



Forage Adaptation & Comparison Guide

Legumes

SPECIES	USE	LONGEVITY	WINTER HARDINESS	* SEEDS/LB.	GROWING PERIOD	PLANT TYPE
ALFALFA	Hay & Pasture	Long	Good	200,000	Spring - Fall	Tap, Branch, Rhizomatous, Creeping Rooted
ALSIKE CLOVER	Hay & Pasture	Short	Fair	700,000	Spring	Branched
BIRDSFOOT TREFOIL	Pasture	Long	Good	375,000	Spring - Fall	Tap Rooted with branches.
CICER MILKVETCH	Pasture	Long	Good	130,000	Late Spring - Fall	Creeping Rooted
RED CLOVER	Hay & Pasture	Short	Poor	275,000	Spring	Tap Rooted with Side Branches
SAINFOIN	Pasture	Long	Fair	32,000 (Dehulled)	Spring - Summer	Tap Rooted
SWEET CLOVER	Hay & Silage	2 years	Fair	260,000	Spring of 2nd year	Tap Rooted
WHITE CLOVER	Pasture	Short to Long	Good	800,000	Spring - Fall	Rhizomatous

Grasses

SPECIES	USE	LONGEVITY	WINTER HARDINESS	* SEEDS/LB.	GROWING PERIOD	PLANT TYPE
ALTAI WILD RYEGRASS	Pasture	Long	Excellent	60,000	Early Spring - Mid Summer	Bunch Grass
ANNUAL (ITALIAN) RYEGRASS	Hay & Pasture	Short annual 1 year	Poor	230,000	Spring - Fall	Bunch Grass
CREEPING FOXTAIL	Pasture	Long	Good	750,000	Early Spring - Fall	Sod Forming
CREEPING RED FESCUE	Pasture & Lawn	Long	Excellent	615,000	Spring - Fall	Sod Forming
CRESTED WHEATGRASS	Pasture & Hay	Long	Excellent	175,000	Early Spring	Bunch Grass
DAHURIAN WILD RYEGRASS	Pasture	Short	Good	80,000	Spring - Fall	Shallow Rooted Bunch Grass
INTERMEDIATE WHEATGRASS	Hay & Pasture	Medium	Good	88,000	Late Spring - Mid Summer	Sod Forming
KENTUCKY BLUE GRASS	Pasture & Lawn	Long	Excellent	2,180,000	Spring - Fall	Sod Forming
MEADOW BROMEGRASS	Hay & Pasture	Long	Good	80,000	Early Spring - Late Summer	Bunch Grass
MEADOW FESCUE	Pasture	Short - Medium	Good	230,000	Early Spring - Late Fall	Bunch Grass
MEADOW FOXTAIL	Pasture	Long	Good	575,000	Early Spring - Fall	Bunch Grass
ORCHARD GRASS	Hay & Pasture	Short	Fair	650,000	Spring - Fall	Bunch Grass
PERENNIAL RYEGRASS	Hay & Pasture	Short 2-3 years	Poor	330,000	Spring - Fall	Bunch Grass
PUBESCENT WHEATGRASS	Hay & Pasture	Medium	Good	100,000	Early Spring - Mid Summer	Sod Forming
RUSSIAN WILD RYEGRASS	Pasture	Long	Excellent	175,000	Early Spring - Mid Summer	Bunch Grass
SMOOTH BROMEGRASS	Hay & Pasture	Long	Excellent	136,000	Mid Spring - Mid Summer	Sod Forming
TALL FESCUE	Pasture	Medium	Good	225,000	Late Spring - Fall	Bunch Grass
TALL WHEATGRASS	Hay & Pasture	Long	Excellent	79,000	Late Spring - Mid Summer	Bunch Grass
TIMOTHY	Hay & Pasture	Medium	Good	1,230,000	Spring - Summer	Bunch Grass

* SEEDS/LB. MAY VARY



PREFERRED CLIMATE & GROWING CONDITIONS	POSITIVE FEATURES	NEGATIVE FEATURES
Widely adapted to most soils but will not tolerate areas that have periodic flooding.	Easy to establish. High yields, rapid regrowth. Highest nutrition of all forages.	Bloat hazard. Needs good drainage.
Prefers low-lying moist areas.	Easy establishment. Tolerant to poor drainage and acidic soils.	Bloat hazard. Short life span and low yield.
Prefers moist areas.	Non bloating - reseeds itself. Feed value similar to alfalfa.	Poor seeding vigour. Poor competitor and low yield.
Widely adapted but exhibits its creeping habit best on more coarse textured soils.	Non bloating. Hardier than alfalfa. Very aggressive once established.	Slow to establish. Hard seeds. Slow regrowth after grazing.
Best suited to humid areas with moderate temperatures.	Easy establishment. Tolerates wetter, more acidic soils than alfalfa.	Causes bloat. Short lifespan.
Best on brown and dark soil areas. In very dry areas it yields poorly. Does well on thin gravelly soils	Non bloating. More drought and cold tolerant than alfalfa.	Poor regrowth. Slow to establish.
Especially productive on fertile soils.	Widely adapted. Good for soil and drainage improvement.	Low palatability unless harvested early. Self seeds.
Prefers well drained silt loams to clay soils that have a constant supply of moisture.	Will reseed. Resistant to grazing with good regrowth. Excellent quality.	Low producing. Bloat hazard. Shallow root system.

PREFERRED CLIMATE & GROWING CONDITIONS	POSITIVE FEATURES	NEGATIVE FEATURES
Loam and clay soils best - but grows on a wide range of soils.	Suitable for extending the grazing season - salt tolerant retains nutritional value late into fall and winter.	Slow to establish, poor competition.
Produces best on soils of medium to high fertility and grows best with adequate moisture.	Easy to establish. Very palatable. Makes good hay or silage. Can be used for companion crop.	Does not withstand drought or hot weather.
Adapted to areas where reed canarygrass grows well and soil moisture is continually available.	Suitable for erosion control. Spreads rapidly once it is established.	Light, fluffy seed. Slow establishment. Poor competition during first six weeks.
Does best in high rainfall areas. Will grow in wide range of soil types.	Tolerates close grazing and areas too dry for Timothy. Grows well late summer to freeze up and retains good quality.	High moisture requirement. Vulnerable to crown and root rots and snow mold.
Adapted to dry areas with good soils but will also establish on lighter soils.	Excellent for spring pasture. Easy to grow. Withstand close grazing and trampling.	Does not tolerate cool, wet soils. Poor quality after heading out.
Adapted to all soil zones.	Highly competitive and quick to establish.	Short lived.
Well drained soils with ample moisture.	Easy to establish. Good haygrass with alfalfa. Outyields CWG and Smooth Brome.	Less winter hardy and drought tolerant than CWG.
Prefers cool and humid. Grows on most soils. Useful in erosion control.	Tolerates close and frequent defoliation. Goes dormant in hot, dry weather.	Slow to establish. High moisture requirement. Lower Yielding.
Grows well on most soils where Smooth Brome does well.	Very palatable. Good regrowth after grazing or cutting. Less aggressive than Smooth Brome. Mainly a pasture grass.	Difficult to put up as hay when in pure stand.
Prefers soils with good moisture and good drainage.	Best for pasture. Good fall pasture - stays green late in fall.	Susceptible to heavy grazing. Slow regrowth. Susceptible to leaf rust.
Prefers cool, moist conditions. High water table.	Earliest grass to grow in Spring. Very palatable when young. Seeds fall off and reseeds self.	Light, fluffy seed. Susceptible to drought. Seeds need to be coated for seeding.
Prefers moist conditions. Sandy soils are too dry for good growth unless in high rainfall area.	Easy to establish. Very palatable. Fast regrowth. Makes good hay with alfalfa.	Needs high nitrogen for good production. Only moderately winter hardy. Subject to overgrazing.
To produce high yields it requires high precipitation and fertility. Adapted to wide range of soils.	Good seeding vigour, rapid development, high yield and quality. Can be grazed within two months after seeding.	High nitrogen input for high production. Needs lots of moisture but will not tolerate flooding. Prone to winter kill.
Widely adaptable with respect to precipitation, temperature, elevation, and low fertility soil.	Has the ability to stay green into the summer months. Hardier than Intermediate Wheat Grass.	Strong creeping roots get sod bound and result in unproductive stand after a few years.
Can be grown on a wide range of soils. Most productive on fertile loams.	Salt tolerant, early growth and good for winter grazing.	Poor seeding vigour, slow to establish.
Well adapted to most soils.	Winter hardy. Good yield. Palatable even at mature growth stage.	Seed is long, light and difficult to sow. Becomes sod bound. Slow regrowth.
Variety of soils. Does well on wet, poorly drained soils.	Suitable for late fall grazing or stock piling. Easy to establish. Good regrowth.	Slow to cure when used for hay. Starts growing later than other grasses in spring.
Adapted to saline and imperfectly drained alkali soils.	Salt Tolerant. High nutrition in early heading stage.	Slow to establish. Poor vigour and competitive ability. Coarse when mature.
Cool moist areas with good drainage	Low seed costs. Easily established. Excellent hay for horses. Goes well with alfalfa mixture. Suitable for hay export market.	Susceptible to heat and low moisture conditions. Low palatability at maturity.



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Native Grasses

SPECIES	USE	LONGEVITY	WINTER HARDINESS	SEEDS/LB.	GROWING PERIOD	PLANT TYPE
BLUE GRAMA	Pasture	Long	Excellent	800,000	Late Spring - Fall	Sod Forming
CANADA WILDRYE	Hay & Pasture	Long	Excellent	115,000	Early Spring - Fall	Bunch Grass
GREEN NEEDLEGRASS	Pasture	Long	Moderate	180,000	Late Spring - Fall	Bunch Grass
INDIAN RICEGRASS	Hay & Pasture	Long	Excellent	170,000	Mid Spring - Fall	Sod Forming
JUNEGRASS	Hay & Pasture	Long	Excellent	2,200,000	Early Spring - Late Summer	Bunch Grass
NEEDLE & THREAD	Pasture	Long	Excellent	115,000	Early Spring - Early Fall	Bunch Grass
NORTHERN WHEATGRASS	Pasture	Long	Moderate	155,000	Mid Spring - Mid Summer	Sod Forming
SLENDER WHEATGRASS	Hay & Pasture	Medium	Moderate	160,000	Mid Spring - Mid Summer	Bunch Grass
WESTERN PORCUPINE	Pasture	Long	Excellent	980,000	Spring - Early Fall	Bunch Grass
WESTERN WHEATGRASS	Hay & Pasture	Long	Excellent	110,000	Early Spring - Fall	Sod Forming



Selecting/Developing a Forage Blend

Factors to Consider

1. Pasture or Hay
2. Seed bed preparation
3. Legumes inoculated
4. Seed treatment / coated seed
5. Best time to seed
6. Soil fertility
7. Seeding equipment
8. Companion crop
9. Seeding rate



Your Northstar Seed Advisor is here to answer your questions.

