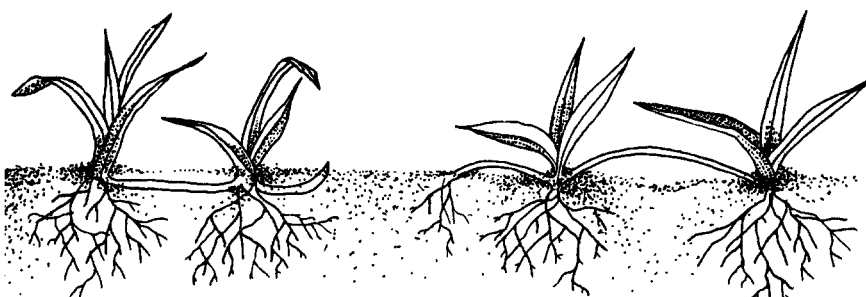
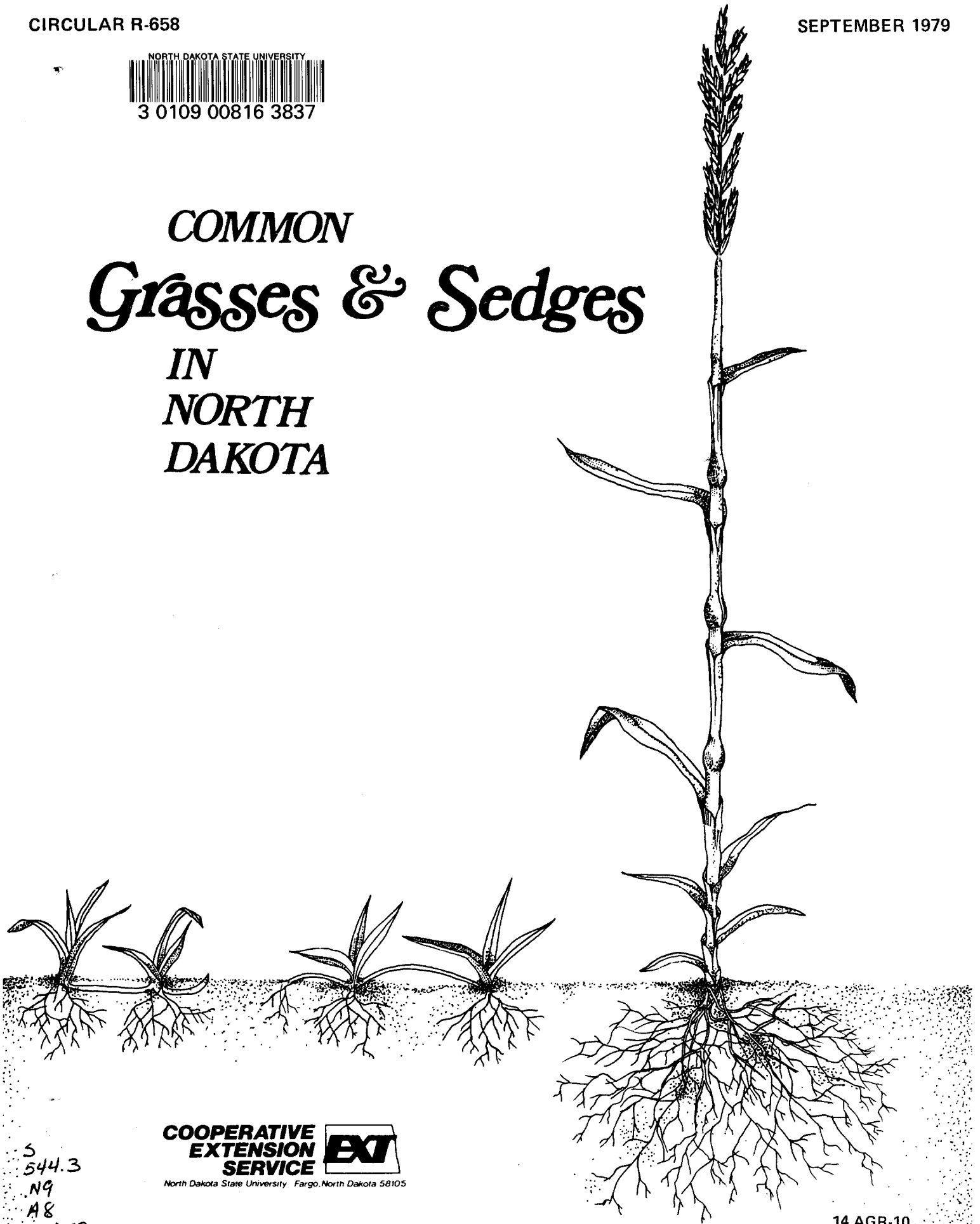




COMMON
Grasses & Sedges
IN
NORTH
DAKOTA



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**COOPERATIVE
EXTENSION
SERVICE** 
North Dakota State University Fargo, North Dakota 58105

**COMMON GRASSES AND SEDGES
IN
NORTH DAKOTA**

Table of Contents

Introduction	Page 4
The Grass Plant	5
Important Range Plant Groups	6
Map of Original Grasslands	7
Characteristics of Common Grasses and Sedges	8

Line Drawings and Descriptions

Grass	Page	Grass	Page	Grass	Page
American sloughgrass	11	Sideoats	21	Stinkgrass	32
Barnyard grass	11	Hollowstem	21	Switchgrass	32
Blowout grass	12	Indiangrass	22	Timothy	33
Bluegrass:		Indian ricegrass	22	Tumblegrass	33
Canada	12	Inland saltgrass	23	Wheatgrass:	
Fowl	13	Muhly:		Bearded	34
Kentucky	13	Plains	23	Bluebunch	34
Sandberg	14	Green (Marsh)	24	Crested	35
Bluestem:		Needlegrass:		Intermediate	35
Big	14	Green	24	Quackgrass	36
Sand	15	Needle and thread	25	Slender	36
Little	15	Porcupine	25	Tall	37
Bromegrass:		Northern reedgrass	26	Western	37
Downy	16	Nuttall alkaligrass	26	Wild Barley	38
Japanese	16	Orchardgrass	27	Wildrye:	
Smooth	17	Plains reedgrass	27	Canada	38
Buffalograss	17	Prairie cordgrass	28	Russian	39
Common reedgrass	18	Prairie Junegrass	28	Witchgrass	39
Creeping foxtail	18	Prairie sandreed	29	Sedges:	
Foxtail:		Reed canarygrass	29	Needleleaf	40
Green	19	Red threeawn	30	Slough	40
Yellow	19	Sandbur	30	Sun	41
Gramma:		Sand dropseed	31	Threadleaf	41
Blue	20	Six-weeks fescue	31	Wooly	42
Hairy	20				

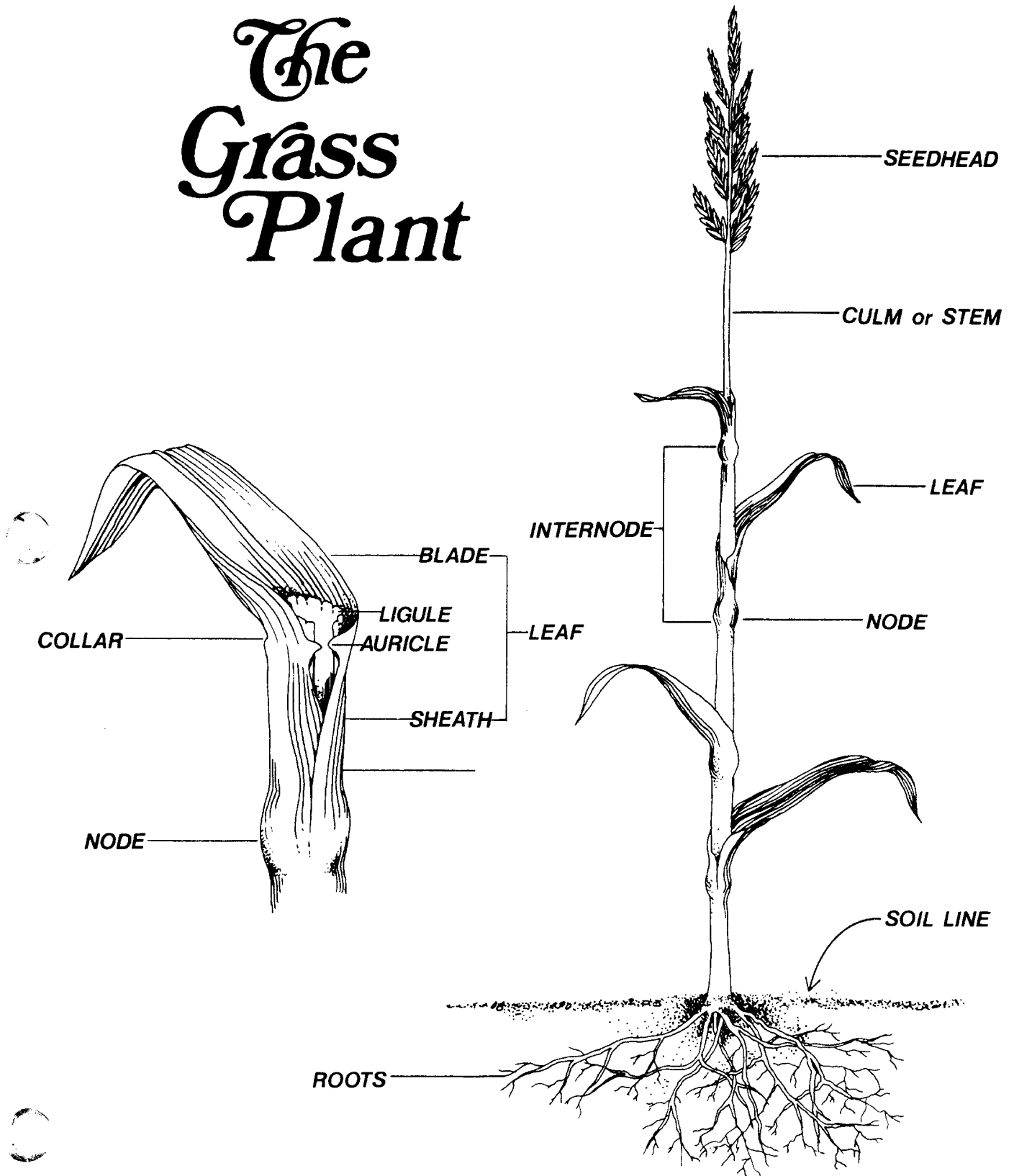
SOURCE OF LINE DRAWINGS

1. Best, Kieth F., Jan Looman and J. Baden Campbell. 1971. Prairie Grasses Identified by Vegetative Characters. Can. Dept. of Agric. publ. 1413. (Drawings identified Can. Dept. of Agric. "Reproduced by Permission of the Minister of Supply and Services Canada.")
2. Hafenrichter, A. L., et al. 1968. Grasses and Legumes for Soil Conservation in the Pacific Northwest and Great Basin States. USDA, SCS, Agric. Handbook #339.
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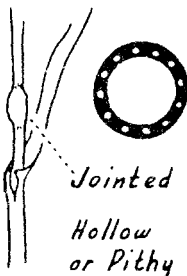

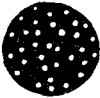





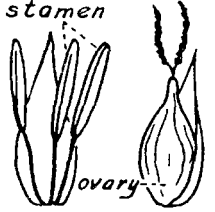

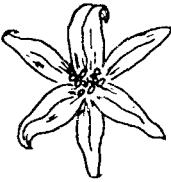






This manual is designed to provide a brief description and line drawings of 64 common grasses and sedges found in range and pastures throughout North Dakota. It will be helpful to young people, farmers and ranchers and others interested in learning to identify the common grasses and sedges and their various grazing and growth characteristics.

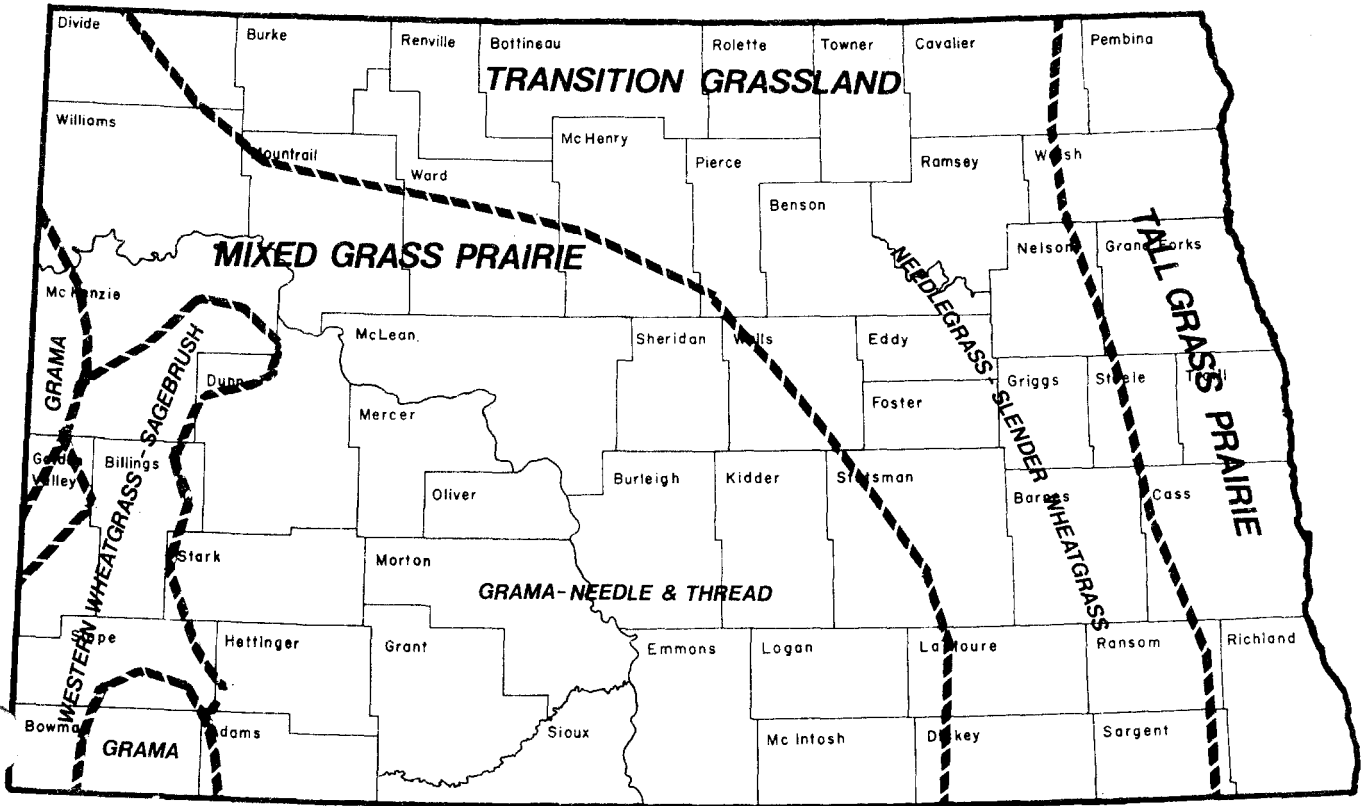
*Prepared by Duaine L. Dodds
Grassland Management Specialist*

The Grass Plant



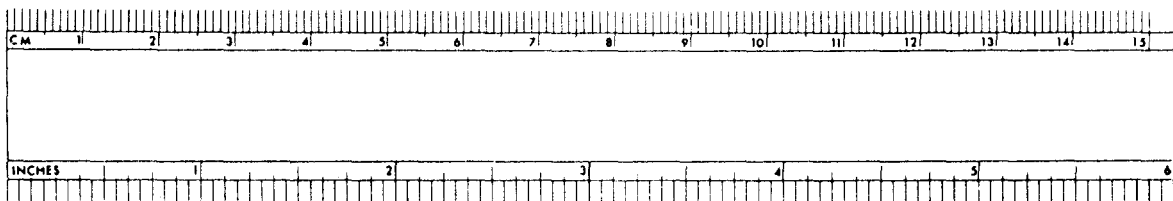
IMPORTANT RANGE PLANT GROUPS

	<u>GRASSES</u>	<u>GRASSLIKE</u>		<u>FORBS</u>	<u>SHRUBS</u> (Browse)
		Sedges	Rushes		
STEMS	 <p>Jointed Hollow or Pithy</p>				 <p>growth rings Woody Solid</p>
LEAVES	 <p>Parallel Veins</p>			 <p>"Veins" are usually netlike</p>	
FLOWERS	 <p>(floret)</p>	 <p>stamen ovary male female (may be combined)</p>		 <p>Often showy</p>	
EXAMPLE	 <p>Western Wheatgrass</p>	 <p>Threadleaf Sedge</p>	 <p>Wire Rush</p>	 <p>Western Yarrow</p>	 <p>Big Sagebrush (twig)</p>



SCALE 0 10 20 30 40 MILES

Original North Dakota Grassland



Metric Ruler

Characteristics of Common Grasses and Sedges

PLANT NAME	Origin		Life Span		Growth Form		Growth Season		Grazing Response			Grazing Value			Height Growth		
	NATIVE	INTRODUCED	ANNUAL	PERENNIAL	BUNCHGRASS	SOD-FORMING	COOL	WARM	DECREASER	INCREASER	INVADER	GOOD	FAIR	POOR	TALL	MEDIUM	SHORT
American sloughgrass	X		X					X					X			X	
Barnyard grass *		X	X					X					X			X	
Blowout grass	X			X		X			X				X			X	
Bluegrass:																	
Canada *		X		X		X		X			X					X	
Fowl *		X		X	X	X		X			X					X	
Kentucky *		X		X		X		X			X					X	
Sandberg	X			X	X	X		X	X		X						X
Bluestem:																	
Big	X			X		X			X					X			
Little	X			X	X	X			X					X	X		
Sand	X			X		X			X					X			
Bromegrass:																	
Downy *		X	X					X								X	
Japanese *		X	X					X								X	
Smooth *		X		X		X		X					X			X	
Buffalo grass	X			X		X			X								X
Common reedgrass	X			X		X							X				
Creeping foxtail *		X		X		X	X			X				X			
Foxtail:																	
Green *		X	X							X						X	
Yellow *		X	X							X						X	
Gramma:																	
Blue	X			X		X											X
Hairy	X			X		X				X							X
Sideoats	X			X	X	X		X		X					X		
Hollowstem	X			X		X		X						X			
Indian grass	X			X		X		X						X			
Indian ricegrass	X			X	X	X		X							X		
Inland saltgrass	X			X		X			X				X				X
Muhly:																	
Plains	X			X	X			X					X				X
Green	X			X	X			X					X				X
Needlegrass:																	
Green	X			X	X			X								X	
Needle and thread	X			X	X			X								X	
Porcupine	X			X	X			X						X			

Characteristics of Common Grasses and Sedges (continued)

PLANT NAME	Origin		Life Span		Growth Form		Growth Season		Grazing Response			Grazing Value			Height Growth		
	NATIVE	INTRODUCED	ANNUAL	PERENNIAL	BUNCHGRASS	SOD-FORMING	COOL	WARM	DECREASER	INCREASER	INVADER	GOOD	FAIR	POOR	TALL	MEDIUM	SHORT
Northern reedgrass	X			X		X	X		X			X					
Nuttall alkaligrass	X			X		X	X		X			X					
Orchardgrass*		X		X		X				X		X			X		
Plains reedgrass	X			X		X	X		X			X					X
Prairie cordgrass	X			X		X		X	X				X		X		
Prairie Junegrass	X			X		X	X		X			X				X	
Prairie sandreed	X			X		X		X				X			X		
Reed canarygrass	X			X		X		X				X			X		
Red threeawn	X			X		X		X		X				X			X
Sandbur	X		X							X				X			X
Sand dropseed	X			X		X				X		X				X	
Six-week's fescue	X		X				X							X			X
Stinkgrass	X		X				X							X			X
Switchgrass	X			X		X		X				X			X		
Timothy*		X		X		X		X				X			X		
Tumblegrass	X			X		X				X			X				X
Heatgrass:																	
Bearded	X			X		X		X				X				X	
Bluebunch	X			X		X		X				X				X	
Crested*		X		X		X		X				X				X	
Intermediate*		X		X		X		X				X			X		
Pubescent*		X		X		X		X				X			X		
Quackgrass*		X		X		X		X				X			X		
Slender	X			X		X		X		X		X			X		
Tall*		X		X		X		X				X			X		
Western	X			X		X		X				X			X		
Wild barley	X			X		X		X						X		X	
Wildrye:																	
Canada	X			X		X		X				X			X		
Russian*		X		X		X		X				X			X		
Witchgrass	X		X											X		X	
Sedges:																	
Needleleaf	X			X		X		X				X					X
Slough	X			X		X		X		X		X			X		
Sun	X			X		X		X				X					X
Threadleaf	X			X		X		X		X		X					X
Wooly	X			X		X		X					X		X		

* Introduced grasses; not a part of original grassland cover.



Common Name: American sloughgrass

Scientific Name: *Beckmannia syzigachne* (Steud.) Fern.

Description:

An erect, medium tall, tufted, leafy, native, warm-season annual. Found primarily in low, wet meadow areas and slough margins. It has only limited forage value, but is palatable to livestock where it occurs. **Leaves** rolled at emergence. **Blade** 5 to 10 mm wide, rather thick, 10 to 30 cm long. **Sheath** is split with margins overlapping. **Ligule** 5 to 8 mm long, acute, sometimes lacerate. **Collar** not distinct, divided. **Auricles** absent.



Common Name: Barnyard grass

Scientific Name: *Echinochloa crusgalli* (L.) Beauv.

Description:

A coarse, medium tall, tufted, introduced, warm-season, weedy annual. Found in fields, gardens and waste places, but grows best in low moist areas and along streams and ponds. Grazed by livestock where it occurs, but has only limited forage value. **Leaves** rolled at emergence. **Blades** 5 to 15 mm wide, 10 to 35 cm long. **Sheath** compressed, keeled and split. **Collar** broad, continuous. **Ligule** absent. **Auricles** absent.



Common Name: Blowout grass

Scientific Name: *Redfieldia flexuosa* (Thurb.) Vasey.

Description:

A medium tall, native, warm-season perennial with long, slender, scaly rhizomes. Found in areas where the soil is nearly pure sand and drifts readily. It is not readily grazed by livestock because the leaves are hard and wiry. **Leaves** rolled at emergence. **Blade** 2 to 4 mm wide, to 60 cm long, smooth, usually involute, arising from near the base, tips often bending to the soil surface. **Sheath** split with margins overlapping. **Collar** smooth, broad. **Ligule** a dense fringe of hair. **Auricles** absent.



Canadian Department of Agriculture

Common Name: Canada bluegrass

Scientific Name: *Poa compressa* L.

Description:

An erect, medium tall, introduced, cool-season, rhizomatous, sod-forming perennial. Found in moist meadows, old fields and along roadsides on poor soils. Grazed readily by livestock where it occurs. **Leaves** folded at emergence. **Blade** to 4 mm wide, 2 to 10 cm long, flat to folded, keeled below, tip boat-shaped, rough to touch above, smooth below. **Sheath** strongly compressed and keeled, split; margins thin and translucent. **Collar** narrow, veined, smooth. **Ligule** membranous, 1 to 3 mm long, truncate. **Auricles** absent.



Common Name: Fowl bluegrass

Scientific Name: *Poa palustris* L.

Description:

A medium tall, loosely tufted, decumbent, introduced, cool-season perennial bunchgrass. Commonly found in low prairie and slough areas. Although not widely abundant, it is highly palatable to grazing livestock and provides a nutritious, high quality hay. **Leaves** folded at emergence. **Blade** to 4 mm wide, 8 to 15 cm long, lax, flat to involute, boat-shaped, rough to touch on both surfaces. **Sheath** with margins overlapping, slightly compressed, keeled, rough to touch; margins thin and translucent. **Collar** distinct and divided. **Ligule** membranous, to 4 mm long, acute, entire or lacerate. **Auricles** absent.



Common Name: Kentucky bluegrass

Scientific Name: *Poa pratensis* L.

Description:

An erect, medium tall, tufted, introduced, cool-season, perennial with long creeping rhizomes. Found throughout the state on moist soil, and is considered a valuable grass for hay and grazing where it occurs. Widely used in lawns. **Leaves** folded at emergence, **Blade** 2 to 4 mm wide, 5 to 25 cm long, tips boat-shaped, flat to folded, keeled, smooth or rough to touch on both surfaces, margins slightly rough. **Sheath** split, compressed; margins thin and translucent. **Collar** narrow, continuous, sometimes indistinct. **Ligule** membranous, 0.5 to 1 mm long, truncate, entire. **Auricles** absent.



Canadian Department of Agriculture



Common Name: Sandberg bluegrass

Scientific Name: *Poa secunda* Presl.

Description:

An erect, short, densely tufted, native, cool-season perennial bunchgrass. Found primarily in western North Dakota, especially on saline-alkali soils. Highly palatable to grazing livestock in early spring. The plant is of little grazing value in mid-summer as it matures early and the leaves fall to the ground. **Leaves** folded at emergence. **Blade** 1 to 2 mm wide, 5 to 15 cm long, flat, folded or involute; tip boat-shaped, rough to touch on both surfaces and margins. **Sheath** compressed, split with margins overlapping. **Collar** narrow, indistinct, divided. **Ligule** membranous, 2 to 4 mm long, acute, entire or lacerate. **Auricles** absent.

Common Name: Big bluestem

Scientific Name: *Andropogon gerardi* Vitman

Description:

A tall, erect, native, warm-season perennial with short scaly rhizomes. Found primarily on sandy to loam soils with good moisture. A highly palatable component of native grasslands for either hay or grazing. **Leaves** rolled at emergence. **Blade** to 10 mm wide, 8 to 50 cm long, flat or v-shaped, constricted at base, tapering to a sharp point, slightly rough or smooth above, smooth below, with long, silky hairs at base, often red-tinged near tip, margins rough to touch. **Sheath** split, compressed, softly hairy, usually purplish at base and below the soil line. **Collar** indistinct, medium broad. **Ligule** to 3 mm long, obtuse, hairy, sometimes lacerate. **Auricles** absent.



Common Name: Sand bluestem
Scientific Name: *Andropogon halli* Hack.
Description:

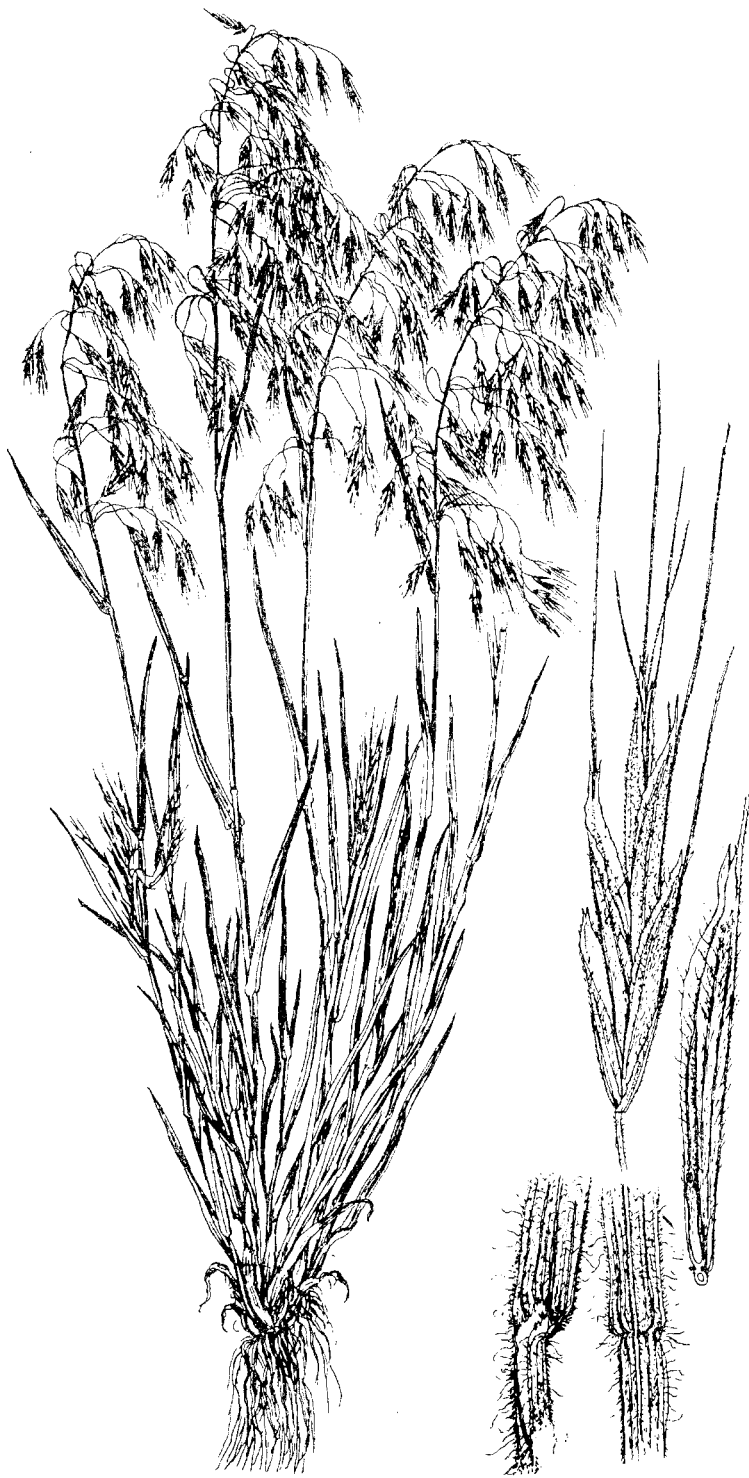
A tall, erect, rhizomatous, native, warm-season perennial of sandhill areas. A coarse grass, but palatable to livestock throughout the grazing season. **Leaves** rolled at emergence. **Blade** 3-10 mm wide, 20 to 30 cm long, flat, slightly rough to touch above and on the margins, smooth below. **Sheath** split, softly hairy, often purple-tinged, smooth bluish-green color. **Collar** indistinct, medium broad. **Ligule** membranous, 3 to 4 mm long, pubescent with long soft hairs. **Auricles** absent. Resembles Big bluestem, but has creeping rhizomes and seedhead covered with long grayish to golden hair.



Common Name: Little bluestem
Scientific Name: *Andropogon scoparius* Michx.
Description:

An erect, medium tall, tufted, native, warm-season perennial bunchgrass. Found throughout North Dakota on

a wide range of soils, but is especially abundant on dry ridges and hillsides, and sandhill areas. Exhibits some tolerance to alkali soils. Early growth quite palatable for grazing. Produces an abundance of woody, flowering stems which are undesirable for grazing and hay. **Leaves** folded at emergence. **Blade** 3 to 6 mm wide, 5 to 15 cm long, flat to folded, constricted at base, rough on upper surface and margins, smooth below, often red-tinged. **Sheath** split, margins not overlapping, especially on older leaves; compressed, keeled, smooth or rough, often purplish at base. **Collar** continuous and broad. **Ligule** membranous, 1 to 2 mm long, obtuse to truncate, hairy. **Auricles** absent.



Common Name: Downy brome

Scientific Name: *Bromus tectorum* L.

Description:

An erect, tufted, introduced, cool-season, weedy, winter annual. Found along roadsides, waste areas, upland pastures and cropland fields. Early spring growth is palatable to grazing livestock. **Leaves** rolled at emergence. **Blade** fine, sharp pointed, softly pubescent. **Sheath** closed, notched near top, softly pubescent, often reddish or purple-tinged. **Ligule** membranous, 2 to 3 mm long. **Collar** narrow, distinct, often divided and pubescent. **Auricles** absent.



Common Name: Japanese brome

Scientific Name: *Bromus japonicus* Thunb.

Description:

An erect or spreading, tufted, introduced, cool-season, weedy, winter annual. The stem bent abruptly upwards at lower nodes. Found in waste places, roadsides, upland pastures and cropland fields. Early spring growth is palatable to grazing livestock. **Leaves** rolled at emergence. **Blade** fine, 3 to 7 mm wide, densely pubescent. **Sheath** closed, notched near top. **Ligule** membranous, 1 to 2 mm long. **Auricles** absent.



Common Name: Smooth bromegrass
Scientific Name: *Bromus inermis* Leyss.
Description:

A tall, erect, introduced, cool-season, rhizomatous, perennial, forming a dense sod. Widely used throughout the state in seed mixtures for hay and pasture. **Leaves** rolled at emergence. **Blade** smooth, flat, 5 to 12 mm wide, 15 to 40 cm long, tapering to a sharp point, usually smooth both surfaces. **Sheath** closed, notched near top. **Collar** narrow, continuous or divided by midvein. **Ligule** membranous, to 2 mm long, obtuse, entire or lacerate. **Auricles** absent, rarely rudimentary.

Common Name: Buffalo grass
Scientific Name: *Buchloe dactyloides* (Nutt.) Engelm.
Description:

A short growing, tufted, native, warm-season, stoloniferous perennial sod-forming grass. Found primarily in western North Dakota on heavy textured and alkali soil, but only sparingly. Provides high quality forage for grazing where it occurs. **Leaves** folded at emergence. **Blade** 1 to 3 mm wide, 2 to 10 cm long, pubescent on both surfaces. **Sheath** split, loose, translucent or transparent margins. **Collar** continuous with hairs on the margins. **Ligule** a fringe of hair 0.5 to 1 mm long. **Auricles** absent. Foliage turns a straw color due to drouth; purplish red by light fall frosts.



Common Name: Common reedgrass

Scientific Name: *Phragmites australis* (Cav.) Trin. ex. Steud.

Description:

A tall, erect growing, native, warm-season perennial with long, stout, creeping rhizomes. Found growing along margins of sloughs or in wet places. Limited value for grazing and only fair quality in slough hay. **Leaves** rolled at emergence. **Blade** 20 to 40 mm wide, 15 to 40 cm long, smooth above and below, tapering to a sharp point, narrowed and rounded at base, margins transparent and rough to touch. **Sheath** split with margins overlapping, smooth, margins translucent. **Collar** broad, continuous, smooth. **Ligule** a dense fringe of hair, 1 mm long or less. **Auricles** absent or rudimentary.



Common Name: Creeping foxtail

Scientific Name: *Alopecurus arundinaceus* Poir.

Description:

A tall, erect, strongly rhizomatous, introduced, cool-season perennial sod-forming grass. Originally found growing in low wet areas near Max, North Dakota. Tolerates extended periods of flooding in early spring. Cultivated as a meadow grass in areas subject to periodic flooding. **Leaves** rolled at emergence. **Blade** flat, 6 to 12 mm wide, 5 to 10 cm long. **Sheath** split, margins overlapping, fine hairy, purple tinged at base. **Collar** broad, divided, sometimes oblique. **Ligule** membranous, 3 to 4 mm long, obtuse, appearing to be projections of sheath. **Auricles** absent.



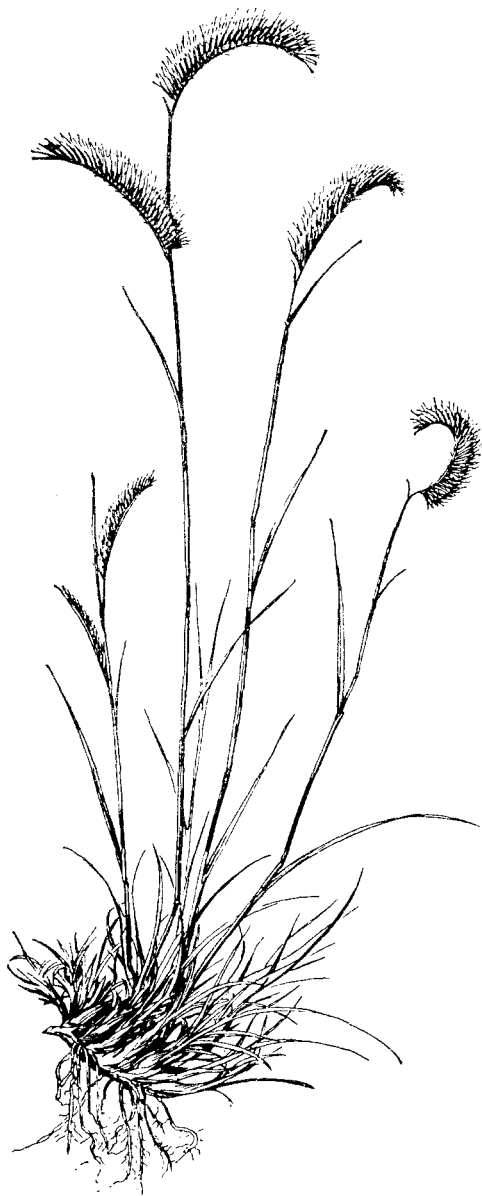
Common Name: Green foxtail
Scientific Name: *Setaria viridis* (L.) Beauv.
Description:

An erect, tufted, warm-season, weedy annual. Commonly found in waste areas, gardens and cropland fields. Palatable to livestock, but of greatest value as a component of crop-aftermath used for grazing. **Leaves** rolled at emergence. **Blade** flat, 5 to 15 mm wide, usually less than 15 cm long, tapering to a sharp point. **Sheath** compressed, split with margins overlapping, the inner margin translucent or transparent and the outer fringed with fine hairs. **Collar** pubescent on the margins, continuous, yellowish or reddish in color. **Ligule** a fringe of hair to 2 mm long. **Auricles** sent.



Common Name: Yellow foxtail
Scientific Name: *Setaria glauca* (L.) Beauv.
Description:

An erect or decumbent, medium tall, often tufted, introduced, warm-season, weedy annual. Found in waste areas, gardens and cultivated fields. Palatable to livestock, but is utilized primarily in crop aftermath. **Leaves** rolled at emergence. **Blade** 3 to 10 mm wide, 10 to 15 cm long, twisted in a loose spiral, tapering to a sharp point, and with scattered long hairs at the base. **Sheaths** compressed, split with margins overlapping, keeled, often purple tinged at base. **Collar** continuous, yellowish, reddish or purple in color. **Ligule** a fringe of hairs to 1 mm long, fused at base. **Auricles** absent.

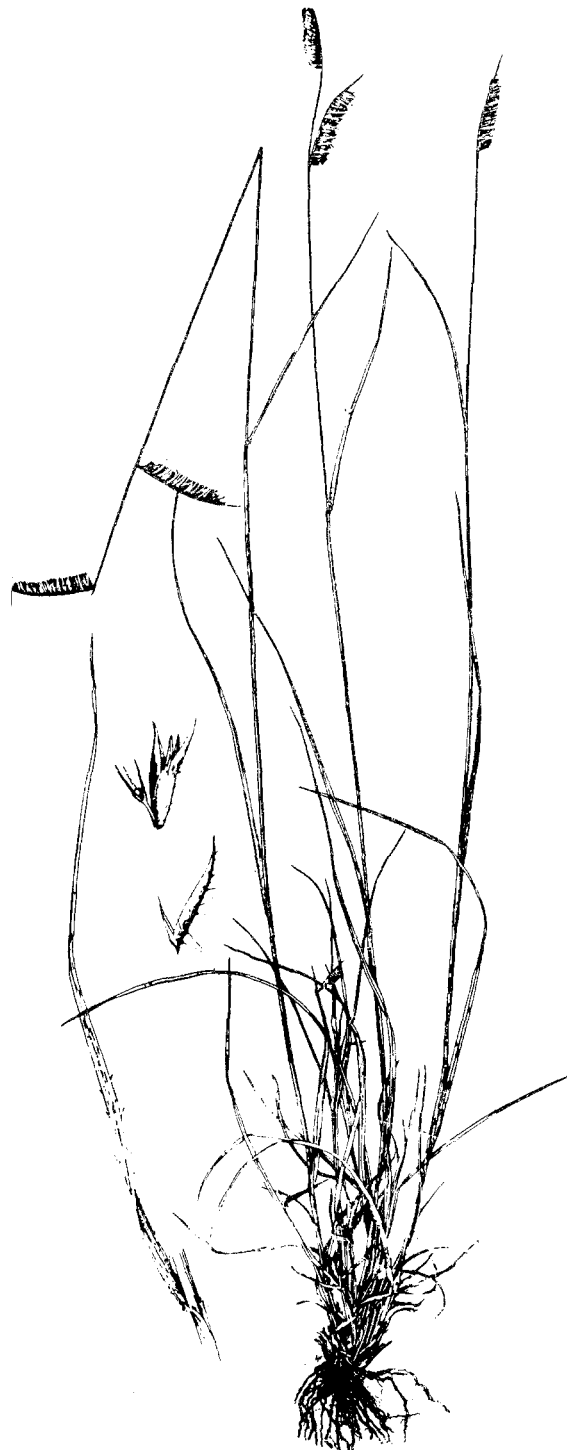


Common Name: Blue grama

Scientific Name: *Bouteloua gracilis* (H.B.K.) Griffiths

Description:

A short growing, densely tufted, native, warm-season, perennial sod-forming grass. Found throughout the state on upland prairie. Probably the most important grazing grass in North Dakota. Highly palatable and nutritious. Highly resistant to close grazing use. **Leaves** rolled at emergence. **Blade** to 3 mm wide, 2 to 15 cm long, flat to convolute, tapering to a sharp point, rough or hairy on upper surface near base, smooth below. **Sheath** split with translucent or transparent margins, smooth or sparsely hairy. **Collar** continuous, medium broad, long hairs on inside margins. **Ligule** a dense fringe of hairs, 0.5 mm long or less. **Auricles** absent.

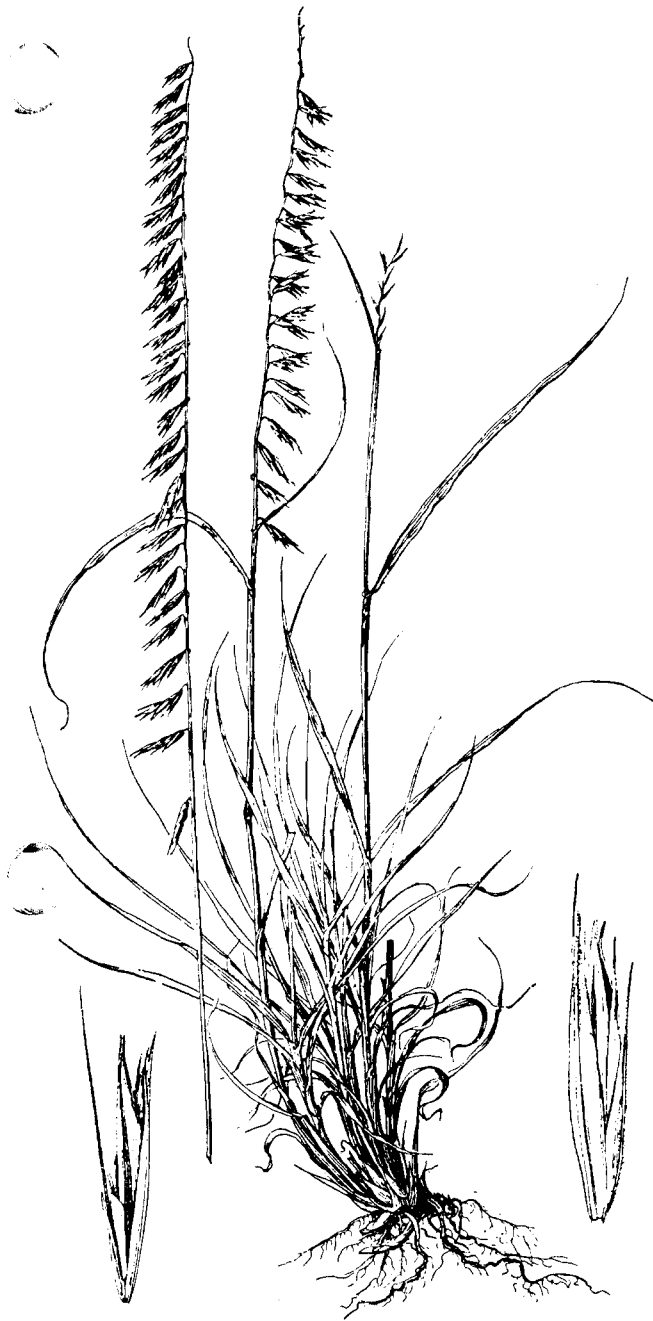


Common Name: Hairy grama

Scientific Name: *Bouteloua hirsuta* Lag.

Description:

A short growing, densely tufted, native, warm-season perennial, sod-forming grass. Found growing in southern portion of North Dakota on dry slopes and ridges, and especially on sandy soils. A palatable and nutritious grass for grazing where it occurs. **Leaves** rolled at emergence. **Blade** to 2 mm wide, 5 to 12 cm long, flat, slender pointed, hairy on upper surface near base, margins glandular and hairy. **Sheath** round, split, margins thin, dry and nearly transparent. **Collar** hairy on glandular margins, sometimes divided. **Ligule** a fringe of hairs less than 1 mm long. **Auricles** absent.



Common Name: Sideoats grama

Scientific Name: *Bouteloua curtipendula* (Michx.) Torr.

Description:

An erect, medium tall, tufted, native, warm-season perennial bunchgrass with short, scaly rhizomes. Sometimes forms a loose, open sod. Found on dry hills and slopes on upland prairie. A nutritious and palatable component of native hay and pasture. Used in native grass seed mixtures. **Leaves** rolled at emergence. **Blade** 2 to 4 mm wide, 5 to 15 cm long, flat to convolute, tapering to a sharp point, rough to touch above, smooth below, long hairs scattered on both surfaces, margins rough to hairy. **Sheath** split, usually pubescent, often purplish at base. **Collar** continuous, medium broad, a few long hairs at the throat. **Ligule** membranous, to 1 mm long, truncate, lacerate, hairy. **Auricles** absent.



Common Name: Hollowstem (Sprangletop)

Scientific Name: *Scolochloa festucaeae* (Willd.) Link

Description:

A tall, erect, native, warm-season perennial, with long, stout rhizomes. Found growing in low flats which are often flooded, along road ditches and shallow water areas. A common grass in slough hay. **Leaves** rolled at emergence. **Blade** hard, stiff, the shorter ones often upright, 5 to 10 mm wide, 10 to 60 cm long, flat to convolute, tapering to a sharp point, rough to touch on the margins. **Sheath** round, split with margins overlapping. **Collar** divided or continuous. **Ligule** membranous, to 8 mm long, truncate, and lacerate. **Auricles** absent.



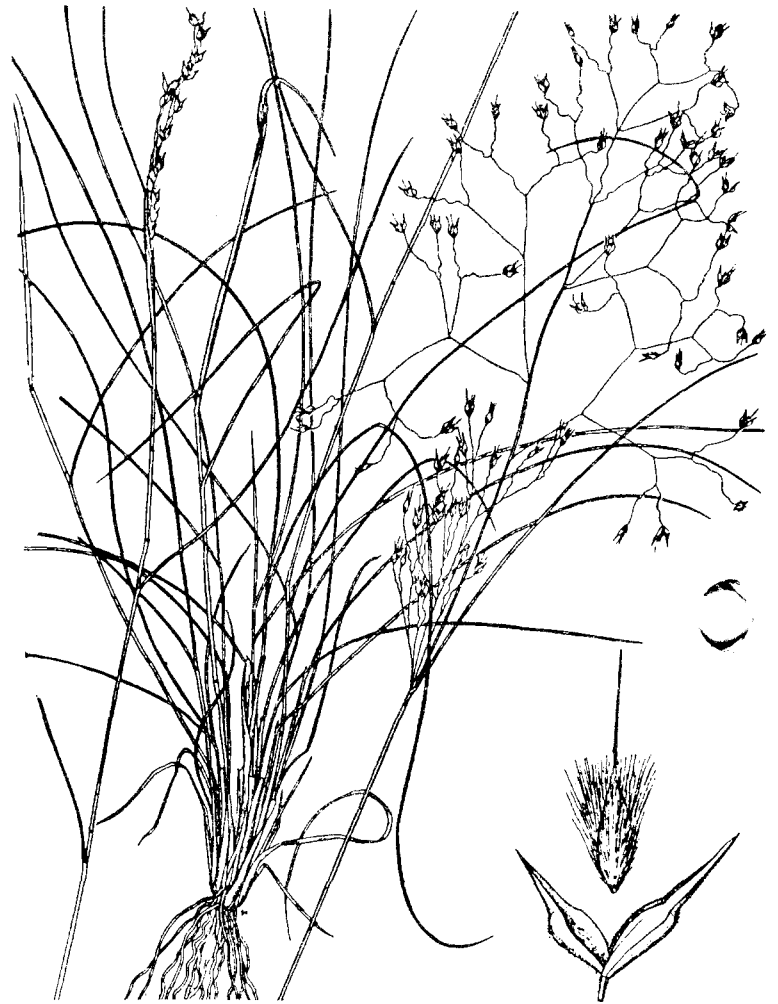
Canadian Department of Agriculture

Common Name: Indian grass

Scientific Name: *Sorghastrum nutans* Michx.

Description:

A tall, erect, native, warm-season perennial with scaly rhizomes. Found primarily on moist prairie in eastern North Dakota. Not abundant. Palatable to livestock and a valuable component of prairie hay. **Leaves** rolled at emergence. **Blade** to 10 mm wide, 10 to 50 cm long, flat, narrow at base, tapering to a sharp point, rough to touch on both surfaces, venation prominent. **Sheath** round or compressed near top, split, pubescent near base, often purple-tinged. **Ligule** membranous, 2 to 5 mm long, thick, obtuse to truncate, lacerate, hairy, appearing as a projection of the sheath margins. **Collar** continuous. **Auricles** absent.



Common Name: Indian ricegrass

Scientific Name: *Oryzopsis hymenoides* (Roem. & Schutl.)
Ricker

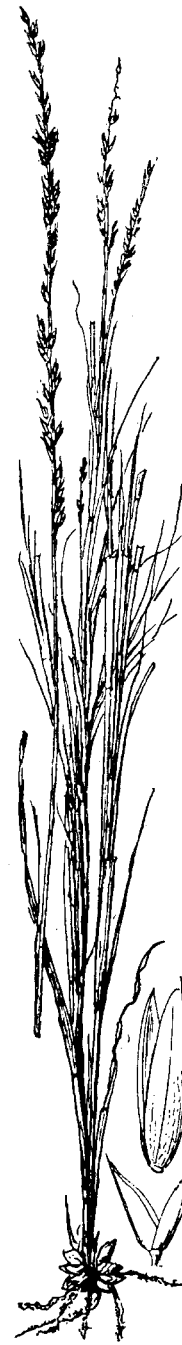
Description:

A medium tall, densely tufted, wiry, native, warm-season perennial, bunchgrass. Found primarily in south-western North Dakota on sandy soils. Well liked by livestock where it occurs. Cures well on the stem. Very drought tolerant. **Leaves** rolled at emergence. **Blade** 5 to 10 mm wide, 20 to 60 cm long, involute, leathery, tapering to a slender tip, rough to touch above, smooth below. **Sheath** split with margins overlapping, outer margin usually fringed with hairs. **Collar** narrow with tufts of hair at the margin. **Auricles** absent.



Common Name: Inland saltgrass
Scientific Name: *Distichlis stricta*
Description:

An erect, short growing, tufted, native, warm-season perennial, with extensive creeping, scaly rhizomes. Found primarily on saline-alkali soils. Poor forage grass. **Leaves** folded at emergence. **Blade** stiff, 2 to 4 mm wide, 5 to 15 cm long, tapering to a sharp point, flat to involute, rough to touch on upper surface and smooth below, margins very rough. **Sheath** split with margins overlapping. **Ligule** fringe of hair to 0.5 mm long, fused at base. **Collar** low, continuous, tufts of long hair on outer margins. **Auricles** absent.



Common Name: Plains muhly
Scientific Name: *Muhlenbergia cuspidata* (Torr.) Rydb.
Description:

A stiffly erect, short, densely tufted, native, warm-season, perennial bunchgrass with hard, bulblike scaly bases. Found primarily on sandy, gravelly and stony soils. Provides fair quality forage for grazing. **Leaves** folded at emergence. **Blade** 1 to 2 mm wide, 2 to 10 cm long, flat to folded, tapering to a sharp point, margins rough. **Sheath** very short, slightly flattened, split with margins overlapping. **Ligule** minute, to 1 mm long, membranous, truncate or rounded, lacerate, hairy. **Collar** broad, continuous. **Auricles** absent.



Common Name: Marsh (green) muhly
Scientific Name: *Muhlenbergia racemosa* (Michx.) B.S.P.
Description:

An erect, medium tall, native, warm-season perennial, with short, scaly rhizomes. Commonly found in low prairie, marshy areas and margins of woods. Palatable as either hay or grazing. **Leaves** folded at emergence. **Blade** 2 to 5 mm wide, 5 to 10 cm long, flat to folded, tapering to a sharp point, rough to touch on margins and both surfaces. **Sheath** compressed, keeled and split. Sheaths of culm branches split and overlapping. **Collar** narrow and continuous. **Ligule** membranous, to 1.5 mm long, truncate, lacerate. **Auricles** absent.



Common Name: Green needlegrass
Scientific Name: *Stipa viridula* Trin.
Description:

An erect, medium tall, tufted, native, cool-season perennial bunchgrass. Found on upland prairie throughout the state. It is well liked by grazing livestock and is often used in native grass seed mixtures for hay and pasture. **Leaves** rolled at emergence. **Blade** flat to involute or convolute, 1 to 5 mm wide, 10 to 30 cm long, rough to touch on upper surface, slightly so beneath. **Sheath** round split with margins overlapping, long soft hairs at the throat. **Ligule** membranous, 1 to 2 mm long, obtuse or truncate, entire. **Collar** narrow, continuous, long hairs on margins. **Auricles** absent.



Canadian Department of Agriculture

Common Name: Needle and thread

Scientific Name: *Stipa comata* Trin. & Rupr.

Description:

An erect, medium tall, densely tufted, native, cool-season perennial, bunchgrass. Found throughout the state on upland prairie. A valuable component of native grasslands for grazing. **Leaves** rolled at emergence. **Blade** to 2 mm wide, 10 to 30 cm long, flat to involute, tapering to a sharp point, rough to touch on upper surface and margins, slightly rough or smooth below. **Sheath** round, margins translucent or transparent. **Ligule** membranous, 3 to 4 mm long, very conspicuous, obtuse or truncate, often split or frayed, continuous with sheath margins. **Collar** narrow, continuous, often oblique, usually indistinct on younger leaves. **Auricles** absent.



Canadian Department of Agriculture

Common Name: Porcupine grass

Scientific Name: *Stipa spartea* Trin.

Description:

A tall, erect, tufted, native, cool-season perennial bunchgrass. An original component of the tall grass prairie in eastern North Dakota, but found throughout the state on good moisture sites on upland prairie. Well liked by grazing livestock. **Leaves** rolled at emergence. **Blade** flat, involute on drying, 3 to 5 mm wide, 20 to 30 cm long, basal leaves longer, tapering to a sharp point, leathery in texture, drooping, margins translucent or transparent. **Sheath** split with margins overlapping, the outer margins usually with fine hairs. **Ligule** membranous, 4 to 5 mm long, obtuse, truncate, often split or irregular, finely hairy. **Collar** continuous, often indistinct. **Auricles** absent.



Canadian Department of Agriculture

Common Name: Northern reedgrass

Scientific Name: *Calamagrostis inexpansa* A. Gray.

Description:

A tall, erect, tufted, native, cool-season perennial, with long, slender rhizomes forming a dense sod. Commonly found in wet areas and on the margins of sloughs. **Leaves** rolled at emergence. **Blade** flat or involute, young shoots convolute, firm and rough to touch above, nearly smooth below, margins rough. **Sheath** split with margins overlapping, slightly compressed, prominently veined. **Collar** not distinct, continuous or divided, smooth, often oblique. **Ligule** membranous, 4 to 6 mm long, obtuse or truncate, lacerate or ciliate. **Auricles** absent.



Canadian Department of Agriculture

Common Name: Nuttall alkaligrass

Scientific Name: *Puccinellia nuttalliana* (Schult.) Hitchc.

Description:

A slender, erect, medium tall, tufted, native, cool-season perennial bunchgrass. Found on moist alkaline or saline soils. Forage is palatable to livestock but is of very limited value. **Leaves** rolled at emergence. **Blade** bluish green in color, 1 to 3 mm wide, 3 to 10 cm long, very rough to touch above, smooth below, flat or involute. **Sheath** split with margins overlapping. **Collar** narrow, indistinct. **Ligule** membranous, to 5 mm long, acute to obtuse, continuous with margins of sheath. **Auricles** absent.



Common Name: Orchardgrass
Scientific Name: *Dactylis glomerata* L.
Description:

A tall, tufted, introduced, cool-season perennial forming large clumps or bunches. Commonly used in irrigated pasture seed mixtures, but lacks adequate winter-hardiness. **Leaves** folded at emergence. **Blade** 2 to 8 mm wide, 10 to 60 cm long, flat to folded, midrib and margins rough to touch. **Sheath** compressed, split partway down. **Collar** truncate or obtuse, sometimes split or lacerate, hairy on the margins. **Auricles** absent.



Common Name: Plains reedgrass
Scientific Name: *Calamagrostis montanensis* Scribn.
Description:

An erect, short, native, cool-season, sod-forming perennial with slender rhizomes. Found on upland prairie primarily in western North Dakota. Well liked by grazing livestock. **Leaves** rolled at emergence. **Blade** bluish green, stiff, flat to involute, tapering to a sharp point, rough to touch on upper surface and slightly so below, margins rough, to 3 mm wide, 5 to 20 cm long. **Sheath** round, split, midrib extends down sheath, margins translucent or transparent. **Ligule** membranous, acute, entire or lacerate on older leaves, to 7 mm long. **Collar** indistinct. **Auricles** absent.



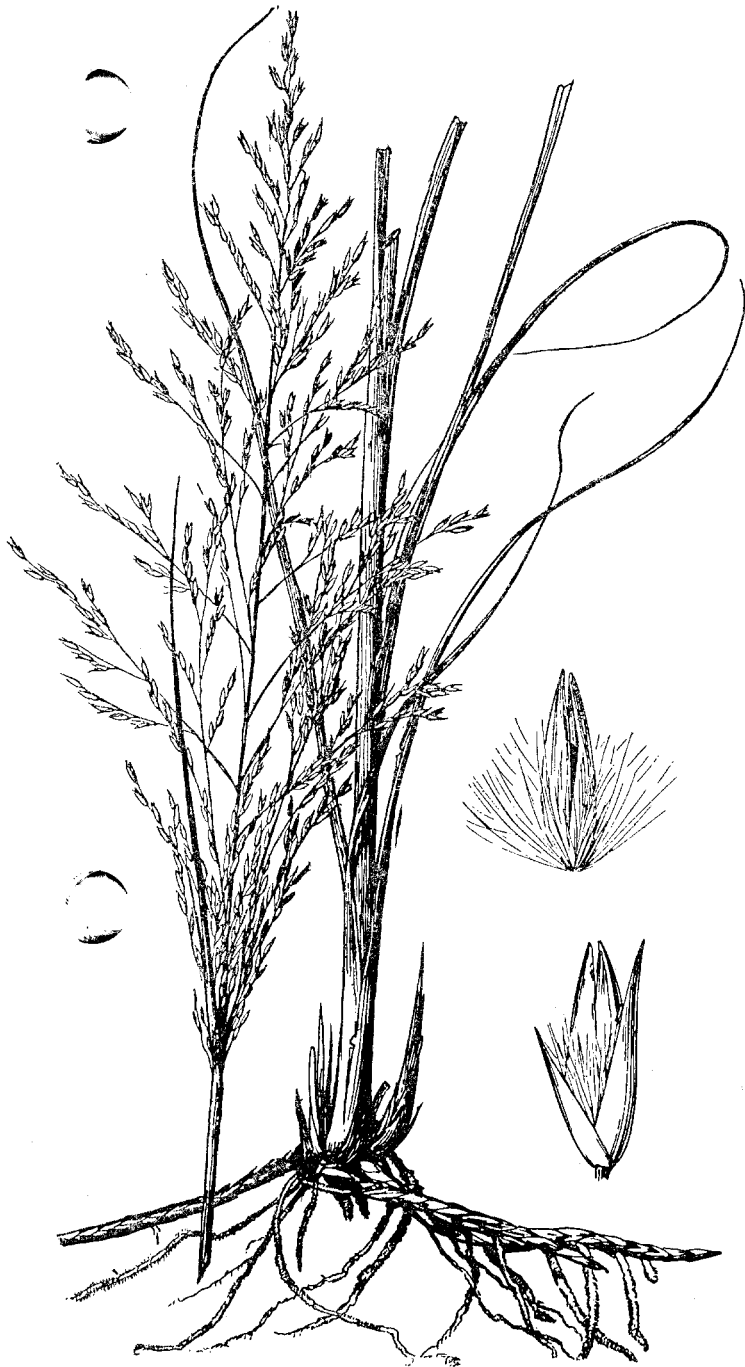
Common Name: Prairie cordgrass
Scientific Name: *Spartina pectinata* Link.
Description:

A tall, coarse, erect, native, warm-season, perennial with scaly rhizomes. Very common along ditches, streams, along pond banks, and often mixed with other grasses on wet meadows. Forage value is low. **Leaves** rolled at emergence. **Blade** 5 to 15 mm wide, 20 to 60 cm long, drooping, flat to involute, leathery in texture, tapering to a sharp point, very rough to touch on margins and upper surface. **Sheath** round, split with margins overlapping, or open nearly all the way down on older leaves, pinkish at base, margins translucent. **Ligule** a fringe of hairs, 1 to 3 mm long. **Collar** broad, continuous. **Auricles** absent.



Common Name: Prairie Junegrass
Scientific Name: *Koeleria cristata*
Description:

An erect, short growing, tufted, native, cool-season perennial bunchgrass. Found throughout North Dakota, but is more abundant on sandy soils. A valuable grass for grazing in native grasslands. **Leaves** folded at emergence. **Blade** 3 to 4 mm wide, up to 12 cm long, flat to involute, tapering to an obtuse tip, bluish green, ridged and rough above, keeled and smooth below, often pubescent on both surfaces, margins rough. **Sheath** split, often pubescent, margins translucent. **Ligule** membranous, to 1 mm long, truncate to obtuse, often split and fringed with hair. **Collar** continuous, divided, smooth or hairy on margins. **Auricles** absent.



Common Name: Prairie sandreed

Scientific Name: *Calamovilfa longifolia* (Hook.) Scribn.

Description:

A tall, erect, coarse, native, warm-season, perennial spreading by long scaly rhizomes. Found throughout North Dakota in sandhill areas and on sandy soils. It is often eaten only sparingly by livestock. Consumed quite readily on winter pastures, especially if concentrate feed is being fed. Often included in native grass seed mixtures for permanent pasture. **Leaves** rolled at emergence. **Blade** 4 to 12 mm wide, 20 to 30 cm or more long, flat to in-
 1/2-rolled, firm, leathery, tapering to a sharp point, margins
 translucent and rough. **Sheath** split with margins over-
 lapping, often pinkish at base. **Ligule** a dense ring of hair,
 1 to 3 mm long. **Collar** distinct, broad, continuous, with
 a tuft of fine hairs on inner margins. **Auricles** absent.

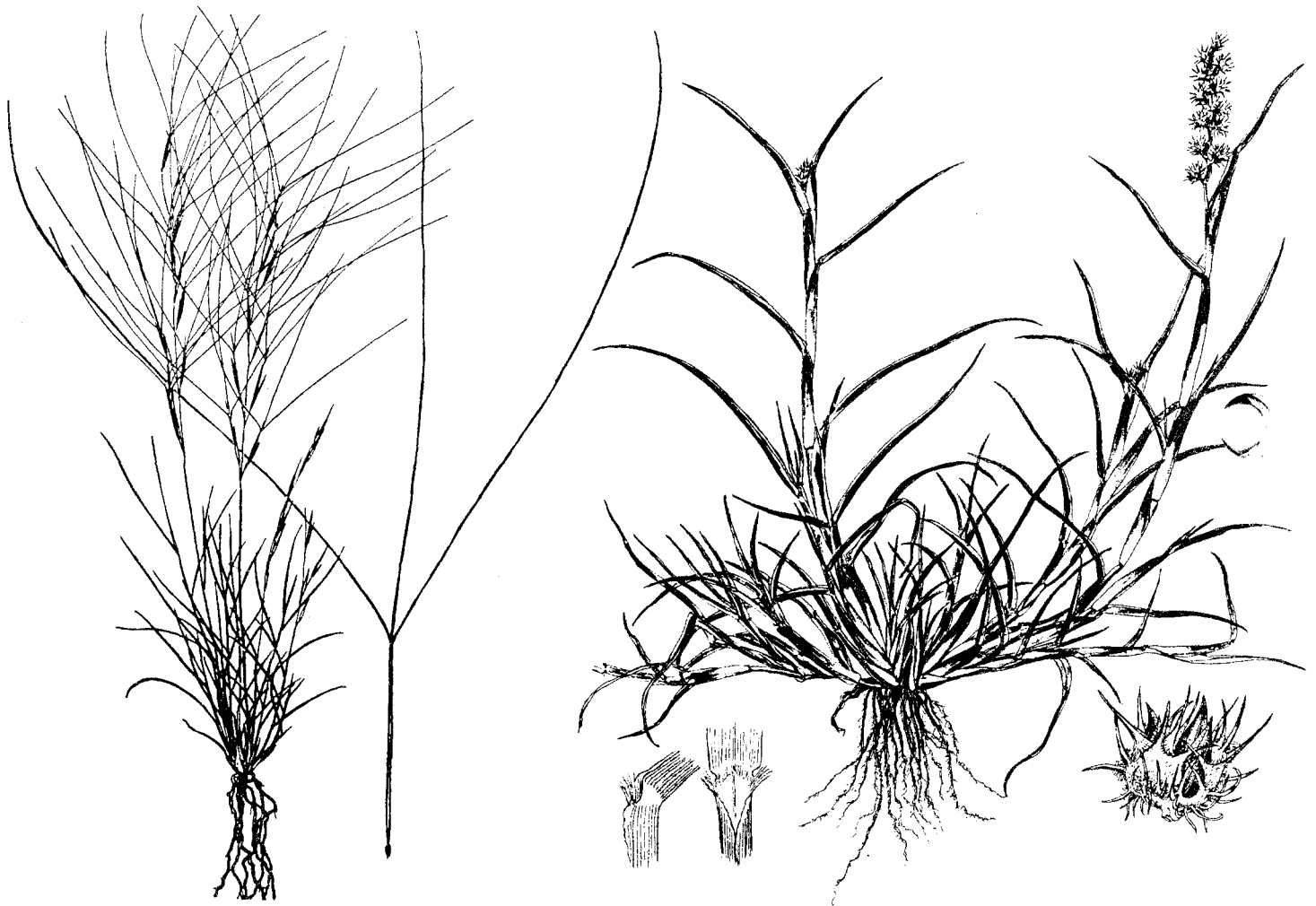


Common Name: Reed canarygrass

Scientific Name: *Phalaris arundinacea* L.

Description:

A tall, erect, coarse, native, cool-season perennial with long, creeping rhizomes. Found throughout the state in marsh areas and periodically flooded areas. Often seeded in low, wet areas for hay. A very high yielding grass under irrigation. Not adapted to dry sites or saline-alkali soil conditions. **Leaves** rolled at emergence. **Blade** 5 to 15 mm wide, 10 to 20 cm long, flat, tapering to a sharp point, smooth or slightly rough to touch on both surfaces, mid-rib prominent, margins rough. **Sheath** split with margins overlapping, pinkish at base. **Ligule** membranous, to 5 mm long, white, minutely pubescent on back, acute or obtuse, entire, lacerate or split. **Collar** divided or narrowed at midrib if continuous, usually oblique. **Auricles** absent.



Common Name: Red threeawn
Scientific Name: *Aristida longiseta* Steud.
Description:

A short growing, densely tufted, native, warm-season perennial bunchgrass. Found throughout the state but most frequent on dry upland prairie in western North Dakota. Grazing value is poor. Readily consumed if fertilized with nitrogen at medium to high rates. **Leaves** rolled at emergence. **Blade** 1 to 2 mm wide, 5 to 15 cm long, bristle-like, both surfaces rough upwardly. **Sheath** split with margins overlapping. **Ligule** a fringe of hairs, 0.5 mm long. **Collar** indistinct, continuous, rough with downward or backward bent hairs. **Auricles** absent.

Common Name: Sandbur
Scientific Name: *Cenchrus longispinus* (Hack.) Fern.
Description:

A low growing, erect or decumbent, tufted, native, warm-season, weedy annual. Found primarily on sandy soils in southern portion of the state. Grazed by livestock before burs form but is of limited value. **Leaves** folded at emergence. **Blade** rough to touch to sparsely hairy, 5 to 12 cm long, 2 to 7 mm wide. **Sheath** split, margin transparent, hairy on margins and at the throat, strongly flat-keeled. **Ligule** a minute fringe of hair less than 2 mm long. **Collar** constricted. **Auricles** absent.



Common Name: Sand dropseed

Scientific Name: *Sporobolus cryptandrus* (Torr.) Gray.

Description:

An erect or decumbent, medium tall, tufted, native perennial bunchgrass. Found throughout the state on sandy soil. Grazing value is fair when young. **Leaves** rolled at emergence. **Blade** flat, involute on drying, 2 to 5 mm wide, 10 to 30 cm long, sharp pointed, rough on upper surface and on margins, smooth or slightly rough below. **Collar** split, often purple-tinged at base, hairy. **Ligule** very short, less than 1 mm long, membranous, truncate, hairy, and lacerate. **Auricles** absent.



Common Name: Six-weeks fescue

Scientific Name: *Festuca octoflora* Walt.

Description:

An early, low growing, erect, tufted, native, cool-season, weedy annual. Found on dry upland prairie and in waste areas. Little or no value for hay or grazing. **Leaves** folded at emergence. **Blade** less than 2 mm wide, 2 to 10 cm long, involute, rarely flat, rough to touch below. **Sheath** split with margins overlapping, flattened and keeled. **Collar** distinct, narrow and continuous. **Ligule** very short, less than 1 mm long, membranous, truncate, hairy, and lacerate. **Auricles** absent.



Common Name: Stinkgrass

Scientific Name: *Eragrostis ciliaris* (All.) E. Mosher.

Description:

A short, introduced, strongly scented, native, warm-season, weedy annual, widely spreading at base. Found primarily in cultivated fields, gardens and waste places. Little or no value for hay or grazing. **Leaves** rolled at emergence. **Blade** 2 to 6 mm wide, 7 to 18 cm long, numerous glands along margins and mid-vein. **Culm** has a ring of glands below the nodes. **Sheath** split, shorter than internode and hairy at throat. **Ligule** a fringe of hair. **Auricles** absent.



Common Name: Switchgrass

Scientific Name: *Panicum virgatum* L.

Description:

A tall, erect, native, warm-season perennial forming thick clumps from short rhizomes. Found throughout the state on moist soils, but major area of occurrence is in southeastern areas. Forage quality is good. **Leaves** rolled at emergence. **Blade** 3 to 15 mm wide, 10 to 60 cm long, flat, tapering to a sharp point, constricted at base, pubescent on upper surface near base, margins translucent and rough to touch. **Sheath** split, margins overlap partway down, often overlapping on younger leaves, margins translucent with long hairs. **Ligule** a fringe of hair fused at the base, to 3 mm long. **Collar** broad, continuous, pubescent on margins. **Auricles** absent.

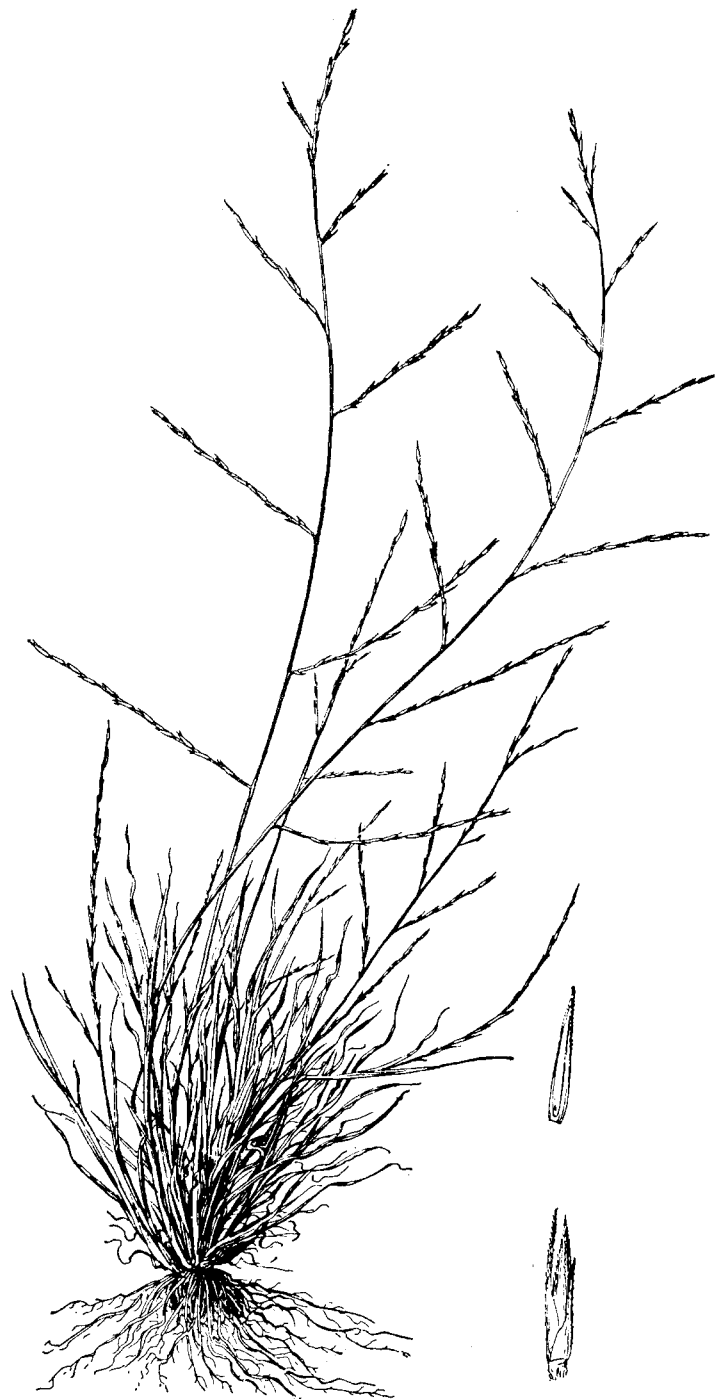


Common Name: Timothy

Scientific Name: *Phleum pratensis* L.

Description:

An erect, tufted, introduced, cool-season, perennial bunchgrass. The culms originate from a bulb-like, swollen base. Cultivated as a hay and pasture grass. Not widely used in North Dakota because other introduced grasses produce higher yields of forage. **Leaves** rolled at emergence. **Blade** 4 to 8 mm wide, 5 to 20 cm long, flat tapering to a sharp point, rough to touch on margins and both surfaces. **Sheath** split with margins overlapping, often purplish at base. **Collar** continuous, sometimes oblique, margins sparsely hairy. **Ligule** membranous, obtuse, 2 to 3 mm long. **Auricles** absent.



Common Name: Tumblegrass

Scientific Name: *Schedonnardus paniculatus* (Nutt.) Trel.

Description:

A low-growing, densely tufted, native, warm-season, weedy perennial. Found on upland prairie, not abundant. **Leaves** folded at emergence. **Blade** 1 to 3 mm wide, 2 to 5 cm long, keeled, waxy, rough to touch on keel and margins. **Sheath** compressed, split, strongly keeled. **Collar** narrow and divided. **Ligule** membranous, 1 to 3 mm long and continuous with sheath margins, acute. **Auricles** absent.

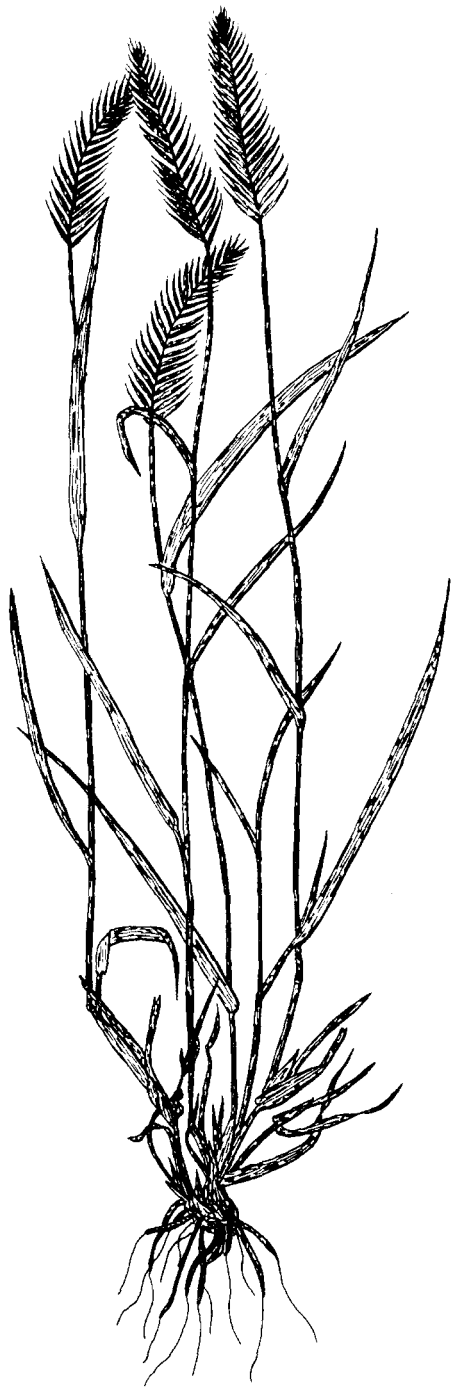


Common Name: Bearded wheatgrass
Scientific Name: *Agropyron subsecundum* (Link) Hitchc.
Description:

An erect, medium tall, tufted, native, cool-season perennial bunchgrass. Found primarily in moist prairie and open woods. Palatable to livestock for grazing. **Leaves** rolled at emergence. **Blade** to 10 mm wide, 5 to 20 cm long, flat or involute, tapering to a sharp point, rough to touch on upper surface, slightly so below, margins very rough. **Sheath** split with margins not overlapping. **Collar** divided by midrib. **Ligule** membranous, 1 mm or less long, obtuse to truncate, lacerate. **Auricles** absent, clawlike if present, often only one.

Common Name: Bluebunch wheatgrass
Scientific Name: *Agropyron spicatum* (Pursh.) Scrib. & Smith

Description:
 An erect, medium tall, densely tufted, native, cool-season perennial often forming large bunches. Found occasionally on dry hillsides in extreme western North Dakota. **Leaves** rolled at emergence. **Blade** 1 to 4 mm wide, 8 to 15 cm long, flat to loosely involute, pubescent on upper surface. **Sheath** split with margins overlapping. **Collar** continuous and sometimes divided. **Ligule** membranous, less than 1 mm long, truncate, lacerate. **Auricles** rudimentary to clawlike, usually very fr



Common Name: Crested wheatgrass

Scientific Name: *Agropyron cristatum* (L.) Gaertn.

Description:

An erect, medium tall, tufted, introduced, cool-season perennial bunchgrass, occasionally with short rhizomes. Seeded for early season grazing and for hay. **Leaves** rolled at emergence. **Blade** 5 to 10 mm wide, 10 to 20 cm long, flat or slightly involute, tapering to a sharp point, rough or softly pubescent on upper surface, smooth or slightly rough below, margins rough. **Sheath** split with overlapping translucent or transparent margins. **Ligule** 1 to 2 mm long, membranous, truncate, lacerate. **Collar** divided, distinct, smooth to hairy. **Auricles** slender, clawlike and clasping, 1 to 2 mm long.



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Common Name: Intermediate wheatgrass

Scientific Name: *Agropyron intermedium* (Host.) Beauv.

Description:

A tall, erect, tufted, introduced, cool-season perennial, sod-forming grass, with short rhizomes. Used in grass seed mixtures for hay and pasture. **Leaves** rolled at emergence. **Blade** 5 to 10 mm wide, 5 to 15 cm long, flat, smooth, pubescent in some strains (Pubescent wheatgrass - *Agropyron trichophorum* (Link) Richt. has similar vegetative characteristics), margins hairy. **Sheath** split with margins overlapping, inner margins translucent or transparent. Outer margins fringed with hair. **Ligule** very short, less than 1 mm long, serrate. **Collar** narrow, continuous. **Auricles** variable, clasping, slender, often rudimentary.



Common Name: Quackgrass

Scientific Name: *Apropyron repens* (L.) Beauv.

Description:

An erect, medium tall, introduced, cool-season, perennial, sod-forming grass with long, creeping, yellowish rhizomes. A troublesome noxious weedy grass in cropland fields. Found throughout the state, especially on moist and disturbed soils. Forage value is good. **Leaves** rolled at emergence. **Blade** 4 to 10 mm wide, 5 to 20 cm long, flat or U-shaped, tapering to a sharp point, twisted near tip, rough to touch on margins and upper surface, smooth below, sparsely hairy above. **Sheath** split with margins overlapping, lower sheaths often pubescent. **Ligule** membranous, very short, obtuse, entire, lacerate, sometimes hairy. **Collar** divided, distinct, broad, finely hairy, sometimes tinged with purple. **Auricles** clawlike and slender.



Common Name: Slender wheatgrass

Scientific Name: *Agropyron trachycaulum* (Link) Malte.

Description:

An erect, short-lived, medium tall, tufted, native, cool-season perennial bunchgrass with very short rhizomes. Found throughout the state on moist well-drained soils. Exhibits a high tolerance to saline-alkali soils. Often used in grass seed mixtures because it establishes easily. It is a nutritious and palatable grass when young, becomes stemmy as it matures. **Leaves** rolled at emergence. **Blade** 2 to 8 mm wide, 15 to 40 cm long, flat, tapering to a sharp point, narrowed at base, ridged and rough to touch on upper surface, slightly rough below, margins very rough. **Sheath** split, white or purplish at base. **Ligule** membranous, very short, to 1 mm long, truncate finely hairy. **Collar** distinct, continuous, often oblique. **Auric** rudimentary or absent, often only one.



Common Name: Tall wheatgrass

Scientific Name: *Agropyron elongatum* (Host.) Beauv.

Description:

A tall, erect, loosely tufted, native, cool-season perennial bunchgrass. Used primarily for revegetation of saline-alkali soils for hay and grazing. Forage quality is good when young, becomes coarse as it matures. **Leaves** rolled at emergence. **Blade** 4 to 10 mm wide, 15 to 40 cm long, minutely pubescent, firm, flat, tapering to a sharp point, mostly basal. **Sheath** split with margins overlapping. **Ligule** membranous, less than 1 mm long, serrate, often turned downward. **Collar** narrow. **Auricles** small, clasping usually not visible on older leaves.



Common Name: Western wheatgrass

Scientific Name: *Agropyron smithii* Rydb.

Description:

An erect, medium tall, native, cool-season, perennial sod-forming grass with long slender rhizomes. Found throughout North Dakota on upland prairie. Often used in native grass seed mixtures for permanent pasture. Possesses a high tolerance to saline-alkali soils. **Leaves** rolled at emergence. **Blade** 2 to 4 mm wide, 5 to 25 cm long, flat to involute, stiff, tapering to a sharp point, rough on upper surface, smooth below, bluish-green in color, attached at 45 degree angle to stem. **Sheath** split, open partway down, often overlapping on younger leaves, often brown or purplish at base. **Ligule** very short, less than 1 mm long, membranous, truncate, lacerate or hairy. **Collar** not well defined, medium broad, continuous, sometimes oblique. **Auricles** clawlike, clasping, sometimes purplish.



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Common Name: Wild barley

Scientific Name: *Hordeum jubatum* L.

Description:

An erect, medium tall, densely tufted, native, cool-season perennial bunchgrass. Found throughout North Dakota in waste places, along sloughs and marshes. Possesses a high tolerance to saline-alkali soils. Palatable to livestock when young avoided once seedheads emerge. **Leaves** rolled at emergence. **Blade** 2 to 5 mm wide, 3 to 15 cm long, tapering to a sharp point, twisted, rough to touch with long soft hair above, pubescent or rough below, bluish-green, often purplish, margins rough. **Sheath** split with margins overlapping, pubescent, often purplish. **Ligule** membranous, about 1 mm long, obtuse or truncate, lacerate, finely hairy. **Collar** medium broad, continuous, often purplish, sometimes oblique. **Auricles** absent or rudimentary.



Common Name: Canada wildrye

Scientific Name: *Elymus canadensis* L.

Description:

A tall, erect, tufted, cool-season, native perennial bunchgrass, sometimes with very short rhizomes. Found throughout the state, but makes its best growth in moist ravines, along margins of brush patches, along waterways and fence rows. Forage value for grazing is good when young, but the plant becomes coarse, tough and woody when flower stalks form. **Leaves** rolled at emergence. **Blade** 5 to 6 mm wide, 10 to 20 cm long, flat to convolute, tapering to a sharp point. **Sheath** split with margins overlapping, outer margin often hairy. **Ligule** membranous, obtuse or truncate, lacerate, about 1 mm long. **Collar** broad, continuous, often oblique. **Auricles** about 2 mm long, clawlike and clasping.



Canadian Department of Agriculture

Common Name: Russian wildrye
Scientific Name: *Elymus junceus* Fisch.
Description:

A tall, erect, tufted, cool-season, introduced, perennial bunchgrass. Seeded by farmers and ranchers for fall grazing. Maintains nutrient quality of forage season long, but can be grazed throughout the growing season. **Leaves** rolled at emergence. **Blade** flat to convolute, to 5 mm wide, 5 to 25 cm long, tapering to a sharp point, slightly rough on both surfaces, margins rough to touch. **Sheath** split with margins overlapping. **Ligule** membranous, to 1 mm long, ovate to truncate, lacerate, hairy. **Collar** broad, continuous. **Auricles** about 2 mm long, clawlike and clasping.



Canadian

Common Name: Witchgrass
Scientific Name: *Panicum capillare* L.
Description:

A coarse, medium tall, tufted or decumbent, native, warm-season weedy annual. Found on dry, sandy soils in grasslands, cropland fields, gardens and waste areas. A grass of very limited value. **Leaves** rolled at emergence. **Blade** 5 to 15 mm wide, 10 to 25 cm long, flat, both surfaces with stiff hairs or bristles, tapering to a sharp point, margins rough to touch. **Sheath** round, split with margins overlapping, and with minute nipple-shaped projections and stiff hairs or bristles. **Collar** usually indistinct, broad, continuous and pubescent. **Ligule** a dense fringe of hairs to 2 mm long and fused at base. **Auricles** absent.



Common Name: Needleleaf Sedge
Scientific Name: *Carex eleocharis* Bailey
Description:

A native, cool-season perennial with long, slender rhizomes. Very common on dry upland prairie. Grazed by livestock throughout the growing season. Very resistant to grazing use. **Stems** 2.5 to 15 cm long, arising singly or several grouped together. **Leaves** stiff, 1 to 4 to a stem; 1.0 to 1.5 mm wide at base, narrower above and rolled involute. **Ligule** is wider than long. **Seedhead** is a spike, 5 to 20 mm long, 5 to 10 mm wide. The male flowers are at the tip; female flowers below in same spike.

Common Name: Slough sedge
Scientific Name: *Carex atherodes* Spreng.
Description:

A native, cool-season, loosely tufted perennial with long slender rhizomes. It is the most common of all slough sedges. Frequently forms pure stands in wet areas, marshes, along edges of lakes and streams and other shallow water areas. **Stems** 30 to 150 cm high, usually stout, sharply triangular, smooth, red-tinged at base. **Leaves** few several per stem, lower leaves bladeless or nearly so, clustered at base, thin, flat, dull green color, 3 to 12 mm wide, 10 to 50 cm long, smooth above, hairy towards base, especially lower leaves. **Sheath** long, hairy, brownish or red-tinged near the top. **Ligule** very conspicuous, longer than wide. Male and female flowers in separate spikes, rarely together.

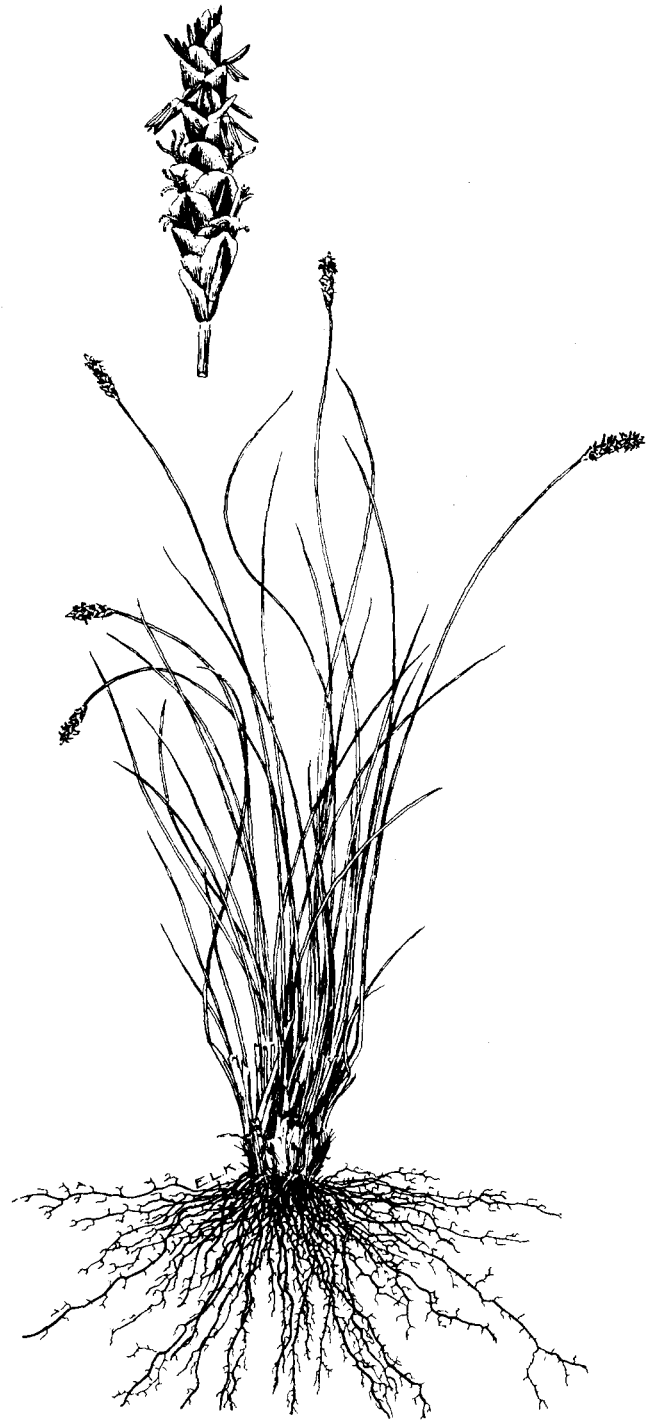


Common Name: Sun sedge

Scientific Name: *Carex heliophila* Mack.

Description:

A native, tufted perennial with long, slender rhizomes. Common on upland prairie and in wooded areas. **Stems** slender, wiry, reddish-brown tinged at base, 5 to 35 cm high, mostly taller than leaves. **Leaves** 5 to 10 per stem, 4 to 22 cm long, 1 to 2.5 mm wide, gradually tapering to sharp point. **Ligule** much wider than long. Male flowers terminal or at stem tip; female flowers below, sometimes separate.



Common Name: Threadleaf sedge

Scientific Name: *Carex filifolia* Nutt.

Description:

A native, cool-season, densely tufted perennial from stout, wiry roots. Very common on dry upland prairie. Grazed readily by all classes of livestock. **Stems** thread-like, long, slender, 8 to 30 cm high, about as long as leaves or slightly longer. **Leaves** needlelike, wiry, 2 to 3 per stem, clustered near base, light green color. **Sheath** bases of previous years growth persist, dark brown color. **Ligule** very short. Flowers a terminal spike, male flowers above, female flowers below.



Common Name: Woolly sedge

Scientific Name: *Carex lanuginosa* Michx.

Description:

A native, cool-season, loosely tufted perennial with long, tough, scaly rhizomes. Common in wet meadow areas in southeastern portion of the state. Provides excellent grazing during early summer, becomes coarse and unpalatable to livestock later. Areas with large amounts of carry-over old growth cover grazed very sparingly. Stems 30 to 100 cm high, in nearly pure stands, stiff, erect, sharply triangular, dark red at base. **Leaves** 2 to 5 per stem, dull green, flat, 2 to 5 mm wide and gradually tapering to a long, sharp point, often longer than stem. **Sheath** somewhat reddish-tinged. **Ligule** as long as wide. Male and female flowers in separate spikes.

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