**Warm-Season Pasture and Hayland**

### Big bluestem
- Tall, sod-forming grass with high palatability and forage quality in mid-summer.
  - **Bison** – earliest maturing variety
  - **Bonilla** – matures two weeks later than Bison
  - **Sunnyview** – matures three weeks later than Bison; most productive variety

### Switchgrass
- Tall, rhizomatous grass with yield potential of over five tons/acre on good sites. Palatability and forage quality not as good as big bluestem or Indiangrass. Recent information documents potential toxicity to sheep, goats, and horses grazing on pure switchgrass.
  - **Dacotah** – earliest maturing and shortest variety; upland type
  - **Forestburg** – two weeks later than Dacotah; higher forage yield

### Indiangrass
- Tall, sod-forming grass with excellent palatability and forage quality. Will not persist on drier sites. Forage production not as good as big bluestem or switchgrass.
  - **Tomahawk** – earliest maturing variety of Indiangrass

### Sideoats grama
- Drought tolerant mid-grass that can provide high quality forage on shallow soils and steep slopes. Excellent seedling vigor and establishment.
  - **Pierre** – earliest maturing formal variety
  - **Killdeer** – informal release; one week earlier than Pierre; no certification

### Prairie cordgrass
- Tall, wet site species with strongly spreading, scaly rhizomes. Fair palatability in late spring prior to boot stage.
  - **Red River Germplasm** – only seed propagated release commercially available

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*Partners include USDA Agricultural Research Service at Mandan, ND, and Lincoln, NE; North Dakota Agricultural Experiment Station; South Dakota Agricultural Experiment Station; and Minnesota Agricultural Experiment Station.*
Cool-Season Pasture and Hayland

Crested wheatgrass
- Drought tolerant, long-lived bunchgrass with very early green-up.
  - **Nordan** – old variety but still in demand for early season pasture, especially on droughty sites
  - **NU-ARS AC2** – broadly adapted composite with stable yields

Creeping foxtail
- High forage quality, long-lived sod forming grass that grows best on wet or imperfectly drained soils; the seed is light and fluffy.
  - **Garrison** – matures early and seed shatters readily

Intermediate/pubescent wheatgrass
- Vigorous, fast-growing sod-forming grass that is easy to establish. High forage yields with good digestibility.
  - **Reliant** – good compatibility with alfalfa
  - **Manska** – improved animal daily gains
  - **Haymaker** – higher average forage yields
  - **Manifest** – higher forage yields and persistence under grazing

Russian wildrye
- High forage quality, long-lived bunchgrass with fine basal leaves that is used primarily to extend the grazing season into late fall. Protein content remains at relatively high levels when saved for fall grazing.
  - **Mankota** – selected for improved seedling vigor, leaf disease resistance, and higher forage yields

Western wheatgrass
- Drought resistant, long-lived sod-forming grass with excellent saline tolerance and adaptation to clay soils. Also tolerates flooding. Stands develop slowly from seed but spread quickly by rhizomes.
  - **Rodan** – more productive on coarse textured soils and in higher rainfall areas

Canada wildrye
- Easy to establish, short-lived species with large coarse leaves, excellent seedling vigor, and fair palatability. Performs well on sandy soils and has some flooding tolerance.
  - **Mandan** – an old variety that has experienced renewed interest primarily for its compatibility with native mixtures and its adaptation to sandy soils

Green needlegrass
- Drought tolerant, early maturing bunchgrass adapted to a wide range of soils. Good forage quality. Seed may have a high level of dormancy.
  - **Lodorm** – selected for lower seed dormancy
Rangeland and Prairie Restoration

Blue grama
- Drought tolerant, warm-season short-grass with excellent forage quality.
  - **Bad River Ecotype** – earliest maturing variety; large caryopsis and excellent establishment

Canada wildrye
- Easy to establish, short-lived cool-season species with large coarse leaves, excellent seedling vigor, and good performance on sandy soils. Reseeds readily if given the opportunity.
  - **Mandan** – an old variety that has experienced renewed interest primarily for its compatibility with native mixtures and its adaptation to sandy soils

Sideoats grama
- Drought tolerant, warm-season mid-grass that performs well on shallow soils and steep slopes. Excellent seedling vigor and establishment.
  - **Pierre** – earliest maturing formal variety
  - **Killdeer** – informal release; one week earlier than Pierre; no certification

Little bluestem
- Drought tolerant, warm-season mid-grass that performs well on shallow soils and steep slopes. Fuzzy seed may be difficult to plant unless debearded.
  - **Badlands Ecotype** – early maturing release with primary area of northern adaptation to the Dakotas and westward
  - **Itasca Germplasm** – early maturing release with primary area of northern adaptation from the Dakotas and eastward

Western wheatgrass
- Long-lived, drought tolerant, cool-season adapted to a variety of sites but performs exceptionally well on clay soils. Stands develop slowly from seed, but fill in quickly from strong rhizomes. Good forage quality. High tolerance to salinity.
  - **Rodan** – more productive on coarse textured soils than other varieties and in areas of high rainfall

Indiangrass
- High forage quality but adapted only to higher moisture sites and drainage areas.
  - **Tomahawk** – earliest maturing variety of Indiangrass

Green needlegrass
- Early season, drought tolerant, cool-season bunchgrass that is highly palatable and adapted to a wide range of soils. Awned seed does not cause livestock injury. Seed may have high dormancy.
  - **Lodorm** – selected for lower seed dormancy
Rangeland and Prairie Restoration (continued)

Big bluestem
- High forage quality warm-season grass adapted to higher moisture sites and drainage areas.
  - Bison – earliest maturing variety
  - Bonilla – matures two weeks later than Bison
  - Sunnyview – matures three weeks later than Bison; most productive variety

Switchgrass
- High forage producing warm-season grass adapted to higher moisture sites and drainage areas. Recent information documents potential toxicity to sheep, goats, and horses grazing on pure switchgrass.
  - Dacotah – earliest maturing variety; upland type with some drought tolerance
  - Forestburg – two weeks later than Dacotah with higher forage production

Prairie cordgrass
- Adapted to wet sites only.
  - Red River Germplasm – only seed propagated release commercially available

Wet and Seasonally Flooded Areas

Canada wildrye
- Establishes quickly and adapted to sandy soils. Short-lived cool-season that reseeds readily. Inundation to 20 days.
  - Mandan – earliest maturing variety

Western wheatgrass
- Long-lived species with excellent rhizome spread. Well adapted to clay soils. Good saline tolerance. Inundation to 60 days.
  - Rodan – performs well on coarser textured soils and in higher rainfall areas

Creeping foxtail
- High forage quality. Spreads aggressively from rhizomes. Light, fluffy seed. Inundation to 45 days.
  - Garrison – early maturing and seed shatters readily

Switchgrass
- High biomass potential. Inundation to 30 days. Recent information documents potential toxicity to sheep, goats, and horses grazing on pure switchgrass.
  - Dacotah – earliest maturing variety
  - Forestburg – two weeks later than Dacotah and more productive

Prairie cordgrass
- High biomass potential, but gets rank quickly. Inundation to 45 days.
  - Red River Germplasm – only seed propagated release commercially available

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