



## Planting Guide

### OZ-70 Germplasm Big Bluestem

*Andropogon gerardii* Vitman

Plant symbol = ANGE

Contributed by: USDA, NRCS  
Plant Materials Program

#### Description

Big bluestem, *Andropogon gerardii*, is a tall, warm-season perennial, native grass with stiff, erect culms; flattened and keeled sheaths; membranous ligules; and flat or folded leaf blades. Big bluestem has developed a very efficient spreading root system which may reach depths of 5-8 feet (150-200 cm) in northern latitudes, and 6-8 feet (180-240 cm) or more in the southern part of its natural range.

Although short rhizomes may be present, it usually makes a bunch type growth. Big bluestem is composed of many ecotypes with a wide range of adaptation to soil and climate. Big bluestem is one of the most widespread and important forage grasses of the North American tallgrass prairie region. It is usually associated with one or more of the other three dominant species; indiangrass, (*Sorghastrum nutans* L. Nash.), switchgrass, (*Panicum virgatum* L), and little bluestem (*Schizachyrium scoparium* Michx.). Big bluestem occurs on subirrigated lowlands, nearly level to gently undulating glacial till plains, overflow sites, level swales and depressions, residual and glacial uplands, and stream terraces and bottomlands along rivers and tributaries. The abundant, leafy forage is palatable to all classes of livestock.



OZ-70 Big Bluestem July 9, 2003  
Elsberry Plant Materials Center

#### Source

OZ-70 Germplasm Big Bluestem has been assigned the NRCS accession number 9078831. Collections were taken from native prairie remnants from Southern Missouri, Northern Arkansas, Eastern Oklahoma, and Southern Illinois. Seventy of 370 collections were selected from this region.

#### Uses

The potential uses of OZ-70 Germplasm Big Bluestem include forage production, erosion control, and vegetative buffers and filters. When compared to 'Rountree' big bluestem, OZ-70 is comparable in forage production, approximately two weeks later in booting stage, and has better forage quality.

#### Adaptation

Big bluestem occurs throughout the tallgrass prairie biome. Flowering begins in July and may continue until frost. The recommended area of use is the Ozark Highland region of Southern

Missouri, Northern Arkansas, Eastern Oklahoma and Southern Illinois. OZ-70 Germplasm Big Bluestem exhibited no rust when compared to 'Rountree' big bluestem in Southern Missouri.

### **Establishment**

Prepare a clean weed-free seedbed by disking and harrowing or using chemical weed control. Firm the seedbed by cultipacking. Seedbed should be firm enough to allow seed to be planted ¼ to ½ inch deep. Use a planter that insures proper seeding depth and good seed and soil contact like a brilliant seeder or a no-till grass seeder that is capable of handling and placing seed in a uniform manner. Use no fertilizer the establishment year unless soil test indicates a low deficiency of less than 15 PPM of phosphorus and/or less than 90 PPM of potassium. Use no nitrogen during the establishment year as this can encourage weed competition. There are approximately 165,000 seeds in a pound of big bluestem.

### **Seeding Rates for Big Bluestem**

#### **For Pasture and Hay Management:**

A seeding rate of 10 pounds Pure Live Seed (PLS) per acre is sufficient.

#### **For Seed Production:**

A seeding rate of 3.5 pounds PLS per acre in 36 inch rows was used at Elsberry.

### **Management**

Reduce weed competition by mowing over the height of the big bluestem plants or cultivating between the rows. Use a non-selective contact herbicide while dormant or a pre emergent herbicide to control annual and perennial weeds after the big bluestem is established. Remove dead plant material in the spring by burning for faster green up. Big bluestem is a fire climax type grass; it responds positively to burning.

### **Environmental Concerns**

Big bluestem is not known to invade in areas where this species does not naturally occur.

### **References:**

*Flora of Missouri*; p. 932; Steyermark, J. A.; Iowa State University Press, Ames, IA 1968.  
*Gray's Manual of Botany*, p. 232; Fernald, M. L.; Harvard University, Boston, MA, 1950.  
*Manual of the Grasses of the United States*; pp. 749, 751, and 812; United States Department of Agriculture, Washington, DC, 1951.

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