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Mission Statement

Agassiz Seed & Supply and its employees will provide our customers the quality products they expect, at a competitive price, while delivering service that exceeds expectations.

Product Commitment

Agassiz Seed & Supply has developed a product line specifically suited for the Upper Midwest. Our business is located here, we live here, and we know what it means to have products that will perform for you in this environment.







About Us

Agassiz Seed & Supply, a wholesale agricultural distribution company founded in 1985, has grown steadily over the past 38 years. In that time, we have added several new product lines, including sweet corn, forage harvest supplies, DOT seed, and erosion control products. We have grown from three employees in a single location, servicing North Dakota, Minnesota, and South Dakota, to more than 45 employees in four locations that service the additional geography of Wisconsin, Iowa, Nebraska, and Montana. The customer comes first at Agassiz Seed & Supply; our main objective is to promote long-term, successful partnerships which help our customers and vendors grow their respective businesses. Agassiz Seed & Supply would like to take this opportunity to thank our customers, suppliers and employees for their support over the past 38 years.

In this guide, we have highlighted the most popular products for each category. Please contact us or refer to agassizseed.com for a more complete listing of products we have on hand.

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Mega-Ton™ Brand Alfalfa

This showy dark green variety is the next generation of alfalfas showing outstanding forage yield and quality. Mega-ton delivers stronger early seedling growth and rapid recovery after each cutting. The high leaf-to-stem ratio and multi-foliate expression allows this variety to produce more tons per acre than other varieties. Mega-ton was selected for its forage yield quality, stand persistence, and its high resistance to all major diseases.

Maxi-Ton Pro™ Brand Alfalfa

For the most progressive alfalfa growers, our proprietary Maxi-Ton Pro stands above the rest. It is an extremely high-yielding variety with the fastest re-growth potential in our alfalfa portfolio. The opportunity for additional cuttings, coupled with an impressive disease package and very fine stem, makes this the best choice for producing a profitable forage.

Versa-Ton[™] Brand Alfalfa

For those producers needing a mixture of the top of the line varieties, Versa-Ton Brand Alfalfa is for them. This blend offers the best and highest yielding proprietary alfalfas in our lineup. A combination of our high yielding Maxi-Ton and Mega-Ton Alfalfas, the salt tolerance of Barricade II Alfalfa, the sunken crown and prostrate growth of Foothold Alfalfa and the branch rooted trait of Shockwave BR; this blend will perform under nearly any conditions. Versa-Ton also provides a top quality disease package and rapid recovery after cutting. A must have for the progressive alfalfa grower.

For-Max[™] Brand Alfalfa

For-Max Brand Alfalfa is a high-yielding, winter hardy blend of proprietary alfalfas adapted specifically to the Northern Great Plains. The large leaf matter delivered from the For-Max product makes this option an extremely high-quality, palatable forage. With an excellent disease rating, this product will produce powerful tonnage in a variety of environments.

Bail-King[™] Brand Alfalfa

Bail-King is a blend of public and proprietary alfalfa varieties developed for planting flexibility, quality, extra tonnage and profitability. A tough, medium-range alfalfa blend that features extra root mass, great winter hardiness and an adaptability to a wide range of soil types.

Shockwave BR Alfalfa

Shockwave BR combines an excellent disease package and a branch rooted trait to deliver outstanding performance under those higher water growing conditions. The branch root of Shockwave BR allows more of the root system to grow above the water table which gives this variety better resistance to heaving pressure created by freeze-thaw cycles. This feature, along with its high forage production, makes this a great variety under varied growing conditions.

Barricade II Alfalfa

Barricade II is the next generation of salt tolerant alfalfa and replaces Barricade SLT. This variety was selected for both improved germination and forage production under high salinity conditions. This variety will allow producers to improve production and profits while utilizing all the acres available to them. Barricade Il will also produce high yields on normal soils. The ability to grow under most any soil conditions, a complete disease package and excellent winter hardiness will allow for maximum production during the life of the stand of this variety.

Foothold Alfalfa

This long-lived alfalfa was bred for its oversized and deep-set crown, making it more tolerant to field traffic. Foothold is great at filling in unseeded and bare ground due to its spreading ability and prostrate growth pattern. Its high disease resistance along with its strong persistence and winter hardiness will provide for longer productivity compared to other varieties.

Multi-F-2™ Brand Alfalfa

An alfalfa with high multi-foliate leaf expression, this product features a great leaf-to-stem ratio, which should allow for better palatability and digestibility as a quality forage. With a solid disease package and great yield capacity, Multi-F-2 will prove to be a solid option for producing a high-quality forage.

AFX 463-RR Brand Roundup Ready® Alfalfa

This new Roundup Ready® alfalfa variety is a high-yielding, winter hardy variety with a solid disease package. It will perform well across multiple growing regions including areas prone to stem nematode pressure. Weed control with glyphosate herbicides helps improve establishment success and first year yield potential compared to conventional varieties.

AFX 455-HVX Brand HarvXtra® Alfalfa

The AFX 455-HVX Brand HarvXtra® Alfalfa variety can be used to produce some of the highest quality alfalfa forage in the industry. It's winter hardiness and strong disease resistance provides this variety with high yield potentials across multiple growing environments. The weed control with glyphosate herbicides and the ability to delay cutting for 7-10 days allows for easier management and more flexibility than conventional alfalfa varieties.

Public alfalfa varieties available:

Algonquin • Ranger • Vernal • Ladak • Travois



Comparison Chart

V ariety/Brand	Fall Dormancy	Winter Hardiness	Phytophthora Root Rot	Verticillium	Anthracnose	Bacterial Wilt	Fusarium	Aphanomyces Race 1	Aphanomyces Race 2
Mega-Ton™	3.0	1.4	HR	HR	HR	HR	HR	HR	HR
Maxi-Ton Pro™	4.0	1.4	HR	HR	HR	HR	HR	HR	R
Versa-Ton™	4.0	1.6	HR	HR	HR	HR	HR	HR	R
For-Max [™]	4.0	1.6	HR	HR	HR	HR	HR	HR	R
Bail-King™	2.5	1.8	MS	MS	MS	R	MR	S	-
Shockwave BR	4.0	1.4	HR	HR	HR	HR	HR	HR	R
Barricade II	4.0	1.9	HR	HR	HR	HR	HR	HR	MR
Foothold	2.0	1.7	HR	HR	HR	HR	HR	HR	R
Multi-F-2™	4.0	1.8	HR	HR	HR	HR	HR	HR	R
Algonquin	2.0	2.0	S	S	S	HR	R	S	-
Ranger	3.0	1.0	S	S	S	MR	MR	S	-
Vernal	2.0	1.0	s	s	MS	HR	R	s	-
Ladak	2.0	1.0	S	S	S	MR	MR	s	-
AFX 463-RR	4.0	2.0	HR	HR	HR	HR	HR	R	R
AFX 455-HVX	4.0	2.0	R	HR	HR	HR	HR	HR	R



Annual Clovers & Other Legumes

Frosty Berseem Clover

Frosty Berseem Clover is a cool season, annual legume that can be used in mixtures with other legumes and grasses in pasture or hay situations. It is a non-bloating legume that is synergistic with alfalfa for new stands or seeding into existing alfalfa stands. It can improve the quality and yield of forage and create substantial quantities of nitrogen to improve soil health and provide needed nitrogen for subsequent crops. Frosty is approximately 45 days later in maturity than crimson clover, allowing for multiple cuttings and grazing.

Kentucky Pride Crimson Clover

Kentucky Pride Crimson Clover is an annual clover used mostly as a cover crop for nitrogen fixing and biomass production. Its ability to continually grow under cooler conditions allows for greater production into the fall than other clovers. Added to a grass mixture, Kentucky Pride Crimson Clover will provide needed biomass for grazing or hay production. Because of its shade tolerance, it can also be interseeded into standing corn to provide ground cover and weed suppression.

FIXatioN Balansa Clover

Fixation Balansa Clover is a cool season, annual legume that can serve as a good alternative in multiple cropping scenarios. It has shown to survive winter temperatures as low as 5 degrees Fahrenheit with yield potential as high as 5,250 lbs. in a single cutting. It aggressively produces forage in the spring through early summer months and can grow up to 3 feet high with stems up to 8 feet long. It can withstand multiple cuttings and grazing and attracts beneficial insects and pollinators. This variety should be dormant seeded in northern climates to achieve maximum yield advantages.

Mammoth Red Clover

Mammoth Red Clover is a biennial legume, usually lasting 1-2 years. It grows taller than medium red clover and is 10-14 days later in maturity. It produces one cutting of hay per season due to slow plant recovery after cutting. Forage quality is lower than medium red clover with its primary use being green manure or as an annual cover crop. Mammoth red clover tends to grow better on poorer soils and higher pH soils than medium red clover.

Common Vetch

Common Vetch is an annual legume used mostly in cover crop mixes as a nitrogen scavenger and for green manure. It can also be used in pasture, silage and hay settings as it produces a large amount of dry matter per acre. It is less winter hardy than hairy vetch and has less hard seed making it more appealing in cover crop mixes and planted as a monoculture. Best adapted to well drained, fertile soils and tolerates soil pH's of 5.5-8.2.

Hairy Vetch

Hairy Vetch is used extensively in the United States primarily as a cover crop and forage crop. It is used as an annual in the northern regions of the country and as a winter annual as you move south. When spring planted with grains it makes an excellent livestock feed. It is also a good nitrogen fixer and is used in mixtures for soil health improvement. Care must be taken as it can overwinter even in northern climates when snow cover is sufficient. Often, a large amount of hard seed is present that may cause problems for future cash crops.

Additional Legumes Available

- Arrowleaf Clover
- Berseem Clover
- Crimson Clover
- Chickling Vetch
- Phacelia
- Annual White Sweetclover
- Subterranean Clover
- · Organic Mammoth Red Clover





Perennial Clovers & Other Legumes

Dynamite Medium Red Clover

Dynamite Medium Red Clover is a biennial legume with excellent winter hardiness, lasting 3-4 years under good management practices. It reaches a height of 12 to 18 inches and is generally used in hay or pasture settings. It has rapid spring growth to allow for multiple cuttings and grazing and produces excellent forage quality with above average yields. This variety is moderately resistant to northern anthracnose and powdery mildew and has some shade tolerance allowing for use as a cover crop in corn.

Yellow Blossom Sweetclover

Yellow Blossom Sweetclover is a biennial sweetclover long known for its efficiency as a soil builder. It's vigorous tap root penetrates heavy soils to improve soil drainage and it is an excellent nutrient scavenger. It produces abundant biomass and is a great N-source when used as a green-manure crop. Yellow Blossom Sweetclover is unpalatable to some livestock due to coarse stem and bitter taste and it is not recommend for livestock feed and forage.

White Dutch Clover

White Dutch Clover is used mainly in lawns for ornamental purposes, but can be used as groundcover, for erosion control, as a pollinator or in pasture mixes. It is shallow rooted and spreads by creeping stems while growing to 3-6 inches tall. It grows best under cool, fertile, moist conditions, but is adaptable to acidic and poorly drained soils where alfalfa cannot survive.

Ladino Clover

Ladino White Clover is a giant white perennial clover growing to 10-14 inches tall in a prostate growth habit. Ladino recovers quickly from grazing or clipping as new leaf and flower buds are continually developing on the running stems. It does best on medium to heavy soils with good moisture however it tolerates poor conditions better than most other clovers. It is commonly grown in mixtures with grasses and ranks high in feed value and palatability and is used extensively in wildlife mixtures and in cover crop soil improvement mixtures.

Alsike Clover

Alsike Clover is an introduced, short-lived perennial legume that reaches heights up to 15-30 inches. It usually produces only one cut per year and is typically planted with grasses, most commonly timothy, orchardgrass, and bromegrass. It prefers wet soils and has tolerance to higher acidic and saline soils.

Sainfoin

Sainfoin is an introduced, non-bloating, perennial legume that should be used in a hay or pasture setting. High protein, high palatability and its drought tolerance make it a good choice for range improvement for livestock or wildlife. Typically grows taller and greens up earlier in the spring than alfalfa, and stays green. Sainfoin produces large amounts of nectar and is highly attractive to honey bees and is readily eaten by elk, deer and sage grouse.

Birdsfoot Trefoil

Birdsfoot Trefoil is a long lived, deep rooted, perennial legume similar to alfalfa and red clover. It is very winter hardy and drought tolerant with less bloat danger than alfalfa or most clovers when pastured. It is highly palatable and has feed value equal to alfalfa. It is slow to establish but is extremely persistent once established. Seed should be inoculated and planted early into a firm seedbed.

Cicer Milkvetch

Cicer Milkvetch is a long-lived non-bloating perennial legume with vigorous creeping roots and rhizomes. Its primary use is in hay or pasture setting for forage production. Yields and forage quality are similar or better compared to alfalfa and other legumes and it is palatable to most livestock and wildlife. Recovery from grazing is rapid but recovery from cutting is slow.

Additional Legumes Available

- White Blossom Sweetclover
- Strawberry Clover
- · Organic Medium Red Clover
- Organic Yellow Blossom Sweetclover
- Crown Vetch



Pasture & Specialty Mixtures

G-3 Pasture[™] Mix

This widely-adapted pasture mix contains a blend of cool season grasses that perform extremely well under a variety of conditions. G-3 shows drought tolerance, excellent palatability and high forage yield.

Sold in 25 lb. and 50 lb. bags Plant 12 to 15 lbs. per acre

Mix Formulation	
Meadow Bromegrass	30%
Intermediate Wheatgrass	30%
Crested Wheatgrass	30%
Tetraploid Ryegrass	

A-1 Pasture™ Mix

A-1 is similar to G-3 with the addition of creeping alfalfa for grazing purposes. It is an excellent all-around pasture mix, not recommended for horses.

Sold in 50 lb. bags Plant 12 to 15 lbs. per acre Mix Formulation

Meadow Bromegrass	25%
Intermediate Wheatgrass	25%
Crested Wheatgrass	25%
Spreading Alfalfa	15%
Tetraploid Ryegrass	10%

MN-G Pasture™ Mix

This grass blend responds well to higher rainfall and cooler temperature areas. The tall fescue and ryegrass give quick cover and maximum forage production early in the life of the stand. The balance of the mixture produces good quality and high forage yield for the life of the pasture.

Sold in 25 lb. and 50 lb. bags Plant 15 to 20 lbs. per acre

Mix Formulation

Meadow Bromegrass	30%
Orchardgrass	30%
Forage Tall Fescue	30%
Tetraploid Ryegrass	10%

MN-L Hay™ Mix

MN-L is an alfalfa based blend of legumes and grasses for hay production. Mix with MN-G or G-3 if higher percentage of grass is desired.

Sold in 50 lb. bags Plant 15 to 20 lbs. per acre

Mix Formulation Alfalfa 50% Red Clover 20% Timothy 20% Alsike Clover 10%

CHS #4 Pasture™ Mix ///

This is a low growing ornamental pasture mix ideal for horse pastures in urban areas. This aesthetically appealing mix is used as low maintenance turf on farms and acreages, both versatile and beautiful.

Sold in 25 lb. bags Plant 20 to 25 lbs. per acre

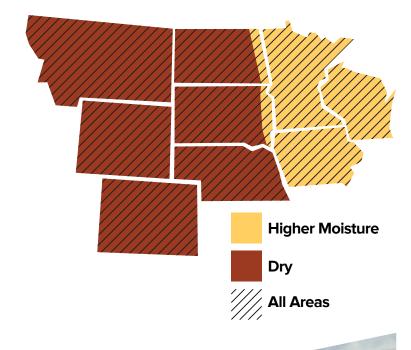
Mix Formulation

Forage Tall Fescue	40%
Tetraploid Ryegrass	
Timothy	
Kentucky Bluegrass	15%









Native Pasture[™] Mix ///

This mixture of northern adapted warm and cool season grasses has been specially selected for optimum forage yields from spring through fall. This unique mixture of native grasses is targeted for the specialty livestock market, and it performs equally well for domestic livestock production.

Sold in 25 lb. bags Plant 15 to 25 lbs. per acre

Mix Formulation

Western Wheatgrass	20%
Big Bluestem	
Green Needlegrass	15%
Indiangrass	
Sideoats Grama	
Little Bluestem	10%
Blue Grama	5%
Slender Wheatgrass	5%

Horse Pasture Mix ///

This is a "horse-friendly" mixture that provides an endophytefree pasture all season long. The species for this mix were selected to respond well to a variety of soil types and weather conditions and to the close grazing habits of horses. It is welladapted to the upper Midwest and will produce excellent forage for years to come.

Sold in 25 lb. bags Plant 20 to 25 lbs. per acre

Mix Formulation

Orchardgrass	30%
Tetraploid Ryegrass	
Meadow Bromegrass	
Forage Tall Fescue	
Timothy	
Kentucky Bluegrass	

Saline Area™ Mix ///

Used for either hay or grazing, this blend of native and introduced grasses will grow in those hard-to-establish areas. If a high water table and sour ground are problems, this mixture will do the job.

Sold in 50 lb. bags Plant 15 lbs. per acre

Mix Formulation

Western Wheatgrass	20%
Intermediate Wheatgrass	
AC Saltlander Wheatgrass	
Slender Wheatgrass	
Smooth Bromegrass	



Wildlife Mixtures

Bighorn Deer™ Mix

This blend of selected legumes and grasses is designed to provide optimum forage quality for deer. It should improve the health and production of deer populations, improve winter survival rates, attract deer to an area and allow for better spring conditions for deer.

Sold in 5 lb. bags Plant 10 lbs. per acre

Mix Formulation

Dwarf Essex Rapeseed	25%
Ladino Clover	
Medium Red Clover	20%
Vernal Alfalfa	
Frosty Berseem Clover	10%
Alsike Clover	5%
Forage Chicory	5%

Chicory Plus Wildlife Mix

This full season food plot mixture contains high protein and has excellent antler growing nutrition.

Sold in 5 lb. bags Plant 5 lbs. per acre

Mix Formulation

Forage Chicory	80%
Medium Red Clover	
Vernal Alfalfa	10%

Wildlife Brassica Mix

This mix is formulated for late season forage as leaves taste bitter until the first or second heavy frost. Leaves become sweet to animals who will consume them until early winter and graze on the bulbs.

Sold in 5 lb. bags Plant 5 lbs. per acre

Mix Formulation

Rut-King Hybrid Brassica	40%
Purple Top Turnip	
Forage King Brand Rape Seed	
Forage Radish	

Annual Food™ Mix

These species of annual crops provide a high-quality food source for various types of wildlife.

Sold in 25 lb. bags Plant 25 lbs. per acre

Mix Formulation

Hybrid Grain Sorghum	50%
Hybrid Sorghum Sudangrass	35%
Foxtail Millet	10%
Proso Millet	5%

Upland Game[™] Mix

This habitat mixture is a special selection of grasses and legumes designed to provide excellent cover for all upland game birds. For the sportsman, or the individual who enjoys feeding or watching wildlife, this is an excellent combination.

Sold in 25 lb. bags Plant 15-20 lbs. per acre

Mix Formulation

Tall Wheatgrass	60%
Intermediate Wheatgrass	
Alfalfa	
Sweetclover	

Additional Species Available for Custom Mixing

- Barley
- Berseem Clover
- Birdsfoot Trefoil
- Bonar Rape
- Corn
- Crimson Clover
- Faba Beans
- Hybrid Brassicas
- Hybrid Kale
- Millet

- Oats
- Peas
- Rye
- Sainfoin
- Soybean
- Sugar Beets
- Sunflower
- Triticale
- Winter Peas
- Winter Wheat







Agassiz Seed has a complete line of Sweet Corn including the Bt sweet corn varieties.

The Attribute II hybrid varieties provide broader spectrum protection from insect pests and are tolerant to glyphosate and glufosinate herbicides.

	Types	Categories/Varieties	Description	Data
0	SU	Normal: - Peaches & Cream-Early -Jubilee	Offer traditional old-fashioned corn flavor and require isolation from sh2 and synergistic sweet corns. The sugar will convert to starch more quickly than other types once mature.	9-16% Sugar
0	SE & SE+	Sugary Enhanced: - Ambrosia - Bodacious - Buttergold, - Incredible, - Kandy Korn, - Peaches & Cream - Mid - Trinity	Have a gene that increases tenderness and sweetness. Sweet, creamy and tender kernel with a longer harvest period. SE are hybrids that have SE and SU parents. Varieties designated SE+ have two SE parents resulting in increased sweetness. Sugary Enhanced varieties do not require isolation from SU sweet corn, but should be isolated from SH2	14-22% SE 20-28% SE+ Sugar
0	SH2	Super Sweet, Xtra Sweet, & Shrunken: - Northern Xtra-Sweet - Protector (Attribute II) - Sweetness	Have a 'shrunken' gene that enhances sweetness and produces kernels that are crisp and juicy. Holding qualities are excellent, up to 10 days longer than normal hybrids. Cross pollination between other corn will result in starchy kernels in both. 25 feet isolation min in gardens or 200 feet in acreage plantings. SH2 varieties generally do not have the germination vigor as other types of sweet corn. Planting depth is generally 1-1/4in compared to 1-1/2in. SH2 seeds need twice as much water absorption to germinate as other sweet corn.	28-44% Sugar
0	Synergistic	Se/Sh2, Quad Sweet, Triple Sweet: -Agassiz Sweet & Tender -BC 0805 (Attribute) -Honey Select -Milky Way (Attribute Plus) -Quick Trip (Attribute II) -Remedy (Attribute II) -Serendipity -Temptress	Excellent quality and flavor. Synergistic combines some of the characteristics of SH2 and SE sweet corn. Higher sugar than SE and more tender kernels than SH2. Blends the corn flavor and tenderness of SE with the higher sugar levels and keeping qualities of the SH2 types. Synergistic and SE varieties can be grown together, however; isolate from other SU and SH2 varieties or the result will be tough, starchy kernels for both.	22-36% Sugar

Isolation 🔘 🗨	Soil Temps	Soil Prep 👸	Pollination 💥
Sweet corn requires isolation from popcorn, ornamental and field corn. Timing can also achieve isolation. 10 days is recommended between either planting dates or maturity difference to minimize cross-pollination.	Avoid planting in soils below 60 degrees. Soil should be at least 65 degrees to ensure fast germination.	For strong, even emergence, prepare a smooth, adequately moist seed bed and plant about 1-1/2in deep. Moisture extremes should be avoided.	Place seeds in 6-7" spacing and arrange in blocks of at least 4 rows 30-36" apart to ensure proper pollination and well filled ears.



Native & Introduced Grasses

These species are used in both private and public projects including mine reclamation, pastures, landscaping, DOT, game and fish departments, DNR, CRP and many others. For over 38 years, we have specialized in custom mixing of seed to the specifications of each project with the best quality seed available from the required origin. We supply native grasses, introduced grasses, legumes and wildflowers. We remind you to use a reputable, experienced local supplier who will be there long after the sale is made.

The following are descriptions of a small number of the more popular species we stock. Please visit our website for a more extensive listing of the products we handle. We are also able to access many more species than we have listed on our website, and we would be happy to check on availability of any species.



Cool Season Grasses

A plant that is most productive during spring and slows growth or becomes dormant during the summer. Growth resumes in the fall with cool temperatures and moisture.

Meadow Bromegrass 🍪



This cool season, long-lived perennial, sod-former with short rhizomes reaches a height of two to four feet. It adapts to most sites, but it performs best on moderately deep, well-drained moist soils. Meadow Bromegrass provides excellent forage, and it is often used in blends with legumes and other grasses because of its ability to survive but not compete with them.

Smooth Bromegrass 🥸



This cool season, long-lived perennial, sod-forming grass grows two to four feet tall. Smooth Bromegrass spreads by creeping rhizomes and is one of the most productive, nutritious and palatable forage grasses in the north central states. It withstands hot, dry weather and has a long growing season.

Orchardgrass 65



This cool season, perennial bunchgrass reaches a height of two to three feet. For best results, it should be mixed with other grasses and legumes. It is sometimes used for hay purposes but is preferred for pastures when seeded in a mixture because of its early and late growth in the season. It seems to adapt itself to most types of soil, but it does better in heavy, rich soil. Although not as winter hardy as bromegrass, it will stand more heat, drought and low fertility, and it will make more summer growth.

Green Wheatgrass



A long-lived perennial grass with a moderate amount of vegetative spread developed as hybrid between quackgrass and bluebunch wheatgrass. It has demonstrated excellent salinity tolerance. Green Wheat Grass is superior in salt tolerance to Crested or Intermediate Wheatgrass, and similar to Tall Wheatgrass.

Warm Season Grasses

A plant which makes most or all of its growth during the late spring and summer, flowering in the summer or autumn.

Intermediate/Pubescent Wheatgrass



This cool season, tall, perennial, sod-forming grass with a vigorous root system is similar to that of bromegrass, which grows three to four feet tall. It is easy to establish, and growth starts in early spring. Though usually dormant during the dry, hot summer months, it resumes growth in the fall. This is a highyielding grass, which has generally adapted to the Northern Great Plains.

Tall Wheatgrass 🍪



Tall Wheatgrass is a hardy, drought tolerant perennial bunch type grass with coarse foliage. It is quite alkali tolerant and best adapted to low marshy and high water table areas. Tall wheatgrass is used widely in nesting mixtures and, to a lessor degree, in reclamation work.

Timothy 65



This is a cool season, short-lived, perennial bunchgrass. It is tall and late maturing. Timothy is valuable in pasture mixtures, but it is not suited for permanent pasture, except in combination with other grasses and legumes. It is an ideal grass to plant with Alsike Clover, and Timothy is adapted to a considerable range of soil conditions but is adversely affected by high acid soils.

Additional Grasses Available for Custom Mixing:

- Hard Fescue
- Forage Tall Fescue
- · Creeping Foxtail
- Crested Wheatgrass
- Siberian Wheatgrass
- Dahurian Wildrye
- Russian Wildrye
- Meadow Fescue
- Forage Perennial Ryegrass
- Italian Ryegrass



Native & Introduced Grasses

Big Bluestem 🥨



This warm season, perennial bunch grass grows to a height of three to eight feet. It has roots that permeate the top two feet of soil. Big Bluestem is adapted to moist, deep and well-drained soils. It is very palatable and nutritious. Big Bluestem, if continuously grazed closer than six to eight inches, will be replaced by less desirable grasses. It also works well in pure stands or mixed with other grasses. It is used extensively for nesting habitat and reclamation projects.

Little Bluestem



This warm season, leafy perennial grass grows to a height of one to three feet. It can be grazed and has good forage value when the leaves are tender. It does not cure well and has moderate palatability for fall or winter grazing. Little Bluestem is recommended in a mixture of warm season grasses for erosion control or summer pasture.

Indiangrass 🥨



This warm season grass spreads by seed and short rhizomes. It grows to a height of three to six feet and will grow on sandy soil. It is better adapted to moist, well-drained bottomlands. Indiangrass exhibits moderate salt tolerance and will withstand occasional flooding. It makes good quality hay and is found primarily in the tallgrass and mixed-grass prairies. Primary uses are in wildlife habitat, native range and pasture mixtures.

Blue Grama



This warm season, short tufted perennial of the mixed grass prairie is widely distributed on medium to heavy soils throughout the Dakotas and Minnesota. It has high drought tolerance on all soil types, and it reaches a height of 12 to 18 inches. It is primarily used in rangeland seed mixes, low maintenance turf areas and roadside.

Sideoats Grama 🤤



This warm season, erect native perennial grass grows in tufts and open bunches to a height of one to three feet. It is more tolerant to drought than Indiangrass or Big Bluestem. It grows fast in late spring and early summer and stays green late into the summer. Sideoats Grama has good forage value, and it is grazed mostly in late summer and fall. It is found primarily on poorly developed shallow soiled, steep slopes and ridgetops. Sideoats Grama's primary use is in grass mixtures for rangeland seeding. Its excellent seedling vigor allows rapid establishment.

Switchgrass



This warm season, perennial grass is often found growing in large clumps to a height of two to five feet. It is found primarily in the tall-grass prairie on good moisture sites and can stand flooding for short periods. Its primary use is in wildlife habitat plantings and in waterways. It has potential for summer pasture on good moisture sites, exhibits rapid growth in late spring and early summer and is readily grazed by livestock. It is high-yielding and produces best if cut early.

Western Wheatgrass



This is a native, cool season, sod-forming, perennial grass, which reproduces from underground rhizomes and seeds. Western Wheatgrass spreads rapidly and forms a dense sod, making it valuable for erosion control. It produces nutritious forage early in the season that is readily eaten by livestock until late summer when it becomes harsh and fibrous. Western Wheatgrass makes good quality hay if cut during the late bloom. It will do well on a wide range of soils and is tolerant to alkali.

Slender Wheatgrass



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

Green Needlegrass 🐯



This cool season, perennial bunch type grass grows from one and a half to three feet tall. It is a native grass, which grows in medium to fine textured soils. Green Needlegrass starts growth early in the spring and is nutritious, palatable and remains green throughout the year. Stand establishment may be slow because of high dormant seed percentage.

Additional Grasses Available for Custom Mixing:

- Buffalograss
- Prairie Cordgrass
- Sand Bluestem
- Sand Dropseed
- Praire Sandreed
- Canada Wildrye

- Virginia Wildrye
- Reed Canarygrass
- Prairie Junegrass
- Bluebunch Wheatgrass
- Thickspike Wheatgrass
- · Needle-and Thread



Wildflowers & Pollinators

Yellow Coneflower

The beginning of summer coincides well with the blooming of coneflower. This plant can be found throughout the Great Plain states. Coneflower prospers best on light and moderately grazed prairie.

Maximilian Sunflower

Maximilian Sunflower needs full sunlight, and it has fair drought tolerance. It is an aggressive perennial wildflower native to the central plains states. This plant produces showy, yellow ray flowers. Because of its height, this warm-season flower is often used as a privacy screen. It is common on deep or heavy soils. This plant is rhizomatous and very competitive in mixes. This perennial blooms late, from July to October.

Purple Prairie Clover

This tap-rooted legume features a unique, red to purple cylindrical flower head. The Purple Prairie Clover is very attractive to butterflies, bees and other pollinators. It is native to the tall and mid-height prairie of the central United States. Purple Prairie Clover blooms June to August along dry banks, hillsides and prairies. This plant has low to moderate moisture requirement.

Common Milkweed

This perennial herb grows from deep rhizomes and usually features a single stem growing one and a half to five feet tall. This is a host plant for the Monarch Butterfly. Its milk serves as a natural defense for monarch caterpillars. Milkweeds are the only plant family on which monarchs will lay eggs.

Lead Plant

This shrubby legume features small purple flowers clustered in four to six-inch spikes atop two to three foot stems. This plant is a slow growing forb that is adapted to a wide range of soil types. It is a favorite for livestock, deer and other wildlife. Lead Plant is an ideal ornamental species because it has showy flowers, is drought tolerant and shade tolerant. It forms nodules on its roots to fix nitrogen and can be used for prairie restorations.

Black-Eyed Susan

Black-Eyed Susan, biennial or perennial, is a highly adaptable species found on a wide range of soil types. It has low to moderate water requirements and adapts well in full sun to partial shade. Yellow sunflower-like blossoms are found May to October in fields, prairies or open woods.

Purple Coneflower

Native to the Midwest and Southeast United States, it does best in full sun. It has a long stem leading to a single flower head with a half to one-inch domed, golden-spined head surrounded by purple petals.







Wildflowers & Pollinators

Common Ox-Eye/False Sunflower

This perennial forb is found throughout the United States in meadows, edges of woods and thickets. The plant prefers moist, well-drained soils, sun to partial shade and does not compete well in dense populations. Ox-Eye will grow to five feet, and it flowers from June into September.

Wild Bergamot

This herbaceous perennial grows from creeping rhizomes. It is also known as Bee Balm for its fragrance attracting bees. It grows two to three feet in clumps, and its lavender flowers bloom from June to September.

Stiff Goldenrod

Stiff Goldenrod can be used for roadside plantings, wildlife food and habitat and wildflower gardens. Because of its attractive bright yellow flowers, it is also used as a small component of seeding mixtures for prairie restoration. Also known as Rigid Goldenrod, it has bright yellow flowers in small clusters atop stiff stems. This plant prefers full sun and well-drained soil but can tolerate rocky ground. Goldenrod grows in prairies and dry woods and is infrequently grazed. It behaves as a prairie invader, meaning it tends to come into pastures in a greater amount when the prairie has been weakened by grazing.

Western Yarrow

Native Western Yarrow has fern-like foliage with white compact flowers. It is best to use at very low rates, since it spreads aggressively by seed and rhizomes and is very drought tolerant.

For a complete list of wildflowers and pollinators please refer





Cover Crops Mixtures

Nitro Brand Cover Crop Mix

This is a good all-around cover crop mix designed for those growers whose main goal is to improve soil health. These species were selected for their ability to grow in a wide range of conditions and their soil improving characteristics. This mix will improve soil organic matter, reduce erosion, aid in weed suppression, fix nitrogen, scavenge for nutrients and help with water infiltration. If you are a first time cover cropper, or just looking for a good mix that covers the bases, this would be a good mix for you.

Mix Formulation

Forage Pea	35%
Lentil	
Foxtail Millet	
Forage Oats	14%
Cowpea	
Frosty Berseem Clover	3.5%
Common Vetch	3.5%
Forage Radish	3.5%
Purple Top Turnip	3.5%
Sunflower	

Plant 28.5 lbs. per acre

Grazing Brand Cover Crop Mix

This mix is one of the best options for livestock producers. It offers soil health benefits for improved soil compaction. water infiltration, nutrient scavenging, nitrogen fixation and increased organic matter. This mix provides an excellent source of forage, with species selected for their palatability, highforage production and superior forage quality, giving livestock producers a great fall grazing option.

Mix Formulation

Forage Oats	53%
Forage Pea	
Common Vetch	
Foxtail Millet	7%
BMR Sorghum Sudangrass	7%
Frosty Berseem Clover	
Forage Radish	
Sunflower	
Hybrid Brassica	

Plant 28.5 lbs. per acre

Salty Brand Cover Crop Mix

This mix was developed for high-salt areas that have formed throughout the region as a result of the extended wet cycle. These species were selected for their high salt tolerance, high water usage and their ability to poke holes in the soil, which improves water absorption. Establishing this mix should help mellow out that tough ground and allow you to get it back into production.

Mix Formulation

Forage Barley	86%
Dwarf Essex Rapeseed	
Sugar Beet	
Purple Top Turnip	
Forage Radish	

Plant 28.5 lbs. per acre

Radish/Turnip Mix

This blend is simple, yet effective and very popular. Usually planted following small grains or peas, this is a relatively inexpensive and effective blend for nutrient scavenging, water infiltration and improving soil compaction.

Mix Formulation

Forage Radish	60%
Purple Top Turnip	40%

Plant 4-6 lbs. per acre

Fall Grazing Cover Crop Mix

For those producers looking to extend fall grazing using cover crops, this is the mix for you. It provides an excellent source of forage as the temperatures start to drop in the fall/winter months and will also provide some spring forage for livestock to graze on. This mix will allow the producer to maximize output on every acre planted with cover crops.

Mix Formulation

mat i ominatation	
Forage Winter Wheat	50%
Winter Pea	
Italian Ryegrass	10%
Common Vetch	
Frosty Berseem Clover	5%
Forage Radish	3%
Purple Top Turnip	
Hybrid Brassica	
Dwarf Essex Rapeseed	

Plant 25 lbs. per acre

Fall Nitro Cover Crop Mix

This is a great all-around mix with species selected to improve soil health through the entire growing season, even in the colder months of fall and winter. The species selected for this mix provide the soil same health benefits as Nitro Cover Crop Mix, but it will continue providing those same benefits well into fall and through the early parts of spring. If you are looking to maximize your soil health benefits through the fall, this is the mix for you.

Mix Formulation

Winter Pea	40%
Lentil	20%
Forage Winter Wheat	15%
Common Vetch	
Italian Ryegrass	5%
Frosty Berseem Clover	5%
Flax	4%
Forage Radish	3%
Purple Top Turnip	

Plant 25 lbs. per acre



Annual Forage Mixtures

Forage Peas/Forage Oats Mix

This high-quality, high-yielding blend is specifically for forage production in the upper Midwest. This excellent forage producer delivers high protein and palatability for all kinds of livestock. For best results, plant early and harvest when the oats reach boot stage in approximately 65 to 80 days.

Mix Formulation

Forage Peas	60%
Forage Oat	40%

Plant 100 to 150 lbs/Acre

Forage Peas/Forage Barley Mix

This mixture will provide high quality forage similar to the Forage Peas/Forage Oats Mix. Alternatively, this mixture will perform better than similar mixtures under drier or more saline soil conditions. This mixture will also be ready to harvest slightly earlier, around 60 to 75 days.

Mix Formulation

Forage Peas	30%
Forage Barley4	40%

Plant 100 to 150 lbs/Acre

Forage Peas/Spring Triticale Mix

The Forage Peas/Spring Triticale Mix will produce large amounts of high quality forage, similar to other pea/forage grain mixtures. Forage quantity may be slightly lower than comparable mixtures, but the forage quality will be higher for the Forage Peas/Spring Triticale Mix than comparable oat and barley mixtures.

Spring Triticale

Spring Triticale is a cross between rye and wheat that is taller and leafier than wheat and oats. It will produce high quality forage with high protein levels and should be cut before heading for optimal forage quality.

Forage Oats

A fast growing cool season annual that will produce large amounts of high quality forage in the spring to early summer. Its extensive root system will also help build soil structure, suppress weeds and capture excess nutrients from the soil.

Forage Barley

A cool season spring annual that that emerges early with fast competitive growth. Forage barley will produce large amounts of good quality forage in spring and early summer. Its lower water use allows good production even under drought. It also has the highest saline tolerance of the cereals making it a great choice for those less productive acres.

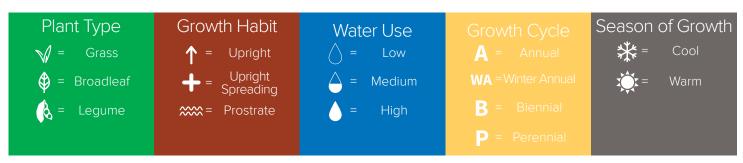
Forage Pea

A cool season annual legume used for forage production and usually mixed with other species. Forage peas are an excellent source of protein, will fix nitrogen and produce high quality forage.





Cover Crops & Annual Forages



Clovers & Other Legumes

Common Vetch (1) (2) (A) (B) (#)











This annual nitrogen-fixing legume often grows as green manure or livestock fodder. It can be seeded in early spring or late summer depending on use. Horses thrive on Common Vetch, and it is great for fattening cattle.

Hairy Vetch (1) CO (1) (1) Hairy Vetch









This low-growing, nitrogen-fixing legume is used to improve soil quality, especially on marginal soils. It is mildly winter hardy and may survive less severe winters given sufficient ground cover.

Austrian Winter Pea 🚷 <table-cell-rows> 🔷 💯 🛞









This low-growing vine-type legume offers extremely good nitrogen-fixing capabilities. It can survive winters if seeded with plenty of ground cover and has sufficient snow cover.









The Lentil is a drought tolerant, annual legume. It can be used for livestock feed due to a high protein content and low digestive inhibitors. Lentils will provide some nitrogen fixation and excellent green manure.

Forage Pea (3) (1) (2) (3)









A cool season annual legume used for forage production and usually mixed with other species. Forage peas are an excellent source of protein, will fix nitrogen and produce high quality forage.

Crimson Clover (1) (1) (2) (3)









This is an annual clover that performs well on a wide range of soil types that have good drainage. It prefers moist soil for germination, performs very well in cool conditions and does not tolerate extreme heat or drought well. It is primarily used in cover crops in the upper Midwest for its ability to establish quickly and fix nitrogen efficiently.

Berseem Clover (1) (1) (2) (3)









This annual clover is used throughout the Midwest in soil building mixtures because of its nitrogen producing characteristics. When planted early, it can give more than one cutting and is a low bloat forage when used for grazing.

Brassicas

Forage Radish 🔮 🗘 🗘 🛞







Forage Radish is an annual, cool season brassica, that is an excellent option for cover crop. The tuber can reach 12-18 inches

deep, with the tap-root reaching up to seven feet. This radish will help with soil compaction, make nutrients more available and provide incredible biomass. It is also a great component in fall grazing. With great cold tolerance, cattle will graze the leaf matter first and the bulb later.

Hybrid Brassica 4 4 0 0 0 8







Hybrid brassicas have been bred for rapid growth with high leafto-tuber ratios providing a large amount of lush green forage. They also have excellent regrowth capabilities providing forage

throughout the late spring and summer.

Purple Top Turnip 4 4 0 0 4





Purple top turnips are a fast growing crop that reaches near maximum production 80 to 90 days after seeding. They germinate guickly, and can be planted to provide summer, fall and winter grazing. They can be green chopped but most often are grazed with roots, stems and leaves all being grazed.

Nematode Radish 🍑 🕥 🗘 🛞











Nematode Radish provides quick cover during cool weather. It has deep, branching roots that break up the soil and scavenge nitrates. When seeded as a mono culture, it is 90 percent effective on control of specific nematodes.









This is a member of the cabbage and brassica family. It has excellent heat and cold tolerance, good salt tolerance and provides excellent forage qualities, especially during summer stress.

Additional Species Available for Custom Mixing:

- Silage Corn
- Balansa Clover
- · Proso Millet

Flax

- BMR Pearl Millet
- Japanese Millet

Buckwheat

· Faba Bean



Cover Crops & Annual Forages

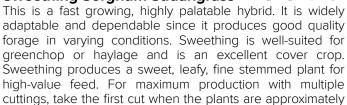












36 inches in height.











Sorghum Sudangrass

The Brown Midrib gene reduces the lignin content in this hybrid, which increases fiber digestion in livestock. With the nearly 20 percent increased feed value, increased palatability and increased tonnage and leafiness, this is the choice of cattlemen. For maximum production with multiple cuttings, take the first cut when the plants are approximately 36 inches in height.

Sweething MAXX V 10 0 0 Sorghum Sudangrass



With its wider harvest window and greater drought tolerance than other Sorghum Sudangrass varieties, Sweething MAXX Hybrid Sorghum Sudangrass allows for the greatest amount of dry matter production per acre. Because of its higher crude protein values and taller stature than regular Sweething, Sweething MAXX is an upgrade producers will want to try.

Sorghum Sudangrass









BMR Sweething MAXX Sorghum Sudangrass combines all the benefits of the Sweething MAXX Sorghum Sudangrass and the BMR gene to give the highest quality sorghum sudangrass in our line-up. This is a product for the producer looking for the highest quality sorghum sudangrass available.

Piper Sudangrass V 1 4 4









Popular for annual hay and late summer pasture, this annual forage is low in prussic acid content and has good drought and disease tolerance. Piper is a Wisconsin release that has good regrowth after pasturing and is the leading Sudangrass hybrid.

German Foxtail Millet V 10 0 0









This crop matures more slowly than Siberian and is ready to harvest 65 to 70 days after planting. German Millet is taller with a coarser stem than Siberian. It can also produce more forage than Siberian. Because of its increased stem size, it requires better management than other foxtail millets. It is not recommended for horses after heading.

Siberian Foxtail Millet V 1 0 0









Siberian Foxtail Millet is the most commonly grown hay millet in the upper Midwest. Siberian is an early maturing hay millet that is ready for harvesting 55 to 65 days after planting. It is extremely hardy and drought tolerant, which produces excellent hay. It is not recommended for horses after heading.









This high yielding pearl millet hybrid is recommended for greenchop, grazing or hay. Our Hybrid Pearl Millet has a massive root system, which enables it to stand up to heat and drought, particularly on light soils. It shows good tolerance to leaf and stem diseases and produces well on low pH soils with low fertility. Hybrid Pearl Millet has no prussic acid and is recommended for both horses and cattle. BMR Hybrid Pearl Millet is also available with the added benefits of the BMR gene.

BMR Forage Sorghum V 0 0 0









The BMR Forage Sorghum offers excellent forage with sweet stalks and nutritious leaves that livestock relish. This prolific growing sorghum with lush, green, broad leaves has become a favorite sweet forage. It ranks high as silage and makes excellent hay if cut early before stalks get too heavy. BMR Forage Sorghum provides prolonged pasturing often into late fall.

Grain Sorghum 🤍 🕜 🚫 🗘 🕸







Grain Sorghum is a grass similar to corn in vegetative appearance, but sorghum has more tillers and more finely branched roots than corn, growing two to four feet. The grain is highly palatable to livestock. Sorghum is more tolerant of wet soils and flooding than most of the grain crops — an interesting phenomenon in relation to its drought tolerance.

Teff Grass V 🗘 🗘 🗘









Teff Grass is a warm season annual that produces multiple cuttings of high-quality forage. Shallow seeding depth, one-eighth to onefourth inch, in a firm seed bed is needed to ensure establishment.

Italian Ryegrass V 1 0 0 A









Due to its rapid establishment, quick regrowth and prolonged growth into fall, Italian Ryegrass is an excellent forage. It does not go to seed the establishment year, producing better quality forage than many other annual forage crops. It works well as a cover crop for establishing alfalfa when using a low seeding rate.

Winter Rye Grain 🤍 🕜 🕔 🤲 🛞











Rye is grown widely as a grain crop, cover crop and forage crop. A winter annual, it is planted in the fall and provides winter cover then starts growing again in the spring. It is used to suppress weeds, as spring forage or for seed production. Producers either terminate the rye and then plant a cash crop, or plant directly into the living foliage and then terminate the rye.

Winter Triticale 💜 🐧 🚺 🧥 🐠 🛞











Triticale is a grain species which is developed by crossing rye and wheat. Originally a grain crop, triticale is gaining immense popularity as a cereal forage in the West. In general, for maximum forage yield and feed quality, growers are encouraged to harvest cereal forages prior to seed-fill stage. Allowing for an early harvest, this crop would fit into a double cropping system.

Winter Wheat ♥ ♠ ♦ ♠ ♦











Forage Winter Wheat is a winter annual grain that produces large amounts of high quality forage. It is late-maturing for maximum forage production and has good winter hardiness allowing it to produce well in the harsh northern winters.



Forage Harvest Supplies



Founded in 1975, Bridon has been pioneering, developing and perfecting polypropylene twine since the introduction of the mechanical baler, earning a reputation as the industry's front-runner.



The Integra Series™ Premium Netwrap is the culmination of more than 48 years of experience in baling across America. Our available options include the following widths with a variety of lengths: 48 inches, 51 inches, 64 inches and 67 inches.



Industry leaders estimate that the net wrap market is growing 10 percent per year. Agassiz has partnered with the leaders in this industry to bring you the best products on the market. Our available options include the following widths with a variety of lengths: 48 inches, 51 inches, 64 inches and 67 inches.



This unique twine is designed to give the user the benefits of both plastic and sisal twines. The advantage of Clearfield™ Twine is a combination of sisal twine's degradability and plastic twine's durability.



CORDEX Brazilian Sisal Twine has long been recognized as the finest sisal twine. Every bale is treated to quard against mildew rodents and ret. Provider and the control of the control guard against mildew, rodents and rot. Brazilian sisal twine is manufactured with pure natural sisal fibers that guarantee the only true biodegradable product, safe for animals and the environment.



We understand that every operation is different, so we have several other options for our customers on all of our twines and net wraps. Reach out to Agassiz Seed to find out which product best suits your needs. It is our promise that we can supply you with the best product for your application.



Forage Harvest Supplies



Silo Guard® is a unique approach to improving the quality of silage and hay. Silo Guard® is a sulfurbased product that scavenges oxygen from the forage, so molds and yeast are diminished. This helps to speed along fermentation and improve the quality of the forage. Silo Guard® contains no acid and is safe to handle.



Take control of your silage today! Drive herd health and performance to the next level with plentiful, high-quality feed and magnify the value of your silage quality with MAGNIVA Forage Inoculants!

MAGNIVA®	CONTROL ENSILING FERMENTATION	ENHANCE DIGESTIBILITY	INCREASE FEEDOUT STABILITY	ACHIEVE FEEDOU FLEXIBILITY
PLATINUM	++++	+++++	++++	++++
TITANIUM	++++	++++	++++	++++
SILVER	++++	++++	+++++	+++++
CLASSIC	+++++	+++++	+++++	++++







Net Wrap Compatibility Chart

HESSTON'	555T, 845, 846A, 945, 946, 2745, 2746, 2746A, 5446, 5545, 5546 845, 846A, 945, 946, 5446, 5545, 5546, 1746, 2846 560, 565A, 565T, 814, 855, 856, 856A, 955, 956, 5456, 5556, 1756, 2756, 2756A, 2856A 855, 856, 856A, 955, 956A, 5456, 5556	
WHITE- New IDEA®	4844, 4854, 6345, 6364, 6464	51" 64"
CASE	8450, RS451, RBX461, RBX452, RBX462, RBX453, RBX463, RB454, RB455, RB455A, RB465	
<u> C'hallenger</u>	RB453, RB453 Silage, RB463, RB463 Silage, RB463A RB453, RB453 Silage, RB463, RB463 Silage, RB463A RB563, RB563A RB563, RB563A	51" 64"
CLAAS	444, 46, 62, 66, 45, 46RC, 160, 180, 180RC, 240, 250RC, 260, 280, 280RC, 375RC, 340, 350RC, 455RC, 360RC, 380RC 250RC, 260, 280, 280RC, 375RC, 340, 350RC, 455RC, 360RC, 380RC	
JOHN DEERE	435, 456, 448, 458, 466, 468, 582, 960, 990, 449, 459, 459E, 459 Silage, 854 Silage	51" 64"
DEUTZ FAHR	GP2.30N, GP2.50N	48"
GEHL.	1470, 1475, 2480, 2580, 2680 1870, 1875, 2780, 2880	
KRONE	KR125, KR130, KR160, KR260, RP1250, RP1250MC, F125, F130, VP1500, VP1800, KR181, KR280 KR181, KR280	
M&M	1500, 4497, 4590	
NEW HOLLAND AGRICULTURE	RRB450, RB460, 640, 644, 650, 654 (Belt), 648, 658, 848 (Chain), BR740, BR740A, BR750, BR750A, BR7050, BR7060, BR7070 BR740, BR740A, BR750, BR750A, BR7060, BR7070, RB450, RB460	
Vermeer'	435, 456, 448, 458, 466, 468, 582, 960, 990, 449, 459, 459E, 459 Silage, 854 Silage	51" 64"
KUHR	VB 2160, VB 2190 VB 2160, VB 2190	48"
Vicon	All	48"
WELGER	All	48"



Forage Harvest Supplies



AgFlex® Grain, Silage and Commodity Bags represent the best in field storage solutions. These bags feature the industry's first 7 layer SmartStructure® technology. Choosing an AgFlex storage bag to protect grain and silage assures a high-performance storage solution offering increased strength, greater puncture and tear resistance and the utmost in peace of mind.

AgFlex bags are compatible with all silage baggers, grain baggers and high-capacity grain bag extractors. They are also guaranteed to withstand 24 months of ultraviolet exposure under normal circumstances.

Stock sizes are listed in the chart. Other 6.5', 8', 9', 10', 11', 12' and 14' sizes are available by special order.

Product Size	Bags/Pallet
6.5 x 100	14
6.5 x 150	14
6.5 x 200	12
8 x 100	14
8 x 150	12
8 x 200	10
8 x 250	8
8 x 300	6
9 x 135	12
9 x 150	12
9 x 200	10
9 x 250	8
9 x 250	8
9 x 300	6
9 x 300	6
10 x 150	12
10 x 200	10
10 x 300	6
10 x 400	
10 x 500	
10.5 x 300	
10.5 x 400	
10.5 x 500	
11 x 250	
11 x 300	
11 x 500	
12 x 200	
12 x 250	
12 x 300	
12 x 500	
14 x 330	
14 x 500	1

			14 x 500		
Bag Capacity Chart	Tons Hay Silage	Tons Corn Silage	Bushels Corn Silage	Bushels Ground/Shelled Corn	Bushels Grain
8' x 150'	120-140	140-150	3,200	4,500	4,600
8' x 200'	170-180	190-200	4,300	6,200	6,350
9' x 150'	150-170	160-190	3,900	5,500	5,650
9' x 200'	190-210	220-240	5,300	7,500	7,680
9' x 250'	260-280	280-300	6,600	9,500	9,730
9' x 300'	315-335	340-360	8,000	11,500	11,780
10' x 200'	280	300	6,100	8,700	8,900
10' x 250'	355	380	7,700	11,000	11,275
10' x 300'	430	460	9,400	13,400	13,730
10' x 400'	580	620	12,700	18,100	18,550
10' x 500'	730	780	16,000	22,800	23,370
10.5' x 200'	294	315	6,405	9,135	9,345
10.5' x 250'	375	400	8,085	11,550	11,840
10.5' x 300'	450	485	9,870	14,070	14,420
10.5' x 400'	610	650	13,335	19,005	19,480
10.5' x 500'	770	820	16,800	23,940	24,540
12' x 300'	570	630	11,500-13,950	16,530-19,950	16,530-19,95
12' x 500'	970	1,070	19,650-23,800	28,100-33,950	28,100-33,95
14' x 500'	1,300	1,360	N/A	N/A	N/A

NOTE: All bag capacities are approximate. Capacities will vary based on many factors, including type of forage or grain, moisture content, bagging machine, etc. Each bag capacity assumes 15 feet of the bag is used for tie-off. When storing grain, a rounder bag will have a greater capacity. A bag will stay rounder when filled with wheat, barley or corn, and will slump more with durum, peas, lentils or canola.



Forage Harvest Supplies

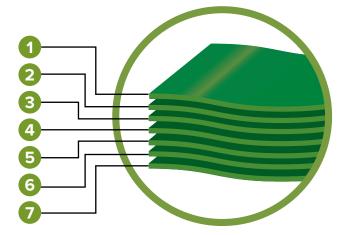
DFORM

Silage Sheeting

Siloform® Silage Sheeting by Berry Global features the SmartStructure® 7 Layer Advantage, designed to provide a highly durable bunker cover with increased puncture and tear resistance. Protect valued feed in silage pits or bunkers while it ferments and converts to a highly nutritious and easily digestible premium feed for livestock. The white/ black film's white surface reflects light energy and the black layer provides 100% opacity.

Siloform® is guaranteed to provide 12 months of UV stabilization under normal circumstances.

7 Layer Smart Structure Technology



- 1. Temperature Reduction
- **Tear Resistance**
- 3. Puncture Resistance
- 5. Puncture Resistance
- **Tear Resistance**
- **Sunlight Blocking**



Width x Length Feet	Rolls/Palle
Wide Width Sheeting	
120 x 100	3
120 x 150	
120 ×200	2
120 x 250	1
120 x 300	1
120 x 500	1
160 x 150	1
160 x 200	1
160 x 250	1
160 x 500	1
White/Black - 5.0 Mil Gauge	
24 x 100	25
32 x 100	20
32 x 150	12
32 x 200	9
40 x 100	20
40 x 150	16
40 x 200	
40 x 500	
40 x 1000	1
50 x 100	
50 x 150	
50 x 200	
50 x 1250	
56 x 1000	
60 x 100	
60 x 150	
60 x 200	
60 x 1000	
80 x 150	
80 x 200	
80 x 250	
80 x 500	
80 x 1000	1
White/Black - 6.0 Mil Gauge	42
24 × 100	
32 x 100	
40 x 100	
40 × 200	
50 x 100	
50 x 150* Bold = Most common sizes	6
DOIU – WOSE COMMON SIZES	



Lawn Seed Mixtures

Premium Sunny Brand™ Lawn Mixture

This mixture will respond well to a medium to low maintenance schedule of fertilization and grooming, plus it gives you drought tolerance where lack of moisture may be a problem. This mixture is versatile, tough and attractive.

Plant 4 to 6 lbs. per 1,000 sq. ft. Available in 5 lb., 25 lb. and 50 lb. bags

Mix Formulation

Kentucky Bluegrass (2)	60%
Fine Leaf Perennial Ryegrass	
Fine Fescues	10%

Classic Shade/Sun Brand[™] Lawn Mixture

This blend of grasses gives you the persistence and versatility needed in a low to medium maintenance grooming schedule. Classic has the drought, shade and traffic tolerance to perform well in a wide variety of planting areas and soil types.

Plant 4 to 6 lbs. per 1,000 sq. ft. Available in 5 lb., 25 lb. and 50 lb. bags

Mix Formulation

Kentucky Bluegrass (2)	35%
Fine Fescues	
Fine Leaf Perennial Ryegrass	30%

Endure Brand™ Lawn Mixture

The deep tap root of Tall Fescue helps this mix stay green when others have gone dormant. Strides have been made recently in developing finer stemmed lawn type Tall Fescue. A higher seeding rate will help this blend maintain its finer leaves.

Plant 10 to 12 lbs. per 1,000 sq. ft. Available in 50 lb. bags

Elite Brand™ Lawn Mixture

This executive mix was developed to respond well to a high maintenance schedule of grooming, irrigation and fertilization. The Elite varieties we have selected will give you the combination of color, disease resistance and traffic tolerance the quality-conscious homeowner needs.

Plant 4 to 6 lbs. per 1,000 sq. ft. Available in 5 lb. and 25 lb. bags

Mix Formulation

Elite Bluegrasses (3)	60%
Fine Leaf Perennial Ryegrass	
Improved Fine Fescue	

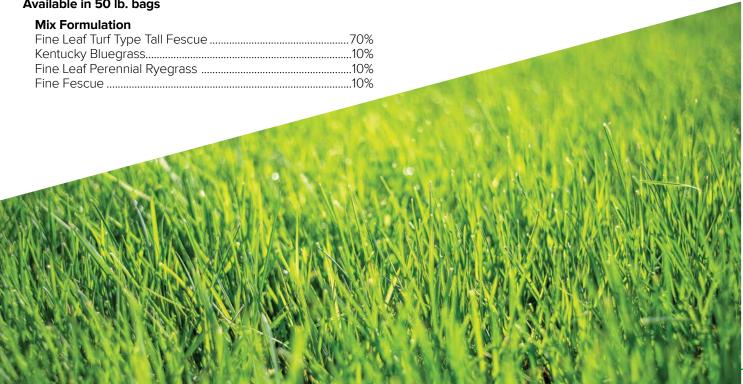
Executive Shady Brand™ Lawn Mixture

This executive mix was developed with the same standards as the Elite Brand Lawn Mixture. It responds well to a high maintenance schedule of grooming, irrigation and fertilization, with a high percentage of shade tolerant grasses to perform better in high shade areas.

Plant 4 to 6 lbs. per 1,000 sq. ft. Available in 5 lb. and 25 lb. bags

Mix Formulation

Shade Tolerant Elite Bluegrass	35%
Improved Fine Fescue	
Fine Leaf Perennial Ryegrass	





Turf Seed Mixtures

LM Turf[™] Mixture

This low-maintenance mixture will perform well in those areas you can't get to with water or fertilizer, including rural airstrips, cemeteries, ditches and many others. These cool season grasses will green up in the spring, go dormant in the summer and green up again in the fall with cooler, moist conditions.

Plant 3 to 4 lbs. per 1,000 sq. ft. | Available in 25 lb. bags

Mix Formulation

Kentucky Bluegrass	40%
Crested Wheatgrass	
Perennial Ryegrass	

Athletic Turf Mixture

Formulated for athletic fields and playgrounds, this mixture is a blend of tough and durable Bluegrass and Ryegrasses. It is developed for constant use, medium maintenance and high-traffic areas. This mixture will provide a durable, high-quality athletic turf for many years.

Plant 4 to 6 lbs. per 1,000 sq. ft. | Available in 50 lb. bags

Mix Formulation

Elite Bluegrasses (2)	50%
Fine Leaf Perennial Ryegrass (2)	50%

Green Lawn™ Development Mixture

Ryegrass provides rapid development with Bluegrass and Fescue, filling in for a durable lawn. Annual Ryegrass has a lighter green color and its rapid regrowth gives an uneven height requiring frequent mowing for both appearance and establishment of the other grasses. This mix is used where rapid stand is required and is not recommended for premium lawns..

Plant 4 to 6 lbs. per 1,000 sq. ft. | Available in 50 lb. bags

Mix Formulation

Perennial Ryegrass	45%
Fine Fescues	15%
Annual Ryegrass	20%
Kentucky Bluegrass	

Tour Star Perennial Ryegrass Blend

This blend of Fine Leafed Perennial Ryegrass varieties was developed for quality and consistency. We use varieties that provide a consistent disease package, color and winter survivability from year to year. For quick and temporary cover, this blend will do an excellent job for you.

Plant 4 to 6 lbs. per 1,000 sq. ft. | Available in 50 lb. bags

Mix Formulation

Fine Leaf Perennial Ryegrass	(3))	10	0%
Tille Lear Ferenman Rycgrass	ľ	/	. 10	0 /0

Low Grow Fescue Mixture

This mixture is a combination of improved Fine Fescues. Low Grow was developed for low maintenance areas such as thick tree stands with heavy shade and hillsides. The stand will thrive where mowing is difficult or impossible, and it will reach a maximum height of 10 to 12 inches when not mowed.

Plant 5 to 8 lbs. per 1,000 sq. ft. | Available in 50 lb. bags

Mix Formulation

Creeping Red Fescue	25%
Chewings Fescue	
Hard Fescue	
Sheeps Fescue	25%

ST Turf Mix

This salt tolerant mixture uses varieties that have been selected for their hardness and ability to tolerate shade, drought and salt while still maintaining good color scores. This mix is uniquely adapted to tolerate the harsh conditions that high-salt soils produce while still maintaining residential turf appearance.

Plant 4 to 6 lbs. per 1,000 sq. ft. | Available in 50 lb. bags

Mix Formulation

Slender Creeping Red Fescue	20%
Strong Creeping Red Fescue	
Kentucky Bluegrass	
Hard Fescue	
Sheeps Fescue	20%





Lawn and Turf Grasses

₩ ₩	Lbs./Acre	Planting Date	Seeds/Lb.	Season	Planting Depth (inch)
Kentucky Bluegrass	100-150	Spring or Fall	1,400,000	Cool	.25
Perennial Ryegrass	300-400	Spring or Fall	275,000	Cool	.25
Creeping Red Fescue	200-250	Spring or Fall	450,000	Cool	.25
Annual Ryegrass	300-400	Spring or Fall	200,000	Cool	.25
Chewings Fescue	200-250	Spring or Fall	400,000	Cool	.25
Hard Fescue	200-250	Spring or Fall	550,000	Cool	.25
Sheep Fescue	200-250	Spring or Fall	525,000	Cool	.25
Tall Fescue	400-500	Spring or Fall	225,000	Cool	.25

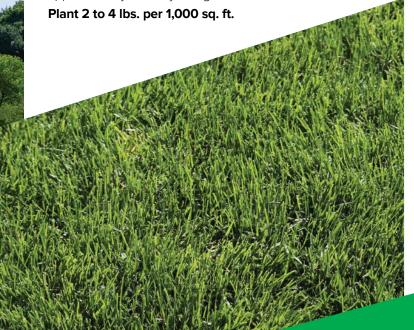
Bluegrass

Bluegrass is very durable. It bounces back well from drought and heavy traffic. Bluegrass spreads through underground rhizomes to develop a thick, tough root system and requires moderate care to maintain its beauty. It takes approximately 14-28 days for germination.

Plant 2 to 4 lbs. per 1,000 sq. ft.

Fine Fescues

Creeping Red Fescue, Hard Fescue, Sheep Fescue, and Chewings Fescue are the 4 main species of Fine Fescues. Fine Fescues are unique among lawn grasses. They have the finest leaves, the most shade tolerance, and the lowest fertilizer and moisture requirements of all turfgrass species. It takes approximately 7-14 days for germination



Annual Ryegrass

Annual Ryegrass is a light green, rapid growing, cool season annual. Its coarse leaf texture, short life and clumping growth make it a poor choice for turf grass. It is best suited for highly erodible ground cover on poor or compacted soils. It takes approximately 5-10 days for germination.

Plant 4 to 6 lbs. per 1,000 sq. ft.

Fine Leafed Perennial Ryegrass

Fine Leafed Perennial Ryegrass has the ability to produce a tough turf that resists wear and tear, recovers rapidly from damage and increases the versatility of lawns for recreational purposes. Vigorous root growth penetrates even compacted soil and makes these grasses ideal for overseeding old and thin lawns. It takes approximately 5-10 days for germination.

Plant 4 to 6 lbs. per 1,000 sq. ft.

Turf Type Tall Fescue

Turf Type Tall Fescue has made improvements in leaf texture and color. It is coarser than Perennial Ryegrass, Kentucky Bluegrass or Fine Fescue. Tall Fescue has a deep tap root system keeping it green, while some other cool season grasses have gone dormant. It requires less fertilizer and water than either Kentucky Bluegrass or Perennial Ryegrass. It has very little rhizome growth and should be planted with Bluegrass and/ or Perennial Ryegrass for this reason. It takes approximately 7-12 days for germination.

Plant 10 to 12 lbs. per 1,000 sq. ft.



Lawn Care

Starting A New Lawn

The best seasons for starting a lawn are early fall or as early in the spring as possible. Annual weeds are much less aggressive in the early fall. The following are tips to start a new lawn.

1. Work and Level Soil

Prepare a seedbed of approximately six inches of topsoil and slope it away from the buildings to allow for drainage.

2. Allow Soil to Settle

Periodic soaking and drying will naturally settle the soil and provide a good firm seedbed.

3. Prepare Soil Surface for Seeding

Loosen the top half to one inch of the soil to a course texture. (Soil particle from pea to golf ball size.)

4. Fertilize

To ensure the soil contains all the nutrients the lawn will need, fertilize with a quality lawn fertilizer.

5. Apply Seed at Recommended Rate

Fertilizer spreaders work well to apply lawn seed. Distribute evenly, applying half the seed in one direction and the other half in a perpendicular direction. To check the application rate, seed a small area and measure the amount of seed applied.

6. Work Seed into Top 1/4 Inch of Soil

This may be accomplished by dragging the back of a leaf rake, old carpet remnant or piece of chain link fence. Do not cover seed too deeply. Some seed should stay on the surface. Roll or pack soil to conserve moisture.

7. Water Lightly and Frequently

After seeding, thoroughly water the area. Keep the surface damp by sprinkling the surface three to four times daily. A very light covering of weed-free clippings will help keep the soil surface moist.

8. Mow at 2 to 3 Inches

Set the mower height at about two inches. Mowing often will reduce weed competition.

Renovating Your Lawn

A tired lawn can be restored to its original health and vigor. Healthy grass plants have the ability to increase the density of your lawn and produce a high-quality turf condition. The following are some tips for renovating your lawn.

1. Mow Lawn Short

Mow the lawn as short as possible and remove clippings.

2. Remove Dead Thatch

Use a mechanical or hand rake to remove the dead thatch allowing seed to contact the soil.

3. Loosen Soil Surface

Use a mechanical or hand rake to loosen the soil surface to a depth of one-fourth inch.

4. Apply Seed at Recommended Rate

From this point, care for the seeding the same as you would a new lawn.

Maintaining Your Lawn

1. Remove debris early

Mow at one to one-and-a-half inches as soon as the lawn begins to green up.

2. Mow frequently

Mow in different directions.

3. Water as needed

Water as weather conditions dictate, allowing for approximately one inch per ten days. Do not over water.

4. Fertilize 2 to 3 times per year

This is based on lawn grass needing half to one pound of actual nitrogen per 1,000 sq. ft. per month of growing season.

5. Mow to 11/2 to 2 inches in late fall

Tall dormant grass will harm lawn if left over winter months.

6. Aeration

A core aerator should be used on your lawn when the ground becomes compacted. Aeration will allow water and nutrients to reach the grass roots and should be done at least every other year.





Inoculant











LALFIX® PROYIELD LIQUID SOYBEAN contains two unique strains of *Bradyrhizobium elkanii* bring soybean growers an innovative inoculant with higher rhizobia survival and competitiveness. In addition, *Delftia acidovorans* increases root growth, nutrient and water uptake — ultimately leading to enhanced nodulation and nitrogen fixation, early vigor and higher soybean yields. Delftia acidovorans is also known to produce a significant amount of chaperone molecules that help solubilize iron and sulfur for soybean availability.













LALRISEPRIME



With its high porosity structure maintaining the growth environment to protect and preserve the unique strains of bacteria, LALFIX® START SPHERICAL offers unmatched performance, durability and ease-of-use. Our proprietary, dual-action phosphorus solubilizer, Bacillus velezensis, contained within each granule, quickly colonizes the root system which allows for the newly available phosphorus to be efficiently taken up by the plant.

LALRISE START SC



LALRISE® START SC is a liquid suspension concentrate (SC) based on a plant growth-promoting microbe (PGPM) that increases crop establishment through improved root vigor and nutrient availability. This PGPM solubilizes phosphorus from organic and inorganic reservoirs, which promotes growth in young plants and increases root mass, crop homogeneity and yields.





BYSI-N Liquid is a high quality, single-action inoculant for soybeans containing Bradyrhizobium japonicum. It is intended for soybean growers focusing solely on the benefits of good nitrogen fixation. Bradyrhizobium japonicum is known to nodulate soybean roots and fix atmospheric nitrogen in a symbiotic relationship with the soybean plant. BYSI-N Liquid can be applied on-seed or in-furrow.

LALRISE® PRIME is a one-step system that provides a convenient and robust inoculant containing bio-encapsulated spores of a carefully selected and versatile endomycorrhiza strain, allowing optimal on-seed survival. The active ingredient connects to the root system and forms an extensive underground network of hyphal filaments, which act as extensions to reach beyond the rhizosphere area. It increases plant absorption capacity (water, macro- and micro-nutrients), drought

LAL TX LIQUID PEA & LENTIL

tolerance, overall crop quality and yield potential in crop rotations.



LALFIX® LIQUID PEA & LENTIL contains two strains of Rhizobium leguminosarum biovar viciae selected for enhanced performance and competitiveness in pea, lentil and faba bean production. These strains are known to nodulate pea, lentil and faba bean roots and fix atmospheric nitrogen in a symbiotic relationship with the plant.









LALFIX® PEAT products are a high quality, dual-action sterile powder peat inoculant that contains a sticking agent that aids in the adhesion of the inoculant to the seed. This product can be applied on the seed through a variety of application methods that suit the grower's needs.

Microbial By Nature

ASK YOUR DEALER ABOUT: "LALFIX Brands" BY LALLEMAND PLANT CARE

LALLEMAND LALLEMAND PLANT CARE



Inoculant



INOCULANTS

Novozymes Inoculant Technologies

Growers trust Novozymes® microbial inoculant solutions to drive their crop performance. Microbial inoculants complement traditional fertilizers and increase the availability of key nutrients such as nitrogen, phosphorus and potassium, resulting in improved crop yields. Utilizing nature's own problem solvers — enzymes and microbes helps maximize crop fertility, return on investment, soil and fertilizer phosphorus efficiency, and meet crop nutrition requirements through natural processes.

> Learn more about how these solutions can give It's time to think bio-logical with Novozymes BioAg



OUR 2023 PRODUCT LINEUP

Torque[®]











Ratchet®



Ratchet® is a patented, foliar-applied LCO promoter technology that can be

used on many crops to increase photosynthesis. The crop is stimulated after

applying Ratchet, resulting in more sugar production, higher nutrient uptake

and improved plant health. Ratchet enhances plants' nutritional capabilities

and is formulated for ease of use and flexibility. Novozymes multiyear trials of Ratchet have demonstrated an improvement of 2 bushels/acre in

· Increases plants' stress tolerance and yield performance.

Enhances plant growth so the crop canopy closes earlier,

No additional field passes are required to get the benefits of

conserving soil moisture and reducing weed pressure.

· Drives crop quality, even with a low use rate.









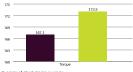
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Torque® IF uses LCO promoter technologies to drive natural growth processes. LCO promoter technologies applied in-furrow can enhance plants' nutritional capabilities to take crops' genetic potential to the next level by maximizing plant health and crop performance. Torque IF is specially formulated for flexible application with pop-up or liquid starter

FFATURES & BENEFITS

- Signaling molecule increases mycorrhizal associations along the plant roots and spore germination.
- Increases nodule formation for enhanced nitrogen fixation.
- Enhances root and shoot development for improved nutrient and water uptake.
- Enables the crop to better handle environmental pressures for increased vields.

Novozymes BioAg Torque trial results: corn











the LCO promoter technology. Soybean: multiyear, proven

performance with Ratchet

soybeans and 5 bushels/acre in corn.

FEATURES & BENEFITS

Novozymes BioAg Ratchet trial results: corn





BioniQ[®]

BioniQ® aids in improved nutrient and moisture uptake and phosphate availability, increasing yield potential. BioniQ can help growers maximize their return on investment by delivering fertility to crops through beneficial plant/microbe interactions and enhancing root growth. Results prove the efficacy with BioniQ on wheat showing a 3.8 bushel/ acre increase. BioniQ can increase performance over a wide range of geographic locations and field conditions.

FEATURES & BENEFITS

- · Active in cool soils for enhanced early-season vigor.
- · Encourages earlier, more uniform plant maturity.
- Combines three living organisms.
- Provides season-long phosphate availability.

Optimize® FXC DS

Optimize® FXC DS inoculant combines specially selected dual strain rhizobia and LCO to increase the rate of early nodulation and root and shoot development, which leads to a healthier crop and higher yields.

FEATURES & BENEFITS

- Increases the rate of early nodulation.
- Supports root and shoot development for increased functional root volume.
- Liquid formulation.
- Enhances mycorrhizal colonization.



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Inoculant





THE NUTRIENT USE EFFICIENCY PEOPL



PRESIDEULTRA

- Two times more nitrogen-fixing rhizobia to better supply the needs of high-yielding soybeans (with low rate of 0.75 oz/140,000 seeds)
- Helps soybeans produce up to 65% more nodule mass with TakeOff technology
- Faster canopy closure to capture more light

- First closed transfer system for soybean inoculant, patented in 2021
- Ensures highest quality of rhizobia applied on every seed, every time (bladder good for 14 days once opened)

PRIMO R1

- Multi-action, premium soybean inoculant boasting a high-quality strain of rhizobia & high concentration (2x more than competitors) for consistent nitrogen fixation
- Can be used via traditional application or with the FlexConnect inoculant delivery system

PRIMOGX2

- In-furrow, multi-action granular inoculant that brings more nitrogen to the plant
- Crops: soybean, pea, vetch, lentil, garbanzo, chickpea, and dry bean & Co

N CHARGE

- Peat-based inoculant specially formulated to increase seed adhesion over traditional peat inoculants by as much as 150%
- Crops: soybean, pea, vetch, lentil, garbanzo, chickpea, dry bean & cowpea

N DURE

- One of the most economical peat-based inoculants on the market
- Crops: birdsfoot trefoil, crownvetch, dry bean, garbanzo, chickpea, lupine, pea, vetch, cowpea, sanfoin, soybean, and subterranean clover

- Single action inoculant designed for custom application
- Enhances soybean nitrogen uptake from early to final life stages

Seed Treatment



AVAILABLE FOR 2023: Heads Up RTA Seed Treatment

The same great benefits of traditional Heads Up® — the first EPA-registered seed treatment for both white mold and SDS in your soybeans - but now in a pre-mixed, ready to apply formulation! Available in 400-unit, 15 gallon and 30 gallon containers with a use rate of 0.5 oz/cwt.



Heads Up is an EPA registered seed treatment for suppression of fungal diseases such as white mold, rhizoctonia and sudden death syndrome in soybeans. It is also registered for the suppression of fungal and bacterial diseases in several other crops, including pulse crops and potatoes.

Packaging

One package of Heads Up is intended to treat up to 400 units of soybeans (20,000 lbs of seed).

Compatibility

Heads Up can be mixed with other fungicides/insecticides and liquid inoculants or used on its own.

Heads Up is sold as the active ingredient only, a highly concentrated dry powder. It is up to the treater to mix the product with water and make a pre-slurry before treating. Suggested ratio is to mix 1 package of Heads Up to 100 ounces of water, which makes a use rate of 0.5 oz/cwt.

Shelf Life

Heads Up does not contain any living organisms and can be applied well in advance of planting. Unused powder can be sealed air-tight in its original pouch and stored for next season.

How it works

Heads Up works by priming your plant's genetic defensive ability against disease, increasing resistance to invading pathogens.

Upon germination, the active ingredients trigger a response similar to that of an attacking disease pathogen. This response sends systemic signals throughout the plant, kicking in internal defense mechanisms which prime the physiology of the plant and allow it to be in a "ready to fight" state, should disease be present later in the season.

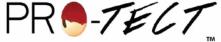
Read and view data and testimonials on Heads Up from Agassiz Seed representatives and seed dealers around the Midwest at HeadsUpST.com.





Seed Treatment





Seed Treatmen

CUSTOMIZE TO FIT THE NEED

PRO-TECT Seed Treatment is a custom blended seed treatment service from Agassiz Seed & Supply for retail seed treating locations. Products are professionally selected and mixed to meet your customer's needs.

PRO-TECT Seed Treatment allows you to build the blend you need to help meet your customer's expectations and help your customer maximize their profits.

Features

- · Blend of proven chemistries
- · Produced when you order it
- · Custom blended for your customer's needs
- · Plumbed for recirculation, agitation and dispensing
- Blended red

Benefits

- · Maximizes grower's profitability
- Allows the retailer to choose best actives for their customers
- · Eliminates mixing errors
- Eliminates jug cleaning

Package Size

• 110, 30 & 15 gallon returnable containers

PRINCIPAL COMPONENTS

Available Legume Fungicides

- **Metalaxyl-M a.k.a. mefenoxam** (Anchor 3LST): Systemic fungicide, water-based seed treatment, improved formulation stability versus Metalaxyl, seed & seeding disease protection against Pythium and Phytophthora.
- Fludioxonil: Contact fungicide for control of decay, damping-off, and seedling blight, Rhizoctonia, & Fusarium.
- Azoxystrobin: Systemic fungicide for elevated suppression of Rhizoctonia, Fusarium, White Mold, Brown Spot, & Damping Off.
- Heads Up: Bio-Simulant with activity on Sudden Death Syndrome, White Mold. Added Root Growth & Plant health.
- **Thiophanate Methyl:** Systemic auxiliary fungicide controlling Rhizoctonia, Aspergillus, Fusarium, Seed decay, Seedling Blight and (seed born) Sclerotina and Phomopsis.
- **Thiabendazole:** Systemic fungicide for Sudden Death Syndrome, Fusarium, Rhizoctonia, Stem Blight, Molds Stem Rot, Seed Decay & more.

Insecticide

- **Imidacloprid** (Resonate® 600): Systemic insecticide delivering superior insect protection for below and above ground insects like Bean Leaf Beetle, Wireworm, Thrips, Seed Corn Maggot & Aphids and easy on beneficial insects.
- **Thiamethoxam** (Legend[™] 5LST): Systemic, water soluble, insecticide delivering superior insect protection for below and above ground insects like Bean Leaf Beetle, Wireworm, Seed Corn Maggot & Aphids.

Nematicide

• Burkholderia rinojensis (BioSt Nematicide 100): Non-living bacterium compatible with fungicides & insecticide that kills nematodes.

Bio-StimulantPlant

- Growth Regulator (BioST VPH 100): Promote and enhance seedling growth.
- Biofungicide/bactericide (Amplitude ST) for suppression of fungal and bacterail plant diseases.

Polymer: Binds the active ingredients to the seed and provides flowability through the planter.

Always read and follow label directions. ProTect custom blended seed treatments are a combination of separate, individually registered products.



Kind of Seed	Lbs./Acre	Planting Date	Seeds/Lb.	Height (ft.)	Season	Planting Depth (in.)
Blue Grama	3-5 PLS	Late Spring or Fall	725,000	1-2	Warm	.255
Bluestem, Big	8-10 PLS	Late Spring or Fall	145,000	5-8	Warm	.255
Bluestem, Little	8-10 PLS	Late Spring or Fall	250.000	2-3	Warm	.255
Bluestem, Sand	14-16 PLS	Late Spring or Fall	120,000	4-8	Warm	.255
Brome, Meadow	12-15	Spring or Fall	95,000	2-4	Cool	.255
Brome, Smooth	12-15	Spring or Fall	140,000	2-4	Cool	.255
Buffalograss	45-80 PLS	Late Spring or Fall	45,000	.5-1	Warm	.255
Climax Timothy	12-15	Spring or Fall	1,200,000	2-4	Cool	.12525
Creeping Foxtail	6-8	Spring or Fall	750,000	1-3	Cool	.255
Dropseed, Prairie	5-6 PLS	Late Spring or Fall	240,000	1-2	Warm	.12525
Dropseed, Sand	1-2 PLS	Late Spring or Fall	5,300,000	1-3	Warm	.255
Fescue, Meadow	15-20	Spring or Fall	230,000	2-4	Cool	.255
Fescue, Tall - Forage	20-25	Spring or Fall	227,000	3-5	Cool	.255
Festulolium	35-40	Spring or Fall	150,000	1-3	Cool	.255
Green Needlegrass	8-10	Spring or Fall	170,000	1.5-3	Cool	.255
Indiangrass	8-10 PLS	Late Spring or Fall	175,000	3-6	Warm	.255
Kentucky Bluegrass - Forage	20-25	Spring or Fall	1,400,000	1-3	Cool	.12525
Orchardgrass	12-15	Spring or Fall	600,000	2-3	Cool	.255
Prairie Cordgrass	8-10 PLS	Late Spring or Fall	150,000	5-7	Warm	.255
Prairie Junegrass	2-4	Spring or Fall	2,250,000	.5-2	Cool	.12525
Prairie Sandreed	4-6	Late Spring or Fall	250,000	3-4	Cool	255
Reed Canarygrass	5-10	Spring or Fall	530,000	2-6	Cool	.255
Ryegrass, Italian - Forage	30-40	Early Spring or Fall	225.000	2-3	Cool	.255
Ryegrass, Perennial - Forage	25-30	Spring or Fall	230,000	1-3	Cool	.255
Sideoats Grama	8-10 PLS	Late Spring or Fall	180.000	1-3	Warm	.255
Switchgrass	6-8 PLS	Late Spring or Fall	375,000	2-5	Warm	.255
Teff Grass	10-12	Late Spring or Summer	1,300,000	1-2	Warm	.125
Wheatgrass, AC Saltlander	5-10	Spring or Fall	110,000	1-3	Cool	.255
Wheatgrass, Bluebunch	8-10	Spring or Fall	125,000	1-3	Cool	.255
Wheatgrass, Crested - Forage	8-10	Spring or Fall	175,000	1-2	Cool	.255
Wheatgrass, Ephriam Crested	8-10	Spring or Fall	250,000	1-2	Cool	.255
Wheatgrass, Fairway Crested	8-10	Spring or Fall	250,000	1-2	Cool	.255
Wheatgrass, Intermediate	10-12	Spring or Fall	95,000	3-4	Cool	255
Wheatgrass, Pubescent	10-12	Spring or Fall	95,000	3-4	Cool	.255
Wheatgrass, Slender	8-10	Spring or Fall	135,000	2-3	Cool	.255
Wheatgrass, Streambank	8-10	Spring or Fall	155,000	2-3	Cool	.255
Wheatgrass, Tall	10-12	Spring or Fall	75,000	3-10	Cool	.255
Wheatgrass, Thickspike	8-10	Spring or Fall	150,000	2-3	Cool	.255
Wheatgrass, Western	10-12	Spring or Fall	113,000	1-3	Cool	.255
Wildrye, Beardless	7-10	Spring or Fall	172,000	2-4	Cool	.255
Wildrye, Canada	10-12	Spring or Fall	115,000	3-4	Cool	.255
Wildrye, Dahurian	10-15	Spring or Fall	80,000	1-3	Cool	.255
Wildrye, Russian	7-10	Spring or Fall	163,000	3-4	Cool	.255
Wildrye, Virginia	10-15	Spring or Fall	90,000	2-3	Cool	.255
Legumes						
Alfalfa	10-20	Spring to Fall	225,000	1-2	Cool	.255
Alsike Clover	6-8	Spring to Fall	700,000	1-3	Cool	.255
Berseem Clover	10-20	Spring	205,000	1-2	Cool	.255
Crimson Clover	15-25	Spring	140,000	.5-1	Cool	.255
Fixation Balansa Clover	5-8	Spring to Fall	750,000	1-2	Cool	.12525
Ladino Clover	8-10	Early Spring or Fall	750,000	1-2	Cool	.255
Mammoth Red Clover	10-12	Early Spring	275,000	1-3	Cool	.255
Medium Red Clover	10-12	Early Spring or Fall	275,000	1-3	Cool	.255
Sweetclover	8-10	Spring to Fall	200,000	1-5	Cool	.255
White Dutch Clover	3-6	Early Spring or Fall	800,000	.5-1	Cool	.255
Birdsfoot Trefoil	6-10	Early Spring or Fall	375,000	1-2	Cool	.255
Cicer Milkvetch	20-25	Spring or Fall	145,000	1-2	Cool	.255
Common Vetch	20-30	Spring to Fall	20,000	1-2	Cool	.575
Hairy Vetch	20-30	Spring to Fall	20,000	1-2	Cool	.575
Sainfoin	25-30	Spring or Fall	25,000	2-3	Cool	.575



Planting Guide

Kind of Seed	Lbs./Acre	Seed/Lb	Height (ft.).	Life Span	Flowering Period	Flower Color
American Vetch	40-45	33,000	1-2	Perennial	М	Purple
Aster. Heath	.5-1	2,500,000	1-3	Perennial	L	White
Aster, New England	1-3	1,200,000	3-4	Perennial	Ĺ	Purple
Aster, Smooth Blue	4-5	880,000	3-4	Perennial	L	Blue
Big Flower Penstemon	7-10	275,000	2-3	Perennial	Ē	Purple
Black Samson	10-12	115,000	1-2	Perennial	M	Purple
Black-Eyed Susan	1-3	1,500,000	1-2	Perennial	ML	Yellow
Blanket Flower	7-10	155,000	1.5-2	Perennial	M	Yellow/R
Blue Flax	8-10	293,000	1-2	Perennial	M	Blue
Blue Vervain	1-3	1,400,000	2-6	Perennial	M	Blue
Boneset	2	2,500,000	2-4	Perennial	L	White
Canada Milkvetch	6-10	270,000	1-3	Perennial	M	Cream
Canada Tick Trefoil	15-18	80.000	3-5	Perennial	M	Purple
Common Oxeye	20-25	60,000	3-4	Perennial	M	Yellow
Coneflower, Grey-Headed	2.5-3.5	600.000	2-4	Perennial	M	Yellow
Coneflower, Purple	13-15	115.000	2-3	Perennial	M	Purple
Coneflower, Yellow	3-4	737.000	1-2	Perennial	ML	Yellow
Culver's Root	.25	12.800.000	3-4	Perennial	M	White
Dotted Blazingstar	8-10	112.000	1-3	Perennial	ML	Purple
Evening Primrose	4-5	1,440,000	2-4	Perennial	ML	Yellow
Foxglove Beardtongue	2-3	2,080,000	2- 4 2-4	Perennial	E	White
	2-3 1-3		2-4 2-4		M	Purple
Fragrant Giant Hyssop Golden Alexanders		1,500,000	2 -4 1-2	Perennial Perennial	EY	Yellow
Golden Alexanders Goldenrod, Showy	8-10 1-2	192,000 1.500.000	3-4	Perennial	ML	Yellow
Goldenrod, Snowy	1-2 5-6	770.000	3 -4 1-5		L	Yellow
	2-3	-,	1-3	Perennial	ML	Blue
Hoary Vervain		448,000		Perennial		White
llinois Bundleflower	20-25	60,000	2-4	Perennial	ML	Purple
ronweed	4-6	384,000	3-6	Perennial	ML	Pink
Joe Pyeweed	1-3	1,500,000	4-6	Perennial	ML	
Lance Leafed Coreopsis	1-2	200,000	1-2	Perennial	E	Yellow
Leadplant	6-10	256,000	2-3	Perennial	ML	Purple
Maximilian Sunflower	5-10	150,000	4-6	Perennial	ML	Yellow
Meadow Blazing Star	8-10	150,000	3-5	Perennial	M	Purple
Milkweed, Butterfly	22-30	67,000	1-2	Perennial	M	Orange
Milkweed, Common	22-30	70,000	3-4	Perennial	M	Purple
Milkweed, Marsh	15-20	72,000	2-4	Perennial	М	Red
Milkweed, Showy	6-8	85,000	2-4	Perennial	EM	Pink
Partidge Pea	20-25	50,000	1-2	Annual	ML	Yellow
Plains Coreopsis	1-3	1,650,000	2-3	Annual	E	Yellow
Prairie Cinquefoil	.5-1	3,500,000	2-3	Perennial	ML	Yellow
Round Headed Bushclover	10-12	125,000	2-4	Perennial	L	White
Sneezeweed	.5-1	2,080,000	3-4	Perennial	L	Yellow
Stiff Sunflower	10-15	85,000	3-5	Perennial	ML	Yellow
Tall Blazingstar	10-15	136,000	2-4	Perennial	ML	Purple
Western Yarrow	1-2	2,800,000	1-2	Perennial	ML	White
Wild Bergamot	2-3	1,200,000	2-5	Perennial	M	Purple
Yarrow	1-2	2,800,000	1-2	Perennial	ML	White

Warranty Information

Limited Warranty: Agassiz Seed and Supply warrants to the original purchaser that the product delivered herewith, to the extent it has been manufactured by Agassiz Seed and Supply, will meet the specifications set forth in any applicable purchase order. With respect to any product not manufactured by Agassiz Seed and Supply, the customer agrees for said product, customer shall rely upon solely on warranties provided by the manufacturer of the product, if any, for which Agassiz Seed and Supply assumes no liability.

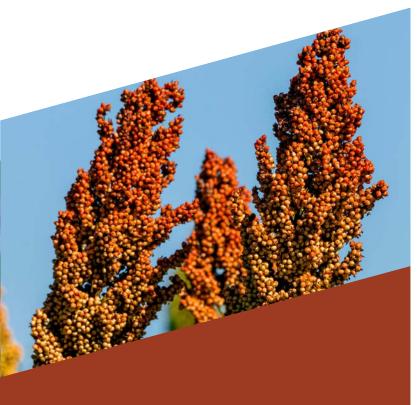
Exclusive Remedy: You must promptly notify, in writing, Agassiz Seed and Supply of any defect in the product delivered herewith covered by Agassiz Seed and Supply's warranty. Notice of any warranty claim must be received by Agassiz Seed and Supply within thirty days of the occurrence of the defect. Agassiz Seed and Supply shall have the option to either repair or replace any defective product.





Planting Guide

Cover Crop)S						
Kind of Seed	Lbs./Acre	Planting Date	Seeds/Lb	Season	Planting Depth (in.)	Growth Type	Growth Habit
Annual Ryegrass	15-25	Spring to Fall	215,000	Cool	.5-1	Grass	Upright
Barley	80-120	Early Spring	15,000	Cool	.75-1	Grass	Upright
Buckwheat	40-55	Summer	15,000	Warm	.575	Broadleaf	Upright
Chicory	2-4	Spring to Fall	425,000	Cool	.255	Broadleaf	Upright
Cowpea	20-30	Summer	2,500	Warm	.75-1	Broadleaf	Upright/Spreading
Faba Beans	100-150	Spring	200-800	Cool	2-3	Broadleaf	Upright
Flax	56	Spring to Fall	80,000	Cool	.255	Broadleaf	Upright
Forage Sorghum	8-10	Summer	18,000	Warm	.75-1	Grass	Upright
Grain Sorghum	8-20	Summer	15,000	Warm	.575	Grass	Upright
Hybrid Brassica	3-5	Spring to Fall	225,000	Cool	.255	Broadleaf	Upright/Spreading
Kale	4-6	Spring to Fall	165,000	Cool	.255	Broadleaf	Upright/Spreading
Lentil	30-50	Spring to Fall	25,000-50,000	Cool	1-1.25	Broadleaf	Upright/Spreading
Millet, Foxtail	25-30	Summer	225,000	Warm	.575	Grass	Upright
Millet, Pearl	12-20	Summer	60,000	Warm	.575	Grass	Upright
Millet, Proso	20-30	Summer	80,000	Warm	.75-1	Grass	Upright
Oats	60-80	Early Spring	17,000	Cool	.5-1	Grass	Upright
Peas	100-150	Early Spring	3,000	Cool	1-1.25	Broadleaf	Upright (vine)
Piper Sudangrass	30-45	Spring to Fall	90,000	Warm	.7-1	Grass	Upright
Purple Top Turnip	4-6	Spring to Fall	220,000	Cool	.255	Broadleaf	Upright/Spreading
Radish	6-8	Spring to Fall	35,000	Cool	.255	Broadleaf	Upright/Spreading
Radish, Nematode	10-12	Spring to Fall	35,000	Cool	.255	Broadleaf	Upright/Spreading
Rapeseed	4-8	Spring to Fall	145,000	Cool	.255	Broadleaf	Upright/Spreading
Safflower	20-30	Spring to Fall	12,500	Warm	.575	Broadleaf	Upright
Sorghum Sudangrass	20-30	Summer	16,000	Warm	.75-1	Grass	Upright
Soybean	30-50	Spring to Fall	3,000	Warm	.75-1	Broadleaf	Upright/Spreading
Spring Triticale	80-120	Early Spring	15,000	Cool	.5-1	Grass	Upright
Sugarbeet	4-6	Spring to Fall	10,000-25,000	Cool	.255	Broadleaf	Upright/Spreading
Sunflower	5-10	Spring to Fall	25,000	Warm	.575	Broadleaf	Upright
Winter Peas	100	Late Fall	3,500	Cool	1-1.25	Broadleaf	Upright (vine)
Winter Rye Grain	56	Late Fall	17,000	Cool	.75-1	Grass	Upright
Winter Triticale	80-120	Late Fall	12,000	Cool	.5-1	Grass	Upright
Winter Wheat	80-120	Late Fall	11,000	Cool	.5-1	Grass	Upright



Limitation and Disclaimer of Warranty: Except and to the extent expressly provided herein: (i) Agassiz Seed and Supply disclaims all warranties, either expressed or implied, with respect to the product delivered herewith, including, but without limitation, all implied warranties or merchantability and fitness for a particular purpose; (ii) Agassiz Seed and Supply shall in no event be liable to you or any others for damages resulting from claims of third parties arising out of or in connection with the use or performance of the product delivered herewith; (iii) Agassiz Seed and Supply shall not be liable for any special, incidental or consequential damages (including lost revenues or profits), even if Agassiz Seed and Supply had been advised of the possibility of such damages.

Due to the timing of this publication, some product ingredients or percentages may change slightly to reflect availability. Please refer to our website for current ingredient listings and percentages. We hope this Product Guide helps you when making planting decisions using Agassiz Seed products. Thank you for taking the time to consider these products.

