

PLANTING GUIDE

Andropogon gerardii Vitman
species

Common Names
Big bluestem
Turkey foot

Southern Iowa Germplasm

Accession 9068616 **Zone 3 - Southern Iowa**

Description:

Big bluestem 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.)** or more in the 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. It is usually associated with one or more of the other three dominant tall grass prairie species, indiangrass, (*Sorghastrum nutans* (L) Nash.), switchgrass, (*Panicum virgatum* L), and Eastern gamagrass (*Tripsacum dactyloides* L. 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 rivets and tributaries. The abundant, leafy forage is palatable to all classes of livestock.

Purpose: Big bluestem can be used in the following situations: roadside plantings, range seedings, pasture seedings, prairie restoration, prairie landscaping and wildlife cover.

Habitat/Range:

Big bluestem is found throughout the tallgrass region in a variety of prairies ranging from dry to wet. Most common and often dominant in mesic sites.

Source: Seed of this accession **9068616** was collected from native stands located in the southern (Zone 3) counties of the state of Iowa.

Establishment (For Seed Production):

Prepare a clean weed free seedbed by disking and harrowing or chemical weed control. Firm the seedbed by cultipacking. Seedbed should be firm enough to allow the seed to be planted **1/4** inch deep. Big bluestem can also be notilled into sod or crop stubble using appropriate notill equipment and chemical programs. Planting can be made using a grass drill with a seedbox designed for fluffy seed. A billion seeder works well in the seeding operation, although other types of seeders or drills may be used provided debarred seed is used. Plants are cross-pollinated.

Anticipated yields range from **125 - 225** pounds of seed (bulk) per acre.

Big bluestem grows well on deep to shallow, sandy to fine-textured and rocky soils. Seed can be planted in the spring or a dormant seeding can be made in the fall or winter. The seedlings are vigorous; therefore, new plantings can be established quickly. It is ordinarily ready for harvest from September in the South to October in the Northern part of the mid-west region.

Fertilizer: Apply no fertilizer the establishment year unless soil test indicate 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.

Seeding Rates (For Seed Production): Seeding rates for big bluestem should be about **7-10** pounds of pure live seed (PLS) per acre. There are approximately \$65,000 clean seeds in one pound of unbearded big bluestem and **190,000** clean seed in one pound of bearded seed.

For solid stand production, drill three times the seeding rate of row production to maintain 40 PLS per square foot.

For prairie restoration or diverse plantings for wildlife refer to NRCS Iowa - **327** Conservation Cover Standard that pertains to this species.

Seeding Dates: Spring planting (April to June), or a fall dormant planting (November to March).

Management: Reduce weed competition by mowing or cultivating between the rows of big bluestem. For broadleaf weed control usage of a post broadleaf herbicide can provide control and will encourage a good stand. Use label recommendation for application.

Note: Herbicide products may not be registered on this grass species in your state. NRCS does not endorse the use of any product.

See NRCS Iowa Prescribed Burning Practice Code **338** on burning criteria. Burning may be appropriate where plant vigor declines in native plant species or where invader species threaten a native mix stand.

Availability of Plant Materials:

Best material is produced in limited quantities by the Plant Materials Center located at El Dorado, Missouri.

Source identified seed will be available to interested parties.

All quantities of commercial seed will be obtained from the Elsberry Plant Materials Center or the Iowa Crop Production Advisory Committee - Iowa Seed Directory.

6/28/99