



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

# Salttillo Origin Germplasm cane bluestem

*Bothriochloa barbinodis* (Lag.) Herter

A Conservation Plant Release by USDA NRCS Tucson Plant Materials Center, Tucson, Arizona



Figure 1: Salttillo Origin Germplasm cane bluestem panicle

Salttillo Origin Germplasm cane bluestem was released in 2001 by the USDA Natural Resources Conservation Service in cooperation with the University of Arizona Agricultural Experiment Station.

## Description

Cane bluestem is a native, perennial, warm season bunchgrass. It typically grows 2-4 feet tall. The leaves are bluish green and cure to a dull red or yellow. The fan shaped panicles appear silvery white due to the long tufts of hair and awns on the paired spikelets.

Cane bluestem can be found growing on open, sandy or gravelly ground and rocky slopes. It is particularly abundant along graded roadsides, banks of washes, railroad rights of way, or other places where the soil has been exposed.

## Source

Salttillo Origin Germplasm cane bluestem is derived from collections made in 1953 from the area between Saltillo and Torreon, Mexico. It was evaluated in two initial evaluation plantings (1973 and 1976) at the Tucson Plant Materials Center (PMC). The eight top performers in these trials were used to establish the 1981 cane bluestem

Advanced Strain Trial at the PMC. Salttillo Origin Germplasm cane bluestem was selected as the top performer in this trial based upon its superior vigor, forage production, and tolerance to drought and cold.

## Conservation Uses

Salttillo Origin Germplasm cane bluestem may be used as an erosion control plant on rangelands and critical areas such as abandoned cropland and road cuts. It also has beneficial qualities in terms of diet and cover for wildlife species including pronghorn antelope, mule deer, desert cottontail, white-throated woodrat, javalina, and scaled quail.

## Area of Adaptation and Use

The identified range of adaptation of Salttillo Origin Germplasm cane bluestem is Major Land Resource Areas 30, 38, 39, 40 and 41 at elevations between 1,000 and 6,000 feet. Prior to release, Salttillo was evaluated at two planting sites in Pima County, AZ and at three planting sites in Cochise County, AZ. In all plantings, Salttillo was determined to be highly successful in terms of increased forage and soil stabilization.

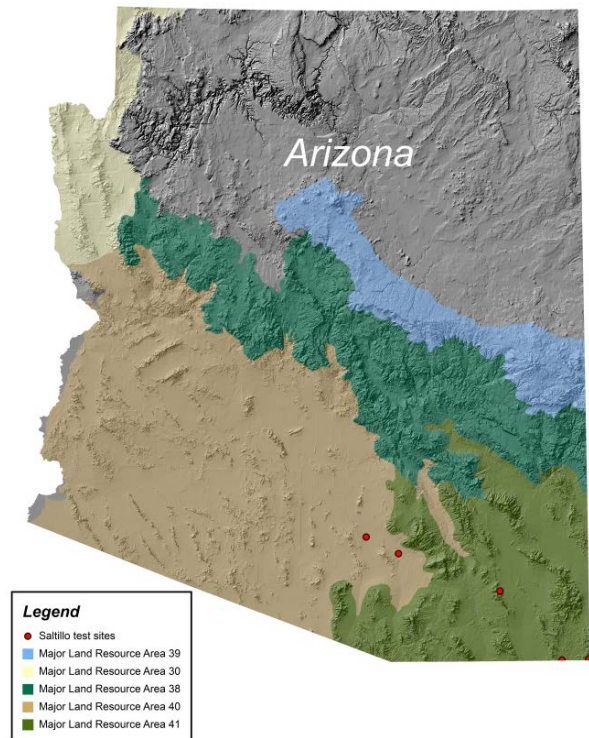


Figure 2: Approximate test locations of Salttillo Origin Germplasm and range of adaptation

## **Establishment and Management for Conservation Plantings**

The recommended seeding rate for cane bluestem is 1.4 pure live seed (PLS) pounds per acre if planted with a drill and approximately 2.8 PLS pounds per acre if seed is broadcast. It is recommended that Saltillo Origin Germplasm cane bluestem be utilized as part of a seeding mixture comprising approximately 15-30% of the total mix; however, the percent composition may vary depending on the seeding objective. There are approximately 754,000 seeds of cane bluestem in a pound.

In southern Arizona, the recommended planting period for rangeland applications using Saltillo is from late June through late August coinciding with seasonal summer moisture. Seed should be planted into a firm, weed-free seedbed at a depth of ¼ - ½ inch. Broadcast seeding should be followed with a cultipacker or harrow to provide seed with a shallow covering of soil.

Newly seeded areas should be deferred from all grazing from the date of planting until the end of the second growing season or later, if necessary, to allow for stand establishment. Once established, cane bluestem is most productive when grazed during the summer when plants are most actively growing. When grazed during the summer, some seed stalks should remain ungrazed and occasional summer deferment allowed.

## **Ecological Considerations**

This release is an indigenous selection collected from within the species natural range of adaptation. This species is documented as having beneficial qualities and no negative impacts on wild or domestic animals.

## **Seed and Plant Production**

Saltillo Origin Germplasm cane bluestem should be planted in the early spring into a firm, weed free seedbed at a ¼ inch depth with 24-40 inches within row spacing. Row spacing can vary from 36-40 inches. The planting should be irrigated to maintain a moist soil surface and to avoid soil crusting. Pre-emergent herbicide may be used to control weeds after the plants have reached the 3-5 leaf stage.

Established fields require 40-60 pounds per acre available nitrogen per year and should be irrigated approximately every four weeks during the growing season. Apply phosphorus and potassium according to soil test results.

Seed is produced from summer to fall. Seed harvest is accomplished with a seed stripper. Yields for irrigated

production fields average 60-80 pounds per acre at the Tucson Plant Materials Center.

To clean harvested material, seed may be put through a brush huller/scarifier with a #12 screen to remove the hairs and awns from the seed heads. Seed may then be separated from the chaff using a clipper air screen cleaner with a #9 top screen and a 45x45 bottom screen.

## **Availability**

*For conservation use:* Cane bluestem is widely available from the commercial seed market.

*For seed or plant increase:* Seed production of Saltillo Origin Germplasm cane bluestem will be maintained by the USDA-NRCS Tucson Plant Materials Center. Limited quantities of seed are available to seed producers for increase and to other interested parties, as available.

*For more information, contact:*  
NRCS Tucson Plant Materials Center  
3241 N Romero Road  
Tucson, AZ 85705-9233  
Phone: (520) 292-2999  
Fax: (520) 292-9099  
[www.plant-materials.nrcs.usda.gov/azpmc](http://www.plant-materials.nrcs.usda.gov/azpmc)

## **Citation**

Conservation Plant Release Brochure for Saltillo Origin Germplasm cane bluestem (*Bothriochloa barbinodis* (Lag.) Herter). USDA-Natural Resources Conservation Service, Tucson Plant Materials Center, Tucson, AZ 85705. Published August 2013

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/>>

*Helping People Help The Land*

**USDA IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER**