

PLANTS FOR CONSERVATION IN THE NORTHEAST
USDA - SOIL CONSERVATION SERVICE

CONSERVATION PLANT SHEET NE- 76

BIG BLUESTEM
(Andropogon gerardi Vitman)

Uses: Big bluestem is used for critical area planting, nesting cover for wild-life, and mid-summer forage production.

Big bluestem is a top choice for erosion control. plantings on sites with moderately well drained to excessively well drained soils. Generally, it is planted in combination with other warm season grasses on these sites.

Big bluestem is one of the most palatable warm season grasses and is preferred over switchgrass by livestock. Therefore in pastures it should be planted alone for best management.

Birds and mammals use big bluestem for nesting and escape cover in summer and winter. It resists lodging under snow cover almost as well as switchgrass.

Description: Big bluestem is a native, perennial grass. It forms a sod with a rhizomatous root system. Big bluestem is tall, reaching a height of 6 to 8 feet on most sites where it is protected from grazing. It is very leafy at the base, with some leaves carried up on the stem. The seed heads normally have 3 spikelets which appear like a 'turkey foot.'

Varieties: There are several midwestern varieties available as certified seed. An eastern variety, 'Niagara' is superior in the northeast and seed should be available in limited quantity by 1988. Until then, 'Kaw' is the variety of choice.

Sources: Seed is available from midwest commercial growers and through local seed companies.

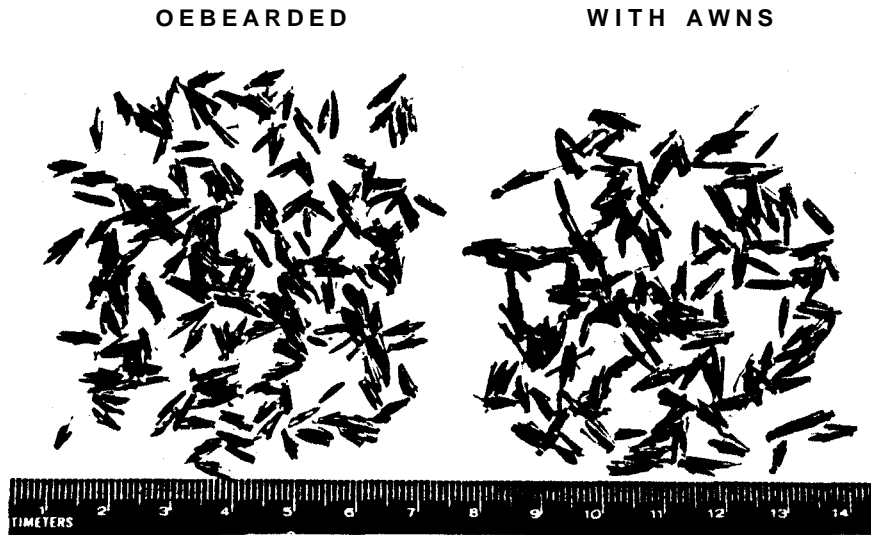
Adaptation: Big bluestem is climatically adapted throughout the northeast on suitable soils i.e. drainage classes moderately well drained through excessively well drained. It is adapted to a range of other soil limitations such as shallow depth, low pH and low fertility.

IDENTIFYING FEATURES

Andropogon gerardi, big bluestem



Planting: Big bluestem should be seeded as early in the spring as possible. Conventional tillage should be used where practical in New York and New England. When no-till must be used due to slope, stoniness or other reasons, the control should be performed in the fall to permit early spring planting. The seeding rate for broadcast or no-till methods should be 10-12 Pure Live Seed pounds per acre. When drills are used to plant, debarbed seed must be utilized unless the drill has a chaffy seed box.



When the seed is broadcast, a packer should be utilized to firm the seedbed and incorporate the seed 1/4 to 1/2 inch (3/4 inch on very droughty sites) as if alfalfa was being planted. No nitrogen fertilizer should be applied during the establishment year unless no weed competition is expected, i.e. on bare sand and gravel mines. If pH is below 5.5, two tons of lime is recommended during site preparation or the fall prior with no-till plantings.

Establishment: Big bluestem has relatively weak seedling vigor compared to weeds and cool season grasses. This control of competition is necessary. High mowing (above the bluestem seedlings) is a common method of weed control. Selected herbicides may have application when forage harvests are not anticipated during the year. When the bluestem is dormant during the fall and spring, applications of Paraquat or Roundup can assist in grass control. Banvel and 2,4-D are effective on broadleaf weeds, but should not be applied until the stand is well established, as seedlings may be adversely affected. Grazing of competing cool season grasses after frost in the fall and before the bluestem is 1 inch tall in the spring is highly desirable, unless soil conditions are too wet.

Management: No harvest of the bluestem during the establishment season should be allowed. During the second growing season, harvesting by controlled pasturing or haying is possible on good stands. The first harvest should not commence until the bluestem is 20 inches tall. It should be grazed (5 days maximum duration) or cut no lower than 8 inches and then protected from use until 20 inches in height is reached again. No cropping should occur below 8 inches or within 1 month of anticipated frosts. After a killing frost, the area may be grazed to 8", but forage quality is greatly reduced and supplementation is recommended for growing animals.

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