, dense bunchgrass grows 1-2½ feet in height and produces seed heads throughout the year (Fig. 1), even during winter months in some years. It frequently reseeds itself.

#### Source

Atascosa Germplasm Texas grama is a blend of 4 collections from the Rio Grande Plain of Texas. These collections were chosen from a comparison with 24 total collections. Collections comprising this release were selected for survival, seed quality and production, plant vigor, forage production, and adaptability throughout the south Texas area.

#### Conservation Uses

Texas grama is an important component of many range sites throughout south Texas. Atascosa Germplasm was developed for use in highway right-of-way seeding, native rangeland restoration, and wildlife plantings in the Rio Grande Plain of Texas.

#### Area of Adaptation and Use

Atascosa Germplasm will persist on sandy loam, clay, and clay loam soil types, and it is compatible in plantings with other native species. Atascosa Germplasm’s fast seed production, establishment and colonizing growth habits make it an excellent planting choice for highly disturbed sites like highway rights-of-ways or areas susceptible to erosion, especially those where short-stature vegetation is desired.

Atascosa Germplasm has shown good performance in the Rio Grande Plain and Coastal Sand Plains (MLRA 83) and Gulf Coast Prairies and Marshes (MLRA 150) ecoregions of south Texas. Although testing in adjacent ecoregions has been minimal, acceptable performance in other Texas eco-regions including the Blackland Prairie (MLRA 86), Cross Timbers (84A), Edwards Plateau (MLRA 81) and eastern Trans Pecos (MLRA 42) has been observed.

#### 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 Texas grama with a grass drill equipped with picker wheels to evenly distribute the seed and prevent clogging of the planter tubes. Broadcast seeding may be used in areas not easily planted with a drill, but 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, Atascosa Germplasm Texas grama contains approximately 104,000 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 Texas grama desired in the seed mixture. Best results are obtained in clean, well prepared seedbeds; however, Atascosa Germplasm will establish over time in existing vegetation.



Figure 1. Atascosa Germplasm Texas Grama

Do not graze Atascosa Germplasm for 1 year after planting to allow plants to fully establish. Allow plants to produce seed annually to ensure vigorous stands. Mowing or burning old growth while dormant helps to stimulate seed and forage production. Plants can be mowed to 4-6 inches yearly with no adverse effects. Atascosa Germplasm has poor grazing value.

### **Ecological Considerations**

No severe insect or disease problems have been observed in Texas grama. Atascosa 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**

Atascosa Germplasm produces multiple seed crops per year when grown in south Texas. Seed is harvested with a Flail Vac or similar brush-type harvester. 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 55% pure live seed (PLS). Texas grama has produced as much as 150 lb/acre of clean seed year but averages around 80 lb/acre. Germination averages 35% with 27% dormant seed. Seed production of Atascosa Germplasm is best started using greenhouse grown transplants, planted on bedded rows. Rapid spread and growth have been observed in transplant established stands 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 Atascosa Germplasm Texas grama is identified by PI number 659328 and accession number 9093401.

For seed or plant increase: First generation (G0) seed is produced and maintained by Texas Native Seeds. All commercial seed fields of Atascosa Germplasm must be isolated from other cultivated varieties and wild populations of *Bouteloua rigidiseta*. 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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