

Management

The first harvest of 'Niagara' big bluestem should not occur until it is 20 inches tall. It should not be cut or grazed below 8 inches and grazing should begin before the first seedhead emerges from the sheath. Allow plants to recover to 24 inches before utilizing again. For hay, 'Niagara' should be cut before heading, leaving a 6" stubble height. Take soil tests and apply fertilizer accordingly. For good production, 50 pounds of nitrogen applied in the spring will improve the quality and quantity. Dense, vigorous, well managed stands will not need weed control. If weeds develop, control them by clipping, increasing grazing pressure, and using herbicides. Prescribed burning can be effectively used on 'Niagara' in wildlife habitat management areas.

Availability

For sources of supply for 'Niagara' or for more information on the availability, planting and use of 'Niagara,' contact your local NRCS office or Soil and Water Conservation District Office.

For More Information

Visit our Plant Materials Internet site at <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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'Niagara' big bluestem



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An improved
conservation
plant developed by
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Materials Center,
Corning, NY



'Niagara' big bluestem

'Niagara' big bluestem (*Andropogon gerardi*) is a native, perennial, warm season grass. It is a major component of the tall-grass vegetation which once dominated the prairies of the Central and Eastern United States. 'Niagara' can be used alone or in mixtures for livestock forage in pastures and hayland. This plant provides mid-summer forage to supplement the commonly grown cool season grass production. Big bluestem is also excellent for wildlife habitat, critical area seedings, roadside beautification and erosion control. Big bluestem can be utilized in mixes with such grasses as switchgrass, indiagrass, and little bluestem.

'Niagara' big bluestem (PI-315656), originally was collected in Erie County, New York, and was released for its superiority over mid-western cultivars in the east. The USDA Natural Resources Conservation Service, Agricultural Research Service, Pasture Systems and Watershed Management Research Lab and the Pennsylvania State University cooperated in the release.



Description

Big bluestem is a rhizomatous grass that grows 6 to 8 feet tall. As a seedling, it can be distinguished from other native grasses by long

white hairs on the upper leaf surface near the base of the blade. The seedheads normally have three finger-like branches that appear like a "turkey foot." The stems are round and usually hairy with a reddish-purple tint at the base and the leaf blades are long and flat. Big bluestem exhibits a bluish to bronze color in late summer and fall.

Adaptation

'Niagara' big bluestem has been successfully grown in the Eastern United States as far south as Tennessee and as far west as Kansas, however it is recommended from West Virginia to Maine. It is adapted to various soil types, but grows best on moist, well drained, fertile loam, where its roots may reach deeper than 10 feet. This plant also grows well on soils with low moisture holding capacity, which makes it ideal for erosion control and revegetation of droughty sites such as sand and gravel pits, strip mines, and roadsides.

Area of Adaptation for 'Niagara'



Performance

'Niagara' big bluestem can be utilized widely due to its extensive root system, and tolerance of hot, dry conditions, low phosphorous soils, and low pH. Songbirds, game birds and small mammals utilize the seed of big bluestem plus they use the field for nesting and cover in the summer and winter. Big bluestem is one of the most palatable, warm season grasses and can



provide mid-summer forage. 'Niagara's' persistence and productivity exceeds other big bluestem cultivars in the Northeast. This plant can be effectively utilized in rotational grazing systems, but it is best if the pasture is seeded to 'Niagara' alone, for easiest management. Plants will regrow quickly after grazing and it has no known disease problems.

Establishment

Successful plantings of 'Niagara' require a well prepared, firm, weed-free seed bed. The seeding rate for drilling is 8-10 pounds per live seed (PLS) per acre. A drill with a fluffy seed box must be used unless the seed has been debearded. No nitrogen fertilizer should be applied at establishment. Apply P&K to meet soil test recommendations. Seeding should be done in the spring, before June. 'Niagara' is slow to establish. Stands will reach full height at the end of the second growing season. Weed control by mowing or herbicides is important in the first year. Do not graze or cut hay until the stand is established in the second year. An alternative seeding method is to broadcast the seed, but cultipacking after seeding is crucial. It is essential that the seed be incorporated in the soil and the seed bed is firm.