Nutrien

Ag Solutions

Forage Guide



 BILLINGS
 BELGRADE
 CONRAD
 FORT BENTON
 HARDIN
 SHELBY

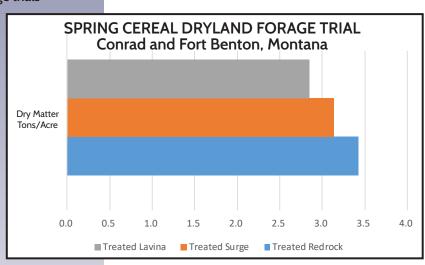
 252-8012
 388-4288
 278-9189
 622-5481
 665-3552
 434-5000

REDROCK Spring Forage Barley



- · 2-row hooded hay barley
- Higher forage yield potential than Lavina
- Great standability on irrigation
- Won Fort Benton forage trials

REDROCK is an exciting new 2-row hooded hay barley that was identified by our research station for Montana and surrounding areas. It is a descendant of Stockford with wider leaves and excellent tillering. It has great lodging resistance and a higher forage yield potential than Lavina.





RAY Hard Red Forage Winter Wheat



- Excellent winterhardiness
- True hard red winter wheat
- High forage yields
- Dual use potential
- Increased lodging resistance compared to Willow Creek

RAY is awnless with similar forage yields to Willow Creek. It is the first forage winter wheat with true, dual use potential! Plant at a target plant population of 1 million viable seeds per acre on dryland.

WINTER CEREAL FORAGE TRIAL Central Ag Research Center, Moccasin, Montana

	FORAGE YIELD DRY MATTER TONS PER ACRE		
Variety	2018	2017	Avg
Ray	2.8	3.5	3.2
Willow Creek	2.2	2.8	2.5

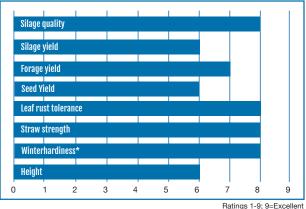
SURGE BRAND Triticale



- Beardless
- Facultative (Spring triticale in Montana)
- · High end producer
- · Works well for silage or hay

SURGE is a true beardless facultative triticale. This means that it can be used as a winter triticale in some areas of the US, but is primarily used as a spring triticale in most of Montana and Wyoming. It has a much higher yield potential than most traditional varieties of spring forage crops. Target plant population for hay production on dryland is 1 million plants (90-100lbs/acre). On irrigated ground it is 1.2 million plants per acre (120-125lbs/acre).



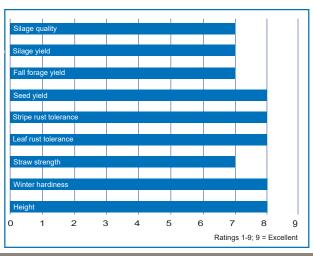


FEATURED FLEX 719 BRAND Triticale



- Awnletted
- Facultative (Winter triticale in Montana)
- Can provide winter grazing
- Works well for silage or hay

FLEX 719 is an awnletted (shorter, softer awns) facultatitive triticale with superior winterhardiness and early maturity to match Montana's growing seasons. Flex 719 can be planted in early August to generate good grazing after going dormant in the fall, and still produce a great hay crop the following spring. Target plant population for hay production on dryland is 1 million plants (90-100lbs/acre). On irrigated ground it is 1.2 million plants per acre (120-125lbs/acre).



FERTILIZER

FORAGE MAX Nutrition Fertilizer

powered by



One of the most overlooked components of forage production is proper soil fertility. To help simplify the process Nutrien Ag Solutions is now offering a ready to use fertilizer blend specifically for forages. The goal is to make sure that we have important key nutrients like Nitrogen, Phosphorous, Potash, and Sulfur available to the crop to maximize yield potential and forage quality. Recommended use rate is 75 – 80 lbs/acre on dryland and 100#/acre on irrigated.

- · Limited Nitrogen source to limit nitrate risk in cereal crops
- Phosphorous to promote proper root development and energy production in the plant
- Potash to improve nutrient uptake, photosynthesis, rate of growth and feed value
- Available Sulfur is essential to finish converting nitrates to nitrogen (crude protein) thus decreasing nitrate risks as well as improving crude protein in the forage
- Uses Titan XC to maximize efficiency and plant availability of nutrients in the fertilizer and soil.



COVER CROP BLEND

Nutrien **§** Extreme™

Management

- Effective in Montana and surrounding areas
- Plant after June 1st or when soil temps are above 65 degrees
- Seeding rate is 10# per acre on dryland; 12-15# per acre on irrigated
- Planting depth is 1/4" to 1/2"
- Always use proper inoculant and handle properly to maximize N-fixation
- Understand and test for nitrates and manage for prussic acid when used as forage

About

- Based on a 10# per acre seeding rate, the blend is comprised of:
 - 3# per acre Millet
 - 2# per acre Forage Sorghum
 - 1# per acre Teff Grass (Coated)
 - 1# per acre Black Oil Sunflower Seed
 - 1# per acre Crimson Clover
 - 1# per acre Turnips
 - 1# per acre Radishes

Crimson Clover is used as a legume to assure that no producer's crop rotation is negated by breaking the cycle early.

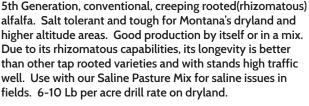
Customize your own blend by adding cool season species or more legumes if desired.

Extremely frost sensitive.



FORAGE GENETICS ALFALFA

SPREDOR 5



- Salt Tolerant
- Rhizomtous
- Very Winter hardy
- Wakes up later and goes to bed earlier than other varieties making it ideal for higher elevations

NEXGROW 6422Q

Conventional, top of the line irrigated alfalfa that also works well in sub-irrigated creek bottoms and other higher producing hay fields. A high production alfalfa that is geared toward quality as well as tonnage, 6422 is the Five-time commercial hay champion at World Forage Analysis Superbowl. 12-15 lb drill rate on irrigated.

- · Multi-cut system alfalfa
- Five-time commercial hay champion at World Forage Analysis Superbowl
- · Excellent yield potential
- Great Disease Package

WL336RR

A Roundup Ready alfalfa built for Montana and its tough winters and great production on either dryland or irrigated ground. WL 336 has good salt tolerance and will hold up to traffic. It has a perfect 30/30 on the disease rating scale and good longevity.

- Fits on dryland or irrigated ground
- Salt tolerant
- Great Disease Package
- · Excellent yield Potential



HERBICIDE HIGHLIGHTS



HAT TRICK® (three way herbicide) is a triple threat against broad leaf weeds in wheat, barley and oat crops. Using a combination of three active ingredients, HAT TRICK attacks the toughest yield-robbing broad leaf weeds.

FEATURES:

- Broad Spectrum weed control
- Wide use window in crop
- Compatible with multiple products
- Non ALS chemistry

GROWER BENEFITS:

- Over 105 broad leaf weed species controlled or suppressed
- · Can be applied from 3 leaf to flag leaf emergence in wheat, barley & oats
- · Easily paired with grass herbicides for in-crop uses
- Excellent resistance management tool

RATES:

1.5-2 pts/A

ACTIVE INGREDIENTS:

Fluroxypyr, Clopyralid, MCPA

ADJUVANT RECOMMENDATION:







ALWAYS READ AND FOLLOW LABEL DIRECTIONS.

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AWAKEN ST a Loveland Product





Awaken ST (7-0-1 + Micronutrients) is a seed treatment with ACA technology, which features the zinc ammonium acetate (ZAA) compound with a micronutrient package. Awaken ST typically leads to quicker emergence and greater plant biomass by promoting root growth. Awaken ST coats the seed with nutrients, this has been shown to improve early vigour and in some cases higher yields.

Benefits

- Has been shown to improve early vigour post emergence
- Has been shown to increase yield potential compared to untreated seed
- Improved root biomass observed in treated seed



General Forage Planting Information

Crop	Planting Depth	#/Ac. Dryland *	#/Ac. Irrigated *
Alfalfa	.25" - 1.00"	6-10	12-18
Barley	1.50" - 2.00"	50-70	90-100
Birdsfoot Trefoil	.25"	5	8
Brome Grass	.25"50"	8-10	12-15
Clover	.25"	6-10	12-15
Corn **	1.50" - 3.00"	15	25
Lawn Seed Rate	.25"	220 (.5#/100 ft²)	220 (.5#/100 ft²)
Millet	.50" - 1.00"	20-25	30-35
Oats	1.50"-2.00"	50-60	90-100
Orchardgrass	.25"50"	8-10	12-15
Peas, Forage	2.00"-2.50"	100-120	120-140
Radish	.50"	4	6
Russian Wildrye	.25"50"	8-10	12-15
Sainfoin	≥ .25"	20-30	35-40
Sorghum/Sudangrass	.75"-1.50"	15-25	30-40
Teff Grass	≥ .25"	5	8
Triticale	1.50"-2.00"	90-100	125-135
Turnip	.50"	4	6
Wheat, Forage	1.50"-2.00"	60-70	90-100
Wheatgrasses	.25"50"	8-10	12-15

^{*} These are average planting rates based on approximate number of seeds per pound. It is important to take into account target plant population as well as germination and purity of the seed being used.

^{**} Corn seed is typically measured by units. Each unit usually contains approximately 80,000 seeds, which can weigh from 50 - 60 pounds.

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MONTANA LOCATIONS



BILLINGS PLANT

1400 Minnesota Avenue Billings, MT 59101 Phone: 406-252-8012 Fax: 406-245-6990



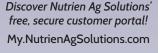
BELGRADE PLANT

88 East Main Street Belgrade, MT 59714 Office: 406-388-4288 Fax: 406-388-7214



CONRAD PLANT

109 8th Avenue, NE, Bldg B Conrad, MT 59425 Phone: 406-278-9189 Fax: 406-278-0230



Call or stop by a Nutrien Ag Solutions location to learn more!





FORT BENTON PLANT

2811 St. Charles Street Fort Benton, MT 59442 Phone: 406-622-5481 Fax: 406-622-5709



HARDIN PLANT

636 West Railway Hardin, MT 59034 Phone: 406-665-3552 Fax: 406-665-3556



SHELBY PLANT

200 Marias Fair Road Shelby, MT 59474 Phone: 406-434-5000 Fax: 406-434-2334



BOZEMAN RESEARCH FACILITY

81 Timberline Drive Bozeman, MT 59718 Main Office: 406-453-3227