



## Grass Identification

The vegetation of Konza Prairie is predominantly **tallgrass prairie** with limited **gallery forests** along the larger streams.

**Tallgrass prairie** = consists of grasses, forbs (wildflowers), shrubs and trees but the distinctive feature is the dominance of warm season grasses.

**Gallery forest** = a forest that forms a corridor along a river or stream and projects into landscapes that are otherwise only sparsely forested such as grasslands or deserts.

Most abundant warm season grasses:

|                        |                                       |
|------------------------|---------------------------------------|
| <b>Big Bluestem</b>    | <b><i>Andropogon gerardii</i></b>     |
| <b>Little Bluestem</b> | <b><i>Schizachyrium scoparium</i></b> |
| <b>Indiangrass</b>     | <b><i>Sorghastrum nutans</i></b>      |
| <b>Switchgrass</b>     | <b><i>Panicum virgatum</i></b>        |
| <b>Sideoats Grama</b>  | <b><i>Bouteloua curtipendula</i></b>  |

These grasses are perennials = plants that live for many years; producing new foliage, flowers, and seeds annually. Their foliage may die back or burn completely to the soil surface each year but the vast majority of its body ("biomass") is safely located underground.

These grasses are easiest to identify when they have produced **seed heads** – in late July through September. These grasses are illustrated and described in the booklet "*Range Grasses of Kansas*" that is included in your Docent Handbook. It is also helpful to have someone knowledgeable to show you the distinguishing characteristics with the illustrations in hands.

In the spring and early summer when the seed heads are not available identification of the grasses is more difficult. Here are some basic tips for grass identification (minus the seed heads):

**Big Bluestem:** Stems are oval (not round) and often hairy at the base, grooved on one side, and covered with a whitish, waxy layer that rubs off easily ("glaucous layer" - like that seen on the skin of grapes). The blades are flat, without hairs ("glabrous") and have a thickened midvein. Plants turn a red-orange color after frost.

**Little Bluestem:** Grows in a bunch and is referred to as a "bunch grass". The clustered bunch is very easy to see after a burn. The stem is oval "0" (not round "o") and somewhat flattened when you roll it between your fingers. The base of the stems may be purple to blue-green in color. Plants become pinkish red after frost and remain standing all winter, providing good shelter for wildlife.

**Indiangrass:** Has a distinctive 2-pronged ligule (at the juncture of the leaf blade and the stem) that may be seen when the blade is pulled back. Blades are flat and hairless, becoming narrower at the base.

**Switchgrass:** It has a small nest of hair at the ligule . Arising from tough rhizomes, switchgrass stems are often clustered in large bunches.

**Sideoats Grama:** Perpendicular hairs on the sides of the grass blades help to identify this common grass. Otherwise, this grass is the smallest of the common warm-season grasses.

#### Percent Composition

| Species         | Upland location | Lowland location |
|-----------------|-----------------|------------------|
| Big Bluestem    | 25%             | 30%              |
| Indiangrass     | 15%             | 15%              |
| Little Bluestem | 20%             | 20%              |
| Switchgrass     | 2%              | 3%               |
| Sideoats Grama  | 5%              | 2%               |
| Blue Grama      | 3%              | 0                |
| Buffalograss    | 3%              | 0                |
| Other grasses   | 8%              | 10%              |
| Sedges          | 5%              | 10%              |
| Annual forbs    | 4%              | 2%               |
| Perennial forbs | 10%             | 8%               |

Another grass found extensive along the Nature Trail is **Smooth Brome** which is a cool season grass that was introduced to North America from Europe early in the 1900's and became "naturalized". **Naturalization** = a non-native plant that becomes established and reproduces in an area other than its native site. It was planted in plowable ("arable") fields of the Dewey Ranch to provide grazing during the fall and spring. Smooth Brome grows and remains green late in the fall and revives early in the spring when the warm season grasses are dormant. The leaves are smooth and hairless and have the pattern of a single W or M on the eaves as though it were embossed there.

Two other grasses that are distinctive are Eastern Gammagrass and Prairie Cordgrass.

**Eastern Gammagrass:** large grass with large, rough-edged leaves. The leaves grow from a short, thick rhizome which is obvious without digging and very obvious after a burn. The seed heads are unusual, having staminate and pistillate flowers on the same spike. There is an abundance of these plants along the west side of the Hulbert Plots. This plant is an ancestor to modern corn.

**Prairie Cordgrass:** leaves are long, thin and very sharp along the edge – to the point that they can cut skin. Other common names are "slough grass" and "rip gut". This is an abundant grass on the Hokanson Homestead road leading off of the Bison Loop road.