



# Silver Bluestem

*Bothriochloa laguroides* (DC) Hert ssp. *torreyana* (Steud.) Allred & Gould

**Plant Symbol = BOLAT**

Common Names: Silver beardgrass

Scientific Names: *Bothriochloa saccharoides* (Sw.) Rydb, var *torreyana* (Steud.) Gould

## Description

**General:** Silver bluestem is a warm season perennial bunch grass. Culms to 5 feet tall. Leaves are basal up to 10 inches long with terete sheaths. The inflorescence is a contracted panicle up to 8 inches long with 12 or more rames. Sessile spikelets less than 4.4 mm. Pedicellate spikelets up to 3 mm long. Caryopses are 1.6-2.5 mm long, lanceolate, and amber (Stubbendieck et al. 2017).

**Distribution:** Silver bluestem grows primarily in the southern Great Plains of Kansas, Oklahoma and Texas and west into New Mexico and Arizona, and extending south into northeast Mexico. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

**Habitat:** Silver bluestem is adapted to diverse soil textures and site conditions within its range of distribution. It does not tolerate inundated or consistently moist sites (Powell 1994 and Stubbendieck et al. 2017). It will tolerate a wide distribution of annual precipitation ranging from 15 to 50 inches. It commonly occurs in well-drained soils of prairies, pastures, woodlands, river bottoms, waste ground, and roadsides (Stubbendieck et al. 2017). Due to its broad geographic distribution and tolerance of a diversity of soil textures, silver bluestem is associated with a wide variety of plant species across a diverse array of ecological sites from blackland prairie to semi-arid grasslands.

## Uses

Silver bluestem can be used for critical area revegetation, erosion control, rights-of-way plantings, rangeland seed mixes and wildlife plantings. Its ability to reseed itself after soil disturbance, over grazing, or drought make it an excellent species for the restoration of disturbed sites.

## Status

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, state natural resource, or state agriculture department regarding its status and use.

Please consult the PLANTS Web site (<http://plants.usda.gov/>) and your state's Department of Natural Resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

## Planting Guidelines

Seedbed preparation should begin well in advance of planting. Establish a clean, weed-free seedbed by either tillage or herbicides. Prior to planting, the site should be firm and have accumulated soil moisture.

Silver bluestem can be seeded using a drill or broadcast seeder. If broadcast seeded, some type of additional coverage such as culti-packing or light dragging is recommended to ensure good seed to soil contact.



Silver bluestem.

Seed should be planted ⅛ to ¼ inch deep. It is better to plant too shallow than too deep. For calibration purposes, silver bluestem contains approximately 503,991 seeds per bulk pound. A seeding rate of 1-2 pounds pure live seed (PLS) per acre is recommended.

### **Management**

Areas planted to silver bluestem should be deferred for 90 days to allow plants to become established. Established plants should be allowed to produce seed annually because silver bluestem readily reseeds itself with minimal soil disturbance.

### **Pests and Potential Problems**

There are no potential problems or pests associated with silver bluestem.

### **Environmental Concerns**

There are no environmental concerns associated with silver bluestem.

### **Control**

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method.

### **Seeds and Plant Production**

Establishment of seed production fields is achieved by either direct seedling or from greenhouse grown transplants, planted on bedded rows. Greenhouse grown transplants grow and mature quickly and produce a marketable seed crop the first year.

Seed harvest is possible using a variety of methods and implements. Because seed ripens indeterminately, a Flail Vac harvester is effective in harvesting the seed without damaging or eliminating the ability to make subsequent harvests of the stand as later flowering florets mature. In well managed, irrigated fields, 3-4 harvests can be expected per year using this method. The first harvest is typically in May, with the last harvest in October. Potential seed yields of 62 PLS lbs per acre has been estimated on 36 inch bedded rows with a plant population of 14,000 plants per acre.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

Santiago Germplasm silver bluestem was cooperatively released in 2018 by *Texas Native Seeds*, the E. “Kika” de la Garza Plant Material Center in Kingsville, TX, and the James E. “Bud” Smith Plant Materials Center in Knox City, TX. This release is made up of 3 collections from West Texas with a range of adaptation for MLRAs 42, 77C, 78B, and 81A. Santiago Germplasm is recommended for use in range seeding mixes and for critical area revegetation and rights-of-way plantings in West Texas. Generation 0 seed is maintained by *Texas Native Seeds*.

### **Literature Cited**

Powell, A.M. 1994. Grasses of Trans Pecos and Adjacent Areas. The University of Texas Press. Austin, Texas.

Stubbendieck, J.L., S.L. Hatch, and C.D. Dunn. 2017. Grasses of the Great Plains. Texas A&M University Press. College Station, Texas.

### **Citation**

Maher S., and J. Lloyd-Reilley. 2018. Plant guide for silver bluestem (*Bothriochloa laguroides*). USDA-Natural Resources Conservation Services, Kingsville Plant Materials Center. Kingsville. TX.

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

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