

Grass Varieties

For North Dakota



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Selection of the proper species and variety is one important step in making a grass seeding successful. Grass species and varieties differ in growth habit, productivity, forage quality, drought resistance, tolerance to grazing, winter hardiness, seedling vigor, salinity tolerance and many other characteristics. Therefore, selection should be based on the climate, soils, intended use, and the management planned. Planting the proper selection can also provide long-term benefits and affect future productivity of the stand.

This publication is designed to help producers and land managers in North Dakota select perennial grass species and varieties for rangeland and pasture seeding and conservation planting. A description of each species and variety is included. Variety origin and date released is also given for additional reference.

A guide is provided to aid in selection of grass species for droughty soils, arid environments, and saline or alkaline areas. This guide is intended to assist in the selection process and should help in reclamation of disturbed areas or seeding of pastures and rangeland. Before selecting the plant species used, several factors should be considered including 1) a soil test, 2) identification of the type of vegetation that previously grew on the location before it was disturbed, 3) weather patterns (precipitation and temperature factors), 4) planting methods recommended for each plant species (refer to circulars R-563, Forage Establishment; R-917, Grass Seed Production in North Dakota; and R-790, Planting Tips), and 5) erosion potential.

Introduced Grasses

Introduced grass species (also referred to as “tame grass”) and varieties can be planted for pastureland, hayland, waterways, conservation cover, filter strips and wildlife habitat. Some species require a high level of management and fertility to provide long-term protection of the soil and high herbage performance.

Use certified seed to assure varietal identity and genetic purity. An alternative is to use common seed of adapted varieties harvested in the states of North Dakota, South Dakota, Minnesota, Nebraska, Montana, Wyoming and provinces of Alberta, Saskatchewan and Manitoba.

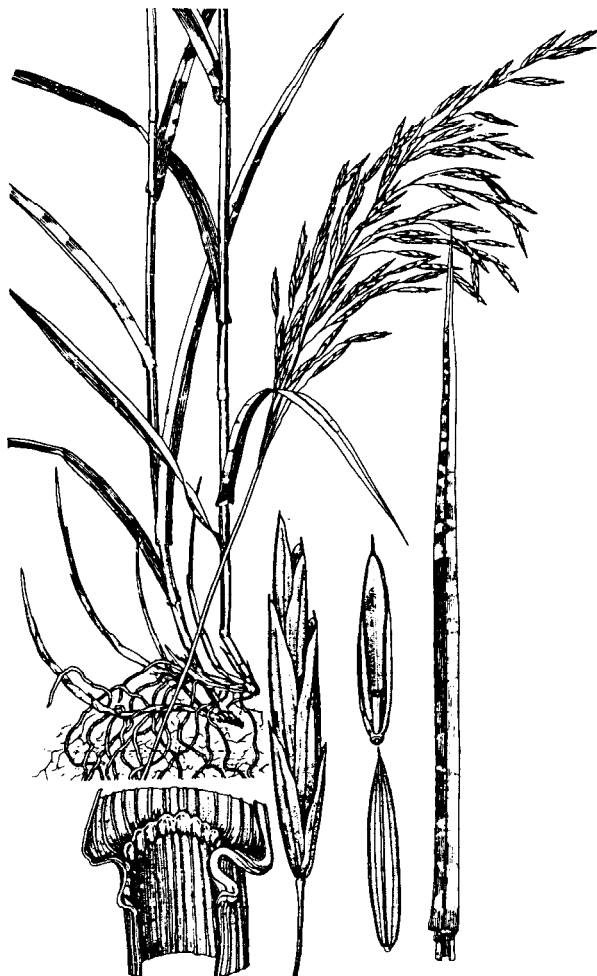
■ Bromegrass

Meadow

Varieties	Date Released
Fleet ¹	1987
Paddock ¹	1987
Regar	1966

¹ Fleet and Paddock are Canadian varieties with higher seed yields.

Meadow bromegrass is a long-lived, cool-season, perennial bunchgrass. It has good seedling vigor and is easy to establish. Forage quality is excellent. It has strong regrowth potential following grazing. Leaves are dominantly basal. Under favorable moisture, leaves remain green and continue to grow after the seed crop is mature. Meadow bromegrass is winter hardy but provides less forage than smooth bromegrass under drought stress. It is suggested for use with alfalfa for hay and pasture on good moisture sites. Meadow bromegrass has excellent regrowth potential when moisture is adequate



Smooth Bromegrass

Smooth

Types	Varieties	Date Released
Northern	Carlton	1961
	Signal	1983
	Magna	1968
Southern	Manchar	1943
	Badger	1990
	Radisson	1989
	Rebound	1978
	Beacon	1976
	Barton	1973
	Baylor	1962
	Saratoga	1955
	Lincoln	1942

■ Foxtail

Creeping

Varieties	Date Released
Retain	1979
Garrison*	1963

* North Dakota release

Creeping foxtail is a very early maturing, highly palatable, cool-season, perennial, sod-forming grass that grows best on wet or imperfectly drained soils. It tolerates long periods of flooding in early spring. A uniformly moist soil, exceeding 50 percent of field capacity, is beneficial during seedling emergence for successful establishment. The light fluffy seed tends to clog in grain drills. For seed production, the variety Retain has less seed loss due to shattering. Garrison tends to have high forage yield. Primary use is for hay, pasture and conservation planting on wet or imperfectly drained soils. This species can

be invasive on wet sites as the seed is very light and easily transported to other wet sites.



Creeping Foxtail

Smooth brome grass is a long-lived, cool-season, sod-forming perennial grass used extensively for hay, pasture and soil conservation. Northern and intermediate types develop less aggressive sod and may maintain the alfalfa component of a mixture longer. Southern types are earlier in maturity. It is an excellent hay and pasture grass for the eastern two-thirds of North Dakota and on better soils westward. Close grazing in the spring delays regrowth from crown buds. Stands become unproductive in three to four years if not fertilized. It is used extensively for grassed waterways and other soil and water conservation practices. Rebound was selected for rapid recovery after haying or grazing.

■ Fescue

Hard

Varieties	Date Released
Discovery	1996
Aurora	1985
Reliant	1981
Durar	1949

Hard fescue is a special purpose, semi-erect, densely tufted, drought tolerant, perennial, cool-season bunchgrass. It is highly competitive, durable and shade tolerant with an extensive root system. Primary use is for revegetation of disturbed areas, roadsides, ditch banks, conservation planting and for turf around farmyards, airports and other heavy use areas. Reliant and Aurora are newer varieties that are shorter than Durar and are well suited for low maintenance turf. Shallow planting is critical. Seedlings develop slowly the first year.

■ Wheatgrass

Bluebunch-Quackgrass hybrid

Varieties	Date Released
NewHy	1993

NewHy wheatgrass is a long-lived perennial grass with a moderate amount of vegetative spread developed as a hybrid between quackgrass and bluebunch wheatgrass. It has demonstrated a relatively high level of tolerance to salinity. NewHy is more saline-tolerant than crested and intermediate wheatgrass and nearly as tolerant as tall wheatgrass.

Crested

Types	Varieties	Date Released
Standard	Nordan*	1953
	RoadCrest	1998
	Summit	1953
Fairway	Ephraim	1983
	Ruff	1972
	Parkway	1969
	Fairway	1927
Hybrid	CD-II	1996
	Kirk	1987
	HyCrest	1984

* North Dakota release

Crested wheatgrass is an early, long-lived, cool-season, drought tolerant, perennial bunchgrass with excellent seedling vigor and ease of establishment. It is used primarily for hay and early spring pasture in mixtures with alfalfa. The fairway types are shorter, leafier and have less tendency to form large clumps with age. The variety Fairway is frequently used in dryland lawns. Ephraim has lower forage yields but was selected for its slowly developing sod-forming characteristic, which is useful as a low-maintenance ground cover. RoadCrest has a short stature and finer leaves and is moderately rhizomatous, which is desirable for roadsides and other low-maintenance applications. HyCrest, Kirk, and CD-II are varieties of hybrid crested wheatgrass obtained by crossing standard and fairway types.



Crested Wheatgrass

Intermediate

Types	Varieties	Date Released
Intermediate	Reliant*	1991
	Clarke	1980
	Slate	1969
	Chief	1961
	Oahe	1961
Pubescent	Manska*	1992
	Greenleaf	1966
	Mandan 759*	Informal

* North Dakota release

Intermediate wheatgrass is a vigorous, fast-growing, cool-season, perennial, sod-forming grass. Varieties differ in the amount of pubescence on seed head and leaves. The pubescent varieties are reported to be more drought tolerant and form a sod more rapidly than intermediate varieties. Forage yield is similar among all varieties and types, with the exception of Reliant, Oahe, Chief, and Manska, which tend to be higher producing. Both types of intermediate wheatgrass are often included in seed mixtures for hay and pasture due to their ease of establishment and fast growth. To maintain productivity, do not closely graze in the spring and do not graze past August 1. Intermediate wheatgrass is often used in seed mixtures for wildlife habitat. Reliant is more of a bunch type, developed to be less competitive with alfalfa in hayland planting. Manska, reselected from Mandan 759, has shown significantly higher forage quality and improved animal daily gain in grazing tests in Nebraska.

Siberian

Varieties	Date Released
Vavilov	1994
P-27	1953

Similar to crested wheatgrass in appearance, Siberian wheatgrass has awnless seed heads more numerous than crested. It is drought resistant and well adapted to light, droughty soils; however, Siberian wheatgrass appears to be a shorter lived plant that may not be very persistent in a grass stand.



Intermediate Wheatgrass

Tall

Varieties	Date Released
Orbit	1966
Platte	1966
Jose	1965
Alkar	1951

Tall wheatgrass is a tall, coarse, late-maturing, cool-season, perennial bunch grass. It is a special purpose grass used to revegetate saline-alkali soils with high water tables. The plant normally becomes coarse and unpalatable to livestock as it matures. Jose is finer-leaved and rated higher in forage quality. Palatability of hay is fair to good if cut prior to or just after heading. A 6-inch stubble height should be left. Tall wheatgrass is used in narrow, uniformly spaced barriers for soil erosion control and to manage snow for moisture conservation on cropland. It is often seeded in a mixture with intermediate wheatgrass, alfalfa and sweetclover for wildlife habitat.



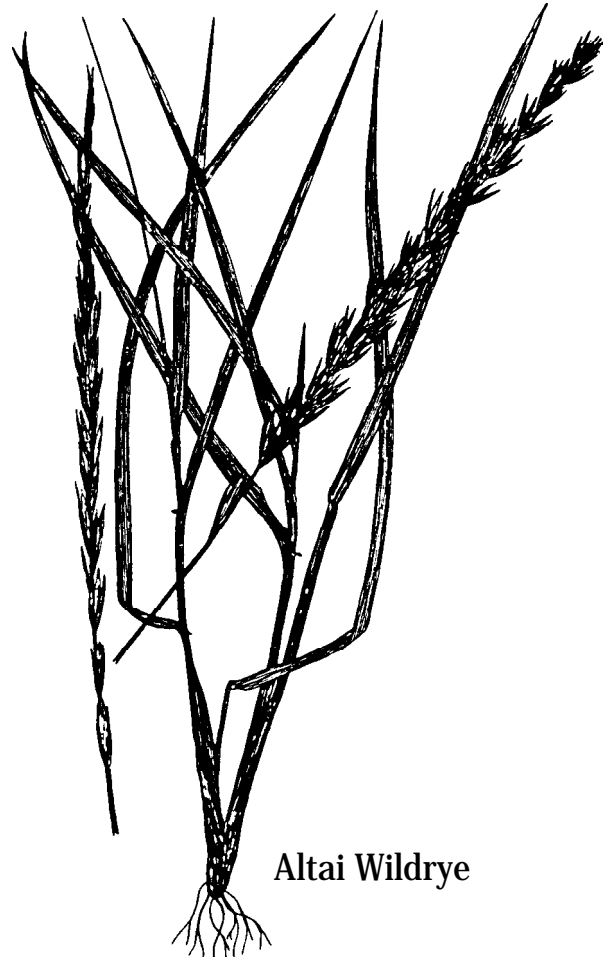
Tall Wheatgrass

Wildrye

Altai

Varieties	Date Released
Pearl	1989
Eejay	1989
PrairieLand	1976

Altai wildrye is a long-lived, cool-season, drought tolerant, winter-hardy, perennial bunchgrass with coarse, erect leaves. It is a special purpose grass used to extend the grazing season into the late fall and winter. Upright and erect stature and leaf retention after snowfall permits late fall/early winter grazing. It is adapted to loam and clay soils. Seedlings develop slowly, and stand establishment is more difficult than many other grass species. The root system is extensive and penetrates to depths of 10 feet. It possesses moderately high tolerance to saline-alkali soils, but less than tall wheatgrass and the bluebunch wheatgrass-quackgrass hybrid "NewHy". Forage nutritional value is retained into late fall and winter for grazing. Seed supply is limited due to its low seed yield. After-math growth must be removed by clipping or grazing to maintain maximum seed yield. Recommended as a single-species stand for grazing.



Altai Wildrye

Dahurian

Varieties	Date Released
Arthur	1989
James	1989

Dahurian wildrye is a short-lived perennial bunchgrass that is easy to establish, with excellent seedling vigor, good forage production, and quick recovery after haying. Dahurian is recommended for hay or pasture in situations where stands persist past two or three years. It has been seeded in alternate or perpendicular rows with longer-lived but slower establishing grasses to enhance early production. Arthur and James are Canadian varieties.

Mammoth

Varieties	Date Released
Volga	1949

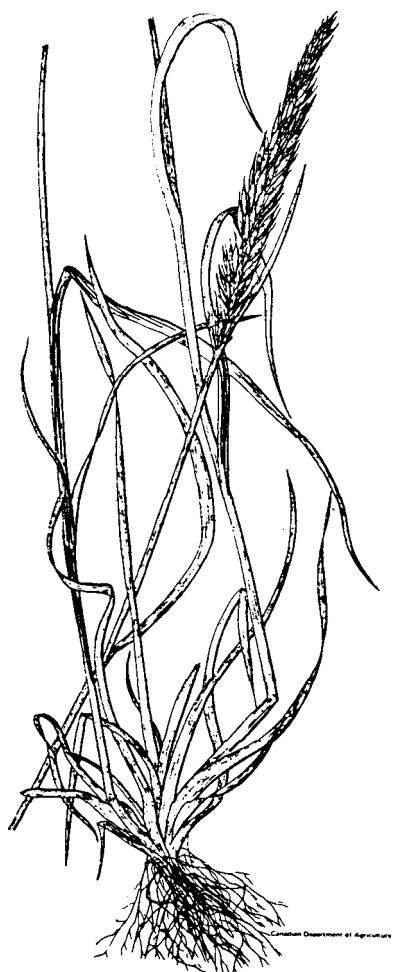
Mammoth wildrye is a tall, coarse, perennial, cool-season grass with stout rhizomes. It has poor forage quality but provides excellent erosion control on sandy soils, including inland sand dunes and blowout areas. It is often seeded with sand bluestem using a companion grass mixture.

Russian

Varieties	Date Released
Mankota*	1991
Tetracan	1988
Bozoisky Select	1983
Swift	1978
Vinall*	1960

* North Dakota release

Russian wildrye is an early, long-lived, cool-season, drought tolerant, perennial bunchgrass with fine basal leaves. It is a special purpose grass used primarily to extend the grazing season into late fall. Protein content of the forage remains at relatively high levels when saved for fall grazing. It is adapted to loam and clay soils and possesses a moderately high tolerance to saline-alkali soils. Seedlings develop more slowly than many other species, but once established, Russian wildrye is highly competitive with other forage species, Russian wildrye is recommended for fall grazing in separate pastures as a single species. Mankota is a new variety selected for improved seedling vigor, resistance to leaf diseases and 15 to 20 percent higher forage yields in good moisture sites or years.



Russian Wildrye

Native Grasses

Many of the native grass species have specific traits that adapt them for use in range, pasture, hayland, wildlife habitat or conservation plantings.

Performance and adaptation of native grass varieties differ by point of origin because of natural selection, which occurs due to environmental conditions such as temperature, day length, growing season, etc. Experience has shown that seed from a native harvest can be moved about 300 miles north or 200 miles south of its origin without serious adaptation difficulties. Some cool-season grass species such as western wheatgrass and green needlegrass have broad areas of adaptation. Movement east and west is influenced primarily by precipitation and elevation. An increase of 1,000 feet in elevation is equivalent to a move of about 175 miles north of its origin.

Use certified seed to assure varietal identity and genetic purity. An alternative is to use common seed of adapted varieties harvested in the states of North Dakota, South Dakota, Minnesota, Nebraska, Montana, Wyoming and provinces of Alberta, Saskatchewan and Manitoba.



Reed Canarygrass

Cool-Season Grasses

These grasses are most productive in spring and fall during periods of cool temperatures and plentiful moisture.

■ Canarygrass

Reed

Varieties	Origin	Date Released
Palaton	IA	1985
Venture	IA	1983
Vantage	MN, IA	1972
Rise	NE, Canada	1964

Reed canarygrass is a high-yielding, strongly rhizomatous, sod-forming grass on wet or imperfectly drained soils and under irrigation. Tolerance to saline-alkali soils is low. It can withstand long periods of early spring flooding. High alkaloid content reduces palatability when grazed but is not a problem in hay. Palaton and Venture are low alkaloid content varieties and are recommended for grazing. Rise and Vantage have moderate alkaloid levels compared to older varieties. This species can be invasive on wet sites.

Needlegrass

Green

Varieties	Origin	Date Released
Lodorm*	ND	1969

* North Dakota release

Green needlegrass is a perennial, early drought-tolerant bunchgrass adapted to a wide range of soils. Seed harvested from native stands has a high level of dormancy. The variety Lodorm was released because of less seed dormancy after harvest compared to native seed. It is a highly palatable grass and is widely used in rangeland seeding.



Green Needlegrass

Wheatgrass

Bluebunch

Varieties	Origin	Date Released
Goldar	ID	1989
Secar	ID	1980

Bluebunch wheatgrass is a long-lived, drought tolerant, highly palatable and nutritious bunchgrass. This species is sensitive to overgrazing. It is best adapted to the droughty soils of western North Dakota.



Bluebunch Wheatgrass

Slender

Varieties	Origin	Date Released
Adanac	Sask.,Canada	1990
Pryor	MT	1988
Revenue	Canada	1970
Primar	MT, WA	1946

Slender wheatgrass is a short-lived cool-season, perennial bunchgrass. It is primarily used in seed mixtures of introduced and native grasses due to its excellent seedling vigor, ease of establishment and fast growth. Plants lose vigor and decline in abundance within three to four years. Presence in mixtures improves stand productivity, especially during the first production year, until other grasses become better established. It possesses a high tolerance to saline-alkali soils.

Thickspike/streambank

Varieties	Origin	Date Released
Bannock	OR, ID, WA	1995
Elbee	Albe.,Canada	1980
Critana	MT	1971
Sodar	OR	1954

Thickspike wheatgrass is a strongly rhizomatous, perennial, sod-forming grass found on rough, broken buttes and to a limited extent on sagebrush flats in native grasslands. The variety Sodar has been used extensively for revegetation of disturbed areas, roadsides, runways for small airplanes, and other critical areas that receive little or no maintenance. Stem and leaf rust may be a problem on some sites and in the eastern half of North Dakota. Authorities currently recognize thickspike and streambank as the same species.

Western

Varieties	Origin	Date Released
Rodan*	ND	1983
Walsh	Sask.,Canada	1983
Flintlock	NE	1975
Rosana	MT	1972

* North Dakota release

Western wheatgrass, North Dakota's state grass, is a long-lived, drought-resistant, sod-forming grass found throughout the state, especially on medium to fine textured soils. It has a high level of tolerance to saline-



Slender Wheatgrass

■ Wildrye

Basin

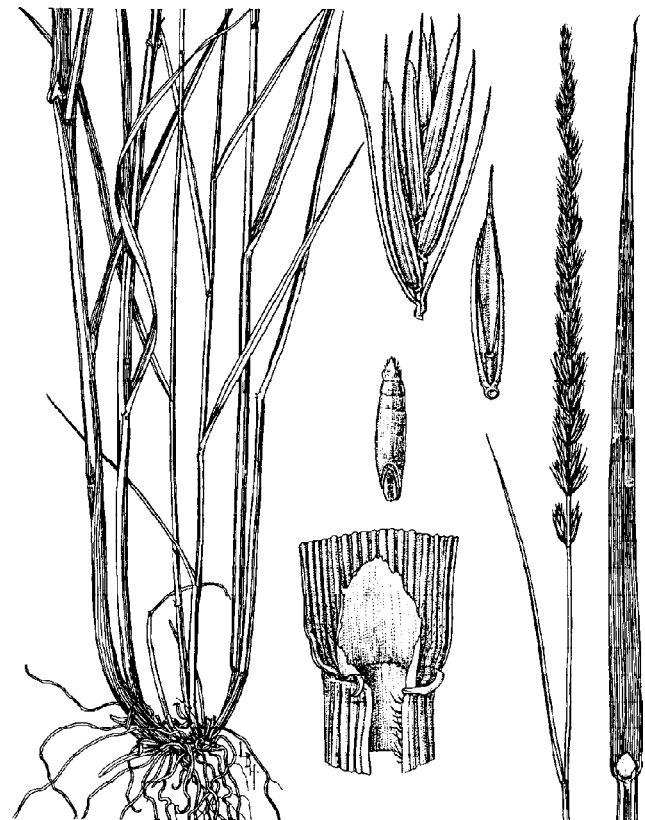
Varieties	Origin	Date Released
Trailhead	MT	1991
Magnar	Sask, Canada	1979

alkali soils and can withstand periodic flooding. Stands are slow to develop from seed. It is widely used in seed mixtures for rangeland seeding, revegetation of saline-alkali areas and in critical area planting for erosion control. Rodan is similar to the variety Rosana in area of adaptation but is more productive on coarse-textured soils and areas of higher rainfall. Walsh is adapted to fine-textured, moderately saline-alkaline soils.

Basin wildrye is a perennial bunchgrass native to much of the western United States. It performs best on flood plains or areas receiving additional moisture; however, basin wildrye performed well on sandy soils in western North Dakota receiving average yearly precipitation of 12 to 18 inches during the years of field evaluation. Seedlings develop slowly, and stand establishment is difficult. Basin wildrye is a tall grass that provides excellent standing forage for livestock and nesting and escape cover for wildlife. It can also be used as a grass windbreak for wind erosion protection or to control blowing snow. Basin wildrye does not do well on coarse, shallow or heavy clay soils. This grass is susceptible to leaf and stem rusts in the eastern half of North Dakota.



Western Wheatgrass



Basin Wildrye

Beardless

Varieties	Origin	Date Released
Shoshone	WY	1980

Beardless wildrye is a rhizomatous perennial grass adapted to wet, saline-alkali soils. Its use is limited due to slow seed germination and seedling development. Field tests on highly saline soils indicate that Shoshone beardless wildrye is superior to Rosana western wheatgrass in providing ground cover. Due to slow seedling development, proper seedbed preparation is important to minimize competition from weeds. It is suggested for use on saline-seep discharge areas. Plant in late fall as a dormant-season seeding to improve seed germination.

Canada

Varieties	Origin	Date Released
Mandan*	ND	1946

* North Dakota release

Canada wildrye is a short-lived bunchgrass with large coarse leaves, excellent seedling vigor and fair palatability if grazed or hayed before heading. It has potential in mixtures on sandy soils and critical areas for early establishment of cover until other species are established. The awned seedheads of Canada wildrye are showy, and the grass is often used for decorative planting near roadside rest areas and in parks.



Canada Wildrye

Warm-Season Grasses

These grasses are most productive in the summer during periods of higher daytime temperatures and longer periods of daylight.

■ Bluestem

Big

Varieties	Origin	Date Released
Sunnyview ¹	SD	1992
Bison*	ND	1989
Bonilla ^{1*}	SD	1987

¹Adapted for southeastern and southcentral North Dakota.

*North Dakota release

Big bluestem is a component of the tall grass prairie and on good moisture sites westward. It is a tall, perennial, sod-forming grass. Forage is highly palatable and nutritious before it matures. It provides excellent summer pasture and hayland on good moisture sites. Stands will thin if pastures are closely grazed.

Little

Ecotype	Origin	Date Released
Badlands*	ND,SD	1996
Itasca*	ND,SD,MN	2001

*North Dakota release

Little bluestem is a drought tolerant, perennial bunch-grass of the mixed-grass prairie. Little bluestem is often found on dry hillsides in natural settings. Palatability decreases rapidly after heading. It is often included as a minor component of rangeland seed mixtures and is well adapted to limey soils of both wet and dry sites. This species also performs well on the coarse, shallow soils of droughty uplands.

Sand

Varieties	Origin	Date Released
Goldstrike	NE	1973
Garden	NE	1957

Sand bluestem is a tall, perennial, sod-forming grass adapted to sandy areas. It is similar to big bluestem in appearance. Primary use is on deep sandy range sites and for revegetation of blowout areas. Garden is more persistent than Goldstrike.



Big Bluestem



Little Bluestem

■ Buffalograss

Ecotype/Varieties	Origin	Date Released
Bismarck ecotype* (vegetatively propagated)	ND	1996
Tatanka	NE	1996

*North Dakota release

Buffalograss is a short, stoloniferous, dense, sod-forming perennial grass. Buffalograss is dioecious, having separate male and female plants. It is palatable and nutritious as a forage, but it is primarily used as a low maintenance turfgrass for lawns, airstrips and road shoulders. Varieties of southern origin (Texas, Oklahoma, Kansas) lack winter hardiness in North Dakota. Bismarck ecotype consisting of male plants is vegetatively propagated, while the variety Tatanka is generally propagated by seed.

■ Cordgrass

Prairie

Germplasm	Origin	Date Released
Red River*	ND,SD,MN	1998

*North Dakota release

Prairie cordgrass is a tall perennial grass with strongly spreading, tough, scaly rhizomes. This species occupies wet soils and may grow in pure stands bordering sloughs, ditches and wet prairies. It may be grazed by cattle in late spring; however, prairie cordgrass is seldom utilized after the boot stage. The primary use for prairie cordgrass is wildlife cover, soil stability, streambank stabilization, and buffer strips.

■ Grama

Blue

Ecotype	Origin	Date Released
Bad River*	SD	1996

*North Dakota release

Blue grama is a short, drought tolerant, tufted perennial grass of the mixed-grass prairie and short-grass plains. It is widely distributed on medium to fine textured soils throughout the state. Primary use is in rangeland seed mixtures, low maintenance turf areas and roadsides. A planting depth of 0.25 to 0.5 inches is critical for successful establishment. Bad River establishes easier than common seed and most other varieties of blue grama.



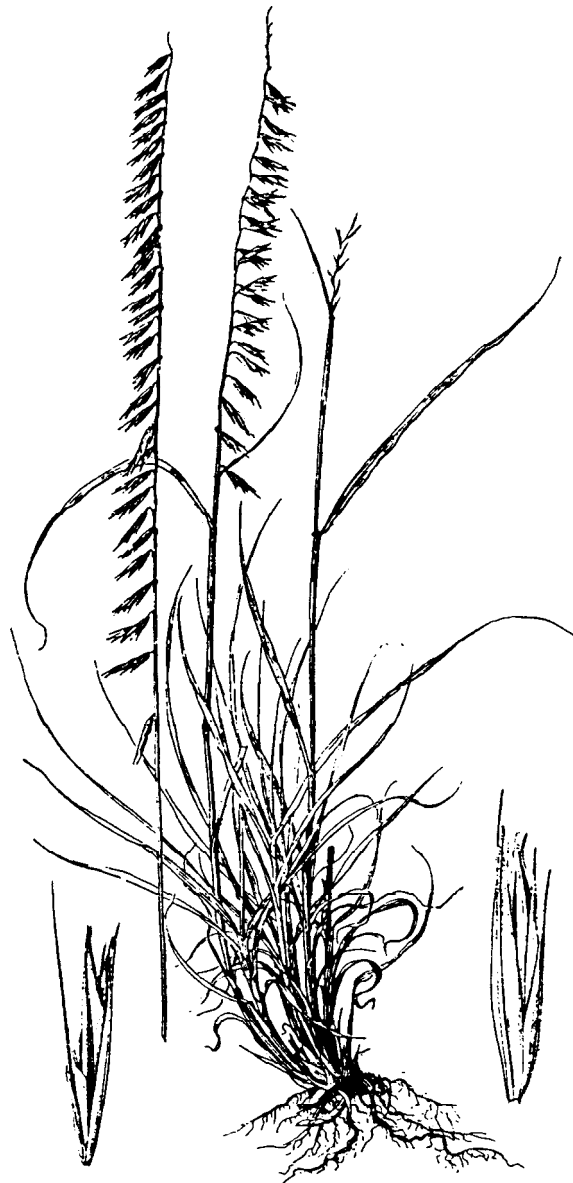
Blue Grama

Sideoats

Varieties	Origin	Date Released
Killdeer*	ND	1968
Pierre*	SD	1965
Butte	NE	1958

* North Dakota release

Sideoats grama is a drought-tolerant perennial grass found primarily on poorly developed shallow soils, steep slopes, and ridgetops as well as overflow sites. Primary use is in grass mixtures for rangeland seeding. Its excellent seedling vigor allows rapid establishment. Sideoats grama is a highly palatable forage species.



Sideoats Grama

■ Indiangrass

Varieties	Origin	Date Released
Tomahawk*	ND,SD	1988
Holt ¹	NE	1960

¹ Adapted for south eastern and south central North Dakota.

* North Dakota release

Indiangrass is a tall, perennial, sod-forming grass with short rhizomes found primarily in the tall-grass prairie of southeastern North Dakota and to a limited extent on overflow and subirrigated sites in the mixed-grass prairie. Primary use is in wildlife habitat and a component of native range and pasture mixtures.



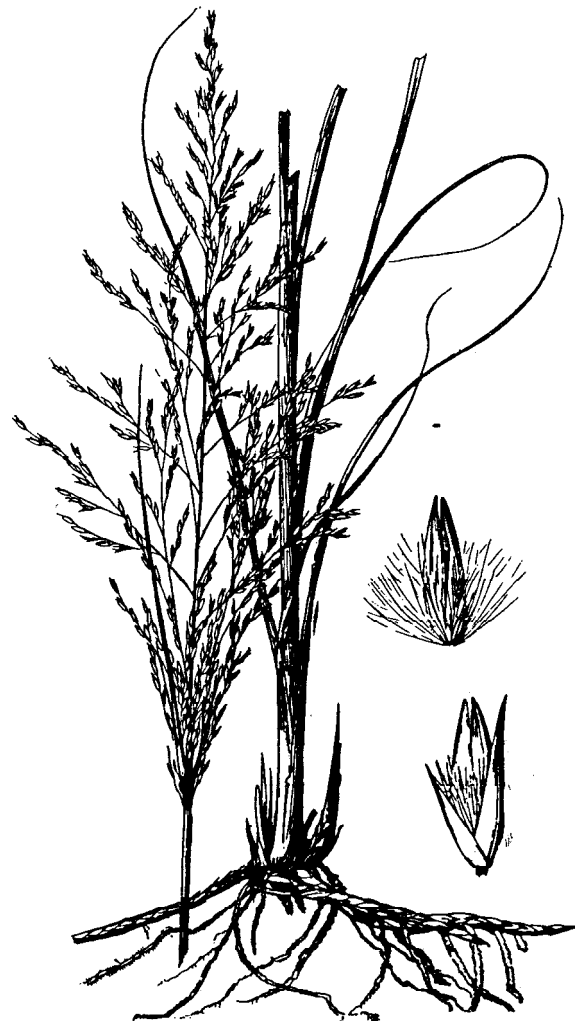
Indiangrass

■ Sandreed

Prairie

Varieties	Origin	Date Released
Goshen	WY	1976

Prairie sandreed is a drought-tolerant, strongly rhizomatous, sod-forming grass. The leaves are light green with a leathery texture; stems are coarse. Its primary use is in rangeland seeding mixtures on sandy soils where it is well adapted. Prairie sandreed is excellent for stabilization of sandy soils. Early growth is nutritious, but forage value is poor after plants head out due to high fiber and lignin content.



Sandreed

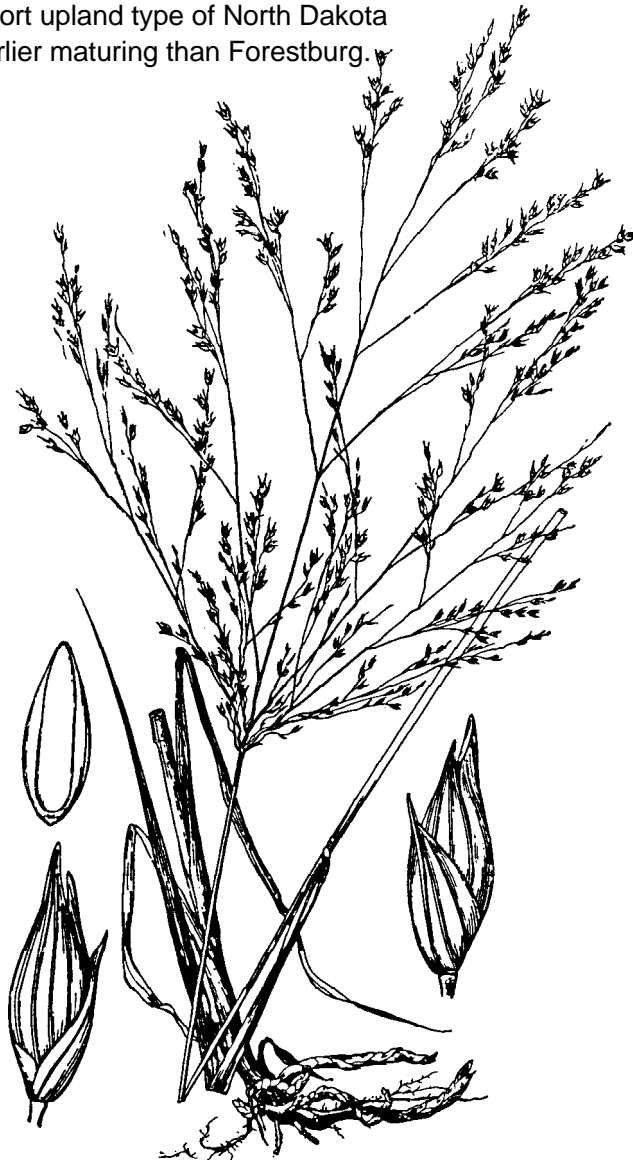
Switchgrass

Varieties	Origin	Date Released
Dacotah*	ND	1989
Forestburg ^{1*}	SD	1987
Sunburst ¹	SD	1983

¹ Adapted for southeastern and southcentral North Dakota.

* North Dakota release

Switchgrass is a tall, rhizomatous, perennial grass often growing in large clumps. It is found primarily in the tall-grass prairie of southeastern North Dakota and on good moisture sites westward. It is used in wildlife habitat plantings in eastern North Dakota and for summer pasture on good moisture sites. Forestburg and Sunburst, of South Dakota origin, are similar in maturity, appearance, and productivity. Dacotah is a short upland type of North Dakota origin and is earlier maturing than Forestburg.



Switchgrass

Plant Species Guide

for Soil and Environmental Conditions

■ Saline or Alkaline Tolerant Grasses

Wheatgrass

Blue bunch-Quackgrass hybrid
(NewHy variety)

Slender
Thickspike
Tall
Western

Wildrye

Altai
Beardless
Canada
Russian

■ Drought Tolerant Bunchgrasses

Bluebunch-Quackgrass hybrid (NewHy variety)

Grama

Blue
Sideoats

Green needlegrass

Hard fescue

Little bluestem

Wheatgrass

Bluebunch
Bluebunch-Quackgrass hybrid
(NewHy variety)
Crested
Siberian
Slender

Wildrye

Altai
Russian

■ Drought Tolerant Sod-Forming Grasses

Buffalograss

Mammoth wildrye

Prairie sandreed

Wheatgrass

Intermediate (moderately tolerant)
Pubescent (moderately tolerant)
Thickspike/Streambank
Western

■ Sand Stabilizing Grasses

Prairie sandreed

Sand bluestem

Wheatgrass

Thickspike/Streambank
Western (moderately adapted)

Wildrye

Canada
Mammoth

■ Flood Tolerant Grasses

Buffalograss

Creeping foxtail

Prairie cordgrass

Reed canarygrass

Smooth brome grass (moderately tolerant)

Switchgrass (moderately tolerant)

Wheatgrass

Intermediate (moderately tolerant)
Slender
Tall
Western

Wildrye

Canada (moderately tolerant)

Seeding Rate Guide

Most grass species in North Dakota are seeded at a rate of 25 to 30 seeds per square foot. The lower rates are generally recommended in the western part of the state or on drier sites. The higher rates are generally recommended in the eastern part of the state on sites with more favorable moisture conditions. Adjustments are made for some species based on seed size, seedling vigor, and seed conditioning. These rates are for drill planting with a row spacing of 12 inches or less, the recommended row spacings for most grass planting purposes. **Seeding rates are shown in pure live seed (PLS) pounds per acre.**

Species/Variety	lb/ac PLS
■ Introduced Grasses	
Bromegrass	
Meadow	13.5-16.5
Smooth	6.5-8.0
Fescue	
Hard	3.0-4.0
Foxtail	
Creeping	3.5
Wheatgrass	
Bluebunch/Quackgrass Hybrid	10.0-14.0
Crested	6.0-7.0
Intermediate	
Intermediate	8.5-10.0
Pubescent	8.5-10.0
Siberian	6.0-7.5
Tall	11.0-13.5
Wildrye	
Altai	16.0-19.0
Dahurian	8.5-10.0
Mammoth	20.0-24.0
Russian	6.0-7.5

Species/Variety	lb/ac PLS
■ Native Cool-Season Grasses	
Canarygrass	
Reed	3.5
Needlegrass	
Green	6.0-7.5
Wheatgrass	
Bluebunch	8.0-9.5
Slender	5.0-5.5
Streambank	7.0-8.5
Thickspike	7.0-8.5
Western	8.0-10.0
Wildrye	
Basin	8.0
Beardless	7.5-8.5
Canada	6.5-7.5
■ Native Warm-Season Grasses	
Bluestem	
Big	6.0-7.5
Little	4.0-4.5
Sand	9.5-12.0
Buffalograss (bur)	23.0-26.0
Cordgrass	
Prairie	7.0
Gramma	
Blue	2.0-2.5
Sideoats	6.0-7.5
Indiangrass	5.5-7.0
Sandreed	
Prairie	4.0-5.0
Switchgrass	3.5-4.5

For more information on this and other topics, see: www.ag.ndsu.nodak.edu

