

Grass facts!

Prairie grasses have much longer roots than the grasses you are familiar with in your yard.

- These root systems tend to be at least as deep as the grass is tall.
- For the tallest grasses, like switch grass and big bluestem, which can both stand around 6 feet tall, their roots may reach up to 10 feet deep!
- This adaptation allows prairie grasses (and other prairie plants as well) to reach moisture in the soil during the heat of summer.
- It also allows them to become dormant, retreating to just their roots during fires and freezes.

Grasses are categorized in two groups: Cool season and warm season grasses.

- Cool season grasses do most of their development in the spring and early summer, when temperatures are cooler and rain more frequent.
- By the heat of summer, cool season grasses are done flowering and fruiting and slow growth or become dormant.
- Warm season grasses have slow growth until the heat of summer, at which point they accelerate their growth and begin their reproductive season.
- Both types of grass end their growing seasons when the nights get cold and the first frost hits.

We manage the prairies in the Arboretum with controlled burns.

- By burning sections of the prairie each year we are able to keep trees from taking over our prairies, since they are not specialized to survive burns.
- The burns also remove the dead material from last year's growth, allowing more sun to reach the new growth, and providing it with nutrients in the form of ash.

The Arboretum's prairie is largely restoration from agricultural land.

Native prairies in our area, like nearby McKnight Prairie, generally contain 35 species or more of native grasses.

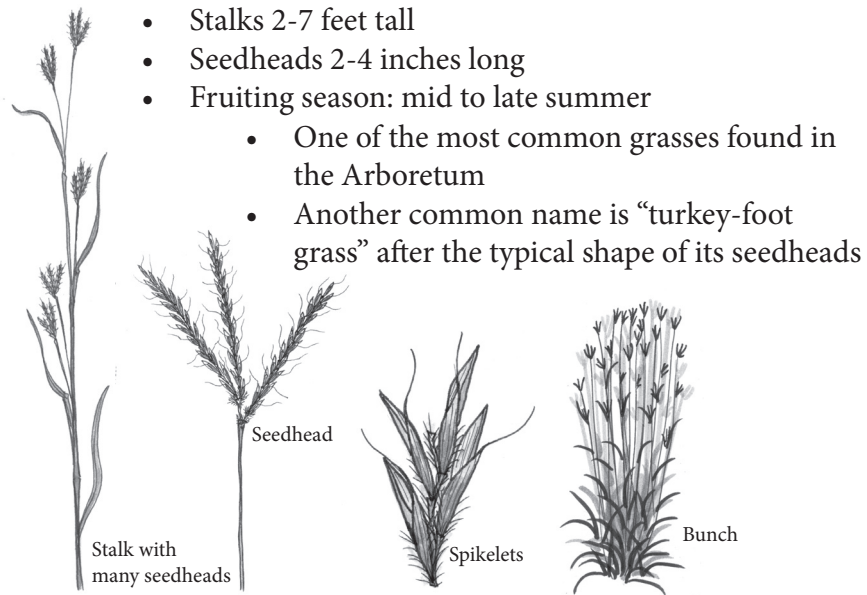
A Guide to Common Prairie Grasses Carleton College Cowling Arboretum



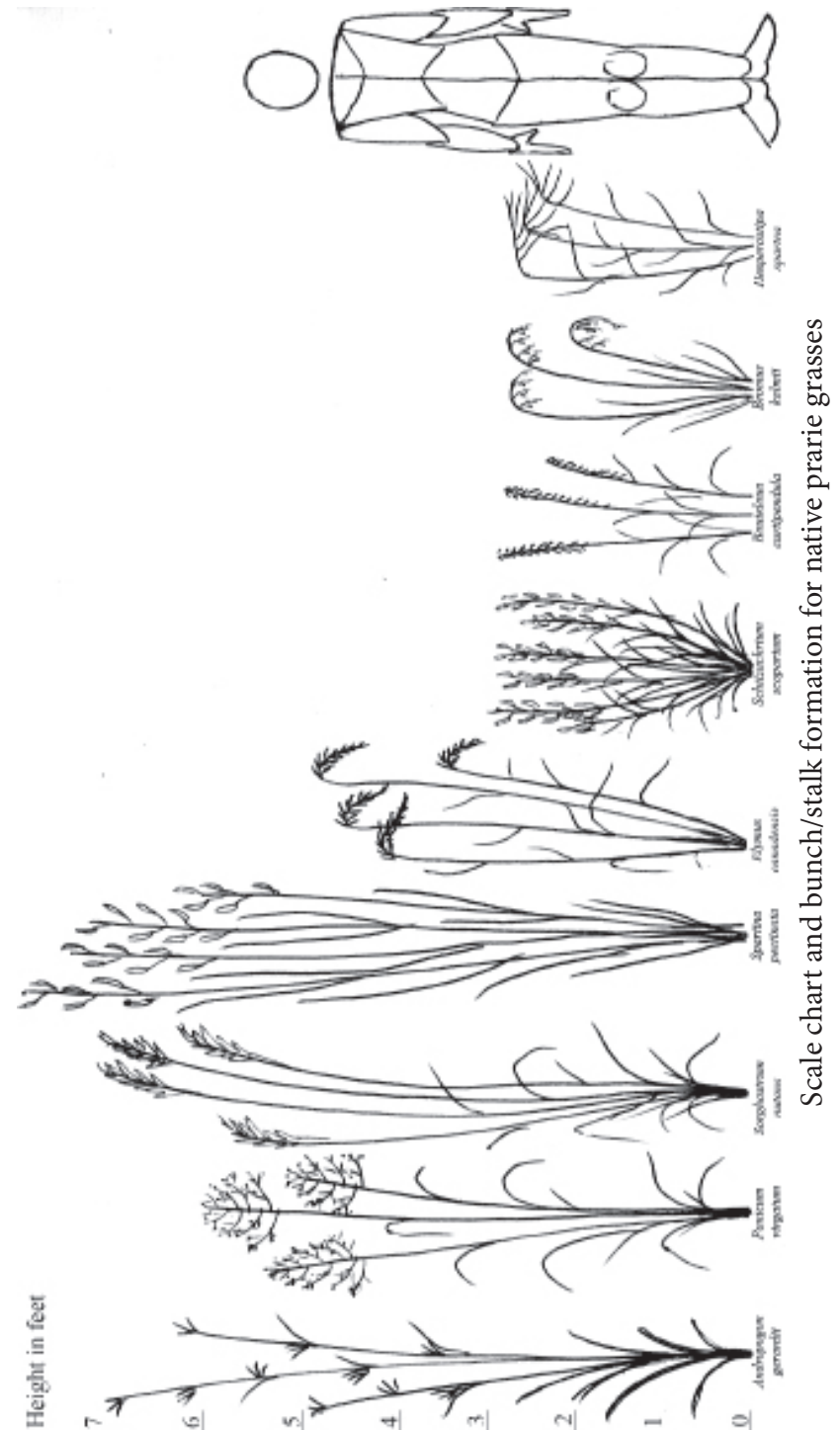
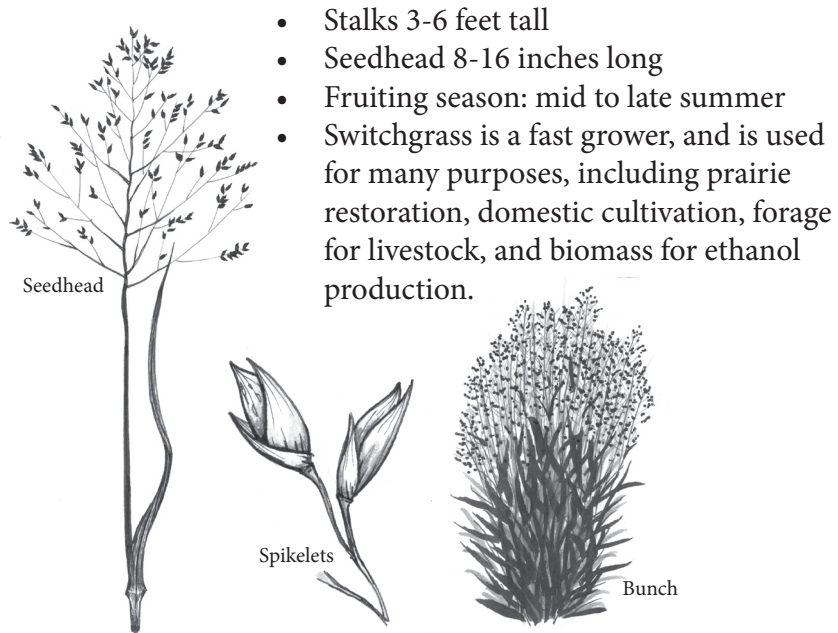
Schizachrium scoparium

Carleton College's Cowling Arboretum (Arb) consists of approximately 800 acres adjacent to the College. The Arb boasts several diverse habitats including tallgrass prairie and oak savanna restorations, upland forest and floodplain habitats bordering the Cannon River.

Big Bluestem *Andropogon gerardii*



Switch Grass *Panicum virgatum*

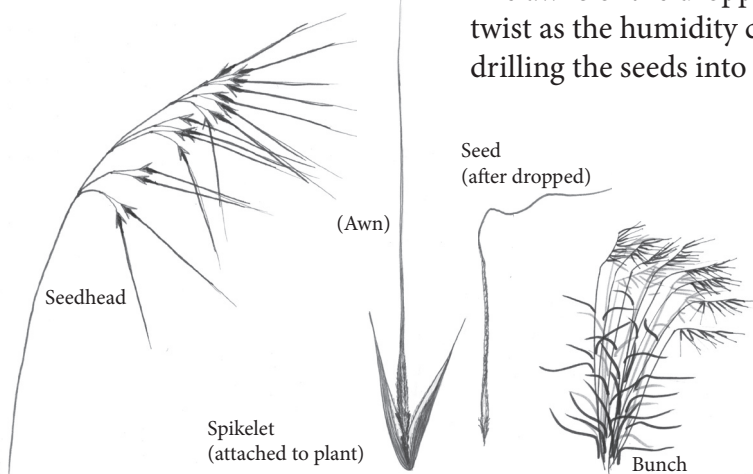


Scale chart and bunch/stalk formation for native prairie grasses

Porcupine Grass

Hesperostipa spartea

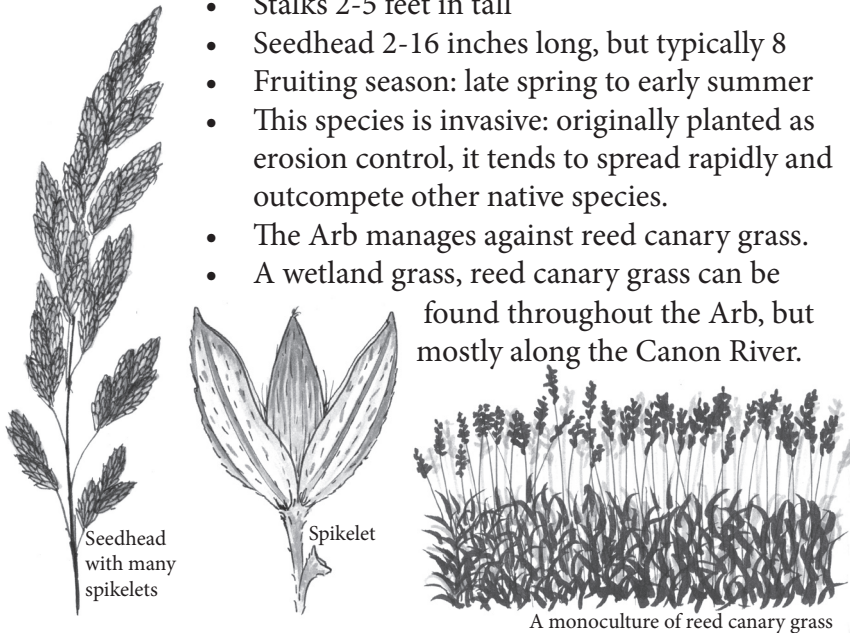
- Stalks 2-3 feet tall
- Seedhead 4-10 inches long, seeds 4-8 inches long
- Fruiting season: Spring
- The awns of the dropped seeds twist as the humidity changes, drilling the seeds into the soil.



Reed Canary Grass

Phalaris arundinacea

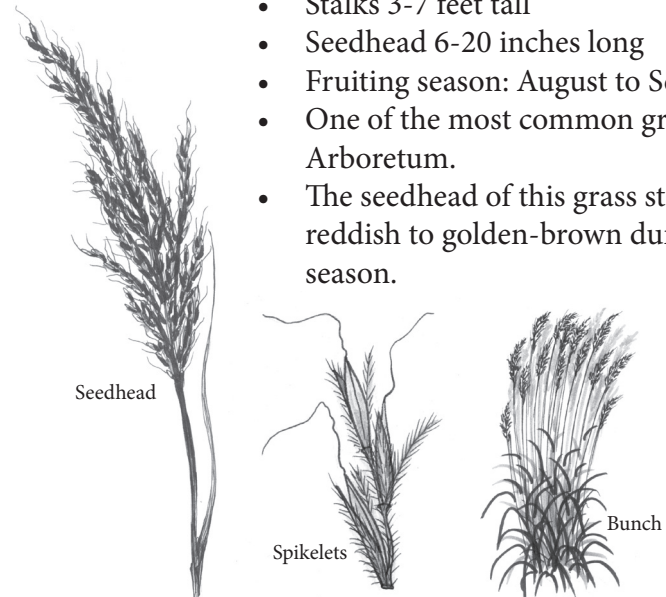
- Stalks 2-5 feet in tall
- Seedhead 2-16 inches long, but typically 8
- Fruiting season: late spring to early summer
- This species is invasive: originally planted as erosion control, it tends to spread rapidly and outcompete other native species.
- The Arb manages against reed canary grass.
- A wetland grass, reed canary grass can be found throughout the Arb, but mostly along the Canon River.



Indian Grass

Sorghastrum nutans

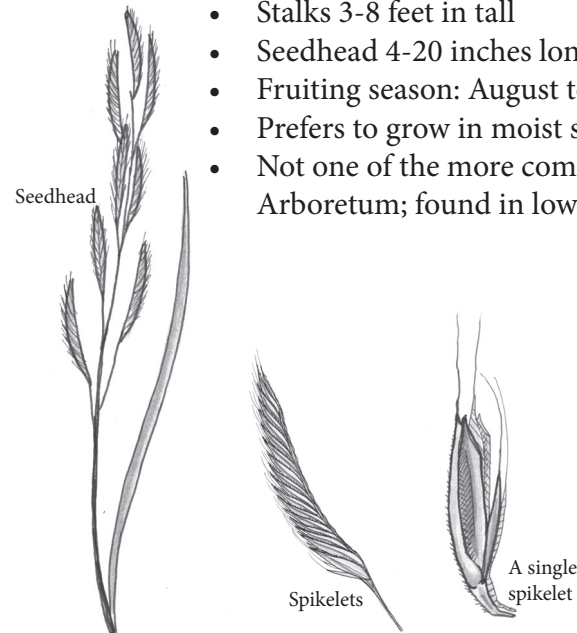
- Stalks 3-7 feet tall
- Seedhead 6-20 inches long
- Fruiting season: August to September
- One of the most common grasses in the Arboretum.
- The seedhead of this grass stands out as reddish to golden-brown during its fruiting season.



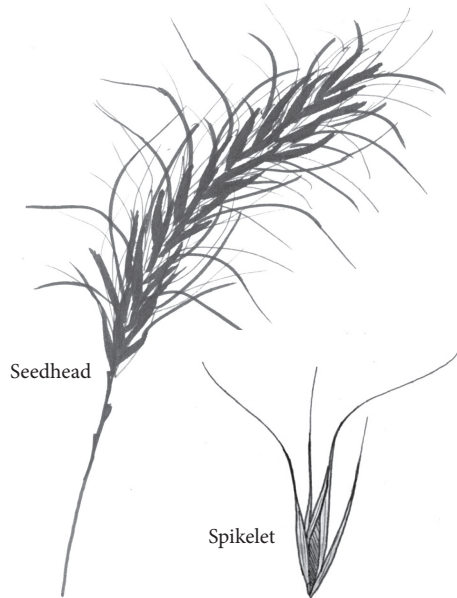
Prarie Cordgrass

Spartina pectinata

- Stalks 3-8 feet in tall
- Seedhead 4-20 inches long
- Fruiting season: August to October
- Prefers to grow in moist soil.
- Not one of the more common grasses in the Arboretum; found in low and/or wet areas.

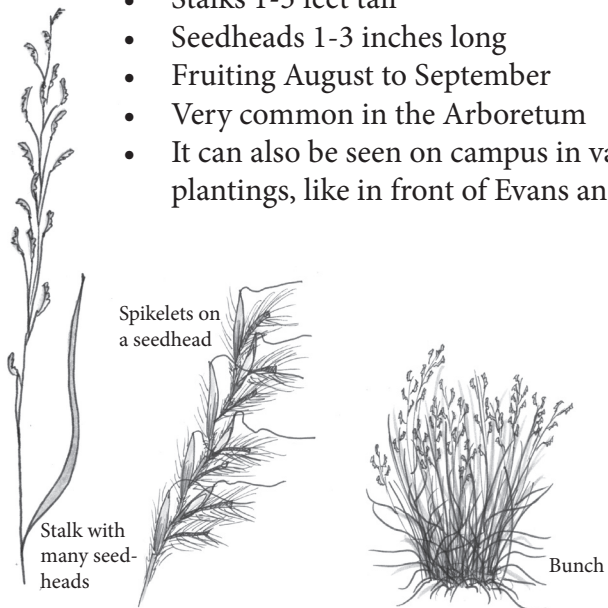


Canada Wild Rye
Elymus canadensis



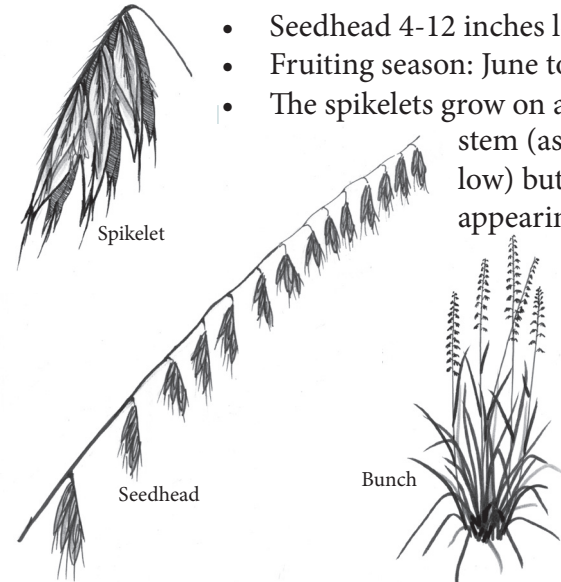
- Stalks 1-5 feet tall
- Seedhead 4-10 inches long
- Fruiting season: July to August
- There are 9 different species of *Elymus* in Minnesota, but Canada wild-rye is the most common native *Elymus* in the state, as well as in the USA.
- Like prairie cograss and Kalm's brome, this is not a bunch grass, and grows as individual stalks with leaves around the base.

Little Bluestem
Schizachrium scoparium



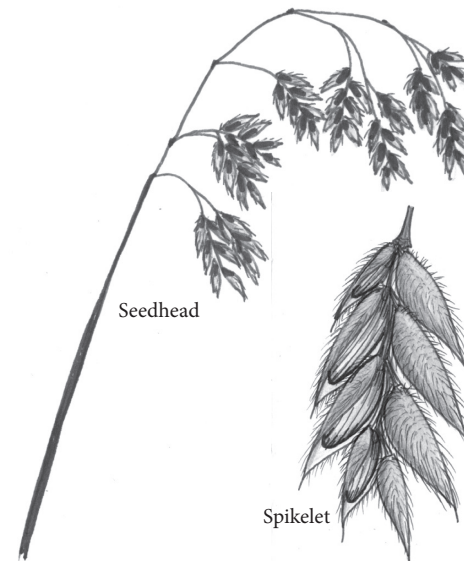
- Stalks 1-3 feet tall
- Seedheads 1-3 inches long
- Fruiting August to September
- Very common in the Arboretum
- It can also be seen on campus in various decorative plantings, like in front of Evans and Burton.

Sideoats Grama
Bouteloua curtipendula



- Stalks 1-3 feet tall
- Seedhead 4-12 inches long
- Fruiting season: June to August
- The spikelets grow on alternating sides of the stem (as seen in the bunch below) but all droop downwards, appearing to be on one side.

Kalm's Brome
Bromus kalmii



- Stalks 2-3 feet tall
- Seedhead 2-4 inches long
- Fruiting season: June to August
- Also called prairie brome
- Very similar to its relative *Bromus latiglumis*, also found in the Arb. One difference to look for is size: *B. latiglumis* can be up to 4 feet tall, and its spikelets are greater in both size and number per seedhead. Additionally, *B. kalmii* spikelets are covered in whiteish velvety hairs.