



GRASSES

Native to Short Grass Prairie
Native to Mixed Grass Prairie

BLUE GRAMA

(*Bouteloua gracilis*)

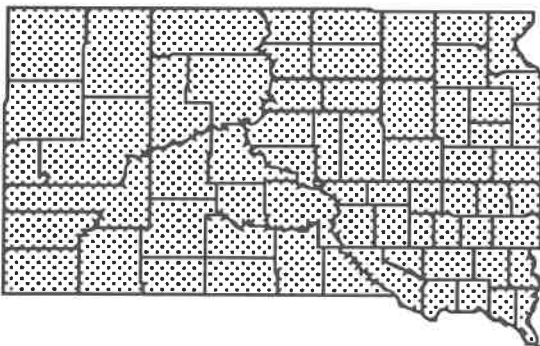
Description

Have you ever walked across the prairie in South Dakota and noticed a short grass with a seedhead that looks like one or two eyebrows on a short stalk? If so, it was probably blue grama. Blue grama, *Bouteloua gracilis*, is named for a Spanish writer, Claudio Boutelou, who wrote about agriculture and lived from 1774 until 1842. The species name, *gracilis*, is a Latin word meaning slender.

Blue grama leaves are curly and slender, 0.04 to 0.1 inches (1 to 3 mm) wide and 3 to 6.1 inches (7.5 to 15.5 cm) long. Most of the leaves grow at the base of the round, thin, unbranched plant stem. This leaf growth pattern is called *tufted*. Sparse, fine hairs occur on the underside of each leaf. The seedheads resemble an



eyebrow, because all of the flower parts are arranged very close together on one side. The seedhead grows on the stem 9.8 to 19.7 inches (25 to 50 cm) above the ground. Blue grama, like most other grasses, has *fibrous roots*.



Species Distribution

Blue grama is easy to find in the short grass or mixed grass prairie because of its short stature compared to other prairie vegetation, the curly nature of its leaves, and the eyebrow appearance of its seedhead. A similar species, buffalograss, is also a short plant with curly leaves, but blue grama lacks the above ground runners characteristic of buffalograss.

Distribution

Blue grama is native to North America and is a *dominant* plant of the short grass prairie in the western plains of South Dakota. In western South Dakota, it is commonly found in association with buffalograss on relatively flat, rolling plains. Blue grama also grows on the sod tables in the badlands formations.

Natural History

Blue grama is one of the most common grasses of South Dakota. The species reproduces sexually by seed production and also *asexually* by the production of very short *rhizomes*, which are underground stems capable of producing

a new plant. Blue grama is a *perennial* species that is classified as a warm season grass. This means that it begins to grow as temperatures rise in the late spring, and then flowers in the summer.

Significance

Like buffalograss, blue grama is an important component of both the short grass and mixed grass prairies of the western plains. It is a drought resistant species that provides nutritious food for wildlife and livestock in all seasons. In the southern Great Plains it is used extensively in mixtures for roadside seedings and re-establishment of native ranges.

Glossary

Asexual reproduction - the type of reproduction that is accomplished by an individual without genetic contribution from another individual. The resulting offspring of asexual reproduction are genetically identical to the parent plant.

Dominant species - the species in a community that significantly influences that community due to its greater population, size, or coverage.

Fibrous roots - roots that have many slender fibers in contrast to a taproot such as a carrot.

Perennial - plant that can live more than two years.

Rhizomes - underground stems capable of asexually producing a new plant.

References

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- Johnson, James and James Nichols, 1982. Plants of S. Dakota Grasslands. SDSU, Brookings, SD 57007.
- Hitchcock, A.J., 1971. Manual of Grasses of the U.S. Dover Publications, New York.
- Looman, Jan, 1982. Prairie Grasses, Pub. 1413. Canadian Government Publishing Centre, Ottawa, Canada
- VanBruggen, Theodore, 1983. Wildflowers, Grasses and Other Plants of the Northern Plains and Black Hills. Badlands Natural History Assoc., Interior, SD 57750.

Resources for Teachers

SDSU Range Club, College of Ag. and Biological Sciences, Brookings, SD 57007; dried plant mounts.

BHSU Herbarium, Spearfish, SD 57799; dried plant mounts.

County Extension Agents, U.S. Forest Service and Soil Cons. Service Offices (See Natural Source Directory).

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