

'Elida' sand bluestem

Andropogon hallii
Hack.



'Elida' sand bluestem (*Andropogon hallii*)

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Department of Systematic Biology-Botany

'Elida' sand bluestem was released in 1963 by the New Mexico State University's Los Lunas Agricultural Science Center and the Los Lunas Plant Materials Center in Los Lunas, New Mexico.

Description

'Elida' sand bluestem is a warm-season, perennial, native bunchgrass that spreads from prominent rhizomes reaching 4 to 8 inches in length. Culm height averages about 6 feet and supports substantial foliage which extends up to 48 inches on the culms. It has a J-shaped stem base, and the culms are solid, and grooved on one side. Leaf blades have margins with none-to-few hairs, have prominent midribs, strongly ridged on the upper surface but not below. The leaf collar is often hirsute. Most leaves are found near the base.

Source

Original seed was collected in 1956 from the sand dune area southeast of Elida, New Mexico. Elevation at the collection site was 4,345 feet, and annual precipitation averaged 15.7 inches.

Conservation Uses

- **Erosion control:** Sand bluestem is often used in erosion control plantings on sandy, loamy-sand or sandy-loam sites. It establishes quickly where its rhizomes aid in stabilizing sandy soils. Generally, it is planted as part of a mixture with other warm-season grass species.
- **Forages:** Sand bluestem is good-to-excellent forage due to its palatability and high yield. It is an important component of many native hay meadows and range pastures. The nutritive value of sand bluestem rises and falls with the growing season. It is high in crude protein and palatability until just prior to seed head formation. After seed heads are formed, the nutritive value and palatability decreases significantly.
- **Wildlife:** Sand bluestem is a good-to-excellent forage for all browsing wildlife species. Because it frequently grows in large clumps and retains an upright structure throughout the winter, it makes an excellent nesting habitat for many upland birds and small mammals. Its seed is also a food source for wildlife.
- **Ornamental Landscaping:** As xeric landscaping becomes more popular, the use of sand bluestem has increased in yard plantings. Because of its height and erect growth form, many consider it an excellent plant for lawn and flowerbed borders.

Area of Adaptation and Use

Sand bluestem is climatically adapted throughout the Midwest and Great Plains Region on sandy, loamy-sand, or sandy-loam soils. Typically, sand bluestem is not found where annual precipitation is less than 14 inches, greater than 30 inches, or on soils with a high-clay component.

Establishment and Management for Conservation Plantings

Seed sand bluestem in the spring just before the start of the growing season. Using a drill specifically built for seeding native grasses is recommended. The seeding rate varies from 6 to 12 pounds Pure Live Seed (PLS) per acre. Broadcast seeding can result in significantly fewer viable seedling sand should only be done on small acreages where drilling the seed is not feasible.

Do not harvest seed during the establishment period. The first harvest should not occur until the bluestem is 20 inches tall. In pastures, it should be grazed (5 days maximum duration) or cut no lower than 8 inches, and

then it should be protected from use until it reaches 20 inches in height again.

Do not cut to below 8 inches or within one month of anticipated frosts. Herbicide applications for weed control should be considered when weeds create more than 50 percent of the canopy.

- *Native Hay Meadow*: Meadows where sand bluestem is an important component, mow 1 to 3 weeks before seed head formation and no closer than 4 inches above the soil. Regrowth is determined by the mowing date and weather conditions. The meadow must be mowed before boot stage if significant regrowth is to occur. If the cut meadow is grazed livestock should only be placed on it after the first killing frost.
- *Livestock Grazing*: Cattle and horses prefer sand bluestem over many other grasses and forbs. When sand bluestem is repeatedly overgrazed (closer than 6 to 8 inches during the growing season), it decreases in population and may be replaced by less productive and desirable vegetation. The old rule of thumb, "Take half and leave half," works well when dealing with sand bluestem. At the end of the grazing season, the average height of sand bluestem plants in a well-managed prairie should be at least 6 inches. If the pasture is to be grazed during the winter, the grass should be at least 8 inches tall to help trap moisture and as a forage reserve.

Recommendation: Prescribed burning can be used to maintain or improve prairie ecosystems. Fire can reduce competition from competitive cool-season grasses and remove many invasive woody species. However, because sand bluestem predominantly grows on sandy soils, this must be taken into account or "blowouts" may occur. Burning should be done when new spring shoots are ½- to 2-inches long.

Ecological Considerations

This plant may become weedy or invasive in some regions or habitats, and may displace desirable vegetation if not properly managed.

Seed and Plant Production

While being tested, seedling vigor and seed and forage production was superior to 'Woodward' sand bluestem. 'Elida' sand bluestem averaged 150 lbs. seed per acre above 'Woodward,' or an average of 342 lbs. bulk seed per acre (40% PLS).

Availability

Foundation seed is produced by the Los Lunas Plant Materials Center and is available to certified growers through New Mexico State Seed Certification.

For more information, contact:
Los Lunas Plant Materials Center
1036 Miller Road
Los Lunas, NM 87031
Tele: 505-865-4684
FAX: 505-865-5163
<http://plant-materials.nrcs.usda.gov/nmpmc/>

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/>>



United States Department of Agriculture

This is a cooperative release between New Mexico State University's Los Lunas Agricultural Science and the USDA-Natural Resources Conservation Service's Los Lunas Plant Materials Center.

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