



Native & Reclamation  
Seed Guide



# **NORTHSTAR SEED**

*Grow with us*

## **Native & Reclamation**

Northstar Seed offers a full range of native Canadian grasses and legumes for reclamation, native pasture, and commercial agriculture purposes. For expert guidance on your reclamation projects, and new ideas for agricultural production, contact Northstar Seed today and speak to one of our sales agronomist and reclamation specialists.

## **Northstar Seed Distribution**

### Manitoba Office:

Toll Free: 1-800-430-5955

Local: 1-204-476-5241

Fax: 1-204-476-3773

Email: [info@northstarseed.com](mailto:info@northstarseed.com)

### Alberta Office:

Toll Free: 1-800-805-0765

Local: 1-587-757-8981

Fax: 1-587-757-8986

Email: [info@northstarseed.com](mailto:info@northstarseed.com)



**NORTHSTAR**  
SEED

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## Available Native Species

Please contact Northstar Seed for more information about native seed species and availability.

| Native Species        | Latin Name  |
|-----------------------|---|
| Awned Wheatgrass      | <i>Elymus trachycaulus</i> ssp <i>subsecundum</i> |
| Alpine Bluegrass      | <i>Poa alpina</i>                                 |
| Beaked Sedge          | <i>Carex rostrata</i>                             |
| Baltic Rush           | <i>Juncus balticus</i>                            |
| Big Bluestem          | <i>Andropogon gerardii</i>                        |
| Blue Grama            | <i>Bouteloua gracilis</i>                         |
| Bluebunch Wheatgrass  | <i>Pseudoroegneria spicata</i>                    |
| Bluejoint Reedgrass   | <i>Calamagrostis canadensis</i>                   |
| Canada Bluegrass      | <i>Poa compressa</i>                              |
| Common Sedge          | <i>Elymus canadensis</i>                          |
| Fowl Bluegrass        | <i>Carex</i> spp.                                 |
| Fringed Brome         | <i>Poa palustris</i>                              |
| Fults Alkaligrass     | <i>Bromus ciliatus</i>                            |
| Green Needlegrass     | <i>Stipa viridula</i>                             |
| Hairy Wildrye         | <i>Elymus innovatus</i>                           |
| Idaho Fescue          | <i>Festuca idahoensis</i>                         |
| Indian Grass          | <i>Sorghastrum nutans</i>                         |
| Indian Ricegrass      | <i>Orzopsis hymenoides</i>                        |
| Inland Saltgrass      | <i>Distichlis spicata</i>                         |
| Junegrass             | <i>Koeleria macrantha</i>                         |
| Little Bluestem       | <i>Schizachyrium scoparium</i>                    |
| Mountain Brome        | <i>Bromus marginatus</i>                          |
| Needle and Thread     | <i>Stipa comata</i>                               |
| Northern Wheatgrass   | <i>Elymus lanceolatus</i>                         |
| Nodding Brome         | <i>Bromus anomalus</i>                            |
| Prairie Cordgrass     | <i>Spartina pectinata</i>                         |
| Prairie Sandreed      | <i>Calamovilfa longifolia</i>                     |
| Red Top               | <i>Agrostis gigantea</i>                          |
| Rocky Mountain Fescue | <i>Festuca saximontana</i>                        |
| Rough Fescue          | <i>Festuca hallii</i>                             |
| Sand Dropseed         | <i>Sporobolus cryptandrus</i>                     |
| Sandberg Bluegrass    | <i>Poa secudra</i>                                |
| Side Oats Grama       | <i>Bouteloua curtipendula</i>                     |
| Sheep Fescue          | <i>Festuca ovina</i>                              |
| Slender Wheatgrass    | <i>Elymus trachycaulus</i>                        |
| Slough Grass          | <i>Beckmannia syzigachne</i>                      |
| Smooth Wildrye        | <i>Elymus glaucus</i>                             |
| Spike Trisetum        | <i>Trisetum spicatum</i>                          |
| Streambank Wheatgrass | <i>Agropyron riparium</i>                         |
| Tall Mannagrass       | <i>Glyceria grandis</i>                           |
| Ticklegrass           | <i>Agrostis scabra</i>                            |
| Tufted Hairgrass      | <i>Deschampsia caespitosa</i>                     |
| Violet Wheatgrass     | <i>Elymus violaceum</i>                           |
| Western Porcupine     | <i>Stipa curtisetata</i>                          |
| Western Wheatgrass    | <i>Elymus smithii</i>                             |

| Native Legume & Forb  | Latin Name                   |
|-----------------------|------------------------------|
| American Vetch        | <i>Vicia americana</i>       |
| Canadian Milkvetch    | <i>Astragalus canadensis</i> |
| Hairy Vetch           | <i>Vicia villosa</i>         |
| Lewis Blue Flax       | <i>Linum lewisii</i>         |
| Purple Prairie Clover | <i>Daleia purpurea</i>       |

# AWNED WHEATGRASS

*Agropyron subsecundum*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Prefers moderately sandy to loam soils with good moisture and drainage.  
Found in moist flats, meadows and among low growing bushes.

## Positive Features

- Highly nutritious before heading
- Moderate fertility requirements
- Useful for erosion control in reclamation mixes

## Considerations

- Awns on seed head can be an irritant when fed to livestock.
- Sensitive to overgrazing.



|                       |                 |
|-----------------------|-----------------|
| Use                   | Hay or Pasture  |
| Longevity             | Medium          |
| Winterhardiness       | Good            |
| Drought Tolerance     | Moderate        |
| Flood Tolerance       | Moderate        |
| Salinity Tolerance    | Low to Moderate |
| Alkalinity Tolerance  | Low             |
| Acidity Tolerance     | Low to Moderate |
| Bloat Risk            | No              |
| Root                  | Bunch Grass     |
| Seeds per Pound (lb.) | 160,000         |

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# Big Bluestem

*Andropogon gerardi*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Grows under a wide range of conditions.  
Best suited for fertile, moist but well drained loam soil.

## Positive Features

- Good mid-summer growth as cool season grasses go dormant.
- Highly nutritious when vegetative
- Crude protein levels of 7-12% during summer

## Considerations

- Light, fluffy seed
- Becomes unpalatable in the fall



|                       |                          |
|-----------------------|--------------------------|
| Use                   | Pasture and reclamation  |
| Longevity             | Long-lived               |
| Winterhardiness       | Good                     |
| Drought Tolerance     | Low to Moderate          |
| Flood Tolerance       | Moderate                 |
| Salinity Tolerance    | Low to Moderate          |
| Alkalinity Tolerance  | Low to Moderate          |
| Acidity Tolerance     | Tolerates ph as low as 6 |
| Bloat Risk            | No                       |
| Root                  | Weakly sod forming       |
| Seeds per Pound (lb.) | 165,000                  |

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# Blue Grama

*Bouteloua gracilis*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Blue grama is suited to well drained sandy to clay soils in the Brown and Dark Brown soil zones. Blue grama is found in native pastures on well drained and dry soils on hillsides and hill tops and south facing slopes.

## Positive Features

- Stabilizes soil with thick, sod forming root structure
- Very drought tolerant
- Digestibility of 50-40% July to October
- Cures well for winter grazing

## Considerations

- Slower establishment
- Takes 14 months to recover from grazing



|                       |  |
|-----------------------|--|
| Use                   | Reclamation and pasture                  |
| Longevity             | Long-lived                               |
| Winterhardiness       | High                                     |
| Drought Tolerance     | Very High                                |
| Flood Tolerance       | Tolerates one week of flooding in spring |
| Salinity Tolerance    | Low                                      |
| Alkalinity Tolerance  | Moderate                                 |
| Acidity Tolerance     | Tolerates soil pH as low as 6.6          |
| Bloat Risk            | No                                       |
| Root                  | Sod forming                              |
| Seeds per Pound (lb.) | 750,000                                  |

# Creeping Foxtail

*Alopecurus arundinaceus*



**Northstar Seed Toll Free**

Neepawa, MB  
Okotoks AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

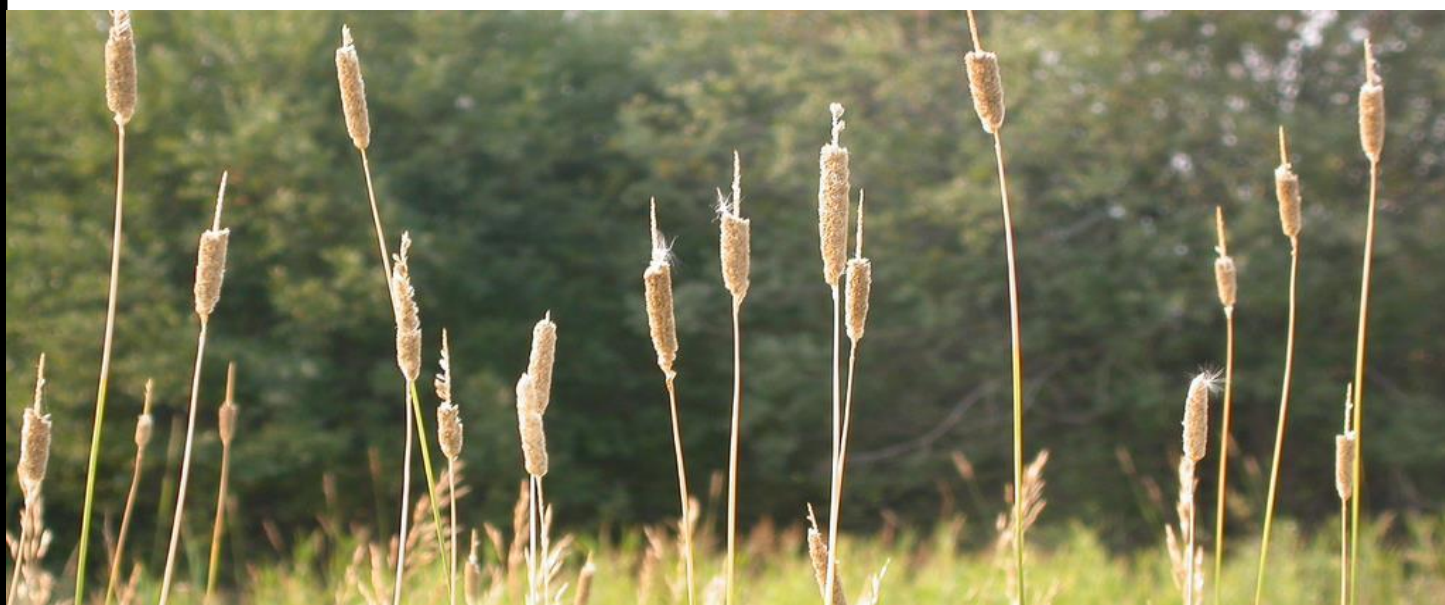
Creeping foxtail is adapted to sandy, loamy, clay, peat or muskeg soils that remain moist or wet throughout the growing season.

## Positive Features

- Quick regrowth
- Very competitive once established
- Thrives in wet conditions
- Able to displace foxtail barley in wet areas
- Becomes sod-bound as stand ages

## Considerations

- Slower establishment
- Requires wet or water-logged soil year-round



|                       |  |
|-----------------------|--|
| Use                   | Reclamation, hay or pasture                |
| Longevity             | Long-lived                                 |
| Winterhardiness       | Good                                       |
| Drought Tolerance     | Low  |
| Flood Tolerance       | Tolerates four weeks of flooding in spring |
| Salinity Tolerance    | Moderate                                   |
| Alkalinity Tolerance  | Moderate                                   |
| Acidity Tolerance     | Tolerates soil pH as low as 5.1            |
| Bloat Risk            | No   |
| Root                  | Rhizomatous root system                    |
| Seeds per Pound (lb.) | 750,000                                    |

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# Green Needlegrass

*Stipa viridula*



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Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Performs best on medium to heavy textured soils. Prefers moist sites with good drainage. Requires 12-18 inches of precipitation per year.

## Positive Features

- Palatable and nutritious
- Very good longevity
- Tolerant to drought and grasshopper damage
- Average digestibility of 52% in May to 45% in September
- Crude protein levels ranging from 11 to 7%
- Good for erosion control once established

## Considerations

- Seed has high level of dormancy
- Easily overgrazed



|                       |  |
|-----------------------|--|
| Use                   | Pasture, reclamation and stockpiling– should be grazed between early summer and fall |
| Longevity             | Long   |
| Winterhardiness       | Good   |
| Drought Tolerance     | High   |
| Flood Tolerance       | Low, takes saturated soils for 1 week in spring                                      |
| Salinity Tolerance    | Low to moderate  |
| Alkalinity Tolerance  | Low to moderate  |
| Acidity Tolerance     | Tolerates pH as low as 6.6   |
| Bloat Risk            | No   |
| Root                  | Bunch grass  |
| Seeds per Pound (lb.) | 180,000  |

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# June Grass

*Koeleria gracilis*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

June grass is suited to a wide range of soils (sandy through clay). It thrives on dry, well drained upland areas.

## Positive Features

- Grows quickly in spring
- Has fair competitive ability
- Attractive and used as an ornamental

## Considerations

- Requires full season to recover from grazing
- Low germination and weak seedlings when they emerge
- Low forage production



|                       |  |
|-----------------------|--|
| Use                   | Reclamation or pasture                           |
| Longevity             | Long-lived                                       |
| Winterhardiness       | Good   |
| Drought Tolerance     | Very high  |
| Flood Tolerance       | Withstands 1-2 weeks of saturated soil in spring |
| Salinity Tolerance    | Moderate   |
| Alkalinity Tolerance  | Low to moderate                                  |
| Acidity Tolerance     | Tolerates soil pH as low as 6.0                  |
| Bloat Risk            | No   |
| Root                  | Bunch grass                                      |
| Seeds per Pound (lb.) | 2,300,000  |

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# Little Bluestem

*Andropogon scoparius*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Sandy, gravelly soil with shallow water table or where no snow accumulates. Common on prairie upland.

## Positive Features

- Highly nutritious and palatable in early stages
- Deep rooted
- Can grow in thin and gravelly soils
- Yields approximately 1,500 lbs./acre

## Considerations

- Poor competitor
- Unpalatable when mature
- Prone to becoming wolf plants
- Seedlings have low vigour



|                       |                            |
|-----------------------|----------------------------|
| Use                   | Pasture and reclamation    |
| Longevity             | Long                       |
| Winterhardiness       | Good                       |
| Drought Tolerance     | High                       |
| Flood Tolerance       | Low                        |
| Salinity Tolerance    | Moderate                   |
| Alkalinity Tolerance  | Low to Moderate            |
| Acidity Tolerance     | Tolerates pH as low as 5.5 |
| Bloat Risk            | No                         |
| Root                  | Bunch grass                |
| Seeds per Pound (lb.) | 255,000                    |

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# Meadow Foxtail

*Alopecurus pratensis*



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Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

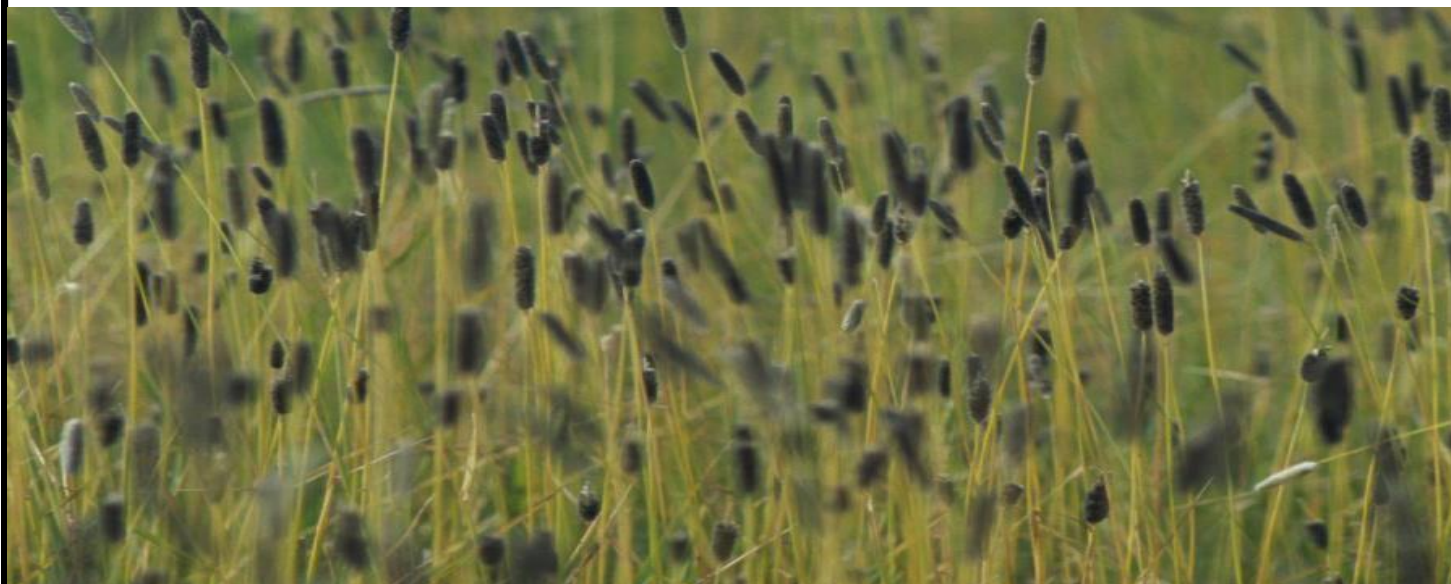
Meadow foxtail is best suited to wet areas with heavy textured soils (clay-loam and clay soils). Ideal areas to seed meadow foxtail include peat and muskeg sites, sloughs, flood plains with very high water tables and other wet areas.

## Positive Features

- Useful for stabilizing waterways and banks
- Very competitive and strongly creeping rooted
- Excellent recovery, can graze or hay two times per season
- Average digestibility of 70%

## Considerations

- Poor drought tolerance
- Plant nutrition declines as it matures



|                       |   |
|-----------------------|---|
| Use                   | Reclamation, hay or pasture             |
| Longevity             | 10 to 20 years                          |
| Winterhardiness       | Good                                    |
| Drought Tolerance     | Poor                                    |
| Flood Tolerance       | Withstands 2-5 weeks of spring flooding |
| Salinity Tolerance    | Low                                     |
| Alkalinity Tolerance  | Moderate                                |
| Acidity Tolerance     | Tolerates soil pH as low as 5.0         |
| Bloat Risk            | No                                      |
| Root                  | Fibrous root system                     |
| Seeds per Pound (lb.) | 490,000                                 |

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# Needle & Thread Grass

*Stipa comata*



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Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Needle-and-thread grass is suited to coarse sandy to loamy soils. It grows best on dry, well drained sites.

## Positive Features

- Excellent winterhardiness and drought tolerance
- Can help with erosion control
- 40-50% average digestibility
- Crude protein of 6-10% during grazing season

## Considerations

- Low seedling vigour
- Needs up to two years for full establishment



|                       |  |
|-----------------------|--|
| Use                   | Reclamation or pasture                         |
| Longevity             | Long-lived                                     |
| Winterhardiness       | Excellent                                      |
| Drought Tolerance     | Excellent                                      |
| Flood Tolerance       | Withstands saturated soil for 1 week in spring |
| Salinity Tolerance    | Not tolerant                                   |
| Alkalinity Tolerance  | Low  |
| Acidity Tolerance     | Tolerates soil pH as low as 6.6                |
| Bloat Risk            | No   |
| Root                  | Bunch grass                                    |
| Seeds per Pound (lb.) | 115,000  |

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# Northern Wheatgrass

*Agropyron dasystachyum*



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Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Prefers medium to course textured soils.

## Positive Features

- Easy to establish
- Produces good ground cover
- Extensive root system
- Suitable for erosion control
- 45% digestibility year round
- 20% crude protein in May, but drops to 4% in September

## Considerations

- Tends to get sod bound
- Wiry and unpalatable in the fall



|                       |                              |
|-----------------------|------------------------------|
| Use                   | Pasture, hay and reclamation |
| Longevity             | Long                         |
| Winterhardiness       | Good                         |
| Drought Tolerance     | Very high                    |
| Flood Tolerance       | Moderate                     |
| Salinity Tolerance    | Moderate                     |
| Alkalinity Tolerance  | Moderate                     |
| Acidity Tolerance     | Low                          |
| Bloat Risk            | No                           |
| Root                  | Sod forming                  |
| Seeds per Pound (lb.) | 155,000                      |

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# Prairie Cordgrass

*Spartina pectinata*



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Neepawa, MB  
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1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Wide range of soils, sandy to clay. Does best on seasonally dry areas such as marsh edges, wet meadows, and drainage ways.

## Positive Features

- Useful for wetland restoration and enhancement, streambank stabilization or wind strip barrier.
- Excellent flooding tolerance
- Moderate fertility requirements

## Considerations

- Poor palatability and feed value after spring
- Less drought tolerant than big bluestem
- Intolerant of prolonged flooding
- Not very competitive



|                       |                               |
|-----------------------|-------------------------------|
| Use                   | Hay, riparian and reclamation |
| Longevity             | Long                          |
| Winterhardiness       | Good                          |
| Drought Tolerance     | Low to moderate               |
| Flood Tolerance       | High                          |
| Salinity Tolerance    | Low to moderate               |
| Alkalinity Tolerance  | Low to moderate               |
| Acidity Tolerance     | Low                           |
| Bloat Risk            | No                            |
| Root                  | Sod forming                   |
| Seeds per Pound (lb.) | 183,000                       |

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# Pubescent Wheatgrass

*Agropyron trichophorum*



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Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Pubescent wheatgrass requires at least 12 inches (300 mm) of annual precipitation for productivity and longevity. It is suited to all soil textures and has lower fertility and moisture requirements than intermediate wheatgrass.

## Positive Features

- Easy to establish
- Dense basal leaves, excellent hay when combined with alfalfa
- Competitive, high yielding
- Average of 57% digestibility

## Considerations

- Needs higher levels of annual precipitation to remain productive
- Very low tolerance to acidic soil



|                       |  |
|-----------------------|--|
| Use                   | Reclamation, hay or pasture                |
| Longevity             | 4 to 10 years                              |
| Winterhardiness       | Good. Better than intermediate wheatgrass. |
| Drought Tolerance     | Good. Better than intermediate wheatgrass  |
| Flood Tolerance       | Withstands saturated soil for about 1 week |
| Salinity Tolerance    | Moderate                                   |
| Alkalinity Tolerance  | Moderate                                   |
| Acidity Tolerance     | Low. Tolerates soil pH as low as 6.5 to 7  |
| Bloat Risk            | No   |
| Root                  | Sod forming                                |
| Seeds per Pound (lb.) | 95,000                                     |

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# Purple Prairie Clover

*dalea purpurea*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Is adaptable to a wide range of soil types, including sandy, sandy loam and other moderately drained soils.

## Positive Features

- Highly palatable and nutritious
- Fixes nitrogen
- Soil stabilizer
- Adapted to slopes along hillsides, prairies and plains
- Attracts pollinators

## Consideration

- Stand should be well established before livestock grazing
- Does not tolerate continuous grazing or heavy overuse



|                       |   |
|-----------------------|---|
| Use                   | Pasture and reclamation                 |
| Longevity             | Long                                    |
| Winterhardiness       | Good                                    |
| Drought Tolerance     | High                                    |
| Flood Tolerance       | Low                                     |
| Preferred pH levels   | Prefers pH 6.2-7.5                      |
| Bloat Risk            | No                                      |
| Root                  | Tap root with branches near the surface |
| Seeds per Pound (lb.) | 292,000                                 |

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# Sheep Fescue

*Festuca ovina*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Sheep fescue is suited to all soil textures in well drained areas but produces especially well in sand or other coarsely textured soils. Sheep fescue requires approximately 12 inches (30 cm) of annual precipitation.

## Positive Features

- Very effective for erosion control
- Withstands high degree of animal traffic
- Very competitive with weeds
- Stabilizes eroding soil and cutbanks with dense root system

## Considerations

- Seldom selected by cattle or horses
- Will not tolerate flooding



|                       |   |
|-----------------------|---|
| Use                   | Reclamation or pasture                        |
| Longevity             | 10 to 20 years                                |
| Winterhardiness       | Good  |
| Drought Tolerance     | Good once established                         |
| Flood Tolerance       | Not recommended for areas of water saturation |
| Salinity Tolerance    | Low   |
| Alkalinity Tolerance  | Moderate                                      |
| Acidity Tolerance     | Tolerates soil pH as low as 5.5               |
| Bloat Risk            | No  |
| Root                  | Dense, bunch roots                            |
| Seeds per Pound (lb.) | 680,000                                       |

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# Side Oats Grama

*Bouteloua curtipendula*



**Northstar Seed Toll Free**

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Adapted to a range of soils. Performs best on fine textured soils. Found on rocky ridges, open grasslands and hillsides.

## Positive Features

- Vigorous seedlings
- Very palatable and nutritious all season
- Cures well on stem
- Good for winter grazing
- Low to moderate fertility required

## Considerations

- Less palatable than blue grama
- Sensitive to overgrazing
- Best not to graze until second growing season.



|                       |                             |
|-----------------------|-----------------------------|
| Use                   | Hay or pasture, reclamation |
| Longevity             | Long                        |
| Winterhardiness       | Good                        |
| Drought Tolerance     | Moderate to high            |
| Flood Tolerance       | Low                         |
| Salinity Tolerance    | Low to moderate             |
| Alkalinity Tolerance  | Low to moderate             |
| Acidity Tolerance     | Low                         |
| Bloat Risk            | No                          |
| Root                  | Bunch grass                 |
| Seeds per Pound (lb.) | 191,000                     |

# Slender Wheatgrass

*Agropyron trachycaulum*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Adapted to a wide range of soils but prefers sandy loams.

## Positive Features

- Vigorous seedlings and fast establishment
- High salinity tolerance
- Cures well on stem
- Yields 3,290 to 4,550 lbs./acre
- Effective erosion control due to rapid establishment
- Average digestibility of 55%

## Considerations

- Less competitive and persistent than other wheatgrasses
- Easier to overgraze



|                       |   |
|-----------------------|---|
| Use                   | Hay or pasture, reclamation                 |
| Longevity             | 3 to 4 years                                |
| Winterhardiness       | Good  |
| Drought Tolerance     | Moderate                                    |
| Flood Tolerance       | Moderate                                    |
| Salinity Tolerance    | High  |
| Alkalinity Tolerance  | High  |
| Acidity Tolerance     | Low to moderate, tolerates as low as pH 5.6 |
| Bloat Risk            | No  |
| Root                  | Bunch grass                                 |
| Seeds per Pound (lb.) | 160,000                                     |

[www.northstarseed.com](http://www.northstarseed.com)

# Switchgrass

*Panicum virgatum*



Northstar Seed Toll Free

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Grows best on loam and sandy soils. Potential for good summer pasture with sufficient moisture.

## Positive Features

- Can be used for summer pasture when cool grasses go dormant
- A hardy, deep-rooted, perennial rhizomatous grass
- Often used as an ornamental grass

## Considerations

- Slower establishment
- Shouldn't be harvested the first year
- Unpalatable after maturity



|                       |                        |
|-----------------------|------------------------|
| Use                   | Pasture or reclamation |
| Longevity             | Medium                 |
| Winterhardiness       | Fair                   |
| Drought Tolerance     | Low                    |
| Flood Tolerance       | Moderate               |
| Salinity Tolerance    | Moderate               |
| Alkalinity Tolerance  | Moderate               |
| Acidity Tolerance     | Low                    |
| Bloat Risk            | No                     |
| Root                  | Bunch grass            |
| Seeds per Pound (lb.) | 389,000                |

[www.northstarseed.com](http://www.northstarseed.com)

# Western Wheatgrass

*Agropyron smithii*



**Northstar Seed Toll Free**

Neepawa, MB  
Okotoks, AB.

1-800-430-5955  
1-800-805-0765

## Preferred Conditions

Widely adapted and tolerates periodic flooding. Prefers moderately alkaline heavy soils.

## Positive Features

- Salt tolerant and long lived
- Nutritious, productive and increases under moderate grazing
- Good for erosion control

## Considerations

- Slower establishment
- Sensitive to overgrazing



|                       |                             |
|-----------------------|-----------------------------|
| Use                   | Pasture, hay or reclamation |
| Longevity             | Long                        |
| Winterhardiness       | Excellent                   |
| Drought Tolerance     | High                        |
| Flood Tolerance       | Moderate to high            |
| Salinity Tolerance    | High                        |
| Alkalinity Tolerance  | High                        |
| Acidity Tolerance     | Low                         |
| Bloat Risk            | No                          |
| Root                  | Sod forming                 |
| Seeds per Pound (lb.) | 110,000                     |

[www.northstarseed.com](http://www.northstarseed.com)



**Northstar Seed offers a complete line-up of Native Seeds and Blends. Contact Northstar Seed for a current product list and prices.**

| <b>Foothills Native Blend</b>   |
|---|
| Suitable for upland areas along the Rocky Mountain Foothills  |
| 30% Rocky Mountain Fescue<br>25% Foothills Rough Fescue<br>15% Mountain Brome Grass<br>10% June Grass<br>10% Awned Wheat Grass<br>10% Alpine Blue Grass |

| <b>Southern Prairies Native Blend</b>   |
|---|
| Suitable for upland areas in southern Alberta and Saskatchewan  |
| 20% Plains Rough Fescue<br>20% Green Needle Grass<br>15% Slender Wheat Grass<br>15% Western Wheat Grass<br>15% June Grass<br>10% Blue Grama<br>5% Needle & Thread |

| <b>North/Central Parkland Native Blend</b>  |
|---|
| Suitable for upland Loamy soils in the North/Central prairies.  |
| 20% Northern Wheat Grass<br>20% Canada Wild Rye<br>15% Fringed Brome Grass<br>15% Rocky Mountain Fescue<br>15% Slender Wheat Grass<br>10% Green Needle Grass<br>5% June Grass |

| <b>Sandy Soils Native Blend</b>  |
|--|
| Suitable for dry sandy locations   |
| 30% Prairie Sand Reed<br>15% Slender Wheat Grass<br>15% Blue Grama<br>15% Green Needle Grass<br>15% Indian Rice Grass<br>10% Needle and Thread |

| <b>Wetland Native Blend</b>  |
|--|
| Suitable for lowland areas or margins of ponds and sloughs.  |
| 20% Tufted Hair Grass<br>20% Fowl Blue Grass<br>20% Canada Wild Rye<br>15% Beckman's Slough Grass<br>15% Slender Wheat Grass<br>10% Tickle Grass |

| <b>Slope Stabilization Native Blend</b>   |
|---|
| Suitable for stabilizing soils on slopes with marginal soils.   |
| 40% Rocky Mountain Fescue<br>20% Streambank Wheat Grass<br>20% Slender Wheat Grass<br>20% Canada Wild Rye |

| <b>Native Seed</b>  |
|---|
| <p>Additional Species and Custom Blending available. Please ask for a price quote today.</p> <p>Awned Wheatgrass, Alpine Bluegrass, Big Bluestem, Blue Grama, Bluebunch Wheatgrass, Canada Wildrye, Fowl Bluegrass, Fringed Brome (Coated or Bare), Green Needlegrass, Hairy Wildrye, Idaho Fescue, Indian Grass, Indian Ricegrass, Junegrass, Little Bluestem, Mountain Brome, Needle and Thread, Northern Wheatgrass, Salty Alkaligrass, Prairie Sandreed, Purple Prairie Clover, Rocky Mountain Fescue, Rough Fescue, Sand Dropseed, Sandberg Bluegrass, Side Oats Grama, Sheep Fescue, Slender Wheatgrass, Spike Trisetum, Streambank Wheatgrass, Ticklegrass, Nortran Tufted Hairgrass, Western Porcupine, Western Wheatgrass, American Vetch, Nodding Brome, Canada Bluegrass, Sloughgrass, Hairy Vetch, and Red Top.</p> |

# Hydro-Mulching with FIBRAMULCH

## - An Overview

### Hydro Seeding is...

- ... A way to plant seed using water as a carrier
- ... A way to use water to disburse small seeds evenly over large areas

### When is Hydro - seeding used? When is it appropriate?

- ... Frequently used to plant large areas
- ... Frequently used to plant hard - to - get areas
- ... Used for fine turf establishment when irrigation is available
- ... Used for reclamation and erosion control under diverse climatic conditions

### What is the value of adding Fibr mulch & Tackifiers

- ... FIBRAMULCH provides moisture retention needed for seed germination
- ... FIBRAMULCH provides erosion resistance which reduces seed wash out
- ... FIBRAMULCH with Tackifiers provide better erosion resistance

## Cost Comparison Hydro - seeding vs. SOD

HYDROSEEDING - .02¢ sq. ft.  
SOD - .13¢ sq. ft.

Example: For one Acre (43,560 Sq. Ft.)

| HYDROSEEDING          | SOD        |
|-----------------------|------------|
| 43,560                | 43,560     |
| X .02                 | X .13      |
| Total Cost = \$871.20 | \$5,662.00 |

Projected Soil Price:

| HYDROSEEDING - \$871.20 | SOD - \$5,662.80      |
|-------------------------|-----------------------|
| 400% m.u. - \$3,484.00  | 33% m.u. - \$1,868.72 |
| Total = \$4,355.20      | Total = \$7,531.52    |

**CONCLUSION:** Maximize your profit potential by  
Hydro - Seeding with FIBRAMULCH

**FIBRAMULCH**  
HYDRAULIC SEEDING MULCH

In addition to seed, Northstar Seed has a variety of products available to make Northstar your one-stop-shop for hydroseeding and reclamation projects. For a more complete listing, contact us today.





# NORTHSTAR SEED

*Grow with us*

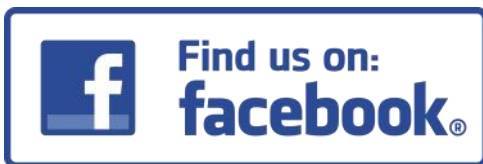
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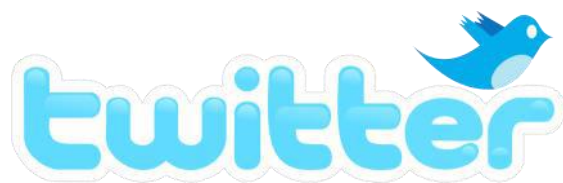
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