LOOKING FORWARD TO 2015

To our valued customers,

Throughout the nearly 20 years that we’ve been providing certified organic farm seed to the organic farming community, we’ve viewed our role as more than simply supplying and cleaning seed. Part of our operating budget every year is allocated directly to supporting organic and non-GMO seed breeding efforts in the Upper Midwest and nationwide. We invest part of our profits back into the organic community by investing in the development of non-GMO corn inbreds, non-GMO soybean varieties, new small grain varieties, and innovative cover crop seed choices.

We work closely with non-GMO hybrid corn seed breeders nationwide to develop and rigorously test the best corn germplasm available. We also pay for replicated testing of this material to ensure that each bag of Organic Viking Corn is something you can hang your hat on. In cooperation with Blue River Hybrids, we are now offering a full lineup of hybrids specifically for silage: BR33L90, BR43L96, and BR53L96.

While available breeding lines of non-GMO soybeans have dwindled in the United States, we have been on the forefront of testing every commercial non-GMO soybean variety available to us in the marketplace. Moreover, we have supported and worked with soybean breeding programs at the University of Minnesota, Iowa State University, and Michigan State University to provide reliable and high-quality organic soybean varieties. For 2015, we are pleased to announce the addition of six new soybean varieties to our lineup, three of which have stacked resistance genes to soybean aphids.

I have been involved in a lobbying effort in Washington to increase funding for small grains breeding work in the latest Farm Bill. We are actively reaching out to all small grains breeders across the Upper Midwest and devoting financial support to such efforts. We are currently aiding development and evaluation of winter-hardy varieties of winter barley for the Upper Midwest, winter oats, and new certified varieties of winter rye.

Finally, we are committed to scaling up our organic cover crop seed offerings for this coming year in a big way. We have worked closely with farmer innovators, industry leaders, and researchers to provide the best species and mixtures for cover cropping in organic farming systems.

All of these efforts would not be possible without you, our farmers and farm families. We feel very fortunate to have you as a customer and sincerely appreciate the trust you put in us. When you buy organic seed from Albert Lea Seed, you are making an investment in the future health and sustainability of the organic community.

From all of us at the ‘seedhouse,’ we wish you a safe, happy, and profitable farming season.

Sincerely,

Mac Ehrhardt (Owner)

Tom Ehrhardt (Owner)

George Ehrhardt (Second-generation Owner)
**Early Pay Discounts**

New Early Pay discount schedule:
- 7% by Nov. 15
- 6% by Dec. 15
- 5% by Jan. 15
- 3% by March 15

*Not available with John Deere Financial.*

Available on corn, soybeans, and alfalfa only.

**Viking Corn Bag Discounts**

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<th>Discount</th>
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**Viking Soybean Discount Schedule**

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* Available on corn, soybean, and alfalfa orders only
* Not available with Early Order Discounts
* $2500 minimum purchase

Please Call 1-800-352-5247 to place your order. Our knowledgeable sales staff will assist you in placing your order and determine the best possible means of delivering your seed. Many of our customers still make the drive to see us in the spring but we can also ship direct to your farm or network you with a dealer in your area.

1) We ship to all fifty states: UPS, SPEE-DEE and LTL Freight.
2) We ship on receipt of payment.
3) There is a $9.50 pallet and wrap charge on all LTL freight orders.

We can ship a pallet (2500#) to you for $80.00-$100.00 anywhere in MN/WI/IA/SD/IL/IN/NE. You must have semi access and a loader with forks. Please call for a firm quote.

Three generations:
George, Mac, and Sam Ehrhardt.
### ORGANIC AND UNTREATED CORN PERFORMANCE TABLE

<table>
<thead>
<tr>
<th>Variety</th>
<th>CRM</th>
<th>Heat Units</th>
<th>N&amp;S Region</th>
<th>E&amp;W Region</th>
<th>Planting Population</th>
<th>High Pop.</th>
<th>Low Pop.</th>
<th>Emerg.</th>
<th>Early Growth</th>
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Scale Range: 10 = Best Possible, 9 = Excellent, 8 = Above Average, 7 = Average, 6 = Below Average, 5 = Well Below Average, and below we would not sell.

### Viking Corn Genetic Adaptation Zones

- **Western Corn Belt**
- **Central Corn Belt**
- **Eastern Corn Belt**

### UNTREATED VIKING CORN

- **60-85N**: 85 Day
- **35-87N**: 87 Day
- **42-92N**: 92 Day
- **51-95N**: 95 Day
- **7292N**: 95 Day
- **69-99N**: 99 Day
- **60-01N**: 101 Day
- **50-04N**: 104 Day
- **40-07N**: 107 Day
- **53-09N**: 109 Day

See full descriptions at Vikingcorn.com
**Viking O.87-80N Corn**
*Excellent Yield Potential for Early Corn*  
80-Day C.R.M.

- Very good yield potential in its zone of adaptation
- Good drought stress tolerance
- Very good stalks and roots in maturity zone
- Excellent drydown in the fall
- Best performance at higher populations on medium to heavy soils

**Viking 60-85N Corn**
*Conventional, Untreated*  
*Excellent Yields, Stalks, and Drydown*  
85-Day C.R.M.

- Very high yield potential (for its maturity)
- Excellent stalk strength
- Very good drought stress tolerance
- Very good ear flex, performs well on variable soils and at variable populations
- Good plant health, above-average test weight
- Medium-height hybrid
- Broadly adapted across ND, SD, MN, WI, MI, and NY

**Viking O.44-86N Corn**
*Fast Emergence, Strong Yield Potential*  
87-Day C.R.M.

- Jumps out of the ground quickly, gets ahead of early weeds
- Very good early growth
- Good ear flex, suitable for variable plant populations
- Well adapted to organic field conditions
- This hybrid has shown excellent yield potential on fertile soils
- Excellent root strength

**Viking O.85-90N Corn**
*Excellent Ear Flex, Rapid Drydown*  
90-Day C.R.M.

- Superior yield potential on productive soils
- Best performance within its zone of adaptation (northern Corn Belt)
- Fast drydown and good late-season intactness
- Strong rooted hybrid
- Ideally suited for productive soils

**Viking O.61-91N Corn**
*Healthy, High-Yielding Genetics*  
91-Day C.R.M.

- Exceptional yield potential
- Excellent stalk and root strength
- Good drought stress tolerance
- Girthy, semi-flex ears, maintains performance at varied populations
- Slower drydown for a 91-day
- Healthy, robust plant
- Likes heat, plant into warm soil for optimum seedling vigor

**Viking O.85-92N Corn**
*Good Yields on Good Soils, Good Ear Flex*  
92-Day C.R.M.

- Superior yield potential on productive soils
- Similar genetics to O.85-90N
- Best performance within its zone of adaptation (northern Corn Belt)
- Fast drydown and good late-season intactness
- Strong rooted hybrid
- Best suited for productive soils with good moisture-holding capacity

**NEW Viking 35-87N Corn**
*Conventional, Untreated*  
*Highly Adaptable Hybrid*

- High yield potential in early-maturing genetics
- Wide geographic area of adaptation
- Excellent late-season intactness
- Very good plant health and standability
- Medium-tall hybrid
- Semi-flexed ear, best suited for medium to high plant populations

Gary Yokiel planting a test plot of Viking Corn
**Viking D2901 Corn**  
*Solid Agronomic Hybrid for Organic Conditions*  
92-Day C.R.M.

- Hybrid genetics from independent breeding program at Cornell University unique to Albert Lea Seed Organics
- Tall hybrid with good ear flex, good dual-purpose potential
- Widely adapted, will perform on varied soil types
- Superior drought tolerance
- Ensure timely harvest in the fall, below-average fall stalk strength
- True 4-way cross confers tremendous agronomic stability to this hybrid

**Viking O.96-94N Corn**  
*Good Plant Health, Productive in All Soil Types*  
95-Day C.R.M.

- Excellent yield potential for grain or silage
- Better plant health and standability vs. O.7292
- Very good ear flex and test weight
- Maintains productivity at varied populations
- Very good plant health and canopy closure
- Fast emergence to get ahead of spring weeds
- Good stress tolerance makes this a versatile hybrid

**Viking 7292N Corn**  
*Conventional, Untreated*  
*Proven Yield and Toughness, Our Best-Selling Hybrid for Organic Field Conditions*  
95-Day C.R.M.

- The most widely-planted and successful 95-day genetics in MN and SD over the last 10 years
- Exceptional root strength and drought tolerance
- Very good ear flex, good performance at moderate to high populations
- Best performance north of Hwy. 18 in Iowa
- Not a racehorse, but consistently good performance year after year
- Not a good choice for late-harvested fields

**Viking 51-95N Corn**  
*Conventional, Untreated*  
*Tremendous Yield Potential*  
95-Day C.R.M.

- Unsurpassed yield potential in its zone of adaptation
- Very good stalk strength
- Excellent roots and drought stress tolerance
- Good test weight, drydown, and seedling vigor
- Best performance at higher populations
- Ideally suited for the northern half of SD, north of Hwy. 14 in MN, and I-90 in WI

**Viking O.24-95N Corn**  
*Healthy, Adaptable, Stress-Tolerant Hybrid*  
95-Day C.R.M.

- Very good yield potential
- Moderate-height hybrid
- Very good staygreen and plant height
- Early flowering
- Good drought stress tolerance
- Very good stalk strength, average roots
- Suitable for varied soil types, avoid compacted clay soils

**NEW Viking O.71-97N Corn**  
*Yield, Plant Health, Stress Tolerance*  
97-Day C.R.M.

- Excellent yield potential
- Similar parentage to O.24-95N and O.24-02N
- Very good plant health and fall staygreen
- Nice flex ears, suitable for varied plant populations
- Above-average standability
- Very good stress tolerance for drier areas of your farm
Viking O.79-96N Corn
Good Yields, Wide Zone of Adaptation
97-Day C.R.M.
- High-yielding genetics with above-average test weight
- Strong stalk strength
- Excellent ear flex, well adapted to variable populations
- Dual-purpose use for silage or grain
- Avoid shallow soils or overly droughty locations
- Healthy plant with broad leaves

Viking O.35-99N Corn
Quick Emergence and Good Yield Potential
99-Day C.R.M.
- Very good yield potential
- Medium-tall plants with good standability
- Very good early vigor
- Excellent plant health with broad leaves
- Good dual-purpose potential for grain or silage
- Good adaptability to central and western Corn Belt

Viking O.6710N Corn
Elite Genetics, Well Adapted for Organic Production
98-Day C.R.M.
- Good early-season vigor and cold soil tolerance
- Tall hybrid with excellent yield potential for grain or silage
- Very healthy plant with good root strength
- Good drought tolerance and test weight
- Widely adapted across the northern Corn Belt
- Proven hybrid, we sell out early

NEW Viking O.58-98N Corn
Racehorse Hybrid for Your Most Productive Acres
- Maximize yield on your good ground with this new hybrid
- Position this hybrid on medium to heavy soils in a rotation for best performance
- Medium-height plant with very good emergence
- Very good root strength
- Good ear flex for performance under variable populations
- A fast-drying hybrid that is not a good choice for late-harvested fields
- Avoid low-fertility fields, this hybrid is a heavy feeder and will need adequate N for maximum production

Viking O.69-99N Corn
Healthy and Excellent-Standing White Cob Hybrid
100-Day C.R.M.
- Excellent yield potential
- White cob hybrid with excellent ear flex that allows it to do well at moderate plant populations
- 69-99N is an earlier version of 5305, one of our most popular organic hybrids in the past
- Good early-season growth, likes heat
- Good drought stress tolerance
- Potentially a good hand-picking corn
- Above average height, good dual-purpose use as a silage hybrid
- Available as organic and conventional, untreated seed

Viking 60-01N Corn
Conventional, Untreated Unmatched Yield Power, Plot Winner
101-Day C.R.M.
- Exciting genetics with unmatched yield power in conventional corn, competing well with elite hybrids in the marketplace
- Attractive medium-tall plant with very good stalk and root strength
- Semi-flex ear with very good test weight grain
- Very good disease tolerance
- Very good overall plant health and fall intactness for a conventional hybrid
- One of our best-selling hybrids for 3 years running
Viking O.67-01N Corn
Excellent Yield Potential, Healthy, Solid Agronomics
101-Day C.R.M.

• Excellent yield potential
• Impressive stalk and root strength
• Very good test weight and grain quality
• Tall, healthy plants that would also make good silage
• Best performance from I-35 throughout the eastern Corn Belt on good ground
• Consistent ear size but limited ear flex, outstanding performance at high populations

NEW Viking O.24-02N Corn
Unmatched Plant Health With Leading Yield
102-Day C.R.M.

• Superior yield potential with a unique plant architecture
• Very good seeding vigor
• Dense foliage and robust canopy coverage shades out weeds
• Good standability and plant health
• Attractive hybrid in field with low ear placement
• Slower drydown for a 102-day

Viking O.57-04N Corn
Vigorous, Healthy, High Yielding
104-Day C.R.M.

• Top-of-the-line yield potential
• Widely adaptable hybrid, suited to most organic field conditions
• Tall, healthy, very good ear flex, tight husks
• Excellent dual-purpose potential
• Good stalk strength
• Vigorous early growth and canopy closure
• Best performance as an earlier hybrid in zone

NEW Viking O.63-05N Corn
Rock-Solid 105-Day Hybrid, Suited for Organic Conditions
105-Day C.R.M.

• Impressive and stable performance for 3 years across multiple locations
• Impressive root strength and above-average stress tolerance
• Semi-flex hybrid, yields large, girthy ears
• Widely adapted across multiple field locations and states
• Medium-tall hybrid would make suitable silage as well

Viking O.59-06N Corn
Widely Adapted, High Yielding
106-Day C.R.M.

• This hybrid has a proven track record
• Very good emergence and early-season vigor
• Medium-tall plant with excellent plant health and yield potential
• Good ear flex for consistent performance at varied populations
• Very good drought tolerance and root strength
• Well adapted from Nebraska to Illinois

Viking 40-07N Corn
Conventional, Untreated
Excellent Yields From Midwest to East, Heavy Test Weight
107-Day C.R.M.

• Excellent yields in 5 years of testing across a wide range of environments
• Strong stalks and roots
• Good overall plant health and drought tolerance
• Nice flex ear with very heavy, high-quality grain
• Potential food-grade corn
• Widely adapted in the 107-day maturity band across NE, IA, and IL
Blue River 58PM36 Corn
PuraMaize® Hybrid Genetics Eliminates Risk of GMO Contamination

108-Day C.R.M.

- The PuraMaize® system, derived from traditional breeding, prevents cross-pollination of your fields by neighboring corn (including GMO cornfields)
- Effective way to retain non-GMO status of your corn
- Widely adapted hybrid with excellent yield potential
- Good ear flex
- Strong plant profile, robust roots and stalks
- This is a tall hybrid that could double as silage corn
- We strongly recommend that all PuraMaize® hybrids be planted in blocks of at least 25 acres (in order to generate an adequate pollen “cloud”)

NEW Viking 53-09N Corn
Conventional, Untreated
Simply Good Corn

109-Day C.R.M.

- Consistent high yields across multiple environments and years
- Good emergence, stalk, and root strength
- Good plant health, well suited to all rotations
- It will do well across a wide range of soil types and has good drought tolerance
- Very good ear flex
- Widely adapted across NE, IA, IL, IN, and OH

Blue River 33L90 LFY Corn
Early, True Leafy Silage Hybrid, Excellent Tonnage

92-Day C.R.M.

- Tall, true leafy silage hybrid
- Stalks are lower in lignin, which boosts NDFD and silage quality
- More usable young leaves above the ear
- Excellent milk/acre yields and tonnage
- Good rooting strength and standability
- True leafy hybrids give you more digestible tonnage per acre than grain hybrids
- True leafy hybrids are best utilized in dairy rations where corn silage makes up greater than 60% of the forage diet

Blue River 43L96 LFY Corn
Tremendous Tonnage and Digestibility

100-Day C.R.M.

- A tall, true leafy, silage-specific hybrid
- Low in lignin, exceptional digestibility
- Excellent tonnage and milk production per acre
- Best performance on medium to better soils
- True leafy hybrids give you more digestible tonnage per acre than grain hybrids
- True leafy hybrids are best utilized in dairy rations where corn silage makes up greater than 60% of the forage diet

Blue River 53L96 LFY Corn
True Leafy Silage Hybrid, Superior Tonnage

103-Day C.R.M.

- True leafy silage hybrid with soft grain for improved digestibility
- Large ear size, very good tonnage
- Higher starch content due to higher grain yields
- Excellent seedling vigor
- True leafy hybrids give you more digestible tonnage per acre than grain hybrids
- True leafy hybrids are best utilized in dairy rations where corn silage makes up greater than 60% of the forage diet

NEW John Hassing,
Wells, MN.
Organic Silage Blend
80-95 Day C.R.M.  
95-110 Day C.R.M.
- Blend of organic hybrids suitable for chopping
- Two different maturity range options
- Plateless grade, packaged in 80M Units

OPEN-POLLINATED CORN

E-95 Organic Open-Pollinated Corn
Early Open-Pollinated Field Corn  
94-97-Day C.R.M.
- Organically grown open-pollinated corn
- Improved variety selected in Wisconsin for yield and standability
- Widely planted in the Upper Midwest
- Plant 22,000-28,000 seeds/acre
- Excellent for silage
- Has yielded 118-146 bu/acre

Elliot’s White
Conventional, Untreated
- 85-day white kernel, open-pollinated variety
- Product of 25 years worth of selection
- Good emergence
- Medium height, good standing
- Very high protein grain, excellent ear flex
- Prefers medium to heavy soils
- Likes thinner plant populations than hybrid field corn

MN13
- 95-day, yellow dent, open-pollinated variety
- Once one of the most popular field corn varieties planted in the northern Corn Belt
- 7-8’ tall plants with good ear placement
- Good dual-purpose potential for grain or silage
- Watch standability on heavier soils

Open-Pollinated Corn Untreated
Rainbow Flint OP  110 Day  
Blue Corn OP  110 Day  
Bloody Butcher OP  120 Day

ORGANIC & UNTREATED SWEET CORN

It is recommended to plant untreated and organic sweet corn seed into warm soil (at least 65-75° F) at 1 in. depth. Early planting into cool, wet soils can result in poor germination due to fungal disease competition and seedling blights.

**Organic Luscious**
- 75-day bi-color, proven excellent eating quality
- Deep kernerled and delicious is a frequent comment
- Good relative cold soil germination (compared to other organic/untreated varieties)
- Attractive plant, good husk cover
- 16-18 kernel rows, 8” ears
- Coated with PC4 (OMRI approved)

**Organic Natural Delight**
- 78-day bi-color, adaptable and robust plant
- Specifically selected for its outstanding emergence
- Great eating quality and long harvest window
- Produces 8.5-9” slender ears with 14-kernel rows
- Coated with PC4 (OMRI approved)

**Cold Cash**
Conventional, Untreated
- 75-day bi-color
- Large harvest window, good seedling vigor
- Reliable, good quality
- Coated with PC4 (OMRI approved)

**Sugar Pearl**
Conventional, Untreated
- 73-day all-white with tender kernels
- Superb sweetness and eating quality
- 14-16 kernel rows, 8” ears with full blunt tips
- Coated with PC4 (OMRI approved)

**Brocade**
Conventional, Untreated
- 82-day high quality, main season bi-color
- Ears harvest easily, dark green husk
- Good disease tolerance to blights and Stewart’s Wilt
- 16-18 kernel rows, 8.5” ears average
- Coated with PC4 (OMRI approved)

**Spring Treat**
Conventional, Untreated
- 71-day early season, all-yellow variety
- Ensure timely harvest for best eating quality
- Short stalks, germinates well in cool soils
- Long ears with good sweetness and tenderness
- Coated with PC4 (OMRI approved)
CORN

SOIL BIOTICS 1R SEED TREATMENT (Formerly labeled XCell ST)

Viking Organic Seed, with Blue River Hybrids, is pleased to introduce a promising new seed coating for organic growers. Early planting, wet and cold soil conditions, and early-season seedling vigor are persistent issues that organic growers face in getting the greatest return on their seed corn investment. Laboratory testing has consistently found that corn coated with 1r had greater cold germination tests than uncoated corn. All Organic Viking Corn will be treated with 1r in 2015.

What is 1r Seed Treatment?

1r is a carbon-based acid derived from naturally occurring materials and contains humic, fulvic, and ulmic acids. Reported benefits of these acids include improved nutrient extraction by plants, better root development, and reduced stress. This product is the exact same formulation as XCell ST, which was offered in 2013 and 2014.

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2013 IOWA STATE LABORATORY TESTING

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Sheyenne Soybeans

*Highest-Yielding Early Soybean, Clear Hilum*

**Maturity:** Group 0.8

- **Hilum:** Yellow
- **Protein:** Average
- **Seed Size:** Medium
- **End Use:** Feed & Food

- Very high-yielding, yellow-hilum soybean
- Released by ND, widely adapted
- Rps1c gene for Phytophthora tolerance
- Good tolerance to IDC on high-pH soils
- Very good standing

“*Sheyenne is a fantastic variety for us. 45 bu/acre.*”
—Lynn Brakke, Moorhead, MN.

Viking O.1544AT Soybeans

*Strong Yields, Aphid Resistance*

**Maturity:** Group 1.4

- **Hilum:** Black
- **Protein:** Average
- **Seed Size:** Medium
- **End Use:** Feed Grade

- Rag1 aphid-tolerant genetics provide maximum yield protection for organic growers
- Better field IDC tolerance than O.1955AT
- Below-average height soybean with excellent standability
- Slow-emerging variety
- Keep off of cyst ground

Viking O.1422 Soybeans

*Broad Adaptability and Good Yields*

**Maturity:** Group 1.4

- **Hilum:** Yellow
- **Protein:** Average
- **Seed Size:** Medium
- **End Use:** Feed & Food

- Very good-yielding, clear hilum soybean
- Highly adaptable to varied soil types
- Moves east to west well from the Dakotas to WI and beyond
- Has generated interest from soy marketers, good dual-purpose potential for feed or food-grade use
- Excellent emergence and standability
- Keep off of cyst ground and fields with history of SDS

“*O.1544AT were planted late, after July 5. I was very satisfied with yield and quality at such a late date. 30+ bu/acre.*”
—Fredrick Miller, Bristow, IA.

“*O.1544AT were short but had lots of pods. 51 bu/acre.*”
—Mike Rupprecht, Lewiston, MN.

Viking O.1706N Soybeans

*Cyst-Resistant, Very High Yields*

**Maturity:** Group 1.8

- **Hilum:** Black
- **Protein:** Average
- **Seed Size:** Medium
- **End Use:** Feed Grade

- Third highest-yielding soybean in U of MN 2010 specialty trials
- Widely-adapted, excellent emergence
- Cyst-resistant soybean with good all-around defense (PI88788)
- Very good yield potential, consistently high yields
- Very good field tolerance to Phytophthora, MR to BSR, and MT to white mold
- Medium-tall, bushy plant suitable for wide rows
Viking O.1993N Soybeans
Solid, High-Yielding Soybean

Maturity: Group 1.9

Hilum: Black
Protein: Average
Seed Size: Medium
End Use: Feed Grade

- Excellent yield potential and strong performer
- Rock-solid agronomic profile for organic conditions
- Strong defensive package against high pH soils, Phytophthora, and SCN
- Medium-tall, medium-bush plant type accommodates varying row widths and shades out weeds
- Cooperative offering from Viking Seed and eMerge genetics

Viking O.1955AT Soybeans
Aphid Resistant, Strong Yield Potential

Maturity: Group 1.9

Hilum: Black
Protein: Average
Seed Size: Medium
End Use: Feed Grade

- Rag1 aphid-tolerant genetics provide yield protection for organic growers
- Excellent yield potential
- Medium-tall, medium-bush plant type
- Good field results in 2011, lowered aphid counts vs. non-resistant beans
- Good field tolerance to Phytophthora
- Avoid fields with a history of BSR

“O.1955 were my best beans this year. Very bushy and they yielded 42 bu/acre.”
—Tom Frantzen  New Hampton, IA.

IA 2104 Soybeans
Yields More and Stands Better Than IA2053

Maturity: Group 2.1

Hilum: Yellow
Protein: High
Seed Size: Large
End Use: Food Grade

- New benchmark food-grade, clear hilum soybean from Iowa State breeding program
- Consistently outyields IA2053 in multi-year replicated state tests
- Similar protein profile to IA2053 and IA2067
- Excellent standability for a food-grade soybean
- Keep off of high-pH soils
- Some field resistance to SDS

IA 2104RA12 Soybeans
Food-Grade Soybean With Stacked Aphid Resistance!

Maturity: Group 2.3

Hilum: Yellow
Protein: High
Seed Size: Large
End Use: Food Grade

- True food-type, clear hilum, high-protein soybean with elite aphid resistance
- Exact same genetics as O.IA2104
- Stacked Rag1 and Rag2 aphid-tolerant genetics give this soybean the most resistance to soybean aphid on the marketplace
- Matures a few days later than O.IA2104

Call for current prices and availability
Viking O.2299N Soybeans
A “Whole Package” Clear Hilum Soybean
Maturity: Group 2.2

- Out-yielded every Roundup® and conventional soybean we tested it against in 2013
- Exceptional yield performance
- Clear hilum, average-protein seed make this an ideal candidate for dual-purpose marketing
- Cyst-resistant (PI88788) soybean with good all-around defensive characteristics
- Medium-tall plant is well suited for wide rows and organic field conditions

Viking O.2265 Soybeans
One of the Highest-Yielding Soybeans Under Organic Conditions
Maturity: Group 2.2

- Proven performance throughout its maturity zone year after year
- Medium-tall, bushy plant type with very good lodging resistance
- Excellent emergence and very strong Phytophthora field tolerance
- Excellent white mold tolerance, some tolerance to SDS
VIKING ORGANIC & NON-GMO SOYBEAN CHARACTERISTICS

**NEW Viking O.2399NAT12 Soybeans**

A “Whole Package” Clear Hilum Soybean With Stacked Aphid Resistance

**Hilum:** Yellow  
**Protein:** Average  
**Seed Size:** Medium  
**End Use:** Feed and Food

- Exceptional yield performance  
- Same genetics as O.2299N with added aphid tolerance  
- Clear hilum, average-protein seed make this an ideal candidate for dual-purpose marketing  
- Stacked Rag1 and Rag2 aphid-tolerant genetics give this soybean the most resistance to soybean aphid on the marketplace  
- Matures a few days later than O.2299N  
- Cyst-resistant (PI88788) soybean with good all-around defensive characteristics  
- Medium-tall plant is well suited for wide rows and organic field conditions

**NEW IA3051RA12 Soybeans**

Unmatched True Food-Type Yield Performance With Stacked Aphid Resistance!

**Hilum:** Yellow  
**Protein:** High  
**Seed Size:** Large  
**End Use:** Food Grade

- Strong yielding food-type soybean with excellent standability  
- Consistently produces very high-protein seed for premium marketing  
- Stacked Rag1 and Rag2 aphid-tolerant genetics give this soybean the most resistance to soybean aphid on the marketplace  
- Moderately resistant to SDS  
- Avoid high pH soils

**LICENSE REQUIRED**

The soybean varieties beginning with IA require you to initial a license statement before you purchase or plant them. If you want to save seed for planting, you must sign a more extensive license. If you have any questions about licensing, please call Julie Minot at ISU: (515) 294-9442.
Organic Soybean Seed

2013 ALBERT LEA SEED REPLICAED NON-GMO SOYBEAN TRIAL

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BioSeedCoat™
- A liquid biological seed coating applied by ProfitProAG.

ProfitCoat™ PB
- A dry planter box seed coating applied at the time of planting.

Features:
- Bacteria and mycorrhizal fungi that will colonize the germination seedling and developing root system.
- Beneficial microbial stimulant.
- Micronized mineral ores containing up to 75 minerals.
- Nutrient solubilizer and stabilizer.
- Organic color coating.

Benefits:
- A seedling and season long plant health enhancement system.
- Improved consistency and uniformity of stand.
- Improved root mass, standability, yield, dry down and test weight.
- Convenient.
- Improves profitability.

BioSeedCoat™ and ProfitCoat™ PB can be applied to all crops.

For organic seed coating prices or to order, contact ProfitProAG...1-888-875-2425
Organic and Conventional Soybeans and GMOs

We do not guarantee that any of these varieties are 100% free of Genetically Modified Organisms (GMOs). We do not guarantee that grain harvested from this seed will be marketable as non-GMO grain. All of these soybeans are taken through the Minnesota Crop Improvement Association's “Non-GMO Seed Program,” which verifies that the seed we are selling is 99.5% free of the presence of GMOs. All of these varieties are tested, and we will not sell them if they are not 99.9% GMO free. Test results available upon request.

Graph-Ex™ OSI

(Organic Soybean Inoculant plus Seed Lubricant)

- Dry blend of three strains of yield-enhancing encapsulated Bradyrhizobia bacteria in a special blend of talc and graphite.
- Seed lubricant - special blend of talc and graphite
- Not a traditional planter box soybean inoculant:
  - No PEAT product formulation
  - NO Wear to meters
  - NO Buildup in planter
  - NO Bridging like liquid products
  - LOW use rate
- Apply one-half ounce (0.5 oz) per 50 lbs of seed into the planter or drill box.
- Package size:
  - 25 oz (50 x 50 unit)
  - 5 oz (10 x 50 unit)

Apply Graph-Ex on your organic seed for improved growth & yield

ProfitPro, LLC 1-888-875-2425

Pyganic Bioinsecticide

- Labeled for use against soybean aphids, potato leafhopper, and other insect pests
- OMRI-Approved for organic crop production
- Active ingredient is pyrethrum, an extract from a species of chrysanthemum
- Immediate, broad spectrum control of insects and pests
- No residual activity (zero pre-harvest interval)
- Liquid formulation which can be tank mixed with other ingredients
- $495.00/gal, (cost per acre $34.80/acre)
- $140.00/qrt, (cost per acre $39/acre)
- Use Rate = 9 oz./acre (Aphids)
- Apply at dusk using approx 20 gal. of water an acre. Sunlight breaks it down.
- More information at www.pyganic.com

Matt Leavitt, Albert Lea Seed Agronomist.
ORGANIC OATS

Oats should be drilled 1-2 in. deep into a firm seedbed in early spring. Planting rate straight for grain/orage: 80-110 lbs (3 bu/acre). Planting rate with alfalfa: 48-64 lbs (1½-2 bu/acre).

Organic Shelby427 Oats
- Superior-yielding “Racehorse” variety
- 114.1 bu/acre in SDSU internal testing (24 location years from 2008-2010)
- Out-yields Reeves and stands better
- Tall oats with excellent standability
- Good disease resistance
- Excellent for feed, milling, cut forage, or straw production
- White Seed (Released by SD)

Organic Jerry Oats
- High-yielding oats with excellent test weight
- Medium-tall plant, medium maturity
- Good standing
- Moderately susceptible to stem and leaf rust
- Watch standability on highly fertile fields
- White seed (released by ND)

Organic Badger Oats
- Highest-yielding early variety in MN trials for 3 years
- Excellent choice for underseeding alfalfa, clovers, or grasses
- Very good test weight, good standability
- Moderate disease resistance
- Yellow seed (Released by WI)

Organic Everleaf 126 Forage Oats
- True forage-type oat for exceptional yields and quality
- Delayed heading over regular oats (7-10 days)
- Leafy and soft stemmed
- Medium-tall height, good standability
- Keep seeding rates low if underseeding alfalfa
- Seed 3 bu/acre for maximum yields

Organic Streaker Hulless Oats
- Excellent test weight and very high grain yields for a hulless oat
- Medium maturity (1-2 days later than Buff)
- Taller plant type (compared to Buff)
- Excellent disease resistance – resistant to stem rust and moderately resistant to crown rust
- Hulless oats are a high-protein feed source for livestock (released by SD)

Barley should be drilled 1-1½ in. deep into a firm seedbed in early spring. Planting Rate: 96 lbs (2 bu/acre).

Organic Robust Barley
- Taller variety with better straw yields than Rasmusson
- A widely planted and very consistent variety
- Good disease resistance and straw strength
- Lower yields and higher protein than Rasmusson
- Six-row barley approved for malting
- Released by U of MN

Organic Rasmusson Barley
- One of the highest-yielding barleys in U of MN variety trials
- Lower grain protein than Robust
- A shorter variety with good lodging resistance
- Excellent choice for underseeding alfalfa
- Equivalent disease package to Robust
- Medium maturity
- Six-row barley approved for malting

Organic Conlon Barley
- Specialty two-row malting barley
- Competitive grain yields
- Good option for underseeding alfalfa or other forages
- Early maturing
- Good standability and lodging resistance
- Semi-smooth awn, long rachilla hairs
- Approved for malting

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Data derived from NDSU 2012 Carrington Research Extension Station Variety Trials
ORGANIC HARD RED SPRING WHEAT

Hard Red Spring wheat should be drilled 1-2 in. deep into a firm seedbed. Plant as soon you can prepare a good seedbed (last week of March is fine). Planting Rate: 120-140 lbs/acre.

Organic Glenn Wheat
- Highest possible rating for baking quality
- Excellent test weight and protein
- Best available scab tolerance with excellent tolerance to both leaf and stem rust
- Consistent high yields
- Excellent standing, “strong” straw strength rating from U of MN
- Good choice for fertile soils or farms located south and/or east of the usual HRSW growing areas
- Glenn is difficult to thresh. The seed can be hard to separate from the glume or husk, thus leaving a large number of “white heads” in the grain tank.

Organic RB07 Spring Wheat
- A benchmark variety, RB07 has been planted on over one million acres in the Midwest
- High yielding, widely adapted, consistent
- Attractive combination of high grain yield and test weight
- Above average protein, “med-high” rating from U of MN
- Very good disease resistance
- Medium height with good straw strength
- Easier to combine than Glenn or Steele-ND

Organic Forefront Spring Wheat
- High-yielding variety from SDSU
- Excellent test weight and a leader in grain protein
- Early maturing
- Tall growing semi-dwarf variety, watch fertility on heavier soils or soils with overabundant manure applications
- Good straw strength
- Moderate resistance to Fusarium Head Blight (Scab), Leaf Rust, and Stem Rust
- Good fit for hotter, drier growing conditions

ORGANIC FUNGICIDES
2014 was a tough year to grow small grain in many areas of the Upper Midwest. The cooler temperatures and above-average rainfall led to the development of serious fungal diseases such as Crown Rust in oats and Fusarium Head Blight (scab) in wheat and barley. Fusarium Head Blight-infected grain can cause Vomitoxin, which can be fatal to livestock. There are some products approved for organic crop production, which have activity against many of these fungal diseases.

AF Green Foliar from TerraMax. Call 952-657-5592 or visit terramax.co

Nordox 75 WG from Brandt. Call 217-547-5840 or visit www.brandt.co

One of our seed growers, Jonathan Olson of Cottonwood, MN, had the following experience with these products: Increased hard red spring wheat yields by 5-6 bu/acre. Increased wheat test weights by 0.1-0.4 lbs. Increased wheat grain protein by 0.2-0.5% over untreated control strip.
ORGANIC HARD RED WINTER WHEAT

Organic Expedition Winter Wheat
- Expedition yields more than Arapahoe on fertile soils and has similar winter hardiness
- Good baking and excellent milling quality characteristics
- Excellent standing

ORGANIC SOFT RED WINTER WHEAT

Organic Kaskaskia Soft Red Winter Wheat
- Very high-yielding variety with heavy test weight
- Very good winter hardiness
- Medium height
- Good disease tolerance to leaf rusts
- Moderate tolerance to Fusarium Head Blight (Scab)
- Distinguishable from other soft red winter wheats by lengthwise twisting and curling of the flag leaves
- Released by University of Illinois Ag. Experiment Station
- Drill 100-120 lbs/acre into firm seedbed, 1-2 in. deep

ORGANIC MISC. WINTER GRAINS

Organic Winter Rye*
- The most winter hardy fall-planted grain
- Can be grazed into the fall
- Excellent competitor with weeds and produces lots of biomass for green manure
- Will germinate down to 35°F and performs better on lower-fertility soil than other winter grains
- Excellent feed value as a forage
- Winter rye can yield 35-55 bu/acre as a grain crop
- Drill 50-100 lbs/acre, 1 in. deep

NEW Organic Fridge Winter Triticale
- Tall winter triticale with excellent forage quality
- Vigorous early growth and development
- Dark, leafy green foliage and reduced awn length/number widens the harvest window
- Strong straw strength

Organic Trical 815 Winter Triticale
- High-quality forage variety with high leaf-to-stem ratio
- Awned variety producing a dense canopy of long leaves
- Good resistance to lodging and winter survival
- Intermediate height and maturity
- Best choice for cut forage or silage
- Avoid intensive grazing
- Very responsive to good or excess fertility fields
- Drill 100-120 lbs/acre, 1/2 to 1 in. deep

ORGANIC WINTER BARLEY

Organic Thoroughbred Winter Barley
- Excellent yielding 6-row winter barley
- Released by Virginia Ag. Experiment Station
- High test weight grain
- Average height with good standability
- Fair winter survival (compared to McGregor)
- Winter barley has difficulty surviving in the Upper Midwest, it is recommended to seed it as early as possible in the fall to give it the best chance of wintering
- Winterkill is more likely in the absence of snow cover
- Seed 100 lbs/acre for forage or grain
ORGANIC OATS

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<tr>
<th>Variety</th>
<th>Yield 2013 (bu)</th>
<th>University 3-Year Yield (bu)</th>
<th>Days to Heading</th>
<th>Test Wt. (lbs/bu)</th>
<th>Plant Height (in.)</th>
<th>Lodging</th>
<th>Crown Rust</th>
<th>BYDV</th>
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1 For comparison purposes only. 2 Lodging data: 1=erect, 5=flat. 3S=Susceptible, MS=Moderately Susceptible.

*Data from SDSU (2013).

ORGANIC BARLEY

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<tr>
<th>Variety</th>
<th>Yield 2013 (bu)</th>
<th>University 3-Year Yield (bu)</th>
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Data from University of MN (2013)

ORGANIC SPRING WHEAT

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1 Statewide MN averages (2012) 2 Straw Strength: 1=strong, 9=weak 3Disease ratings: 1=most resistant, 9=most susceptible

Data from University of MN (2013)
ORGANIC PEAS

Peas do best in cool, dry conditions. Plant them as early as possible (even before oats) on well-drained ground. Don’t plant them shallow. Plant them at least 1½-3 in. deep. Peas are slow to establish but need to be deep. Avoid wet ground. Always use inoculant when seeding peas on ground that hasn’t been in peas for five years.

Organic DS Admiral Peas
- DS Admiral Peas are a dual-purpose yellow pea with high grain yields and very good tonnage as a forage crop
- An excellent standing, taller pea
- Rated easier to combine by NDSU
- About the same maturity as Miami and Mozart peas but are more uniform in maturity (50 days to bloom)
- Seed 50-100 lbs/acre with 75-100 lbs/acre of small grain for grain or forage production. Seed 150-200 lbs/acre straight for grain production.

Organic 4010 Forage Peas
- 4010 Forage Peas are speckled forage peas that produce significantly more biomass than DS Admiral
- Excellent forage yields and standability
- Taller than Trapper peas
- Not suitable for grain production
- Provides exceptional nutrition when chopped in combination with a small grain
- Seed 50-100 lbs/acre with 75-100 lbs/acre of small grain for forage

ORGANIC FORAGE MIXES

Organic Barley/DS Admiral Pea Mixture
- Our Barley/Pea mixture is a mix of about 60% dual-purpose field peas and 40% Robust barley (by weight). In 2010, we learned that we needed to add more peas to this mixture. Many customers were disappointed with the percentage of peas in their stands.
- When swathed and combined, this makes an excellent animal feed that has much higher protein than straight small grain
- When cutting for silage, try to cut before the barley heads out (boot stage) to maximize forage value
- Can be underseeded with alfalfa (use the lower seeding rate)
- Seed 150-200 lbs/acre in early spring, approximately 2 in. deep

Organic Oat/4010 Pea Mixture
- Our Oat/Pea mixture is an approximately 50-50 blend (by weight) of a tall, good-standing oat variety with a leafy, forage pea
- This mixture is intended for forage or silage only, not suitable for grain
- When cutting for silage, try to cut when the oats are at the boot stage to maximize forage value
- Can be underseeded with alfalfa (use the lower seeding rate)
- Seed 100-200 lbs/acre in early spring, approximately 2 in. deep
Organic Spring Triticale/4010 Pea Mixture
- A mixture of 50% spring triticale* and 50% 4010 forage peas
- Excellent forage quality, highest of any of the small grain/pea mixtures
- When cutting for silage, try to cut when the triticale is at boot stage to maximize forage value
- Can be underseeded with alfalfa (use the lower seeding rate)
- Seed 100-200 lbs/acre in early spring; approximately 2 in. deep

Organic Succotash
- Our succotash is a mixture of well-adapted oats, barley, and spring wheat
- Well suited for hay or combining
- Good standing
- Higher protein than straight oats
- Should be swathed before combining to allow grain to mature evenly
- Best results when swathed according to oats’ maturity
- Seed 80-100 lbs/acre in early spring
- Blend 70 lbs of peas with 1 bag of succotash for excellent forage or feed

ORGANIC SPRING TRITICALE

Organic Spring Triticale*
- Variety not stated, spring triticale best used as spring forage
- Tall growing and leafy
- Provides higher yielding alternative to barley and spring oat forage
- Grows and yields well under tough soil and weather conditions
- Drill 100-120 lbs/acre in early spring; 1 to 1 1/2 in. deep

Organic Trical 141
- Tall-growing, beardless spring triticale bred specifically for maximum forage yield
- Versatile triticale with a wide-harvest window from boot stage to soft dough stage
- Maintains leafy growth farther up the stem than other spring triticales
- High leaf density
- Good disease tolerance
- Good choice for underseeding alfalfa or other forages
- Mix with 75-100 lbs of 4010 peas for even higher-quality hay or silage

MYCO SEED TREAT
Myco Seed Treat is a proven, mycorrhizal fungi seed box treatment that aids in the uptake of nutrients, promoting overall plant health and root development. It is labeled for use on corn, soybeans, peas, legumes, and other crops. Greenhouse studies and field trials show improved seedling vigor, stand establishment, root growth, plant growth, and yield. Order large quantities in advance.

1# Container
(Treats 300# of seed)

5# Container
(Treats 2,000# of seed)

*VNS = Variety Not Stated

Ben Hinueber.
**ORGANIC ALFALFA**

**Organic WL 363HQ**
- Very high yielding under 3-, 4-, and 5-cut management systems
- HQ = superior digestibility, producing more milk or beef and greater profitability
- High fall dormancy (FD=4) for big fall yields, faster establishment, and rapid recovery
- Excellent winter hardiness and persistence (WH=1.9)
- “Perfect” disease resistance index (DRI) of 30/30 produces big yields on your toughest soils
- Coated with APEX Green seed coating

**Organic WL 327**
- Exceptional yield performance in 3-, 4-, and 5-cut systems
- Very fast establishment and excellent recovery after cutting
- Very good digestibility
- High quality with excellent milk/acre productivity
- Strong disease resistance package (29/30 DRI), winter survival=2.6
- Best suited for tightly managed short rotations (2 to 3 years) or longer rotations on sheltered fields
- Moves south very well as a full-season production alfalfa
- Coated with APEX Green seed coating

**Organic Roadrunner Alfalfa (w/ Apex Green Seed Coating)**
- Excellent leaf-to-stem ratio
- Good disease resistance (29/30 DRI) and excellent winter hardiness
- High yielding and superior quality (FD=4)
- A mix of Roadrunner Alfalfa and Niva Orchardgrass, won the World Champion Baleage in 2011 and World Forage Analysis Competition in 2010
- Coated with OMRI-approved Apex Green coating to enhance germination and improve your stand

**WL 353LH (Leafhopper)**
Conventional, Untreated
- “Seventh-Generation” potato leafhopper resistance (86% expression of leafhopper trait)
- Very high yielding (FD=4) under 3-, 4-, and 5-cut harvest managements
- Superior digestibility produces more milk or beef and greater profitability
- Excellent winter hardiness and persistence (WH=1.9)
- “Perfect” disease resistance index (DRI) of 30/30 produces big yields on your toughest soils
- Coated with APEX Green seed coating

Jake Hansen and Paul Hansen inspecting a field of WL353LH.
**Organic Viking 3800 Alfalfa**
- Very high-yielding alfalfa (FD=4) with fast recovery
- Excellent disease resistance (29/30 DRI)
- Deep crown set, can withstand mild to moderate grazing and hoof traffic
- Medium resistance to Potato Leafhopper
- Widely adapted to varied soil types
- Produces excellent quality forage for hay or silage
- Inoculated with Nitragin® Gold

**Organic Viking 340M Alfalfa**
- High-quality, FD=4, multi-leaf alfalfa
- Good all-around disease resistance
- Very good yields, quick recovery
- Good choice for dairy-quality hay
- Inoculated with Nitragin® Gold

**Organic Appaloosa Alfalfa**
- Very high-yielding, low-crown set alfalfa blend
- Excellent quality with a high leaf-to-stem ratio
- Excellent choice for haying or grazing (tolerant to wheel and hoof traffic)
- Very good winter hardiness and disease resistance
- Inoculated with Nitragin® Gold

**Organic Viking 3200 Alfalfa**
- High-yielding alfalfa, widely adapted
- One of our all-time best-selling organic alfalfas
- Good forage quality, fine stemmed
- Good disease resistance with superior persistence in heavier soils
- Good winter hardiness, fall dormancy = 3
- Inoculated with Nitragin® Gold

**Organic Charger Alfalfa**
- Fast establishment and fast recovery after cutting
- Excellent choice for one- or two-year hay rotations
- Flemish variety produced in SD
- Very winter hardy, limited disease resistance
- Good fit as a one-year plowdown alfalfa
- Inoculated with Nitragin® Gold

**Organic Nitrogen Brand Alfalfa**
- Alfalfa variety bred for maximum 1-year biomass and N production
- Good leaf retention and forage quality
- High fall dormancy (FD=7)
- Best used on well-drained soils as a single season plow-down or hay production
- Will likely winterkill in the Upper Midwest
- Inoculated with Nitragin® Gold

**Organic Hardy Alfalfa**
- A very winter hardy alfalfa variety (WSI 2.2)
- Good fit for short haying rotations on heavy soils or long rotations on drier ground
- Good inexpensive plowdown option
- Limited disease resistance, avoid wet ground
- Inoculated with Nitragin® Gold (OMRI)

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**OMRI-APPROVED SUPPLEMENTS**

Call for current prices and availability.
- Kelp Meal
- Redmond Salt
- Diatomaceous Earth

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Call for current prices and availability
Organic Medium Red Clover*
- VNS multi-cut red clover
- Better than alfalfa on wet or low-pH soils
- Very fast establishment
- Excellent choice for forage production or plowdown/green manure crop
- Seed 12 lbs alone/3 lbs in mixtures

Organic Manitoba Medium Red
- Improved organic red clover equivalent to Arlington
- Selected under organic field conditions for multiple breeding years
- More persistent and longer lived than VNS Medium Red Clover
- Good disease resistance to root and crown rots
- Widely adapted to a range of soil types, growing conditions, and climates
- Seed 8-12 lbs/acre alone or 2-5 lbs/acre in a mixture

Organic Cinnamon Red Clover
Subject to availability
- Improved red clover bred for maximum yield
- Excellent disease resistance
- Very good winter survival
- Finer stemmed with faster dry down

Organic Alsike Clover*
- Very productive and fast establishing
- Great fit for poorly drained soils
- Handles low-pH soils (down to 5)
- Seed 10 lbs alone/3 lbs in mixtures

Organic Rivendell White Clover
- Small-leaved grazing clover
- Great companion for aggressive pasture grasses
- Very good winter hardiness and persistence
- Very good tolerance to close grazing or cutting
- Excellent disease resistance
- Seed 1-3 lbs/acre in mixtures

Sainfoin*
Untreated, Non-GMO*
- Deep-rooted, drought-resistant forage legume
- Best use as a pasture legume or single-cut hay crop
- Non-bloating, excellent quality and palatability
- Hollow stems, many leaflets
- Not as winter hardy as alfalfa
- Not suitable for flooded or wet soils
- Seed 30-40 lbs/acre straight or 2-5 lbs/acre in a mixture

### NON-GMO LEGUME INOCULANTS

<table>
<thead>
<tr>
<th>CROP</th>
<th>BRAND</th>
<th>CULTURE</th>
<th>AMT. TREATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybeans</td>
<td>N-Dure*</td>
<td>S</td>
<td>30 units (50 lb unit)</td>
</tr>
<tr>
<td>Soybeans</td>
<td>N-Dure*</td>
<td>S</td>
<td>6 units (50 lb unit)</td>
</tr>
<tr>
<td>Peas, Vetch, &amp; AC Greenfix</td>
<td>N-Dure*</td>
<td>C</td>
<td>30 units (50 lb unit)</td>
</tr>
<tr>
<td>Peas, Vetch, &amp; AC Greenfix</td>
<td>N-Dure*</td>
<td>C</td>
<td>2 units (50 lb unit)</td>
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<tr>
<td>Alfalfa &amp; Clover</td>
<td>N-Dure*</td>
<td>AB</td>
<td>100 lb</td>
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<tr>
<td>Birdsfoot Trefoil</td>
<td>N-Dure*</td>
<td>K</td>
<td>50 lb</td>
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<tr>
<td>Crimson &amp; Berseem Clover</td>
<td>N-Dure*</td>
<td>R</td>
<td>50 lb</td>
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<tr>
<td>Sainfoin</td>
<td>N-Dure*</td>
<td>EL</td>
<td>50 lb</td>
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</tbody>
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*OMRI listed at time of publishing, but always check with your organic certifier before using any inoculant. Most of our alfalfas and clovers are pre-inoculated with Dormal® or Nitragin® Gold, clay-based, OMRI-listed rhizobium inoculants. Please call for availability and current prices.
Organic Chickling Vetch*
- Chickling vetch developed to maximize green manure and N production
- Very tolerant to frost and drought
- 8-10 weeks growth can produce 80-100 lbs N/acre
- Suitable for cut forage (do not feed the seed to livestock)
- Seed 60-70 lbs/acre early to late spring

Cowpeas
Untreated, Non-GMO*
- Summer annual legume similar in growth habits to soybean
- Excellent drought stress tolerance
- Faster growth and canopy closure than soybean
- Widely adapted to varied soil types, including low-fertility soils
- Can fix up to 100-150 lbs N/acre
- Plant after soil temperatures are >65°F (Mid-June-July)
- Seed 50-100 lbs/acre

Lentils
Untreated, Non-GMO*
- Shorter growing, cool-season annual legume
- Very frost and drought tolerant, will winterkill in the Upper Midwest
- Well adapted to semi-arid growing conditions and dry soils
- Avoid frequently flooded or waterlogged soils
- Excellent aerially seeded species
- Seed March-April, Aug. 1–Sept. 15
- Drill 40–50 lbs/acre at 1-1 1/2 in. deep

White Sweet Lupin
Untreated, Non-GMO
- Cool-season cover crop legume
- Aggressive taproot, builds soil structure deep in the profile
- Excellent nitrogen fixation potential
- Lupins make immobile P, Mn, and other nutrients available to the following crop
- Plant right away in the spring and terminate at early bloom stage (June)
- Drill no deeper than 1 in.
- Seed 70-120 lbs/acre

*VNS = Variety Not Stated
Organic Winter Rye
- Winter-annual cereal that is excellent for cover cropping
- Very winter hardy
- Thrives on poorer soils
- Can be planted well into the fall (up to November 1)
- Excellent fall and spring forage crop
- Seed 50-100 lbs/acre

Organic Tillage Radish®
- Improved oilseed radish bred for long taproot
- Can reduce compaction/hardpan, build soil tilth, and mellow heavier clay soils
- Excellent weed suppressor
- Good nutrient scavenger
- Plant July 15-September 15
- Seed 8-10 lbs/acre

Organic Medium Brand Oats
- Economical, fast-growing, and competitive oat blend specifically for cover cropping and forage
- Oats are fast establishing, cold tolerant, and have a vigorous root system
- Can be drilled, broadcast, or aerially applied
- Plant July 15-September 15
- Seed 3 bu/acre (straight) or 0.5-2 bu/acre (in a mixture)

Organic Annual Ryegrass*
- An economical choice for fall cover cropping
- Rapid-growing plant with an extensive root structure
- Excellent for fall grazing and forage
- Can be drilled, broadcast, or aerially applied
- Plant August 1-September 15
- Seed 15-20 lbs/acre

Organic Buckwheat*
- Broad-leaved summer annual most often used as a green manure crop
- Fast establishment, thrives in poor soils
- An excellent weed suppressor and soil builder
- Can produce 2-3 tons of dry matter in 6-8 weeks
- Grain matures in 10-12 weeks and can yield 800-1,500 lbs/acre
- Not frost tolerant
- Plant May 15-July 30
- Seed 75-100 lbs/acre

Phacelia*
Untreated, Non-GMO
- Non-leguminous, annual broadleaf plant
- Excellent cold and drought tolerance (better than Buckwheat)
- Widely used as cover crop and bee forage in Europe
- Produces abundant biomass and conditions soil, leaving excellent structure and aggregation
- Utilizes excess N in the soil to prevent leaching
- Will winterkill in the Upper Midwest
- Seed must be planted, avoid broadcasting
- Drill 7-12 lbs/acre at 1/8 to 1/4 in. depth

Yellow Mustard
Untreated, Non-GMO
- Non-GMO VNS Yellow Mustard is excellent for cover cropping
- Excellent biomass production and rapid growth
- Good competitive ability with weeds
- High level of plant glucosinolates that can suppress pathogenic fungi, nematodes, and insects
- Excellent candidate for aerial application into standing crops
- Ensure timely control prior to seed set
- Seed 15-20 lbs/acre
Organic Cover Crop Mixes

**Organic NitroMax CC1**
- Cover crop blend of organic oats, organic field peas, and organic Tillage Radish®
- Designed for maximum green manure production in the fall
- Mix will winterkill in the Upper Midwest
- Will succeed on variety of soils and provide numerous benefits both above and below ground
- Can be hayed or grazed in the fall
- Plant August 1-September 15
- Seed 75-125 lbs/acre

**Organic ValueMax CC2**
- Cover crop blend of organic annual ryegrass, organic Tillage Radish and Organic Mammoth Red Clover
- Designed for quick coverage, good biomass accumulation and overwintering (if clover is planted on time)
- If mix is applied from Aug. 1-Aug. 15 the clover should get adequate growth for winter survival and spring plowdown
- Annual ryegrass and Tillage Radish will winterkill in the Upper Midwest
- Excellent fit after corn silage, small grains, sweet corn, early soybeans, or vegetables
- Good candidate for aerial application
- Seed 15-20 lbs/acre from Aug. 1-Sept. 15

**Organic WinterMax CC3**
- Cover crop mix of organic Tillage Radish®, organic winter rye, and organic hairy vetch
- Winter rye and hairy vetch survive the winter, providing excellent soil coverage both in the fall and spring
- Very good biomass production in the spring
- Mix can be grazed in the spring or fall
- Plant August 1-September 15
- Seed 50-75 lbs/acre

**Organic BioMax CC4**
- Cover crop mix of organic Tillage Radish® with organic annual ryegrass
- Deep-rooting Tillage Radish complements the shallow-rooted annual ryegrass
- Mix provides excellent soil coverage and biomass production
- Excellent soil builder and nutrient scavenger
- Plant July 15-September 15
- Seed 12-17 lbs/acre

**Organic CultivatorMax CC6**
- Cover crop blend of organic annual ryegrass, organic mammoth red clover, organic alsike clover, and organic hardy alfalfa
- Mix of shade-tolerant species designed to be broadcast into standing crops at last cultivation
- Seed will emerge and remain semi-dormant until cash crop begins dying back
- Should not interfere with harvest machinery
- Try to time seeding with a forecasted rain
- Avoid overly droughty or sandy acres
- Seed 20-25 lbs/acre

**Organic Plowdown Blend**
- Our most popular plowdown mixture
- Well adapted to varying soil types
- Excellent companion with spring-planted small grains
- 25% Hardy Alfalfa, 25% Mammoth Clover, 25% Yellow Blossom Sweet Clover, 25% Alsike Clover
- Seed 12-15 lbs /acre

Call for current prices and availability
ORGANIC FORAGE GRASSES

Organic Annual Ryegrass*
- Rapid establishment
- High yielding
- Excellent choice for quick coverage in thin hay stands, new pasture seedings, and cover cropping
- Can be used as a nurse crop for alfalfa
- Seed 30-35 lbs/acre alone, 4-5 lbs/acre as a cover crop with alfalfa

Organic Calibra Perennial Ryegrass
- Improved tetraploid variety
- Very fast establishment and high yielding
- Best adapted to heavy, moisture-holding soils
- Upright growth habit well suited for haying or grazing
- Later maturing than unimproved varieties
- Excellent disease resistance and winter hardiness
- Seed 25-35 lbs/acre alone, 6-12 lbs/acre in mixtures

Organic Perun Festulolium
- Meadow Fescue crossed with Tetraploid Italian Ryegrass
- Fast establishment, excellent 1st cut yields
- Good early spring growth
- Best suited to medium-heavy soils
- Best fit for renovating existing pastures, for establishing quick growth in new pastures or as companion grass for alfalfa and clover hay
- Seed 25 lbs/acre alone, 5-15 lbs/acre in mixtures

Organic Laura Meadow Fescue
- High yielding and fast establishing
- Excellent persistence in heavier/waterlogged soils
- Early maturing, widely adaptable
- More palatable than tall fescue
- Endophyte-free
- Seed 20-25 lbs/acre alone, 4-10 lbs/acre in mixtures

Organic Kora Tall Fescue
- Very high yielding with excellent summer production
- Deep rooted, very drought tolerant
- Excellent combination of high yields with very good digestibility
- Kora establishes and matures at a similar rate to alfalfa, making it a great companion in hay fields
- Time your first cutting or grazing on the maturity of the grass for best palatability
- Seed 20-25 lbs/acre alone, 4-8 lbs/acre in mixtures

Organic Calibra Perennial Ryegrass
- Improved tetraploid variety
- Very fast establishment and high yielding
- Best adapted to heavy, moisture-holding soils
- Upright growth habit well suited for haying or grazing
- Later maturing than unimproved varieties
- Excellent disease resistance and winter hardiness
- Seed 25-35 lbs/acre alone, 6-12 lbs/acre in mixtures

Organic Niva Orchardgrass
- Very large root mass and excellent drought tolerance
- Later heading variety gives it a wider cut or graze window
- Excellent persistence and winter hardiness
- Best adapted to all soil types including sands
- Best used as a companion to alfalfa or as a component in pasture mixture
- Seed 12-15 lbs/acre alone, 2-4 lbs/acre in mixtures

Organic Climax Timothy
- High-quality, high-sugar grass well suited for hay or pasture
- Best production on heavy soils
- Best use as alfalfa or red clover companion
- Seed 8 lbs/acre alone, 1-3 lbs/acre in mixtures

Organic Carlton Smooth Brome
- Sod-forming grass with excellent persistence
- Very good production in early spring
- Slower to establish and slower growth in the summer months
- Best adapted to heavier, silt-loam, or clay-loam soils
- Seed 15-20 lbs/acre alone, 4-12 lbs/acre in mixtures

ORGANIC FORAGE MIXTURES

Organic Dairy Pro Mix
- A premium-quality alfalfa and grass mixture formulated to support the nutritional demands of dairy cattle
- Excellent yield potential for hay, baleage, or silage
- Fast regrowth after cutting, excellent persistence
- Well adapted to most soil types
- Organic Viking 3800 Alfalfa
- Organic Climax Timothy
- Organic Kora Tall Fescue

Organic Forage Grasses & Forage Mixtures
Organic Graze & Chop Mix
- A diverse mixture of improved legumes and grasses designed to maximize gain and improve pasture production for all classes of grazing livestock
- Grasses are highly palatable and create a balanced ration in the field
- No need for oats, annual ryegrass acts as the nurse crop
- Not the best fit for overly sandy or droughty soils

Organic Calibra Perennial Ryegrass  Organic Perun Festulolium
Organic Climax Timothy  Organic Annual Ryegrass*
Organic Viking 3800 Alfalfa  Organic Medium Red Clover*

Organic Hay Mix
- A mixture of improved cool-season grasses well suited for use as an Alfalfa companion
- Well adapted to a wide range of soil types
- Grasses add digestible fiber to hay and maximize yield
- Seed 6-10 lbs/acre with alfalfa

Organic Kora Tall Fescue  Organic Perun Festulolium
Organic Climax Timothy  Organic Niva Orchardgrass

Organic Pasture Mix
- A mixture of improved cool-season grasses well suited for use for seeding new pastures or reinvigorating old pastures and hay fields
- Well adapted to a wide range of soil types
- For long-term pastures add Smooth Brome
- Mix in organic clover or alfalfa for a balanced pasture
- Seed 25-30 lbs/acre

Organic Perun Festulolium  Organic Calibra Perennial Ryegrass
Organic Niva Orchardgrass  Organic Climax Timothy
Organic Annual Ryegrass*  Organic Laura Meadow Fescue

Organic Renovator Mix
- Fast establishing mixture will boost productivity in existing hay fields or pastures
- Will persist for 1 or 2 years
- Very high yield, especially in spring and fall
- High-energy Ryegrass-based mix for superior quality
- Seed 15-30 lbs/acre

Organic Annual Ryegrass  Organic Perun Festulolium
Organic Calibra Perennial Ryegrass

SUMMER ANNUAL FORAGES

Organic Blackhawk BMR Sorghum-Sudangrass
- Brown, mid-rib sorghum-sudan
- BMR 6 gene
- Exceptional warm-season tonnage
- Can be chopped, grazed, or round-baled
- To avoid prussic acid poisoning, allow young plants to grow taller than 24” and avoid pasturing for 2 weeks after frost
- Drill or broadcast 25-35 lbs/acre after danger of frost

Rox Orange Cane
Untreated, Non-GMO
- Upright warm-season annual with rapid growth in productive, heavy soils
- With adequate moisture and fertility can be cut 2-3 times
- Forage protein can reach 14%-20% if cut before heading
- No danger of prussic acid poisoning
- Not frost tolerant
- Plant into warm soil (late-May through June)
- Seed 25-35 lbs/acre, ½ to 1 inch deep

Japanese Millet*
Untreated, Non-GMO
- Summer annual with excellent forage quality
- High mineral content (calcium, iron)
- Resistant to most diseases and insects
- Well adapted to most diseases and insects
- Plant into warm soil (late-May through June)
- Seed 8-12 lbs/acre, ¼ to ½ inch deep into firm seedbed

Teff Grass*
Untreated, Non-GMO
- Summer annual with excellent forage quality
- High mineral content (calcium, iron)
- Resistant to most diseases and insects
- Well adapted to most diseases and insects
- Plant into warm soil (late-May through June)
- Seed 8-12 lbs/acre, ¼ to ½ inch deep into firm seedbed

*VNS = Variety Not Stated
Mark Your Calendars
For our Organic Open House, Nov. 21.

Printed on 100% recycled paper

Contact Us: 800-352-5247

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