

GRASSES

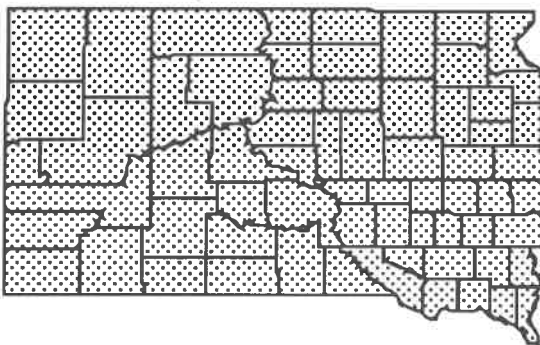
**Native to Tall Grass Prairie
Native to Short Grass Prairie**

WESTERN WHEATGRASS

(*Agropyron smithii*)

Description

Not only does South Dakota have a state flower, state rock, state soil, state tree and state flag, it has a state grass; western wheatgrass. This species was designated the South Dakota state grass in 1970 by an act of the state legislature. Western wheatgrass was chosen because it is a common species that is one of the few that can be found throughout the entire state. If you are looking over an area in South Dakota in early summer and see a strange blue-green patch of grass, that's probably western wheatgrass.



Species Distribution

The name, *Agropyron*, comes from the Greek words "agrios" meaning wild and "pyros" meaning wheat. *Smithii* refers to the botanist, Gerald Smith, who discovered the species. The stem of this



grass is blue-green in color and grows from 12 to 35 inches (30 to 90 cm) high. The leaves, which are also blue-green, come off the stem at a 45 degree angle. They are stiff and flat, mostly smooth with a strongly ribbed upper surface. The upper surface is rough to the touch. Leaves have a dark purple *collar* and *auricles*. The seedhead is a slender spike.

Distribution

Western wheatgrass grows in a variety of soils, especially clay, and is found in most of the United States, except the southeast. It is a native grass whose major range is in the northern and central Great Plains. The species is found throughout South Dakota, and is one of our most common grasses.

Natural History

Western wheatgrass is a cool season species that starts growing in May and June when the temperatures reach approximately 54 degrees Fahrenheit (12 degrees centigrade). The species goes dormant in the summer, and will begin growing again in the fall when temperatures cool. Western wheatgrass is a *perennial* that reproduces both sexually, with seeds, and *asexually*, with underground stems, called *rhizomes*. Single grass stems arise from the spreading *rhizomes*.

Significance

Western wheatgrass is good *forage* for cattle, horses, and sheep, but only fair

quality food for pronghorn antelope and other wildlife. This grass cures well and will therefore provide good winter grazing or hay. It is commonly used to seed roadside ditches and to reclaim other disturbed areas.

The vigorous *rhizomes* characteristic of the species make it very tolerant of grazing pressure by domestic and wild animals. In fact, moderate grazing stimulates production of new sprouts and increases the vigor of the plant. Because western wheatgrass sprouts from *rhizomes*, it can recover quickly from prolonged drought. It often is the first species to fill areas that have lost vegetation due to long dry spells.

Glossary

Asexual reproduction - the type of reproduction that is accomplished by an individual without the help of another individual. The resulting offspring will be genetically identical to the adult.

Auricles - ear-like lobes at the base of leaf blades.

Forage - food for animals.

Rhizome - modified underground stem that can asexually produce a new plant.

Perennial - a plant that can live more than 2 years.

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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