

# Neches Germplasm

## Split beard bluestem

*Andropogon ternarius* Michx.

Neches Germplasm split beard bluestem (*Andropogon ternarius* Michx.) is a selected class germplasm released by the USDA NRCS East Texas Plant Materials Center (ETPMC) in 2019.

### Description

Neches Germplasm split beard bluestem is a native warm season, perennial bunchgrass. Plants begin growth in April and reach a mature height of 4 feet (1.2 m). Basal leaves are numerous, flat or rolled, 1/8 to 1/4 inches (3 to 6 mm) wide and 10 to 16 inches (25 to 41 cm) long. Leaf surfaces can be smooth without hairs or have long, soft hairs. The leaf sheaths, often purplish, have soft hairs. Stems are long, slender, and erect branching in the upper 2/3 of the plant. The seedhead is a pair of spikes approximately 2 inches long (5 cm) composed of seeds 0.19 to 0.27 inches (5 to 7mm) long and covered in silvery white hairs.



Figure 1. Neches Germplasm split beard bluestem foundation seed production field at the East Texas Plant Materials Center.

### Source

An initial evaluation of split beard bluestem collections was conducted at the ETPMC in 2006 and 2007. Five accessions selected from the evaluation were planted in a polycross block. Seed harvested from the polycross block was used to produce transplants for the foundation seed plot of Neches Germplasm split beard bluestem.

### Conservation Uses

Neches Germplasm split beard bluestem is recommended for conservation cover, wildlife habitat plantings, and longleaf and shortleaf pine habitat understory. Split beard bluestem occurs on longleaf pine savannas and is identified as an important understory species in old growth stands. The seeds are consumed by birds and small mammals. Native bees use the plant for nesting. Cattle graze split beard bluestem in early spring. Young vegetative growth of split beard bluestem varies from 4 to 8% crude protein in the east Texas forest range.

### Area of Adaptation and Use

The anticipated area of adaptation of Neches Germplasm is within the collection area and Major Land Resource Areas (MLRA) 87A and 133B in USDA Plant Hardiness Zones 8a and 8b. Additional plantings are needed to verify the full range of adaptation in USDA Plant Hardiness Zones 8a and 8b.

### Establishment and Management for Conservation Plantings

Plantings should be completed in spring March to May. Seedbeds should be clean, free from weeds, firm, and have adequate moisture prior to planting. A native grass drill equipped with picker wheels and native seed box is the preferred method for planting Neches Germplasm. Seed should be debearded and seed lubricants used to facilitate seed flow when using a seed drill without picker wheels or native seed box. The less preferred method of planting is broadcasting the seed on a prepared seedbed. For broadcast seedings, mix seed with a carrier agent such as sand or cat litter to help seed flow more easily through spreaders and improve seed distribution. After broadcasting, cultipacking or lightly dragging the seeded area will improve seed-to-soil contact. Hydromulching may be used for areas not accessible by conventional planting equipment.

Seed should be planted approximately 1/4 inch deep. Neches Germplasm averages 266,000 seeds per pound. The recommended seeding rate is 5 PLS lb/acre for monotypic stands. For seed mixes, adjust the rate according to the desired percentage of Neches Germplasm in the mix.

Split beard bluestem tolerates periodic burning, however annual burning followed by improper grazing management is detrimental and reduces stand longevity. Contact your local NRCS office for assistance with developing a prescribed grazing or burn plan. Mowing and pre-emergent herbicides may be used to control weed competition after establishment where applicable. Please contact your local extension office for herbicide recommendations.

### **Ecological Considerations**

Neches Germplasm would not constitute the introduction of a foreign species to local ecosystems. Its escape from planted areas would not be considered hazardous or detrimental to the natural landscape. However, seed is wind distributed and may establish in areas adjacent to plantings.

### **Seed and Plant Production**

Seed production fields of Neches Germplasm can be started from transplants or direct seeding. The recommended row spacing is 40 inches for either method. Spring transplanting is the preferred method of establishment and reduces the time needed to achieve a solid stand. It also allows use of pre-emergent herbicide to control weedy annual competition during establishment. Direct seeded stands require an extra year for establishment compared to transplants. Use a seeding rate of 35 seeds/linear foot when direct seeding.

Neches Germplasm is indeterminate and plants mature in late fall at the ETPMC. Preferred harvest methods are by flail vac or seed stripper as these non destructive methods allow for multiple harvests as seed matures. Air dry and debeard the seed after harvest. Debearding removes most awns and seed appendages improving flow through seed cleaners and planters. Use a seed cleaner with air adjustments and separation screens, 1/16 round or 1/16 x 1/2 slotted, to remove remaining stems, chaff, and unfilled seed. Seed yield is ~30 pure live seed lb/acre. with average purity and germination of 87% and 77% respectively. Store seed in a controlled environment of 45°F temperature and 50% or less relative humidity to enhance seed longevity.

### **Availability**

*For conservation use:* Neches Germplasm splitbeard bluestem release will be identified by USDA NRCS accession number 9095095. Generation 0 seed is maintained by the USDA NRCS East Texas Plant Materials Center, Nacogdoches, Texas.

*For seed or plant increase:* All commercial seed fields of Neches Germplasm must be isolated from other cultivated varieties and wild populations of split beard bluestem by a minimum of 900 feet.

### ***For more information, contact:***

East Texas Plant Materials Center, 6598 FM 2782, Nacogdoches, Texas 75964. Phone: (936) 564-4873  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/plantmaterials/pmc/central/etpmc/>

### **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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