

2020 SEED GUIDE



WELTER SEED & HONEY CO.

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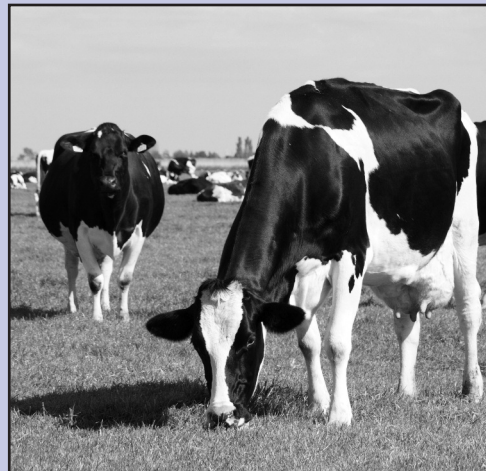
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CASH DISCOUNTS

5% December

4% January

3% February

\$15 DISCOUNT ON ALFALFA

Save \$15 per bag on select alfalfas

(see page 1)



CERTIFIED ORGANIC SEED

(pages 17-22)

More product information at www.WelterSeed.com



(Pictured L to R) Front row: Abby, Julia, Denise, Dustin, Karen, Nick; Back row: Les, Dan, Nathan, Steph, Katie, Marie, Jake, Jim, Mike & Chris

A historically challenging year has passed and we are very excited to bring in the new year! The Welter Family and our employees want to sincerely thank you for your business. We work hard to keep up on the ever-changing agricultural dynamic and your seed needs to provide you with up to date information and products for your success.

We offer a full line of Alfalfa, Clovers, Forages, Cover Crops, Grains, Corn, and Soybeans in both Conventional and Certified Organic seed. We look forward to assisting you in your operation any way we can in the coming year!

The Welter Family

\$15 ALFALFA DISCOUNT \$15.00 OFF PER BAG on these conventional alfalfas if purchased before March 1, 2020

- Attention II • Galaxy II • Radiance HD • WS L550
- WS HiFi • Big Wheel • 375HY-BR Hybrid
- 2020 Supreme Brand • 5301 Multi-leaf • Grazer Brand
- 4241 Creeping • Excel Brand 353 BR
- WS LeafGuard LH • Hay Mixes - Mix 2 through Mix 8

ALFALFA

Preinoculated

Alfalfas are deep-rooted perennial legumes and are considered the oldest, most nutritious crop that is produced for high quality forage. When choosing alfalfas consider the DRI (disease rating index), WSI (winter-survival index 1-6) and the FD (fall dormancy 1-11). The DRI is a disease rating of each of the six main alfalfa diseases-the higher the rating, the more resistant the alfalfa. The WSI rates the alfalfas on how they will survive wintering-the lower the rating the more winter-hardy they are. The FD rating is based on how soon the alfalfa goes dormant in the season. The lower the number, the earlier in the season the alfalfa will go into dormancy, thus protecting it from cold climate winters. The higher the number, the later the alfalfa will grow into the fall.

Planting Rate:

Alone: 15-20 lbs per acre
In a mix: 6-15 lbs per acre
Depth: 1/4" - 1/2"

Per 50 lb. bag

ATTENTION II ALFALFA (w/Apron XL) \$225.00

Attention II is a top of the line, high-yielding variety that carries the StandFast™ technology trait and Yield Loss Protection for improved standability, higher yields and much faster recovery. Attention II provides high quality hay for the aggressive alfalfa producer with 4-5 cuttings.

DRI=28/30 WSI=2 FD=5

GALAXY II BRAND MULTI-LEAF ALFALFA . . . \$183.00

Galaxy II Brand is an improved dark green, multi-leaf alfalfa bred for exceptional forage quality and higher yields. Galaxy II has a superior disease rating, good winter-hardiness and is an excellent choice for long rotations.

DRI=30/30 WSI=2.1 FD=4

NEW RADIANCE HD II ALFALFA (w/Apron XL) \$215.00

A newly formulated, highly digestible alfalfa variety that was bred for high yield, outstanding forage quality, and fast re-growth. Radiance HD II delivers faster recovery after harvest and added yield for the cash hay producer or dairy farmer. Very persistent with high forage quality and persistence.

DRI=30/30 WSI=1.9 FD=4

NEW WS L550 ALFALFA (w/Apex™ Green) OMRI . \$219.00

WS L550 alfalfa is a branch rooted alfalfa with high resistance to Aphanomyces root rot Race 1 and Race 2. Bred for high forage yield and a high expression of the branch root feature. Highly persistent in both well and poorly drained soils. Fast recovery after harvest.

DRI=35/35 WSI=1.8 FD=4

Per 50 lb. bag

Per 50 lb. bag

NEW WS HiFi BRAND ALFALFA
(w/Apex™ Green) **OMRI** \$239.00
A reduced lignin, high fiber alfalfa bred for exceptional forage quality and outstanding yield potential which exhibits some of the highest forage quality scores in the market. Very fast recovery after harvest. Excellent choice for the dairy farmer looking for a highly digestible alfalfa.
DRI=30/30 WSI=1.7 FD=4.3

BIG WHEEL ALFALFA (w/Apron XL) \$215.00
Big Wheel is a high yielding traffic tolerant alfalfa exhibiting improved yields and persistence over traditional high traffic varieties. In trials, Big Wheel had a 90% stand after 2 years of continuous sheep/cattle grazing and performed exceptionally well in 18 combined university trials in the corn belt and northeast averaging 107% over the trial mean.
DRI=29/30 WSI=2 FD=4

375 HY-BR II BRAND HYBRID ALFALFA
(w/Apex™ Green) **OMRI** \$274.00
A second generation hybrid alfalfa with branch roots, characterized by its aggressive re-growth, high yields, and consistent high quality forage. A fine stemmed variety producing superior dairy quality hay. 375 HY-BR is an excellent choice for the aggressive alfalfa producer needing 4-5 cuttings. Average 4% yield boost over other hybrid alfalfas.
DRI=30/30 WSI=1.8 FD=4 **SUNSTRA**

MYCOGEN 4S417 HYBRID ALFALFA
(w/Apron XL) \$290.00
Features the msSunstra® hybrid alfalfa technology to produce a uniform and high-quality forage. Features a wide-spectrum multiple pest resistance package for dependable performance over a wide range of soil types and growing conditions.
DRI=30/30 WSI=1.8 FD=4 **SUNSTRA**

2020 SUPREME BRAND ALFALFA \$160.00
A popular blend of improved high yielding alfalfas selected for persistence and yield potential. Excellent choice for a long rotation alfalfa. Performs well on a wide variety of soil types. Superior disease resistance.
DRI=29/30 WSI=2 FD=4

MULTI 5301 MULTI-LEAF ALFALFA \$150.00
Multi 5301 is an exceptional, top rated multi-leaf alfalfa known for its yields, multi-foliate expression and high quality forage. Multi 5301 is an excellent choice for the dairy producer looking for increased feed value and the haymaker looking for persistence, plant health and high yield capabilities.
DRI= 27/30 WSI=2 FD=4

GRAZER BRAND ALFALFA \$162.00
Grazer Brand is an excellent, grazing type alfalfa that withstands traffic well, making it an outstanding component in pasture mixes. Grazer Brand has sunken crowns allowing for better performance under grazing pressure.
DRI=25/30 WSI=2.1 FD=2

CERTIFIED 4241 CREEPING ALFALFA \$166.00
A superior creeping alfalfa that doesn't sacrifice yield or quality for a strong persistent creeping habit. Excellent for grazing.
DRI=25/30 WSI=2 FD=2

EXCEL BRAND 353BR ALFALFA
(w/Apex™ Green) **OMRI** \$210.00
Excel Brand 353BR is a superior branch rooted, leafy alfalfa designed for heavy and poorly drained soils. Excel 353BR offers grazers and haymakers exceptional traffic tolerance and high yields with an excellent disease package. Excel 353 BR's branch-root trait keeps more of the root system above the water table, resisting heaving and offering excellent regrowth in wetter soils.
DRI=30/30 WSI=1.7 FD=3.8

AMERISTAND 427TQ ALFALFA
(w/GZ, Stamina & Apron XL) \$263.00
Ameristand 427TQ is a variety from the AmeriStand lineup selected for superior forage quality and high traffic tolerance. AmeriStand 427TQ was the trial topping variety for forage yield with Traffic Tested™ variety trials in the NAAIC Review. 427TQ has very fast recovery for frequent harvest schedules under intensive management and carries a perfect (extended) 35/35 disease rating by the NAAIC Board, including being Highly Resistant to both Aphanomyces Root Rot 1 and 2, which are both most severe in the midwest/corn belt regions.
DRI=30/30 WSI=1.8 FD=4.3

AMERISTAND 419LH ALFALFA
(w/GZ, Stamina & Apron XL) \$257.00
AmeriStand 419LH is a ninth generation superior leafhopper alfalfa selected for its excellent winter-hardiness. AmeriStand 419LH is a multi-foliate alfalfa with excellent forage yields and quality with a high resistance to the main 6 alfalfa diseases and a high resistance to APH 1 and Leafhopper. Leafhopper attacks reduce crude protein, lower dry matter and hurt winter survivability.
DRI=35/35 WSI=2 FD=3.8

WS LeafGuard LH BRAND ALFALFA
(w/Apex™ Green) **OMRI** \$240.00
Newest generation potato leaf hopper resistant alfalfa with an exceptional disease package. Will deliver greater forage yield under delayed harvest intervals. Outstanding forage yields and exceptional forage quality.
DRI= 30/30 WSI=2.4 FD=4

VERNAL ALFALFA \$108.00
Vernal is a very winter hardy northern alfalfa with limited disease resistance.
WSI= 2.2 FD= 2

PLOWDOWN ALFALFA

Per 50 lb. bag

HI-NITRO BRAND ALFALFA \$224.00

Non-hardy alfalfa developed to be used as a high performing plowdown. Hi-Nitro will produce much more nitrogen than conventional alfalfas. WSI=6 FD=9

PLOWDOWN MIXES

Per 50 lb. bag

PLOWDOWN MIX \$123.00

Great soil builder and nitrogen provider. 24% Alfalfa, 24% Mammoth Red Clover, 24% Alsike Clover, 24% Sweet Clover, and 4% Ladino Clover. Plant 12-15 lbs. per acre.

NO-SWEET PLOWDOWN MIX \$134.50

Great soil builder and nitrogen provider without any sweet clover. 32% Alfalfa, 32% Mammoth Red Clover, 32% Alsike Clover, and 4% Ladino Clover. Plant 12-15 lbs. per acre.

CLOVER

Preinoculated

RED CLOVERS are one of the fastest establishing legumes and an excellent source of nitrogen. Red clovers have high nutritional value with high levels of digestible protein and are a beneficial component in hay and pasture mixes.

Planting Rate:

Alone: 10-12 pounds per acre

In a mix: 3-6 pounds per acre

Depth: 1/4"

FREEDOM MR RED CLOVER

Per 25 lb. bag

(w/Apex™ Green) OMRI Listed \$89.00

Fast drying variety selected for increased dry matter production. Freedom MR has finer stems and less pubescence (hairs) on the stem which enables the plant to dry faster. Mildew Resistant.

Per 50 lb. bag

STARFIRE II RED CLOVER (Coated) \$165.00

Very unique, long lasting red clover variety that can produce 3 or 4 cuttings. Starfire II gives higher yields, higher levels of persistence and has an excellent disease package. Starfire II is a great choice for top producers.

MARATHON RED CLOVER \$146.50

3-4 year variety that is very winter-hardy and disease resistant. Marathon is a superior red clover with long-lasting performance.

PERSIST BRAND RED CLOVER \$138.00

Popular blend of long lasting red clovers specifically developed for persistence and longevity.

MEDIUM RED CLOVER \$102.00

Biennial red clover that is economical and fits well into rotational cropping systems.

ALTA-SWEDE MAMMOTH RED CLOVER \$118.00

Single cut clover that is taller and coarser than other red clovers. Alta-Swede is primarily used as a green manure crop.

WHITE CLOVERS are one of the most nutritious and palatable legumes available. White clovers are fast growing and offer outstanding nitrogen fixing capabilities and offer excellent persistence under grazing.

Planting Rate:

Alone: 2-4 pounds per acre

In a mix: 1-3 pounds per acre

Depth: 1/4"

Per lb.

LEGACY WHITE CLOVER (Coated) \$4.75

Legacy is an exceptionally high yielding, large leaf clover with a tall growth habit. Latest generation of New Zealand bred white clover with strong second and third year yields compared to other cultivars. Due to its erect growth habit, Legacy is ideally suited for rotational grazing systems.

RENOVATION WHITE CLOVER (Coated) \$5.90

Renovation was bred for increased stolon density utilizing a combination of long-lived Southern Plain ecotypes and disease resistant ladino types resulting in increased persistence, even under grazing. An excellent choice to improve and maintain productive pastures. Ideal for grazing livestock and wildlife food plots.

ALICE WHITE CLOVER

(w/NitroCoat Organic) OMRI Listed \$4.80

Popular variety known for its high palatability and vigorous tall growth. Alice is very winter hardy and is aggressive enough to compete well with grasses in pasture mixes.

LADINO CLOVER \$4.05

Large leafed winter-hardy white clover used primarily in pastures and wildlife plots.

JUMBO II LADINO CLOVER

(w/Apex™ Green) OMRI Listed \$4.15

A fast growing, giant leafed ladino known for its leaf size and vigorous growth habit. Jumbo II is popular in pasture mixes and is extremely popular in deer mixes.





OTHER CLOVERS

KURA CLOVER (Coated) Per lb. ASK

High yielding, high forage quality perennial clover that spreads by underground rhizomes. Kura is highly persistent, long lasting and has good disease resistance. Kura is extremely hardy and will tolerate severe grazing much better than red clovers or alfalfas. Kura clover is more difficult to establish than traditional clovers; during establishment grasses and weeds must be controlled, especially during the first six weeks of growth.

Planting Rate:

Alone: 6-8 pounds per acre
Depth: 1/4"

ABERLASTING CLOVER (w/NitroCoat) . Per lb. \$6.00

A great replacement for Kura clover. AberLasting Clover is a very unique clover developed by crossing Caucasian clover with White clover, making it an exceptional clover for grazing. With stolons above ground and rhizomes below, AberLasting is very persistent and drought tolerant. It will tolerate severe grazing.

Planting Rate:

Alone: 6-10 pounds per acre
In a mix: 2-3 pounds per acre
Depth: 1/4"

ABERLASTING CLOVER

(w/NitroCoat Organic) **OMRI** . Per lb. \$6.25

FROSTY BERSEEM CLOVER

(w/NitroCoat Organic) . . **OMRI** . Per 50 lb. bag \$138.00

Fast growing annual clover that is excellent for thickening a weak alfalfa stand or producing a 1 year hay crop. Berseem Clover generally requires a frost free growing season, however, Frosty Berseem is much more cold tolerant than other Berseem clovers and has survived temperatures down to 10° F. In the Midwest, Frosty Berseem can be dormant seeded in mid-November, frost seeded in late February, or spring seeded. In the South, it is generally seeded in the fall. Berseem will produce 2-3 crops, can fix up to 100-150 units of nitrogen per acre, and does not cause bloat when grazed. Begin cutting or grazing when the plants reach 10-12 inches high. Berseem needs to be cut prior to flowering or the plant will not recover. Graze or cut to a 3 inch stubble to encourage new shoot production. Berseem is high in feed value; running 18-28% crude protein.

Planting Rate:

Alone: 15-20 pounds per acre
In a mix: 10-20 pounds per acre
Depth: 1/4" - 1/2"

FIXATION BALANSA CLOVER

(w/NitroCoat Organic) . . **OMRI** . Per 50 lb. bag \$120.00

Small seeded annual legume that produces exceptional quantities of nitrogen and offers producers superior reseeding properties. By allowing FIXatioN to set seed, approximately 45 days post full bloom, you can create a seed bank from which FIXatioN can re-generate year after year with only an occasional reseeding needed. Organic producers will have a hard time controlling Balansa in a crop rotation due to the large amount of hard seed. Fixation has withstood temperatures as low as 5 °F with no snow cover. With snow cover has survived sub-zero temperatures. Can be used as a cover crop, for grazing, or as a bee attractant. Plant in the spring or from mid-July to early September.

Planting Rate:

Alone: 5-8 pounds per acre
Depth: 1/4" - 1/2"

ALSIKE CLOVER Per 50 lb. bag \$160.00

An upright, short lived perennial that does well on low, poorly drained acidic soils. Alsike is considered a biennial plant and is primarily used in mixtures on lowland areas for green manure and hay.

Rate:

Alone: 7-8 pounds per acre
In a mix: 1-3 pounds per acre
Depth: 1/4"

YELLOW BLOSSOM SWEET CLOVER

. Per 50 lb. bag \$90.00

Good soil building sweet clover that adds 80-100 units of nitrogen per acre and improves the soil tilth. Yellow blossom is a bee attractant and is primarily used as a green manure crop. Yellow blossom is a biennial clover.

Planting Rate:

Alone: 12-15 pounds per acre
In a mix: 2-6 pounds per acre
Depth: 1/4"

WHITE BLOSSOM SWEET CLOVER

. Per 50 lb. bag \$158.00

High nitrogen producing biennial legume growing 5-6 feet tall. Blooms 2 weeks later than yellow blossom sweet clover. Excellent for honey production.

CRIMSON CLOVER

(w/NitroCoat Organic) . . **OMRI** . Per 50 lb. bag \$72.00

A winter annual in the South and a spring/summer annual in the North. Crimson is high in protein and easy to establish. Crimson can establish a thick green crop by mid-winter in the South, fixing 125 units of nitrogen per acre and produces a great deal of humus. In the North, Crimson matures in June with deep red flowers on 18 inch plants.

Planting Rate:

Alone: 25-35 pounds per acre
In a mix: 10-15 pounds per acre
Depth: 1/2"

WHITE DUTCH CLOVER Per 50 lb. bag \$185.00

Smaller leafed dutch clover used primarily in lawn mixes, as ground cover, and for erosion control.

Planting Rate:

Alone: 2-4 pounds per acre
In a mix: 1-3 pounds per acre
Depth: 1/4"

HAY, PASTURE & WATERWAY MIXES

We offer premixed, preinoculated hay and pasture mixes to our customers to save them valuable time during the planting season.

HAY MIXES:

Planting Rate:

Alone: 15-20 pounds per acre

Depth: 1/4"

Mix #1 ECONOMO MIX Per 50 lb. bag \$105.00

70% Vernal Alfalfa
15% Medium Red Clover
15% Climax Timothy

Mix #2 SUPER HAY MIX \$155.00

70% 2020 Supreme Brand Alfalfa
15% Starfire Red Clover
15% Tuukka Timothy

Mix #3 ALL PURPOSE MIX \$148.50

63% 2020 Supreme Brand Alfalfa
16% Persist Brand Red Clover
15% Tuukka Timothy
6% Alsike Clover

Mix #4 LOWLAND MIX \$164.00

42% Excel Brand 353 BR Alfalfa (w/Apex™ Green) **OMRI**
37% Persist Brand Red Clover
16% Tuukka Timothy
5% Alsike Clover

Mix #6 HIGHLAND MIX \$159.00

82% 2020 Supreme Brand Alfalfa
10% Starfire Red Clover
8% Tuukka Timothy

Mix #7 DAIRYMAN'S DREAM \$155.75

90% 2020 Supreme Brand Alfalfa
10% Tuukka Timothy

Mix #8 DAIRYMAN'S HY-GRASS \$162.25

81% 2020 Supreme Brand Alfalfa
9% Starfire Red Clover
5% Profit Orchardgrass
5% Tuukka Timothy

PASTURE/WATERWAY MIXES:

Planting Rate:

Alone: 25-35 pounds per acre

Depth: 1/4"

Mix #9 PASTURE & WATERWAY MIX Per 25 lb. bag \$74.00 Per 50 lb. bag \$148.00

20% Fleet Meadow Bromegrass
15% Duo Festulolium
15% Profit Orchardgrass
10% Lincoln Smooth Bromegrass
10% Tuukka Timothy
10% Meadow Fescue
10% Starfire Red Clover
10% Alsike Clover



Mix #10 ALL GRASS PASTURE & WATERWAY MIX Per 25 lb. bag \$65.75 Per 50 lb. bag \$131.50

20% Fleet Meadow Bromegrass
15% Duo Festulolium
15% Profit Orchardgrass
10% Lincoln Smooth Bromegrass
10% Italian Ryegrass
10% Payday Perennial Ryegrass
10% Tuukka Timothy
10% Meadow Fescue



Mix #11 REEDSWAY PASTURE & WATERWAY MIX Per 25 lb. bag \$75.25 Per 50 lb. bag \$150.50

15% Duo Festulolium
15% Payday Perennial Ryegrass
10% Profit Orchardgrass
10% Lincoln Smooth Bromegrass
10% Fleet Meadow Bromegrass
10% Palaton Reeds Canarygrass
10% Tuukka Timothy
10% Starfire Red Clover
10% Alsike Clover

SOIL SAVER WATERWAY MIX Per 25 lb. bag \$46.00

28% Smooth Bromegrass
18% Tall Fescue
18% Perennial Ryegrass
18% Annual Ryegrass
18% Climax Timothy

TIMESAVER COMPLETE WATERWAY MIX Per 50 lb. bag \$31.50

80% Winter Wheat
6% Smooth Bromegrass
3.5% Tall Fescue
3.5% Perennial Ryegrass
3.5% Annual Ryegrass
3.5% Climax Timothy

Planting Rate:

Alone: 120-150 pounds per acre

Depth: 1/4" - 1/2"



PASTURE PERFECT MIXES

Per 50 lb. bag

GRAZERS ELITE MIX \$159.00

- 50% Tekapo Grazing Orchardgrass
- 20% Duo Festulolium
- 20% Payday Perennial Ryegrass
- 7% Starfire Red Clover
- 3% Legacy White Clover

Planting Rate:

Alone: 25-35 pounds per acre
Depth: 1/4"

GRAZERS SUPREME MIX \$146.50

- 30% Fleet Meadow Bromegrass
- 20% Tekapo Grazing Orchardgrass
- 20% Payday Perennial Ryegrass
- 20% Meadow Fescue
- 10% Duo Festulolium



Planting Rate:

Alone: 35-40 pounds per acre
Depth: 1/4"

GRAZERS SPECIAL MIX \$137.60

- 20% Tekapo Grazing Orchardgrass
- 20% Payday Perennial Ryegrass
- 20% Duo Festulolium
- 20% Meadow Fescue
- 20% Lincoln Smooth Bromegrass



Planting Rate:

Alone: 35-40 pounds per acre
Depth: 1/4"

GRAZERS GOURMET MIX \$178.00

- 30% Grazer Brand Alfalfa
- 30% Tekapo Grazing Orchardgrass
- 13% Payday Perennial Ryegrass
- 10% Duo Festulolium
- 10% Bull Birdsfoot Trefoil
- 7% Oasis Chicory

Planting Rate:

Alone: 25-35 pounds per acre
Depth: 1/4"

RENOVATOR SPECIAL MIX \$94.50

- 40% Payday Perennial Ryegrass
- 35% Duo Festulolium
- 25% Rival Annual Ryegrass

Planting Rate:

Alone: 10-35 pounds per acre
Depth: 1/4"

PLEASURE HORSE II MIX \$142.00

- 20% Tekapo Grazing Orchardgrass
- 20% Preval Meadow Fescue (Endophyte Free)
- 20% Fleet Meadow Bromegrass
- 10% Payday Perennial Ryegrass
- 10% Duo Festulolium
- 10% Bronson Tall Fescue (Endophyte Free)
- 5% Ginger Forage Kentucky Bluegrass
- 5% Tuukka Timothy

Planting Rate:

Alone: 35-40 pounds per acre
Depth: 1/4"

SUCRASEED HIGH SUGAR GRASS MIX

Sucrased Mixes contain high sugar grass-(HSG) perennial and intermediate ryegrasses that have been developed specifically to contain high levels of water soluble carbohydrates (sugar). These mixes have demonstrated significant increases in meat and milk production.

Planting Rate:

Alone: 25 pounds per acre
Depth: 1/4"

SOLD IN FULL BAGS ONLY

Per 25 lb. bag

GREAT GAINS \$65.25

- 25.00% AberEve HSG Tetraploid Intermediate Ryegrass
- 23.00% AberGreen HSG Diploid Perennial Ryegrass
- 22.00% AberMagic HSG Diploid Perennial Ryegrass
- 15.00% Quick Draw Orchardgrass
- 10.00% FIXatioN Balansa Clover
- 5.00% AberLasting Hybrid Clover

Per 50 lb. bag

PASTURE SWEET'NER \$110.00

- 33.33% AberGreen HSG Perennial Ryegrass
- 33.33% AberMagic HSG Perennial Ryegrass
- 33.33% AberEve HSG Tetraploid Intermediate Ryegrass

BROMEGRASS

Bromegrass is a thick sod forming grass that spreads by its root system. Bromegrass can be grown on a wide variety of soils and is very winter-hardy and palatable. Bromegrass makes an excellent companion grass in hay and pasture mixes, as well as in silage and green chop. Most Bromegrass failure is caused by planting too deep.

Planting Rate:

Alone: 15-25 pounds per acre
In a Mix: 6-12 pounds per acre
Depth: 1/4"

Per 50 lb. bag

LINCOLN BROMEGRASS \$140.00

A smooth bromegrass used in both waterway and pasture mixes. A sod forming grass; excellent for waterways.

FLEET MEADOW BROMEGRASS \$158.00

Winter hardy variety with excellent regrowth after cutting. Fleet is leafier than smooth bromegrass because it has more basal leaves, making it more palatable. An excellent variety for grazing or haymaking. Less aggressive with shorter rhizomes than smooth brome, therefore maintains a better balance in alfalfa-grass mixes. Not recommended for waterways.

HAKARI MOUNTAIN BROMEGRASS \$182.00

Specifically bred for cooler, drier temperatures of the Midwest and Northeast. Hakari is a winter dormant brome, resulting in leafier summer and fall growth, making Hakari an excellent companion to alfalfa. Not recommended for waterways.

ORCHARDGRASS

Orchardgrasses are medium to long lived, cool season bunch-grasses that perform well on well drained soils. Typically, late varieties are used in haymaking and early varieties for grazing.

Planting Rate:

Alone: 10-15 pounds per acre
In a mix: 3-5 pounds per acre
Depth: 1/4"

POTOMAC ORCHARDGRASS . . . Per 50 lb. bag \$140.00
Early maturing orchardgrass that is productive and persistent.

DEVOUR GRAZING ORCHARDGRASS

Per 50 lb. bag \$184.00
A grazing type with a more prostrate growth habit providing persistence under grazing pressure. Devour is a top performer in persistence trials. High yielding and late maturing, providing a high quality forage very compatible with legumes.

TEKAPO ORCHARDGRASS . . . Per 50 lb. bag \$184.00
Unique early maturing variety that is dense tillering and developed specifically for grazing. Tekapo has a low crown and a dense, prostrate growth habit, allowing it to be grazed near ground level. This is ideal for the close nip grazing habits of sheep, horses and all classes of livestock.

PROFIT ORCHARDGRASS . . . Per 50 lb. bag \$182.00
Late maturing orchardgrass bred primarily for forage production. Exhibits very impressive dry matter production resulting in increased profits. Excellent rust resistance and stand persistence.

LATAR ORCHARDGRASS . . . Per 50 lb. bag \$176.00
Late maturing variety that is hardy, very palatable and has lower fiber content. Latar is an excellent component in both hay and pasture mixes.

HLR ORCHARDGRASS BLEND . . Per 25 lb. bag \$106.00
Blend of the best and latest maturing orchardgrass varieties from Barenbrug. The varieties in HLR have been selected for high leaf to stem ratio, improved digestibility and energy. HLR is ideal for hay, silage, and grazing. Highly suited for planting with alfalfa. HLR makes a nice, dense sward that is less clumpy than traditional varieties. High yielding with good rust resistance and winter hardiness. Excellent palatability and digestibility.

ANNUAL RYEGRASS

Primarily used as a quick establishing crop for erosion control, emergency forage, cover crop, and in lawn, pasture and waterway mixes.

Planting Rate:

Alone: 25-35 pounds per acre
In a mix: 10-15 pounds per acre
Depth: 1/4"

Per 50 lb. bag
GULF ANNUAL RYEGRASS . . . \$42.00
An economical variety that is considered a true annual.

Per 50 lb. bag

RIVAL ANNUAL RYEGRASS . . . \$44.00
An improved annual ryegrass variety that is a later maturing tetraploid with fast growth and regrowth. Rival is palatable with a high feed value.

BRUISER ANNUAL RYEGRASS . . . \$44.00
Popular annual diploid ryegrass with excellent cold tolerance and disease resistance. It is late maturing and has high feed quality, making it an excellent annual for grazing or for use as a cover crop.

ITALIAN RYEGRASS

These fast establishing ryegrasses very seldom head out the same year they are planted and are used as a cover crop, in pastures and in waterway mixes. Also used as a nurse crop for alfalfa. In mild winters can act as a perennial.

Planting Rate:

Alone: 30-40 pounds per acre
In a mix: 6-20 pounds per acre
Depth: 1/4"

Per 50 lb. bag

FEAST II ITALIAN RYEGRASS . . . \$68.00
High producing tetraploid Italian ryegrass that was specifically bred for grazing. Feast II offers high energy and feed quality with improved animal performance.

GREEN SPIRIT ITALIAN RYEGRASS . . . \$90.00
A blend of early and late varieties. Green Spirit has great regrowth, persistence, and high production.


PERENNIAL RYEGRASS

Perennial ryegrasses are quick establishing, very palatable grasses that are used in long term hay and pasture mixes.

Planting Rate:

Alone: 25-40 pounds per acre
In a mix: 10-20 pounds per acre
Depth: 1/4"

Per 50 lb. bag

 **PAYDAY PERENNIAL RYEGRASS** . . . \$110.00
A late maturing tetraploid with high forage yields and improved persistence. Improved rust resistance increases forage quality and stand life. Excellent cold tolerance and highly digestible.

BG-34 PERENNIAL RYEGRASS . . . \$115.00
Very popular diploid blend of late maturing winter-hardy varieties noted for their persistence, disease resistance and high digestibility.

BG-24T PERENNIAL RYEGRASS . . . \$115.00
A blend of early and intermediate maturing diploid and tetraploid ryegrasses. Performs better under high summer temperatures than late maturing varieties. Excellent disease resistance.

LINN PERENNIAL RYEGRASS . . . \$90.00
An older variety used mostly in lawn mixes, road banks and terraces.

FESTULOLIUM

Festulolium is a hybrid forage cool season grass developed by crossing a fescue with a ryegrass. Festuloliums demonstrate the quick establishment and palatability of ryegrass and the high dry matter yields and toughness of fescue.

Planting Rate:

Alone: 35-45 pounds per acre
In a mix: 15-20 pounds per acre
With alfalfa: 2-3 pounds per acre
Depth: 1/4"

Per 50 lb. bag

DUO FESTULOLIUM \$104.00

High powered variety that was the highest yielding variety in its class when introduced. Duo is highly palatable with high feed value and persistence.

SUGARCREST FESTULOLIUM \$106.00

Sugarcrest is a hybrid cross of perennial ryegrass and meadow fescue providing a high quality, winter hardy hybrid with added drought tolerance and fast regrowth. Offers exceptional quality and persistence.

FESCUE

Fescues are the most commonly used grasses as they can be used for forage, pastures, waterways, lawns and erosion control. Fescues are one of most drought resistant field plants grown and maintain themselves under conditions of low fertility.

Planting Rate:

Alone: 20-25 pounds per acre
In a mix: 4-10 pounds per acre
With alfalfa: 5-8 pounds per acre
Depth: 1/4"

Per 25 lb. bag

ESTANCIA TALL FESCUE \$96.00

Estancia with ArkShield® is the latest generation forage tall fescue with the addition of a beneficial endophyte. The ArkShield® endophyte protects the grass from disease, insects, and environmental stresses such as heat and drought. Estancia is a medium maturing, high yielding tall fescue with excellent seedling vigor.

Per 50 lb. bag

BRONSON TALL FESCUE \$105.00

An outstanding tall fescue variety that exhibits the toughness associated with fescues and is very palatable. An excellent component in both hay and grass mixes.

Per 50 lb. bag

STF-43 TALL FESCUE \$145.00

Widely adapted premium blend of late maturing, Barenbrug soft-leaf tall fescues. Long lived and highly digestible with exceptional levels of dry matter-ideal for nutrient management on large dairy operations who seek to produce forage with high RFQ values.

Per 50 lb. bag

HDR MEADOW FESCUE \$145.00

High yielding, digestible and disease resistant blend of Barenbrug meadow fescues with improved palatability and winter hardiness. Developed for high digestibility and energy for dairy and beef producers. Grows under cool, moist conditions and tolerates wet soils. Excellent for hay or pasture.

Per 50 lb. bag

PREVAL MEADOW FESCUE \$135.00

Medium maturing meadow fescue with improved disease resistance. Provides effective fiber, high energy, and palatability. Preval is very winter hardy and is tolerant of drought, wet soils and close grazing. An excellent choice for rotational grazing and high quality hay, with very good regrowth.

MILKWAY FESCUE BLEND \$145.00

Mixture of 60% Barenbrug Meadow Fescue and 40% STF 43 Tall Fescue. Highest quality perennial forage with a wide range of adaptation for improvements in butter and milk yields. Excellent component for hay or pasture and superior traffic tolerance, ideal for multiple manure applications.

FAWN TALL FESCUE \$70.00

A tall fescue used mainly in economical mixes for waterways, pasture or erosion control.

CREEPING RED FESCUE \$84.00

Fine bladed spreading grass. Creeping Red tolerates shade very well, making it an excellent companion in lawn mixes. Plant 5 lbs. per 1,000 square feet for lawn.

TIMOTHY

Timothy is a cool season perennial bunchgrass best suited for hay production, but also does well in grass pasture and waterway mixes.

Planting Rate:

Alone: 8-10 pounds per acre
In a mix: 2-6 pounds per acre
Depth: 1/4" - 1/2"

Per 50 lb. bag

CLIMAX TIMOTHY \$75.00

An older variety of timothy that is tall, fine-stemmed and leafy. Climax is medium maturing and has been the standard in timothy for years.

TUUKKA TIMOTHY \$87.00

An improved timothy that exhibits faster regrowth and higher ratios of leaves to stems than other varieties. Tuukka offers improved yields and higher relative feed value over other timothy varieties.

TEFF GRASS

Planting Rate:

Alone: 5-8 pounds per acre
In a mix: 2-5 pounds per acre
Depth: 1/8" - 1/4"

Per 50 lb. bag

TEFF GRASS (w/NitroCoat Organic) \$135.00

Warm season annual grass that produces high quality hay in a relatively short growing season. Offers producers the quality and palatability of timothy. Can be used to improve a poor stand of alfalfa or for double cropping after small grain crops. Teff is a great hay or pasture crop when late season plantings are required due to crop failure. Teff has a small seed, similar to alfalfa. Requires a frost free growing season.

TURF PERFECT LAWN SEED

New & Improved Formulas!

Per 25 lb. bag

ALL PURPOSE LAWN SEED MIX \$59.50

- 25% Wildhorse Kentucky Bluegrass
- 25% Appalachian Kentucky Bluegrass
- 25% Creeping Red Fescue
- 25% Turf Type Perennial Ryegrass

Excellent lawn mix for shade or sun. Plant 3-5 lbs. per 1,000 square feet.

SUNNY LAWN SEED MIX \$60.00

- 25% Wildhorse Kentucky Bluegrass
- 25% Appalachian Kentucky Bluegrass
- 50% Turf Type Perennial Ryegrass

Great choice for lawns with full sun. Plant 3-5 lbs. per 1,000 square feet.

URBAN LAWN SEED MIX \$66.00

- 35% Wildhorse Kentucky Bluegrass
- 35% Appalachian Kentucky Bluegrass
- 20% Creeping Red Fescue
- 10% Turf Type Perennial Ryegrass

Provides a plush lawn that is tough and persistent. Plant 3-5 lbs. per 1,000 square feet.

RUFF & TUFF TURF MIX \$49.00

- 85% Turf Type Tall Fescue
- 7.5% Annual Ryegrass
- 3.75% Wildhorse Kentucky Bluegrass
- 3.75% Appalachian Kentucky Bluegrass

Designed for high traffic and athletic fields. Strong drought tolerance. Use for sandy ground also. Plant 10 lbs. per 1,000 square feet.

Per 50 lb. bag

APPALACHIAN KENTUCKY BLUEGRASS \$148.00

Offers early season dark green color, improved shade tolerance, and good drought tolerance.

WILDHORSE KENTUCKY BLUEGRASS \$157.00

Aggressive and vigorous bluegrass with high tiller density and rich color.

GINGER FORAGE KENTUCKY BLUEGRASS . . . \$145.00

Excellent forage Kentucky Bluegrass with early spring green-up and high yields. Tolerant of close grazing and boasts a leaf width and length nearly twice that of other bluegrasses.

TURF-TYPE PERENNIAL RYEGRASS \$92.00

Quick establishing, lower growing, fine-bladed grass that does well in sunny areas. Plant 8-10 lbs. per 1,000 square feet.

TURF-TYPE FESCUE \$98.00

Fine-bladed and very tough fescue that can withstand foot and vehicle traffic much better than other lawn grasses. Plant 6-8 lbs. per 1,000 square feet.

CANARYGRASS

A tall, cool season grass that has the ability to withstand flooding and is also very drought tolerant.

Planting Rate:

- Alone: 8-12 pounds per acre
- In a mix: 3-5 pounds per acre
- Depth: 1/4" - 1/2"

Per lb.

PALATON REEDS CANARYGRASS \$4.95

A variety with a low alkaloid content, making it palatable to grazing animals. Palaton is higher yielding than other varieties and is well suited for pasture and haymaking.

SUNN HEMP

NEW SUNN HEMP Per 50 lb. bag \$105.00

A fast growing annual legume used as a cover crop to increase organic matter, suppress weeds, and provide nitrogen. When planted as a summer annual can produce 5,000 pounds of biomass and up to 100 units of nitrogen per acre. Ideal as a summer annual after small grain harvest. Inoculant recommended.

Planting Rate:

- Alone: 15-18 pounds per acre
- In a mix: 3-6 pounds per acre

PLANTAIN

NEW PLANTAIN Per lb. \$6.00

A perennial herb that performs well in a wide range of pastures. Plantain is very high in minerals and is fast establishing. Plantain demonstrates a high tolerance to summer heat and can provide valuable pasture growth in the summer months. Exceptional quality forage and very drought tolerant. Adapts to drier regions and less fertile soils.

PHACELIA

NEW PHACELIA Per lb. \$4.50

Phacelia is a cool season, fast growing annual broadleaf used for soil improvement. An excellent bee attractant with purple flowers. Will germinate at temperatures above 37° F and winterkills at 18° F. Grows 2-3 feet tall and requires 13 hours of daylight to begin flowering. Exceptional nitrogen scavenger and good weed suppressant.

Planting Rate:

- Alone: 6-8 pounds per acre
- In a mix: 3-4 pounds per acre
- Depth: 1/4"



VETCHES, TREFOILS & CHICORY

CROWN VETCH Per lb. ASK
Cool season perennial legume primarily used to control erosion and stabilize banks and terraces. It is slow to establish, so it is important to control weeds during establishment. Inoculant recommended.

Planting Rate:

Alone: 10-15 pounds per acre
In a mix: 3-10 pounds per acre
Depth: 1/2"

HAIRY VETCH Per 50 lb. bag \$95.00

Vigorous winter annual that is used mostly for green manure. Hairy Vetch can be seeded in corn at the last cultivation or planted with winter rye in the fall. Hairy Vetch provides good dry matter and excellent hay production, and builds nitrogen for the next crop. When planted in mid-August Hairy Vetch can be 3-4 feet tall by mid-May the following year. Inoculant recommended.

Planting Rate:

Alone: 25-40 pounds per acre
In a mix: 15-20 pounds per acre
Depth: 1/2"-1"

AC GREENFIX CHICKLING VETCH . Per 50 lb. bag \$58.00

An annual legume used to increase nitrogen and soil fertility. Plant in the Spring; best results are obtained if allowed to grow for 60-70 days. Can produce 80-100 units of nitrogen per acre. Excellent green manure crop. Inoculant recommended.

Planting Rate:

Alone: 50-60 pounds per acre
Depth: 2-3"

TREFOILS *Preinoculated non-bloating perennial legumes that are tolerant to a wide range of soils and can persist in wet, shallow areas and acidic areas. Use for hay on poor soil where alfalfa may not perform. Trefoils are primarily used in mixes with grasses and legumes. Trefoils are slower to establish and do not take shading well, therefore it is important to control weeds during establishment.*

Planting Rate:

Alone: 5-8 pounds per acre
In a mix: 3-5 pounds per acre
Depth: 1/4"- 1/2"

BRUCE BIRDSFOOT TREFOIL Per lb. \$5.10

A new release with superior seedling vigor for quicker establishment and a better ability to compete.

BULL BIRDSFOOT TREFOIL Per lb. \$5.10

Large leaf variety of trefoil that has a deep branching root system. Bull is an early trefoil variety that has an excellent ability to compete and establish with alfalfa, grasses and other legumes. Bull has an excellent winter-hardiness rating and drought stress tolerance rating.

CHICORY *Perennial taproot herbs that provide high levels of minerals and proteins. They are primarily used for pasture in the summer and fall and are highly drought tolerant. Chicory is highly palatable and highly digestible and should be rotationally grazed for best overall performance.*

Planting Rate:

Alone: 6-8 pounds per acre
In a mix: 2-5 pounds per acre
Depth: 1/4"- 1/2"

OASIS CHICORY Per lb. \$6.00

An early maturing, high yielding variety which provides a longer growing season and more forage than other varieties. Oasis offers improved disease resistance and less bolting. Oasis is very palatable and digestible.

FORB FEAST CHICORY (OMRI Coating) . Per lb. \$6.00

High quality, reduced bolting chicory blend from Barenbrug. Highly palatable source of digestible energy, protein and minerals for all livestock and wildlife classes. Excellent drought resistance and winter hardiness.

BRASSICAS

RAPE SEEDS *High yielding, fast growing brassicas. Rapes are an excellent source of crude protein and energy and will produce into freezing temperatures in late fall-early winter if they have not headed out. Rape seeds are best utilized in mixes with other brassicas for sheep and cattle grazing and are very popular in wildlife mixes. Rape seeds may blister white pigs.*

Planting Rate:

Alone: 6-10 pounds per acre
In a mix: 3-6 pounds per acre
Depth: 1/2"

DWARF ESSEX RAPE SEED Per lb. \$1.80

Lower growing rape that is very nutritious and provides high protein and energy levels. 40-50 day maturity.

BONAR RAPE SEED \$2.80

Newer high yielding, late maturing variety that was specifically bred for improved palatability and higher leaf to stem ratio. 90-110 day maturity.

BARSICA FORAGE RAPE SEED \$2.40

An early maturing forage rape with high yields and excellent cold tolerance. 80-90 day maturity.

RADISH *An annual cool season brassica used as a fast growing cover crop, for organic matter production, and to break up compacted soil. Scavenges nitrogen and other nutrients.*

Planting Rate:

Alone: 8-12 pounds per acre
In a mix: 3-6 pounds per acre
Depth: 1/4"

GROUNDHOG RADISH \$2.20

Leafy radish with long tillering abilities and more root mass than oil seed radish or mustards. Can scavenge 100-150 units of nitrogen per acre before winter killing. 40-60 day maturity.

TURNIPS *An excellent source of forage for fall/winter grazing for sheep, beef, dairy and wildlife. Turnip leaves offer the highest concentration of protein and yield of any leaf and are firmly anchored into the ground for minimal plant waste.*

Planting Rate:

Alone: 3-6 pounds per acre
In a mix: 1-3 pounds per acre
Depth: 1/4"

PURPLE TOP TURNIPS Per lb. \$2.65

Traditional large bulb; can be used for pasture. After the livestock eat the tops they will pull out the tubers and eat the turnips as well. 55 day maturity.

APPIN FORAGE TURNIPS \$3.25

These turnips were bred for fast, vigorous establishment and quick maturity. Appin has a significantly higher proportion of leaf yield compared to other turnips and is multi-crowned (plants have several growth points) for improved regrowth potential. 60-100 day maturity.

BARKANT FORAGE TURNIPS \$2.40

Improved variety of turnips having a distinctive tankard shaped bulb and high leaf to stem ratio. Barkant turnips are an early maturing turnip that provide very high concentrations of protein and yields in the leaf. 60-90 day maturity.

OTHER BRASSICAS

PASJA HYBRID FORAGE BRASSICA Per lb. \$3.25

Early maturing, high yielding variety with sweet leaves bred for multiple grazings, rapid regrowth and high performance. Pasja is very leafy and suitable for all classes of livestock, providing exceptional summer feed with high nutritional value. 50-60 day maturity. Plant 4-8 lbs. per acre.

T-RAPTOR HYBRID FORAGE BRASSICA \$2.90

Early maturing hybrid brassica, a cross between a forage turnip and a forage rape, with a higher leaf-to-bulb ratio. Available for grazing in 40-55 days. An excellent late summer feed source. Plant 4-8 lbs. per acre.

MAJOR PLUS SWEDE \$5.25

A full maturity swede (from 160 days) characterized by its broad elliptical shaped bulb with red skin color. 84% of its yield is in the bulb. Plant 4-8 lbs. per acre.

KESTREL KALE \$5.50

Full maturity leafy kale variety with short stems. Bred for high digestibility. 150-220 days to grazing. Suitable for dairy, beef, sheep, and deer. Plant 8-10 lbs. per acre.

WILDLIFE PERFECT SEEDS

Please browse through our entire catalog to see the wide variety of seed available for wildlife. Our other sections include more information on items such as rape seed, turnips, chicory, milo, peas, clover, grasses, grains and much more!

BIG BUCK PERENNIAL MIX Per 25 lb. bag \$76.00

Specially formulated for long-term plots. This mix contains items that deer love including Yellow Blossom Sweet Clover, Starfire Red Clover, Delar Burnett, Berseem Clover, Duo Festulolium, Jumbo Ladino Clover, and Chicory. Increases animal size and antler size. Plant 15-20 lbs. per acre.

BIG BUCK ANNUAL MIX Per 25 lb. bag \$46.00

A high energy, highly nutritious annual mix containing Austrian Winter Peas, Forage Turnips, Swedes, Forage Brassica and Rape. Very popular with wildlife enthusiasts! Plant 25 lbs. per acre.

BIG BUCK BRASSICA MIX Per lb. \$2.50

By popular demand, we have formulated a mixture of our customers' favorite brassicas in one special blend! Big Buck Brassica Mix is a mixture of Purple Top Turnips, multi crowned Pasja Hybrid brassica, Ground Hog Radish, and Dwarf Essex Rape. Excellent as a deer attractant and food source! Plant 7-10 lbs. per acre.

SWEET SPOT MIX Per 10 lb. bag \$34.00

Specialty deer mix by Sucraseed with high sugar grasses for increased weight and antler size. A mixture of high sugar grasses, white and red clovers, berseem clover, balansa clover, turnips, and chicory. Plant 20 lbs. per acre.

DELAR SMALL BURNETT Per 50 lb. bag \$160.00

A perennial evergreen forb that produces into the winter and is relished by wildlife. Grows 15-18" tall. Plant 15-20 lbs. per acre.

PEREDOVIC SUNFLOWERS Per 50 lb. bag \$33.00

High yielding, high oil content black seeded sunflower that is very palatable and a great wildlife food source. Plant 10-15 lbs. per acre in 28-36" rows or 20-30 lbs. per acre if broadcast. 95-100 day maturity.

BUCK FORAGE OATS Per 50 lb. bag \$36.00

Wildlife specific oat variety that is late maturing and stays green going into the winter, increasing grazing potential for wildlife. Buck Forage Oats offer high protein, perfect for the deer hunter wanting good weight gain and antler size. Plant 100 lbs. per acre.

SAINFOIN Per lb. \$3.25

A non-bloating, deep rooted perennial, very drought resistant, palatable legume used for grazing. Excellent deer attractant. Good for honey production. Plant 1/2" to 3/4" deep. Plant 20-30 lbs. per acre. Inoculant recommended.

SUGAR BEETS Per lb. \$7.00

Very nutritious, leafy, palatable forage for deer. Deer will eat the leaves and the root. 70-90 day maturity. Exceptional winter carryover value with high sugar and protein content. Plant 6-8 lbs. per acre in the Spring.



SORGHUM, SORGHUM-SUDAN, & SUDANGRASS

These products all provide high producing, warm season summer forage, ideal for emergency crop situations or in rotations. None of these crops should be used for horses and all require a soil temperature above 60° for several days before planting. In order to avoid prussic acid poisoning, do not pasture these forages until they are knee high and do not graze regrowth after frost.

Per 50 lb. bag

NUTRI PLUS BMR SORGHUM

SUDAN HYBRID ASK

Improved hybrid preferred by livestock for its palatability and digestibility. Animal performance is much improved with this variety. The BMR (brown mid rib) trait is significant because this trait has less lignin, making the grass more digestible and the animal not only eats more of the grass, but also digests it better, resulting in better gains and higher milk production. Gene 6.

Planting Rate:

Alone: 25-30 pounds per acre

Depth: 1"-1½"

CADAN WMR SORGHUM

SUDAN HYBRID \$47.00

White mid-rib hybrid with low lignin content. Bred with a dry stalk gene for faster dry-down. Bred for high protein, sweet flavor, high tonnage, high sugar content and good standability.

Planting Rate:

Alone: 25-30 pounds per acre

Depth: 1"-1½"

TRIDAN SORGHUM SUDAN HYBRID \$40.00

A leafy, highly nutritious sorghum sudan hybrid that produces excellent grazing, green chop, or silage. Will furnish summer grazing of up to five cows per acre with good management practices; and recovers quickly after grazing or cutting. Do not cut or graze until the forage reaches 18 inches in height. Cut at 36-48" or 60-75 days for the best possible quality and highest possible yields. Cut at 6-8" or above the second internode with a crimper to speed the drying and regrowth process.

Planting Rate:

Alone: 25-30 pounds per acre

Depth: 1"-1½"

PRO-MAX BMR HYBRID SUDANGRASS \$86.00

The first true sudangrass with the brown mid rib (BMR) trait. The BMR trait has a lower lignin content, giving producers higher palatability and digestibility thus more efficient animal gains. This is a great high quality summer forage that thickens with each grazing. Start grazing at 20-25 inches and leave a 6-8 inch stubble for best regrowth. Harvest for hay at 40-49 inches. Gene 12.

Planting Rate:

Alone: 25-30 pounds per acre

Depth: 1/2" -1"

Per 50 lb. bag

PIPER SUDANGRASS \$65.00

Has finer stems producing finer quality hay.

Planting Rate:

Alone: 25-30 pounds per acre

Depth: 1/2" -1"

REDTOP PLUS BMR FORAGE

SORGHUM HYBRID ASK

Use for grazing, silage, and haylage. Reaches 7-9 feet tall. Exhibits excellent drought tolerance and palatability due to its sweetness. Good track record for tonnage, yielding 15-26 tons per acre. 80 to 90 day maturity. Male sterile. Gene 6.

Planting Rate:

Alone: 12-15 pounds per acre

Depth: 1"

BUNDLE KING FORAGE SORGHUM \$68.00

Super-sweet tall forage sorghum that can be used for grazing, or chopping. Bundle King is a sterile hybrid that will not produce seed in the absence of pollen, which allow for more of the proteins and sugars to stay in the plant instead of being transferred to the head in the growth process. Bundle King has an excellent leaf to stem ratio, and is good for starting new calves. This is also a great one for making homemade sorghum syrup for your pancakes.

Planting Rate:

Alone: 40-60 pounds per acre if broadcast

12-15 pounds per acre in rows

Best if planted in narrow rows

Depth: ¾"-1½"

FORAGE MASTER FORAGE SORGHUM (Treated) . . \$68.00

A dual-purpose full season hybrid forage sorghum with dense lush leaves and a large grain head. If seeding for hay, seed at higher rate and cut at the boot stage at 75 days. If planting for silage seed at lower rates and harvest at soft dough stage at 95-100 days. Grows 8-9 feet tall at full maturity. Can produce 8-11 tons of dry matter per acre for hay; can produce 25-30 tons/acre for silage.

Planting Rate:

Alone: 12-15 pounds per acre

Depth: ¾"-1½"

MILO OR GRAIN SORGHUM \$22.00

Also referred to as grain sorghum, Milo can be used for summer forage in a rotation or as an emergency crop. Reaches 4-5 feet tall; matures in about 100 days.

Planting Rate:

Alone: 15 pounds per acre

Depth: 1"-1½"

WGF (Wild Game Food) MILO \$59.00

Early maturing grain sorghum, 24"-34" in height, excellent for wildlife. Mid-bloom in 45 days; mature seed in 85-100 days.

Planting Rate:

Alone: 15 pounds per acre

Depth: 1"-1 ½"

MILLETS

All millets require a soil temperature above 60° several days before planting. Severe drought conditions may cause prussic acid poisoning in millets. Cutting and drying for hay minimize potential risks. Do not use millets for horses.

Planting Rate:

Alone: 25-30 pounds per acre

Depth: ½" -1"

Per 50 lb. bag

JAPANESE MILLET ASK

Gives the most tonnage of all the millets. It will make 3-4 crops if it is not allowed to head out. Japanese millet likes ample amounts of nitrogen and should be fertilized between cuttings.

PROSO MILLET \$28.00

A grain millet primarily used for bird and livestock feed. Proso has the unique ability to shoot tillers and withstand drought. Does not recover after cutting.

GERMAN MILLET \$42.00

Used for hay because of its fine stems and leafiness. German millet is a foxtail millet and produces a one cut crop that must be cut at late boot or early bloom stage.

PEARL MILLET \$65.00

Pearl is coarse and similar to sorghum sudan, but is easier to dry down for hay. Can be used for hay, pasture and silage and will produce several crops if cut or pastured before it heads out. It is recommended to leave a 10" stubble for regrowth.

NATIVE WARM SEASON GRASSES

These grasses make 70% of their growth after June 15th, providing grazing in July & August, when cool season grasses taper off. Native grasses are extensively used in pasture and crop protection programs. Weed control is vital during establishment since native grasses are very slow establishers. Do not graze lower than 6-8 inches.

All native warm season grasses are sold on a pure live seed (PLS) basis.

Planting Rate for Native Grasses unless stated:

Alone: 6-10 PLS pounds per acre

Depth: ¼"

Per PLS lb.

BIG BLUESTEM \$11.50

The tallest of the native grasses (3-9 feet) and has a large root system (12-13 feet deep), which gives it a great deal of drought tolerance. Do not graze until at least 16" tall and give the plants rest before frost.

LITTLE BLUESTEM \$13.00

Grows 3-5 feet tall and has finer leaves than Big Bluestem. It is more drought tolerant and does best on medium and dry soils.

Per PLS lb.

CAVE IN ROCK SWITCHGRASS \$11.00

Tall variety (up to 6 feet tall) used in waterways and for wildlife nesting. Plant 4 lbs. per acre.

FORESTBURG SWITCHGRASS \$8.75

Shorter variety (3 to 5 feet tall) used for wildlife habitat or to control erosion. Winter hardy. Best suited to light or medium textured soils. Plant 4 lbs. per acre.

INDIANGRASS \$12.50

Medium sized grass that spreads by seeds as well as underground stems and grows 4-6 feet tall. It is quicker growing, drought tolerant and very nutritious and palatable.

SIDE OATS GRAMA \$10.00

Heads look like an oat seed and it adapts to a wide range of soils. Side Oats Grama has good spring vigor and easier establishment than other native grasses and grows to a maximum of 2 feet tall.

CANADA WILD RYE \$8.00

Perennial native species that grows 2-5 feet tall and is adaptive to varying soils. A great ground cover.



NATIVE GRASS & WILDFLOWER MIXES

MIDWEST WILDFLOWER MIX Per lb. \$30.00

Planting Rate:

Alone: 8-10 pounds per acre

Depth: 1/4"

Order CRP mixes early!

Per acre

CP2 MIX. ASK

CP25 MIX. ASK

CP33 MIX. ASK

OTHER CP MIXES. ASK

CP42 POLLINATOR MIXES. ASK

CP42 MONARCH MIXES. ASK

OATS

Oats are listed by their maturity (early to late). BYDV is an abbreviation for Barley Yellow Dwarf Virus. Most of our oats are in 1½ bushel size bags.

Planting Rate:

Grain Crop: 3 bushels per acre

Nurse Crop: 1-1 ½ bushels per acre

Depth: ½"-1"

CERTIFIED REINS OATS Per Bushel \$10.50

Early maturity, good lodging resistance, and moderately short plant height. Developed by the University of Illinois Agricultural Experiment Station in 2015. Good tolerance to BYDV and resistant to loose smut. Plump, tan kernels.

Grower reported 130 bushels per acre!

CERTIFIED SHELBY 427 OATS \$10.50

A recent release from South Dakota. Early, tall oat with superior yield, disease resistance, standability, and test weight.

CERTIFIED HORSEPOWER OATS \$10.50

Short oat with early to medium maturity and excellent yield potential. This white hulled oat has excellent crown rust resistance, average test weight, and a moderate resistance to smut and BYDV. Released in 2011 by South Dakota.

INO9201 OATS \$10.00

INO9201's are a short, high yielding variety with resistance to BYDV.

NON-CERTIFIED JERRY OATS \$9.50

Medium-tall, medium maturing oat with high test weight, groat percent, and whole oat protein. Jerry has medium high protein, is moderately susceptible to BYDV and crown rust, and is moderately resistant to stem rust.

CERTIFIED HAYDEN OATS \$10.50

A medium maturing oat with excellent yield potential, medium plant height, and high test weight. Resistant to smut and moderately resistant to BYDV. A white oat released in 2014 by SDSU.

CERTIFIED DEON OATS \$10.50

Late season, consistently high yielding variety released by the Minnesota Agricultural Experiment Station in 2014. Deon is a yellow seeded oat with medium large size kernels. Deon is medium tall, has very stiff straw and very good resistance to lodging. Resistant to smut and moderately resistant to crown rust and BYDV. Good test weight and medium grain protein percentages.

CERTIFIED GOLIATH OATS \$10.50

Goliath is a forage oat that is very tall & late maturing. Excellent forage yields.

MISCELLANEOUS GRAINS

ROBUST SPRING BARLEY ... 48 lb. bag Per bu. \$13.50

An earlier 6 row barley with med-tall height, good test weight and yield. Plant 2 bushels per acre.

WINTER RYE 56 lb. bag Per bu. \$15.00

Excellent cover crop - builds organic matter, prevents erosion and suppresses weeds. High tonnage forage. Plant 1½-2 bushels per acre.



CERTIFIED FOREFRONT HARD RED

SPRING WHEAT 60 lb. bag Per bu. \$17.50

An early maturing spring wheat with excellent test weight and high protein. Moderate resistance to leaf rust and stem rust. Good milling qualities. Plant 2 bushels per acre.



CERTIFIED THOMPSON HARD RED

WINTER WHEAT 60 lb. bag Per bu. \$17.50

A medium to later maturing winter wheat with good winter hardiness and resistance to lodging. Released in 2017. Resistant to leaf rust and moderately resistant to Fusarium head blight. Plant 2 bushels per acre.

LIMAGRAIN L334 BRAND SOFT RED

WINTER WHEAT Per 50 lb. bag \$14.00

A mid season soft red winter wheat with excellent yield potential and disease resistance. Good standability, test weight, and winter hardiness. Beardless. Shorter plant with excellent straw strength. Plant 100-120 pounds per acre.

BUCKWHEAT Per 50 lb. bag \$36.00

Use for green manure, cover crop, and weed suppression.

SPRING TRITICALE Per 50 lb. bag \$17.25

High quality cross between winter rye and spring wheat.



TRICAL® 719 WINTER TRITICALE .. Per 50 lb. bag \$21.00

Excellent forage triticale with high yield and good silage quality. Awnletted with reduced beard length. Harvest at early boot stage. Plant 75-90 lbs. per acre.



FORAGE FX 1001

WINTER TRITICALE Per 50 lb. bag \$21.00

Consistent high forage yields with excellent winter hardiness. Early maturity. Nearly awnless variety as 97% of plants are completely awnless. Plant 75-90 lbs. per acre.

AUSTRIAN WINTER PEAS Per 50 lb. bag \$40.00

Austrian winter peas are used extensively as a cover crop and can produce 60 to 120 pounds of nitrogen per acre. Able to withstand temperatures as low as 10°, but do not overwinter consistently. Plant 50-75 lbs. per acre. Inoculant recommended.



SURVIVOR WINTER PEAS Per 50 lb. bag \$42.00

A winter pea bred for advanced cold tolerance. Superior in early spring green-up when compared to other varieties. Capable of fixing over 200 pounds of nitrogen per acre. Peas are one of the most efficient crops at producing biomass. Quick establishment helps suppress weeds. Plant 50-75 lbs. per acre. Inoculant recommended.

4010 FIELD PEAS Per 50 lb. bag \$24.00

Excellent forage variety, tall with large leaves. Great companion crop with small grains. Inoculant recommended.

COWPEAS Per 50 lb. bag \$59.00

Can produce 100-150 units of nitrogen per acre. Cowpeas thrive under hot, moist conditions. High protein and excellent for wildlife. Must be planted when soil temperature is 65° F. Plant 30-90 pounds per acre. Depth 1-2 inches deep. Inoculant recommended.

PEA-OATLAGE Per 50 lb. bag \$19.50
45% 4010 Field Peas & 55% Tall Forage Oats. Plant 90-120 lbs. per acre.

PEA-TRITLAGE Per 50 lb. bag \$21.50
45% 4010 Field peas & 55% Spring Triticale. Plant 90-120 lbs. per acre.

SUCCOTASH Per 50 lb. bag \$14.75
33.3% Early Wheat, 33.3% Spring Barley & 33.3% Oats. Plant 100 lbs. per acre.

SOYBEAN-MILO MIX Per 50 lb. bag \$22.00
A mix of Milo & a Group 3 soybean used primarily for haylage or silage. 89% soybeans, 11% milo. Plant 120-150 lbs. per acre.

SOYBEANS

Welter Seed Soybeans

WS2398 BRAND CONVENTIONAL 140M per bag
NON-GMO SOYBEANS NT \$34.00
2.3 maturity soybean with strong yields and high protein. Bushy plant type to go along with a medium height. Yellow hilum so potential food grade option. Carries Phytophthora and SCN resistant genes.

WS2643 BRAND CONVENTIONAL
NON-GMO SOYBEANS NT \$34.00
2.6 maturity soybean with medium tall height and mid-bush canopy. Gray hilum and SCN resistance. Nice yielding variety.

WS3025 BRAND CONVENTIONAL
NON-GMO SOYBEANS NT \$34.00
3.0 maturity medium tall mid-bush canopy soybean with a brown hilum. High yielding variety that should be kept off tight soils. Carries SCN resistance.

Why are we excited for ENLIST Soybeans?

The flexibility ENLIST provides growers is unprecedented with the ability to spray Roundup, Liberty, and 2,4-D. Labeled through the R2 stage. Ultra-low volatility, easier sprayer clean out with reduced buffer restrictions make it easier to work with than the competing stacked trait platform.

Mycogen ENLIST Soybeans (2,4-D, Roundup, Liberty)

MYCOGEN MY209E
ENLIST SOYBEANS NT or T ASK
2.0 maturity, medium height, bushy bean widely adapted across all soil types. Solid SDS tolerance, SCN resistance, and IDC tolerance. Works well in no-till situations. Our #1 early maturity soybean option for high yields with good agronomics.

MYCOGEN MY259E
ENLIST SOYBEANS NT or T ASK
2.5 maturity, medium height, mid-bush bean that is SCN resistant. Solid against SDS and Phytophthora, but avoid fields known for White Mold. Good for early planting but want to avoid poorly drained ground. Stands well and works in no till.

MYCOGEN MY289E 140M per bag
ENLIST SOYBEANS NT or T ASK
2.8 maturity, medium height, mid-bush soybean that works across all soil types. Good overall disease tolerance except Brown Stem Rot and Phytophthora. A candidate for treated seed if planted early in wetter situations. Handles no-till well. SCN resistant.

MYCOGEN MY308E ENLIST SOYBEANS . NT or T ASK
3.0 maturity, medium height, mid-bush bean handles all soil types except high pH. Great choice in the later maturity. High yielding, works well in no-till situations. Excellent emergence. Strong disease package though White Mold may be a concern. SCN resistant.

More Mycogen soybean options available including RR2 and Liberty.

Merschman Soybeans

CHEYENNE 1920E ENLIST SOYBEANS . . NT or T ASK
2.0 maturity with strong emergence, handles stress well. SCN resistant. Good SDS tolerance, but watch out for White Mold. Medium tall height, mid-bush canopy.

MOHEGAN 2023E ENLIST SOYBEANS . . . NT or T ASK
2.3 maturity with strong emergence. SCN resistant. Medium-tall height, mid-bush. High yielding mid maturity bean. Good stress tolerance. No Phytophthora gene but decent tolerance.

APACHE 1926E ENLIST SOYBEANS NT or T ASK
2.6 maturity soybean with excellent emergence. Medium tall mid-bush plant type. Carries SCN resistance and good plant health characteristics. Average IDC scores, so keep off high pH. Nice yielding product that can handle in-season stress.

MOHAWK 1928E ENLIST SOYBEANS . . . NT or T ASK
2.8 maturity, medium tall, mid-bush plant type. Solid package of diseases and stress tolerances across the board other than an average SDS score. Strong emergence and standability. Widely adapted East to West. SCN resistant.



More Merschman Liberty GT27 product options available.

ALSO AVAILABLE:

**LG Seed Corn and Soybeans - GMO and Non-GMO
Prairie Hybrid Non-GMO Corn**

CORN

MYCOGEN MY12G35 RA Per 80,000 kernels
TRAITED CORN T 112 Day Maturity ASK
 Powercore with refuge blended in the bag. Tolerant to Roundup (RR) and Liberty (LL) herbicides. Semi-flex style ear, but Gray Leaf Spot (GLS) is a watch out for this hybrid. Fungicide is recommended during heavy GLS pressure. Can handle most soil types except poor fertility. Medium tall plant type with strong roots and stalks. Brings good test weight with a longer, more slender style ear.

MYCOGEN 2070 QROME
TRAITED CORN T 110 Day Maturity ASK
 With full export approvals we are offering Qrome for corn on corn acres. 2070 handles stress emergence, handles clays and hills with good all around agronomics. Medium tall height with higher ear placement. White cob with solid ear flex.

MYCOGEN 1937AM
TRAITED CORN T 109 Day Maturity ASK
 Above ground insect protection carrying Liberty and Roundup tolerance. Medium height hybrid with a semi-flex style ear. Gray Leaf Spot and Goss's Wilt are watchouts. Great option for sandy acres, but handles all soil types. Strong stress emergence scores, great for no till acres. Pairs great with 1830AML or MY08T25RA.

MYCOGEN 1890 QROME
TRAITED CORN T 108 Day Maturity ASK
 This hybrid is built for Eastern Iowa. It's broadly adapted to various soil types with excellent roots and stress emergence scores. Doesn't mind wet feet. Healthy plant type with low fungicide response. Shorter statured plant type with a semi-flex style ear. Good stay green. Strong 108 day option for corn on corn acres.

MYCOGEN 1490AM or QROME
TRAITED CORN T 104 Day Maturity ASK
 New 104 day option that is impressing in a big way this fall. We have a corn on corn or rotated ground option for this hybrid. Handles most soil types. Excellent drought tolerance from excellent roots. Not a great option for pushing planting date into cold, wet soils but can run with anybody yield-wise. Shorter plant type. Watch for Gray Leaf Spot in corn on corn.

MORE MYCOGEN PRODUCTS AVAILABLE

CONVENTIONAL CORN

Prairie Hybrids
Non-GMO NT or T ... per 80,000 kernels ASK

OPEN POLLINATED CORN

Reid Yellow Dent . NT 100-110 day per 50 lb. bag \$102.00
 Plant population 16,000-23,000

T=Treated NT=Non Treated

SWEET CORN

PEACHES 'N CREAM (Treated) 70-day bi-color . Per lb. \$13.50
TEMPTATION (Treated) 70-day bi-color Per lb. \$19.00
AMBROSIA (Treated) 75-day bi-color Per lb. \$14.75
BODACIOUS (Treated) 75-day yellow Per lb. \$14.50
SERENDIPITY (Treated) 82-day bi-color Per lb. \$15.75
JACKPOT (Treated) 84-day bi-color Per lb. \$14.75
INCREDIBLE (Treated) 85-day yellow Per lb. \$14.50
AMBROSIA (Untreated) 75-day bi-color Per lb. \$14.75
INCREDIBLE (Untreated) 85-day yellow Per lb. \$14.50

INOCULANT

ALFALFA/CLOVER (Pre-Vail) . . OMRI 100 lb. size \$9.36
BIRDSFOOT TREFOIL (N-Dure) 50 lb. size \$7.75
CROWNVETCH (N-Dure) 50 lb. size \$8.85
PEA/VETCH (N-Dure) OMRI 100 lb. size \$6.60
PEA/VETCH (N-Dure) OMRI 1500 lb. size \$25.30
SOYBEAN (Dry) (N-Dure) OMRI 6-unit size \$6.80
SOYBEAN (Dry) (N-Dure) OMRI 30-unit size \$28.60
SOYBEAN (Liquid) (N-Take) 50-unit size \$90.00
SAINFOIN (N-Dure) 100 lb. size \$10.22
COWPEA/PEANUT (N-Dure) OMRI 100 lb. size \$6.60

DIATOMACEOUS EARTH & KELP MEAL

Per 50 lb. bag

DIATOMACEOUS EARTH \$26.00
 Also known as Diatom Shell Flour; DE is a mineral compound mined from old lake beds used by organic growers as an animal feed supplement and for insect and parasite control. Approved for organic use.

ORGANIC KELP MEAL \$54.00
 A natural feed additive that contains in excess of 60 minerals, more than 12 vitamins, and all essential amino acids.



CERTIFIED ORGANIC SEED



- Organic seed sold only in full bags
- No returns on organic seed

ORGANIC ALFALFA

Preinoculated with **OMRI** inoculants & coatings

Planting Rate:

Alone: 15-20 lbs per acre

In a mix: 6-15 lbs per acre

Depth: 1/4" - 1/2"

Per 50 lb. bag

ORGANIC WS LEAFGUARD BRAND ALFALFA

(w/Apex™ Green) **OMRI** ASK

Excellent potato leaf hopper alfalfa with an excellent disease rating, exceptional forage quality and good winter hardiness.

Exhibits high resistance to potato leaf hopper.

DRI= 29/30 WSI=2.7 FD=3.5

ORGANIC GALAXY II BRAND

MULTILEAF ALFALFA ASK

Galaxy II Brand is an improved dark green, multileaf alfalfa bred for exceptional forage quality and higher yields. Galaxy II has a superior disease rating, good winter-hardiness and is an excellent choice for long rotations.

DRI=30/30 WSI=2.1 FD=4

ORGANIC 5301 MULTI-LEAF ALFALFA \$270.00

Multi 5301 is an exceptional, top rated multi-leaf alfalfa known for its yields, multi-foliate expression and high quality forage. Multi 5301 is an excellent choice for the dairy producer looking for increased feed value and the haymaker looking for persistence, plant health, and high yielding capabilities.

DRI=27/30 WSI=2 FD=4

ORGANIC VNS CREEPING ALFALFA \$256.00

An aggressive creeping alfalfa with excellent yield and superior winter hardiness. Quick recovery.

WSI=1.8 FD=2

ORGANIC ALLSTAR BRAND ALFALFA \$240.00

Improved, leafy alfalfa with excellent yields and longevity. Allstar is fine leafed and offers very fast recovery after cutting.

DRI=27/30 WSI=2 FD=3

ORGANIC VNS ALFALFA \$180.00

Northern type, very winter-hardy alfalfa with limited disease resistance. This alfalfa is an economical choice for short rotations or as a nitrogen producing plowdown.

WSI= 2.2 FD=2

ORGANIC CLOVER

Preinoculated with **OMRI** inoculants & coatings

Per 50 lb. bag

ORGANIC RED STAR BRAND RED CLOVER \$195.00

Excellent clover bred for longevity, maximum winter hardiness and maximum disease resistance. Red Star is adapted to all areas in the U.S. where medium red clovers are grown and should easily last for more than 3 years. Red Star has better recovery in the 2nd and 3rd cutting than other cultivars and makes an excellent companion crop with alfalfa, especially in lower lying soils that tend to be wet.

Planting Rate:

Alone: 15-20 lbs per acre

In a mix: 6-15 lbs per acre

Depth: 1/4"

Per 50 lb. bag

ORGANIC MEDIUM RED CLOVER \$185.00

Economical, fast establishing biennial legume often used as a soil builder or component in short term hay mixtures and can be grown on more acidic soils.

Planting Rate:

Alone: 12-15 lbs per acre

In a mix: 6-8 lbs per acre

Depth: 1/4"

ORGANIC ALTA SWEDE MAMMOTH

Per 50 lb. bag

RED CLOVER \$130.00

Tall, single cut clover used primarily for a plowdown. A single cutting of Alta Swede will give more biomass than other red clovers, but since recovery is slow it is not a good choice for multiple cuttings. Taller and coarser than other red clovers.

Planting Rate:

Alone: 10-12 lbs per acre

In a mix: 3-6 lbs per acre

Depth: 1/4"

ORGANIC RIVENDEL WHITE CLOVER

(w/Apex™ Green) **OMRI** Per lb. \$8.00

Small leafed, extremely winter hardy white clover with excellent disease resistance. Rivendel has short rhizomes, short leaf growth and a great tolerance to pasture grazing. Suitable for both cattle and sheep farming as it tolerates close grazing.

Planting Rate:

Alone: 2-4 lbs per acre

In a mix: 1-3 lbs per acre

Per 50 lb. bag



ORGANIC CRIMSON CLOVER ASK

A winter annual in the South and a spring/summer annual in the North. Crimson can establish a thick green crop by mid-winter in the South, fixing up to 125 units of nitrogen per acre.

Planting Rate:

Alone: 25-30 lbs per acre

In a mix: 10-15 lbs per acre

Depth: 1/2"

CERTIFIED ORGANIC SEED

Per 50 lb. bag

ORGANIC ALSIKE CLOVER \$190.00

Short lived, biennial clover used in pastures, hay mixes, wetland plantings and as a plowdown. Alsike is adaptive to climates or conditions that are poorly drained or experience temporary flooding.

Planting Rate:

Alone: 7-8 lbs per acre

In a mix: 1-3 lbs per acre

Depth: 1/4"

ORGANIC YELLOW BLOSSOM SWEET CLOVER ... \$100.00

Good soil building variety used for plowdown or as a nectar source for honey bees. Yellow blossom sweet clover grows on clay pan soils or on sand, tolerates low fertility and wet conditions, and survives drought about as well as alfalfa. Yellow Blossom is a biennial and should not bloom during the seedling year, but the following year it will flower, set seed and die.

Planting Rate:

Alone: 12-15 lbs per acre

In a mix: 2-6 lbs per acre

Depth: 1/4"

ORGANIC PLOWDOWN MIX \$140.00

Organic mixture of fast establishing nitrogen building clovers excellent for improving soil quality. Contains: 1/3 Organic Alta Swede Mammoth Red Clover 1/3 Organic Alsike Clover & 1/3 Organic Yellow Blossom Sweet Clover.

Planting Rate:

Alone: 12-15 lbs per acre

Depth: 1/4"

ORGANIC GRASSES

Per 50 lb. bag

NEW ORGANIC FLEET MEADOW BROMEGRASS \$248.00

Winter hardy variety with excellent regrowth after cutting. Fleet is leafier than smooth brome grass because it has more basal leaves, making it more palatable. An excellent variety for grazing or haymaking. Less aggressive than smooth brome, therefore maintains a better balance in alfalfa-grass mixes. **Limited Supply – Order Early!**

Planting Rate:

Alone: 15-25 lbs per acre

In a mix: 6-12 lbs per acre

Depth: 1/4"

NEW ORGANIC SMOOTH BROMEGRASS \$235.00

Sod forming grass used in both waterways and pastures.

ORGANIC NIVA ORCHARDGRASS \$255.00

Medium-Late heading orchardgrass with emphasis on disease resistance, winter-hardiness and dry matter yield. Niva is very conducive to wet spring fields and coincides well with maturity of alfalfa for producers who want a grass component without sacrificing forage quality. Excellent first cut yields, palatability and digestibility.

Planting Rate:

Alone: 10-15 lbs per acre

In a mix: 3-5 lbs per acre

Depth: 1/4"

Per 50 lb. bag

ORGANIC GULF ANNUAL RYEGRASS \$75.00

Economical, cool season annual can be used for cover cropping, nurse crop, emergency pasture, hay and soil building. Gulf is a westerwold type characterized by its high seedling vigor, palatability and abundant annual yield.

Planting Rate:

Alone: 25-35 lbs per acre

In a mix: 10-15 lbs per acre

Depth: 1/4"

ORGANIC STORM INTERMEDIATE RYEGRASS \$180.00

Storm is a late maturing, tetraploid hybrid ryegrass with wide adaptability, very high yields, quick establishment and strong disease resistance. Storm has excellent persistence and strong winter hardiness.

Planting Rate:

Alone: 25-40 lbs per acre

In a mix: 10-20 lbs per acre

Depth: 1/4"

NEW ORGANIC SOLID INTERMEDIATE RYEGRASS \$180.00

An intermediate maturing, highly digestible soft leaved ryegrass with high resistance to disease. A tetraploid with very high yields.

Planting Rate:

Alone: 25-40 lbs per acre

In a mix: 10-20 lbs per acre

Depth: 1/4"

ORGANIC PREMIUM DIPLOID

PERENNIAL RYEGRASS \$198.00

Intermediate maturing diploid perennial ryegrass with proven forage performance under both grazing and harvested forage management. Premium shows excellent persistence, good winter-hardiness and strong spring growth.

Planting Rate:

Alone: 25-40 lbs per acre

In a mix: 10-20 lbs per acre

Depth: 1/4"

ORGANIC CALIBRA TETRAPLOID

PERENNIAL RYEGRASS \$198.00

Intermediate maturing tetraploid perennial ryegrass that's proven to be very productive even in short growing seasons. Calibra is highly disease resistant with excellent winter hardiness and a high sugar content. Calibra's early production, strong regrowth and summer yields are exceptional.

Planting Rate:

Alone: 25-40 lbs per acre

In a mix: 10-20 lbs per acre

Depth: 1/4"

CERTIFIED ORGANIC SEED

Per 50 lb. bag

NEW ORGANIC PERSEUS FESTULOLIUM \$190.00

High yielding, persistent festulolium with increased summer performance and drought resistance. Perseus is a meadow fescue/Italian ryegrass cross. Consider Perseus when you need a fast-starting high forage-quality grass for hay or pasture. Can be used as a nurse crop when establishing with alfalfa; or inter-seeded into weak winter damaged stands.

Planting Rate:

Alone: 35-45 lbs per acre
In a mix: 15-20 lbs per acre with grass
2-3 lbs per acre with alfalfa
Depth: 1/4"

ORGANIC LAURA MEADOW FESCUE \$250.00

High yielding meadow fescue with very digestible dry matter in all cuts. Early spring growth habit and an early to medium heading date, Laura establishes very well with other grasses and is high yielding in the first cut, with good regrowth. Laura has a good disease rating and is winter hardy. Endophyte free.

Planting Rate:

Alone: 25-30 lbs per acre
In a mix: 8-15 lbs per acre
Depth: 1/4"

ORGANIC KORA TALL FESCUE \$250.00

Highly adaptive tall fescue variety for cutting and grazing. Kora is medium maturing and will not mature too early to ensure harvesting high quality hay. Kora is very cold and drought tolerant with very high, palatable yields. Endophyte free.

Planting Rate:

Alone: 20-25 lbs per acre
In a mix: 4-10 lbs per acre
5-8 lbs per acre with alfalfa
Depth: 1/4"

ORGANIC PASTURE MIX \$216.00

Superior, long lasting organic mix designed for pasture, silage or hay. Organic pasture mix is a blend of organic grasses that are high producing with good disease characteristics and digestibility. Very persistent due to the high percentage of orchardgrass and fescue.

20% Niva Orchardgrass
20% Fleet Meadow Bromegrass
20% Laura Meadow Fescue
20% Premium Perennial Ryegrass
10% Calibra Perennial Ryegrass
10% Timothy

New Formula

Planting Rate:

Alone: 35-40 lbs per acre
Depth: 1/4"

Per 50 lb. bag

ORGANIC CLIMAX TIMOTHY \$136.00

Economical, fine-stemmed timothy very compatible with legumes for hay or in pastures. Climax is late maturing, establishes cover quickly, and is very palatable for livestock. It is viewed as a premium hay for horses.

Planting Rate:

Alone: 8-10 lbs per acre
In a mix: 2-3 lbs per acre
Depth: 1/4"

ORGANIC DOLINA TIMOTHY \$165.00

Late heading timothy known for its high dry matter yields and excellent winter-hardiness. Dolina has a medium height and erect growth that produces a dense uniform cover.

Planting Rate:

Alone: 8-10 lbs per acre
In a mix: 2-3 lbs per acre
Depth: 1/4"

ORGANIC RADISH

ORGANIC DEEP TILL RADISH Per lb. \$3.50

Excellent cover crop that enhances and builds the soil while capturing important nutrients. Deep rooted radishes offer substantial forage, break up hardpan, and promote water infiltration.

Planting Rate:

Alone: 8-12 lbs per acre
In a mix: 1-8 lbs per acre
Depth: 1/4"



CERTIFIED ORGANIC SEED

ORGANIC SORGHUM & SORGHUM-SUDANGRASS

Per 50 lb. bag

NEW ORGANIC SWEET SIX BMR SORGHUM SUDANGRASS ORDER EARLY! ASK

Organic Brown Mid Rib Sorghum Sudan with a dry stalk making the plant more digestible, more palatable, higher in efficiency and quicker to drydown (8-10% lower moisture in boot stage) for hay, haylage, silage or greenchop. Excellent early vigor, very good recovery after cutting and a very good disease package. Gene 6.

Planting Rate:

Alone: 25-30 lbs per acre

Depth: 3/4"-1"

NEW ORGANIC WONDERGREEN SORGHUM SUDAN ORDER EARLY! \$72.00

Organic Wondergreen Sorghum Sudan is bred for its ability to produce high protein and tonnage. Known for its fast recovery and good standability. May be grazed in 30-45 days or when 20-25 inches tall. Can produce up to 3 cuttings with favorable conditions and timely planting.

Planting Rate:

Alone: 25-30 lbs per acre

Depth: 3/4"-1"

NEW ORGANIC GW-400 BMR FORAGE SORGHUM ORDER EARLY! ASK

Organic Brown Mid Rib Forage Sorghum with high yields and improved digestibility for improved animal performance, better weight gains and higher milk production. Excellent palatability and digestibility. Suitable for hay and silage. One cut harvest at early heading stage (80-85 days). Gene 6.

Planting Rate:

Alone: 12-15 lbs per acre

Depth: 1"

ORGANIC VETCH

Per 50 lb. bag

ORGANIC HAIRY VETCH \$124.00

Vigorous organic winter annual legume, commonly planted in late summer with or without rye or other grains. Spring regrowth is robust and hairy vetch will produce a large amount of nitrogen (100-120#/Acre). Hairy Vetch has a prostrate plant vine with purple flowers.

Planting Rate:

Alone: 40 lbs per acre

25 lbs per acre with rye

Depth: 1 1/2"-2"

ORGANIC AC GREENFIX CHICKLING VETCH ASK

An annual legume used to increase nitrogen and soil fertility. Plant 50-60 lbs. per acre.

ORGANIC OATS

Planting Rate:

Grain crop: 3 bu per acre

Nurse/cover crop: 1-1 1/2 bu per acre

Depth: 1/2"-1"

ORGANIC CERTIFIED REINS OATS Per bu. \$12.50

Early maturity, good lodging resistance, and moderately short plant height. Developed by the University of Illinois Agricultural Experiment Station. Good tolerance to BYDV and resistant to loose smut. Plump, tan kernels.

ORGANIC CERTIFIED SHELBY 427 OATS . . . Per bu. \$12.50

Early, tall, white hulled oat with great standability. Shelby 427 has high yields, test weight, and groat percentage. The disease ratings include resistance to smut, crown rust, and BYDV, and moderate resistance to stem rust. Excellent multi-purpose variety used for feed, straw, milling, or as a companion crop. Released in 2010 by South Dakota Ag Experiment Station.

NEW ORGANIC CERTIFIED WARRIOR OATS Per bu. \$12.50

A new white oat released in 2019. High yield potential and good test weight. Medium in maturity and height with excellent straw strength.

ORGANIC N/C JERRY OATS Per bu. \$12.00

Very popular medium-late maturing, medium-tall oat with good grain and forage capabilities. Jerry oats have high test weight, groat percentage and whole oat protein and are moderately resistant to stem rust, moderately susceptible to BYDV and crown rust.

NEW ORGANIC AC MORGAN OATS Per bu. \$12.00

A high yielding milling oat with medium maturity. Tall plant with excellent lodging resistance.

ORGANIC CERTIFIED DEON OATS Per bu. \$12.50

Late season, consistently high yielding variety released by the Minnesota Agricultural Experiment Station. Deon is a yellow seeded oat with medium large size kernels. Deon is medium tall and has very stiff straw and very good resistance to lodging. Resistant to smut, moderately resistant to crown rust and BYDV. Good test weight and medium grain protein percentages.

ORGANIC WHEAT

Planting Rate:

Grain crop: 2 bu per acre

Nurse/cover crop: 1-1 1/2 bu per acre

Depth: 1"-2"

ORGANIC ND VITPRO HARD RED

SPRING WHEAT

Per 50 lb. bag \$29.00

ND VitPro is a medium-early maturing hard red spring wheat with high test weight, and high grain protein. Released in 2017. Outstanding milling quality and good straw strength.

ORGANIC WESLEY HARD RED

WINTER WHEAT

Per 60 lb. bag ASK

Early maturing, short variety with excellent straw strength. Tolerant to stripe rust.

CERTIFIED ORGANIC SEED

NEW ORGANIC LIMAGRAIN H48 HARD RED WINTER WHEAT Per 50 lb. bag ASK
A new release with exceptional yields. Limagrain H48 is an early short hard red winter wheat with high resistance to Soilborne Mosaic Virus, stripe rust, stem rust, Barley Yellow Dwarf Virus, and Septoria leaf blotch.

NEW ORGANIC LIMAGRAIN S114 SOFT RED WINTER WHEAT Per 50 lb. bag ASK
Limagrain S114 soft red winter wheat is a new Limagrain release exhibiting improved yield potential and has been in the top tier of the Upper Midwest trials for yield. A very early wheat with excellent disease resistance and high test weight. Produces an outstanding straw yield with very bright straw.

ORGANIC LIMAGRAIN L334 BRAND SOFT RED WINTER WHEAT Per 50 lb. bag \$17.75
Limagrain L334 is a popular, newer mid-season release with phenomenal yield potential, great standability and improved winter-hardiness over other varieties. In Illinois performance trials this awnless variety has beat the competition by outyielding other varieties by 10 bushels/acre or more! Most of the yield increase is due to its superior disease package led by excellent resistance to stripe rust and glume blotch, and very good tolerance to BYDV, powdery mildew and Septoria leaf blotch.

ORGANIC PEAS/PEA MIXES

Per 50 lb. bag

ORGANIC 4010 PEAS \$28.00
Very popular tall, high producing forage pea variety with large leaves and high productivity. 4010 peas offer highly palatable forage with superior forage quality and yield. 4010 peas are excellent when combined with oats or triticale for chopping. Inoculant recommended.

Planting Rate:
Alone: 80-100 lbs per acre
In a mix: 50-70 lbs per acre with grains
Depth: 1"-1½"

ORGANIC PEA OATLAGE \$23.75
Organic Pea Oatlage is a high yielding nutritious mix of 45% Organic 4010 peas and 55% Organic Oats selected for height and forage quality. Pea Oatlage offers farmers a high producing, high feed value forage that is economical and extremely palatable. A favorite with dairy producers when chopped.

Planting Rate:
Alone: 90-120 lbs per acre
Depth: 1"-1½"

ORGANIC PEA TRITLAGE \$27.50
Organic Pea Tritlage is a very nutritious mix of 45% Organic 4010 Field Peas and 55% Organic Spring Triticale. Organic Pea Tritlage is later in maturity and higher in protein due to the leafiness of the triticale. Pea Triticale is a very popular mix due to its high feed value and versatility. A favorite with dairy producers who want nutritious haylage.

Per 50 lb. bag

ORGANIC AUSTRIAN WINTER PEAS ASK
Extremely popular, highly nutritious winter pea for a variety of plantings-great for forage, silage and green manure. Can produce 60 to 120 pounds of nitrogen per acre. Able to withstand temperatures as low as 10°, but do not overwinter consistently. Inoculant recommended.

Planting Rate:
Alone: 50-75 lbs per acre
Depth: 1½"-3"

NEW ORGANIC SURVIVOR WINTER PEAS ASK
A winter pea bred for advanced cold tolerance. Superior in early spring green-up when compared to other varieties. Capable of fixing over 200 pounds of nitrogen per acre. Peas are one of the most efficient crops at producing biomass. Quick establishment helps suppress weeds.

ORGANIC CERTIFIED MONTECH 4193 YELLOW GRAIN PEAS \$30.00
High yielding yellow grain pea with an erect growth habit for excellent harvestability. Medium maturity with high yield potential for grain. Inoculant recommended.

Planting Rate:
Alone: 180 lbs per acre
70-100 lbs per acre with small grains
Depth: 1½"-3"

ORGANIC BARLEY

Planting Rate:
Alone: 2 bu per acre
Depth: 1"-1½"

ORGANIC ROBUST SPRING BARLEY 48 lb. bag \$21.00
Early maturing, fast growing 6 row spring barley that has consistently demonstrated high yields, good lodging scores and is known for its plump kernels. Robust has semi-smooth awns and is mainly used as a malting barley, for straw and for feed.

NEW ORGANIC HAYES FORAGE SPRING BARLEY 48 lb. bag \$21.00
Hayes is a high tillering, two-row, medium-tall variety with outstanding high quality forage yield potential. Used primarily for hay and forage. Hayes is a beardless variety which makes it more palatable than bearded varieties.

NEW ORGANIC HAXBY SPRING BARLEY 48 lb. bag \$21.00
Haxby is a two-row feed barley developed in Montana. It is medium in height and maturity and has superior performance in low moisture conditions. Haxby has consistently exhibited a high test weight.

CERTIFIED ORGANIC SEED

MISCELLANEOUS ORGANIC GRAINS

ORGANIC WINTER RYE 56 lb. bag Per bu. \$18.50
Quick growing, very winter hardy cereal grain seeded in the fall. Produces high tonnage and can be grazed going into fall and can be grazed, chopped, or used for green manure in the spring. Excellent cover crop – builds organic matter, prevents erosion, and suppresses weeds.

Planting Rate:

Alone: 1½-2 bu per acre
Depth: 1"-1½"

NEW ORGANIC AROOSTOOK

WINTER RYE 56 lb. bag Per bu. \$20.00
An earlier maturing rye, thus a good choice for rolling.

ORGANIC SPRING TRITICALE Per 50 lb. bag \$26.00
High in crude protein and relative feed value with excellent digestibility. Great companion in pea mixtures.

Planting Rate:

Alone: 100-120 lbs per acre
Depth: 1"-1½"

ORGANIC WINTER TRITICALE Per 50 lb. bag \$23.00
Winter Triticale provides high yielding, superior forage that is highly palatable. High protein value.

Planting Rate:

Alone: 100-120 lbs per acre
Depth: 1"-1½"

Per 50 lb. bag
ORGANIC BUCKWHEAT \$44.00
Fast growing, warm-season annual. Used for green manure, weed suppression, bee attractant, and loosens up top soil. Plant in late May through July. Buckwheat blooms in 35-45 days, reaches full seed maturity in 65-80 days. Grows 2-5 feet tall. Turn under in bloom stage to avoid reseeding.

Planting Rate:

Alone: 50-60 lbs per acre
60-90 lbs per acre for green manure
Depth: ½"-1½"

ORGANIC SOYBEANS

ORGANIC eMERGE 289 SOYBEANS. 140M \$45.00
Tall, bushy type soybean with a 2.8 maturity. Black hilum. Handles stress well and has an excellent tolerance to SDS. A proven performer across a wide range of conditions.

ORGANIC CORN

Per 80,000 kernels
NEW **ORGANIC WELTER SEED WS9319 BRAND CORN** 93 day . . . \$198.00
ORGANIC WELTER SEED WS095 BRAND CORN 94-95 day . . . \$198.00
ORGANIC WELTER SEED WS2260 BRAND CORN 102 day . . . \$198.00
ORGANIC WELTER SEED WS2482 BRAND CORN 104 day . . . \$198.00
ORGANIC WELTER SEED WS4816 BRAND CORN 108 day . . . \$198.00
ORGANIC PRAIRIE HYBRID CORN \$262.00

ORGANIC CORN

	PH0371	WS9319	WS095	PH621	PH1231	WS2260	PH2741	WS2482	PH3081	PH4211	WS4816	PH5351	PH6341	PH7861
Maturity	92 day	93 day	94-95 day	94 day	100 day	102 day	102 day	104 day	104 day	106 day	108 day	109 day	111 day	112 day
Test Weight	9	7	8.5	8	8	7	7.5	7.5	9	7	7.5	8	7	9
Emergence	10	8	8	8	8	8	8	8	7	8	8	8	8	8
Early Vigor	10	8	9	8	7	8	7	7	6	8	8	8	7	8
Drought Tolerance	8	9	7	8	7	8	8	7	8	7	8	8	8	9
Stalk Quality	8	8	8	8	7	7	7	8	8	8	9	9	8	9
Plant Health	8	8	7	7.5	6	7	8	8	8	7	8	8.5	9	9
Root Strength	8	7	8	7	8	9	8	7	8	9	7	8	9	8
Stalk Strength	8	7	7	8	7	7	7	8	8	7	8	9	8	8
Dry Down	9	7	7	6	6	8	7	7	8	7	7	6	7	8
Ear Retention	8	8	9	8	8	9	8	9	9	8	9	8	7	8
Plant Height	MT	MT	M	MT	MT	MT	MT	MT	MT	M	MT	M	M	MT
Ear Height	M	M	M	M	M	M	M	MH	M	M	M	M	M	MH
Ear Flex	Flex	Flex	Semi	Flex	Flex	Flex	Semi	Flex	Flex	Flex	Flex	Semi	Semi	Flex
Silage Application	8	8	6	9	6	8	7	8	8	6	8	7	7	8
Pop. In Good Soil	29-33	28-32	28-32	29-33	29-33	28-32	30-33	29-33	29-33	29-33	28-32	30-34	29-33	29-33
Cob Color	P	R	P	W	R	W	R	P	W	P	R	W	P	P

Scale: 10 = Excellent, 1 = Poor

Our organic and conventional corn and beans have not been produced using genetic engineering, however we cannot guarantee them to be 100% free of GMO's. The purchase of organic and conventional seed does not guarantee the grain will be marketable as a non-GMO product due to possible contamination from outside sources.



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N-Vest® Crimson Cover-All Mix \$84.50

Mixture containing Crimson Clover and GroundHog Radishes

- Produces and scavenges nitrogen
- Crimson Clover can produce up to 140 units of N/Acre
- GroundHog Radishes can scavenge 130 units of N/Acre
- Plant 17-20 lbs. per acre.

N-Vest® Forager Mix \$23.00

Mixture containing Oats, Winter Rye, and Appin Turnips

- Excellent choice for aerial application into standing row crops.
- Ideal for grazing in winter and spring with 3.5 lbs. per day weight gain on cattle
- Scavenges nitrogen
- Plant 105 lbs. per acre.

N-Vest® NutriBuilder Mix \$67.00

Mixture of cold tolerant Annual Ryegrass, Crimson Clover, and GroundHog Radish

- Produces nitrogen up to 60-100 units of N/Acre
- GroundHog Radishes can scavenge 130 units of N/Acre
- Annual Ryegrass can scavenge 300 units of N/Acre
- Plant 21 lbs. per acre.

N-Vest® Groundbreaker Mix \$57.00

Mixture containing Austrian Winter Peas and GroundHog Radishes

- Ground aeration and alleviates soil compaction
- Peas can produce up to 120 units of N/Acre
- GroundHog Radishes can scavenge up to 130 units of N/Acre
- Suppresses weeds and increases row crop yields
- Plant 35 lbs. per acre.

Plant from July to early September

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