OTTAWA COOP

Contacts

Bob Nutt
Crop Production Manager
785-418-5031

Tim Horton
Sales
785-418-7958

Delvin Harris
Sales
785-418-0777

Brian Green
Precision Ag/Sales Manager
785-307-6129

Ryan Korsmeyer
Ag Tech Manager/Sales
785-418-7957

Will Thoele
Sales/ Crop Scout
785-242-1032

Calvin Wenger
Seed Manager
620-504-2135

Courtney Moyer
Sales/Crop Scout
785-410-6064

Hunter Peoples
Sales/Crop Scout
785-242-4668

Ethan Quaney
Sales/Crop Scout
785-219-1014

Mike Green
Sales
785-447-9292

Mike Beying
Ag Advisor/Sales
785-447-3384

FOR FARMERS
EVERY SUSTAINABILITY JOURNEY IS DIFFERENT

Truterra, LLC meets farmers where they are — providing customized insights and a framework for continuous improvement — creating meaningful impact acre-by-acre.

TRUTERRA

Truterra™ Insights Engine

1. Brings together the proven value of **stewardship practices**
2. Leverages **agronomic expertise** and technological capabilities of agricultural retailers
3. Provides farmers with **field-customized insights** for their business and natural resources

TRUTERRA

www.truterrainsights.com

Why Stabilize your Nitrogen?

- More nitrogen available for plant uptake by slowing the conversion of nitrogen into forms that can be lost through *volatilization*, *leaching* and *denitrification*
- Ensures longer period of increased nitrogen availability for plant uptake
- Maintaining N improves potential for maximizing yield
- Stabilizing N protects the environment
  - Prevents leaching nitrate into surface and ground water
- Protects applied nitrogen all season long
- Provides flexibility in application schedules

OUR UREA IS 100% TREATED

Nitrogen Stabilizers

N-Serve **Nitrogen Stabilizer for Anhydrous**

What it does:

- Reduces Nitrogen loss
- Improves standability
- Provides healthier corn and consistently higher yields
- Reduces risk of stalk rot
- Enables quicker crop dry down
- Reduces leaching of nitrates and denitrification
- Keeps nitrogen available for corn crop and helps protect water quality

When to use it:

- Add with anhydrous ammonia in fall and spring
- Rates: Add 1 qt. per acre

With N-Serve **Without N-Serve**

NutriSphere **Nitrogen Stabilizer for Urea**

- Add NutriSphere to urea to keep the nitrogen from leaching, volatilization and denitrification
- Topdress corn with urea + NutriSphere at V4 to V8 stages

NutriSphere-NH3™ specifically formulated to protect anhydrous ammonia applications

NutriSphere-NH3™

Nitrogen Fertilizer Manager

Providing long-lasting protection of anhydrous ammonia

NutriSphere-NH3™ is a new formulation specifically designed to protect nitrogen applied as anhydrous ammonia from being lost through nitrification.

NEW WAY TO PROTECT N

NutriSphere-NH3 provides a number of performance benefits and advantages, including:

- Protects anhydrous ammonia applications against loss through nitrification; reducing nitrate leaching and denitrification
- Application rate of 32 Fl. Oz./A creates a fixed, cost-efficient investment per acre
- Easy to handle and use formulation with very little odor
- Unique dual-injection delivery system is specifically designed for optimum application and ease of use with anhydrous ammonia

PROVEN NUTRISPHERE-N® PERFORMANCE

- NutriSphere-N® Nitrogen Fertilizer Manager is a proven technology that has been used on more than 34 million acres
- NutriSphere-N protects against loss to volatilization, leaching and denitrification by keeping more nitrogen in its stable ammonium form for a longer period of time
- Long lasting protection up to 10-12 months

APPLYING NUTRISPHERE-NH3 WITH DUAL INJECTION

- Equipment Details:
  - The dual application system features special knives (shown below) and application tubes allowing for precise placement of NutriSphere-NH3 one-half inch above the anhydrous in the soil.
  - The SureFire Ag Systems' constant flow pump and electromagnetic flowmeter allow for precise amounts (98%+ accuracy) of material to be applied regardless of speed.

Dual application knife from Shield Ag Equipment.

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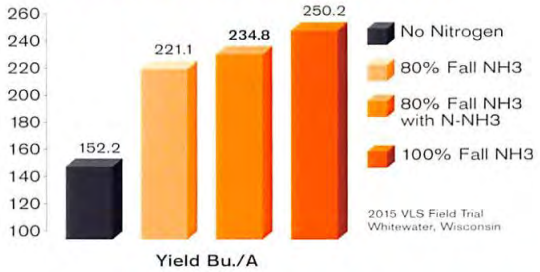
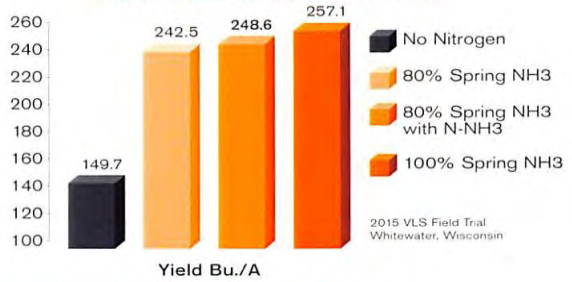
NutriSphere-NH3™
Nitrogen Fertilizer Manager

RIGHT APPLICATIONS AT THE RIGHT TIME

Fall Applied NH3 (November 11th, 2014)



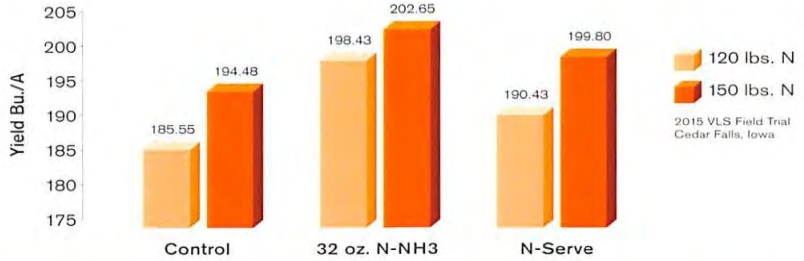
Spring Applied NH3 (April 15th, 2015)



Timing is critical – Fall N loss was high, resulting in a high return for NutriSphere-NH3.

SPRING APPLIED ANHYDROUS AMMONIA

NutriSphere-NH3 – Spring Applied on April 15, 2015



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Dow AgroSciences

Solutions for the Growing World

N-Serve®

PROTECTS NITROGEN AT THE PLANT ROOT ZONE

NITROGEN STABILIZER

N-Serve® Nitrogen Stabilizer

- Active ingredient is nitrapyrin
- Oil based formulation that mixes well with anhydrous ammonia
- Optimizes yield potential of corn when used with anhydrous ammonia
- Proven and trusted technology for over 35 years

How Does N-Serve® Work?

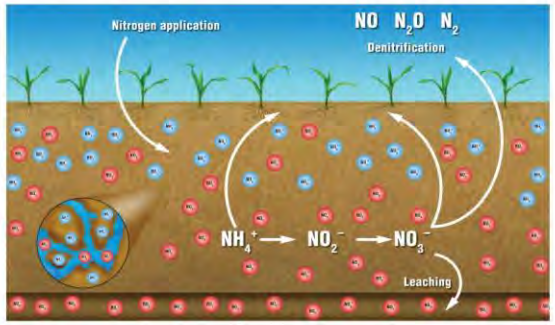
N-Serve® inhibits the Nitrosomonas bacteria in the soil keeping Nitrogen in the stabile ammonium form longer and protected from leaching and denitrification.

Application Rates

Fall applications
1 quart per acre

Spring applications
Pre-emerge: 1 quart per acre
Sidedress: 0.5 to 1 quart per acre

What Happens to Unstabilized Nitrogen?



When Do Nitrogen Losses Occur?

Most Nitrogen Losses occur during the Spring:

- Spring Rains and warm soil temperatures lead to heavy losses through both leaching and denitrification.
- Stabilizing with N-Serve® greatly reduces both leaching and denitrification protecting nitrogen in the root zone.

Stronger, Healthier Plants

- Increased yield
- Improved standibility
- Reduced risk of stalk rot
- Increased grain protein
- Faster crop drydown

For more information about N-Serve® visit www.NitrogenStabilizers.com or contact your local Dow AgroSciences sales representative.

M01-011-124 (9/18) DAS 010-42370

AVAIL® T5: improved performance on an already premium NUE™ product

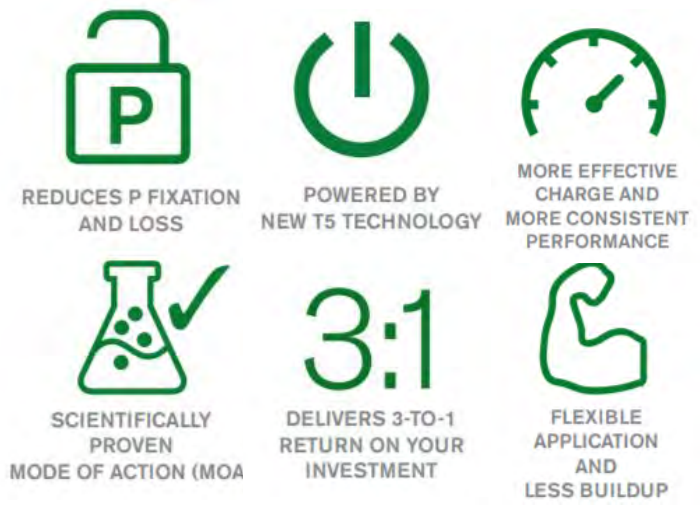
AVAIL T5 uses an all new patented polymer technology to make even more applied phosphorus (P) available for plant uptake, speeding early growth, making crops healthier and boosting yields – while continuing to reduce the amount of P lost to the environment. The improved formulation also means better handling, storage and ease-of-use.

Get more from your phosphorus investment. Your phosphorus investment is in the ground before the first shoots emerge. Using AVAIL T5, powered by new T5 polymer technology, helps you earn greater returns on that investment. Proven to keep applied phosphorus more available when the plant needs it. AVAIL T5 increases available phosphorus uptake, resulting in more robust root systems, boosting early season performance, plant stress tolerance, and crop quality and yield.

Start strong to maximize yield. AVAIL T5 has been proven to make up to 45% more of your applied phosphorus available to plants. Greater phosphorus availability means a stronger early start. Building a better photosynthetic engine enables higher yields.

Improve plant uptake to reduce phosphorus loss to the environment. AVAIL T5 enhances your 4R Nutrient Stewardship, delivering sustainable performance returns in each year's crop while protecting the environment for generations to come. More efficient plant nutrient uptake means less phosphorus buildup in the soil and less lost to creeks, rivers, lakes and bays.

Verdesian Life Sciences makes farming more efficient, mores sustainable, and more profitable. Verdesian Life Sciences develops nutrient use efficiency and management technologies to enhance crop uptake, reduce nutrient losses to the environment, and improve yields. As a 4R Nutrient Stewardship Partner, Verdesian is committed to researching and developing environmentally sustainable products.



Wisconsin soybeans showed a significant difference when treated with AVAIL T5

Corn treated with AVAIL T5 resulted in taller plants with stronger, more complex root structures.

A Nutripaction® Technology Product

MicroSync Pro™

MicroSync Pro™ Granular Micronutrient Fertilizer is formulated for use in broad acre crops and designed to be blended with NPK granular fertilizer programs. This combination micronutrient formulation is a free flowing, low dust, and uniform granular fertilizer, which contains a unique combination of Sulfates and Sucrates for enhanced microbial activity and bioavailability. MicroSync Pro boosts soil fertility programs by providing a superior balance of nutrients precisely formulated to prevent or correct micronutrient deficiencies.

WHY MICROSYNC PRO?

- **Verdesian Polymer Technology** and carboxylates synergize micronutrient and sulfur availability for plant uptake
- **Nutripaction® Technology** — Uniformly blended combinations of finely divided particles compacted together produces homogeneous granules consistent in particle size and analysis. In the soil, Nutripaction® granules are activated by soil moisture creating millions of particles within the root zone for conversion and uptake
- **Balanced nutrient formulations** designed with your crop in mind, delivering three critical micronutrients and sulfur
- **Matches particle size and bulk density** of most dry fertilizers for a more uniform distribution of critical nutrients

DIRECTIONS FOR USE:

MicroSync Pro is intended for use in mixing or blending with other fertilizer materials. This product is recommended for correction of multiple deficiencies, as determined by tissue analysis and soil testing, on any agricultural or horticultural crop where a deficiency of Boron, Manganese and/or Zinc may exist. When deficiencies exist, use the following table or consult your local agricultural extension professional or your local professional consultant. This product is for soil application only.

Amount of MicroSync Pro per Acre will provide "x" lbs of nutrient per acre				
	10 Lbs/Acre	**20 Lbs/Acre**	**30 Lbs/Acre**	**40 Lbs/Acre**
Sulfur	0.95	1.90	2.85	3.80
Zinc	0.75	1.50	2.25	3.00
Manganese	0.50	1.00	1.50	2.00
Boron	0.12	0.25	0.37	0.50

GUARANTEED ANALYSIS:

Calcium (Ca) 7.0%
Sulfur (S) 9.5%
Boron (B) 1.25%
Manganese (Mn) 5.0%
Zinc (Zn) 7.5%

Derived from: Ammonium Sulfate, Calcium Sulfate, Sodium Borate, Manganese Sucrate, Manganese

APPLICATION RATES PER ACRE:

MILD deficiency 10-15 lbs.
MODERATE deficiency 15-25 lbs.
SEVERE deficiency 25-40 lbs.

Micro Products, Macro Results®

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WARNING! Excessive amounts of Boron may cause injury to crops. This product is intended for use in further blending with agricultural grade fertilizers and should be applied evenly. Application equipment should be calibrated to insure targeted rates of application. Information regarding the contents and levels of metals in this product is available on the internet at http://www.aapfco.org/metals.htm MicroSync Pro is a trademark and Nutripcation is a registered trademark of Verdesian Life Sciences.

VERDESIAN

VERDESIAN

THE NUTRIENT USE EFFICIENCY PEOPLE™

Take Off® LS

BUILD BIGGER PLANTS FROM THE INSIDE OUT

Plant health is the key to higher yields. Set your crop up for success with our revolutionary new nutrient management technology that helps build bigger, stronger plants from the inside out.

ENERGIZE YOUR CROPS WITH TAKE OFF LS

It works inside the plant to increase nutrient uptake, resulting in:

- Faster germination and emergence
- Stronger, healthier plants
- More efficient use of nutrients
- Greater yield potential

Take Off® LS

VERDESIAN
THE NUTRIENT USE EFFICIENCY PEOPLE™

HOW IT WORKS

By mimicking a naturally-occurring molecule that optimizes a plant's nitrogen acquisition, Take Off LS allows plants to more efficiently assimilate nitrogen and carbon to build a bigger, more vigorous plant. The end result is more overall nutrient uptake and nutrient use efficiency, leading to more bushels per acre produced per unit of nutrients applied to or present in the soil.

BENEFITS

A stronger, more uniform crop emergence and more rapid early growth, resulting in treated plants that have more biomass and that are one or more growth stages ahead of untreated plants by mid-season (IN-FURROW APPLICATION)

Greener, taller plants with more leaf area than untreated counterparts (FOLIAR APPLICATION)

Vigorous, darker green corn that reaches reproductive stage several days before untreated plants (SIDEDRESS-APPLIED WITH UAN)

PROVEN RESULTS

Trials conducted in 2016 in IA, IL, TN and WI found that soybeans and corn treated with a foliar application of Take Off LS at post-emergence yielded significantly more bushels per acre than their untreated counterparts.

APPLICATION GUIDELINES

	In-furrow applications	Foliar	Side-dress/ layby fertilizer
Corn	✓	✓	✓
Soybeans	✓	✓	
Wheat, rice, barley & other cereals		✓	
Cotton	✓	✓	
Alfalfa hay & forage crops		✓	
Canola		✓	

Take Off LS is a flexible nutrient use efficiency product that **can be applied at multiple timings, either alone or in a tank mix with commonly-used fertilizers or crop protection products.**

Our data shows that the most consistent yield performance and ROI has come from applications made at planting to mid-season, regardless of the crop.

While you don't need to apply more than once per season, field experience and trial data indicate that multiple applications throughout the year can provide additional benefits in plant health and yield.

RECOMMENDED APPLICATION RATES

	Single application	Multiple applications
Low rate: 1 pt/ac		✓
High rate: 2 pt/ac	✓	✓

FOR MORE INFORMATION

Call **800.868.6446** or visit **vlsci.com** to find your local specialist.

SEED+LIQUID

A **VERDESIAN** NUE™ SOLUTION

SEED+DRY

A **VERDESIAN** NUE™ SOLUTION

Nutritional Supplement For Seed

SEED+ Laboratory Results

SEED+ increases crop yield by supporting seedling growth and vigor

Control

SEED+

Control

SEED+

10% yield increase

SEED+ demonstrated an average **10 percent yield increase** across 300 trials in 16 countries over 15 years.

Application:

SEED+ Liquid

Method of Application

SEED+ Liquid can be applied directly to the seed or in-furrow at planting

Rate of Application

Seed Treatment:	Corn: 4 fl oz/cwt of seed Soybean: 2 fl oz/cwt of seed
In-furrow:	Corn: 8 fl oz per acre, applied with 4-6 gal of water Soybean: 4 fl oz per acre, applied with 4-6 gal of water

(See product label for details and applications to other crops)

SEED+ Dry

Method of Application

SEED+ Dry can be conveniently applied directly to seeds in the planter box at the time of planting (See product label for details)

Rate of Application

Seed Treatment	Corn: 8 oz/cwt of seed Soybean: 4 oz/cwt of seed

(See product label for details and applications to other crops)

SEED+ is intended as a supplement to a regular fertilizer program and will not by itself provide all of the nutrients normally required by plants.

MANUFACTURED BY:

CYTOZYME Laboratories, Inc.
2700 South 600 West, South Salt Lake City, UT 84115, USA
Tel: (801) 533-9208 Fax: (801) 537-1312
www.CytozymeAg.com

VERDESIAN

THE NUTRIENT USE EFFICIENCY PEOPLE™

CROP+

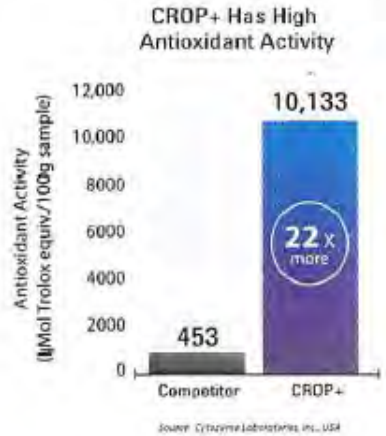
A **VERDESIAN** NUE™ SOLUTION

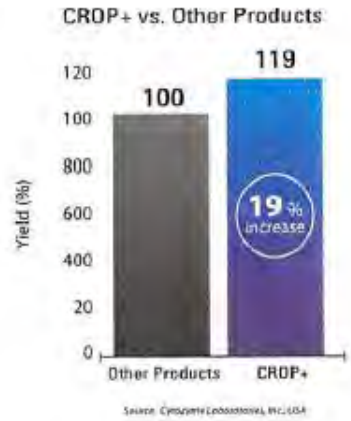
Foliar Nutritional Supplement

CROP+ Research Results

Environmental stress including temperature and moisture extremes suppress nutrient uptake through the roots and cause oxidative stress, by supplying copper, zinc and manganese. Foliar application of CROP+ supports activation of enzymes involved in control of reactive oxygen species protecting cells against oxidative stress.

CROP+ has 22 times higher antioxidant activity than other products.





Application:

CROP+

Method of Application

Foliar applied

Corn, Milo, Millet, Sorghum: one application at 6 to 8 leaf stage

Soybean: two applications at pre-bloom and again at pod-set stage

Cotton: four weekly applications starting at the beginning of pinhead square

Rate of Application

Corn, Milo, Millet, Sorghum: 8 fl oz per acre (600 ml per hectare)

Soybean: 8 fl oz per acre (600 ml per hectare)

Cotton: 4 fl oz per acre (300 ml per hectare)

(See product label for details)

MANUFACTURED BY:

CYTOZYME Laboratories, Inc.
2700 South 600 West, South Salt Lake City, UT 84115, USA
Tel: (801) 583-9208 Fax: (801) 537-1312
www.CytozymeAg.com

VERDESIAN

THE NUTRIENT USE EFFICIENCY PEOPLE™

Reduce nitrogen loss and improve phosphorus availability from manure.

more than manure®
Nutrient Manager

More Than Manure® (MTM®) Nutrient Manager is the only product on the market proven to reduce phosphorus lock-up and nitrogen loss from volatilization, leaching and denitrification when applied to manure. By reducing valuable nutrient loss from your manure applications, it can help you see better overall crop performance and increased yield potential.

APPLICATION METHOD

LIQUID MANURE SYSTEMS:

- MTM can be added to pits or lagoons that are 25% full or a minimum of 14 days prior to agitation and pumping.
- If MTM cannot be added 14 days before pumping, add product to the load-out truck or honey wagon during fill.

DRY MANURE SYSTEMS:

- Apply directly over the top of dry manure already spread in the field along with at least 15 gallons of water or liquid fertilizer.

APPLICATION RATE

18 oz. per acre

RATE CALCULATION FOR LIQUID MANURE

_____	÷	_____	x	18	÷	128	=	_____
# Gallons in pit, lagoon, load-out truck or honey wagon		# Gallons of manure applied per acre		18 oz./ acre rate		128 oz./ gallon mix		Gallons of MTM required for pit, lagoon, load-out truck or honey wagon

CORN TRIALS (ALL MANURES)

AVERAGE YIELD INCREASE
9.5 Bu./A*
BASED ON 50 TRIALS

- Reduces phosphorus lock-up in the soil
- Protects nitrogen from volatilization, leaching and denitrification
- Can reduce ammonia levels in confinement facilities
- Can reduce solids and crusting in pits or lagoons
- Non-toxic to livestock and soil bacteria
- Crop rotation flexibility

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*Data on file.
Important: Always read and follow label use directions.

VERDESIAN


Wake up your crops.
Good morning sunshine. It's time to wake up your crops with Advantage Plus® a complete starter, with more vital nutrients than 10-34-0. Protect your yield, have more consistent emergence and start strong.
Advantage Plus™
092215 Advantage Plus is a trademark of United Suppliers, Inc.
OTTAWA COOP

Fall Spraying Recommendations

All products should be mixed with surfactant.

Pasture

Remedy Ultra	1 pt/ac
Milestone	5 oz/ac
Pasturegard HL	1 ½ pt/ac
Grazon P+D	1 qt/ac
Tordon	1 pt/ac
Grazon Next HL	2 pt/ac
Chaparral	3 oz/ac

NEW

The Ottawa Co-op now has the capabilities of coating dry fertilizer with Grazon Next or Chaparral. This allows one application of fertility and weed control in one shot. The rate of Grazon Next will be 2 pints/acre and the rate of Chaparral will be 3 ounces/acre on 200#'s of fertilizer. The Co-op has designated spreader's and a designated blender for this application. Stop in and talk to your local Agronomist for more details.

Wheat Programs

Greenup

	Rate/Acre
Urea	80 lbs. N + NutriSphere + 1 pint TAKEOFF LS
Finesse	.3 oz/acre
Harmony Extra	.6 -.9 oz/acre

At Flag Leaf

Trivapro
or
Priaxor

Fungicide Trivapro™

Fungicide Priaxor®

Wheat Hi-Yield Program

1st topdress 70 lbs. N + NutriSphere + 1 pint TAKEOFF LS

2nd trip: Fungicide + 1 pint TAKEOFF LS

Wheat Fungicide Application Timing

Fungicides	Apply at	Rate
Headline	Feekes 4-6	6 fl oz/ac
Priaxor	Feekes 4-6	4 fl oz/ac
Caramba	Feekes 10.5	13.5 fl oz/ac
Trivapro	Feekes 8	13.7 oz/ac
Approach Prima	Feekes 9	6.8 oz/ac

Wheat Recommendations

Starter Recommendations

50-46-60-15-1 with AVAIL
18-46-60-15-1 with AVAIL

Burndown/Preplant

Finesse	.3 oz/ac
Powermax	32-44 oz/ac
Quelex	.75oz/ac

Fungicide

Trivapro	13.7 oz/ac
Priaxor	4 oz/ac
Prosaro	6.5-8.2 oz/ac
Stratego Yield	2-4 oz/ac
Approach Prima	6.8 oz/ac

All fungicide to be applied at flagleaf to full head emergence.

Corn Recommendations

Starter for Grain

80 bushel removal	12-30-24-6-3 with AVAIL
90 bushel removal	13-34-27-6-3 with AVAIL
100 bushel removal	15-38-30-7-3 with AVAIL
120 bushel removal	18-46-36-8-3 with AVAIL
140 bushel removal	21-53-42-10-3 with AVAIL
160 bushel removal	24-61-48-11-3 with AVAIL
180 bushel removal	26-68-54-13-3 with AVAIL
200 bushel removal	30-76-60-14-3 with AVAIL

Starter for Silage

10 ton/ac 10-27-65-9-3 with AVAIL
20 ton/ac 21-54-130-18-3 with AVAIL
30 ton/ac 31-80-195-27-3 with AVAIL

Fall Spraying

Atrazine 4L	1 qt/ac
Atrazine 90 DF	1.1 lbs/ac
Hornet	4 oz/acre
Autumn Super	.5 oz/ac
Valor SX	2 oz/ac
Basis blend	.825 oz/ac

All products to be applied with 1 pt/ac of dicamba or 1 qt/ac 24D LV6.

A soil sample is highly recommended to achieve the appropriate fertilizer recommendation

Soybean Recommendations

Starter

30 bushel removal	9-24-42-7 with AVAIL
40 bushel removal	12-32-56-9 with AVAIL
50 bushel removal	15-40-70-11 with AVAIL
60 bushel removal	19-48-84-13 with AVAIL

Fall Spraying

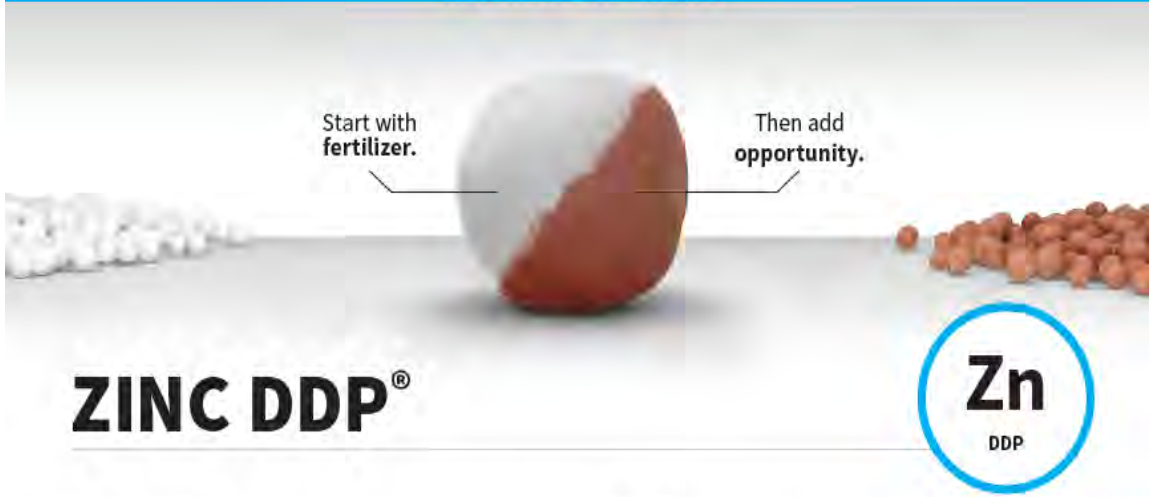
Sonic	5-6 oz/ac
Valor XLT	3 oz/ac
Metribuzin	16 oz/ac
Blanket 4F	4-6 oz/ac
Autumn Super	.5 oz/ac

All products to be applied with 1 pint/acre Dicamba or 1 quart/acre 24D LV6.

A soil sample is highly recommended to achieve the appropriate fertilizer recommendation.

wolftrax

INNOVATIVE NUTRIENTS



ZINC DDP®

Zn
DDP

PRODUCT DESCRIPTION

Wolf Trax™ Zinc DDP combines two forms of Zinc into a Dry Dispersible Powder, or DDP, with a proprietary adjuvant package to achieve synergy with a carrier for improved plant uptake. Wolf Trax Zinc is delivered along with every granule and prill, providing more feeding sites in closer proximity to plant roots for earlier uptake.

Guaranteed Analysis	
Zinc (Zn) 11.00% Water Soluble	62.00%

Derived from: Zinc Oxide and Zinc Sulfate

Product Specifications		
Appearance	**Color**	**Carrier Load (w/w)**
Powder	White	0.80%

Typical Carriers: 15-15-15, DAP, MAP, MKP, MOP, SOP, Urea and others

Carrier Amount	Wolf Trax Zinc DDP (max)	Elemental Zn
1 Ton (2,000 lbs.)	16 lbs.	9.92 lbs.

KEY BENEFITS

- Adheres to carriers with EvenCoat® Technology, through the combination of electrostatic interaction and the aid of a proprietary adjuvant blend
- Extends window of availability by combining two sources of Zinc
- Increases root absorption of non-soluble Zinc by milling which multiplies the reactive surface area
- Extends the zone of Zinc availability through the combination of soluble and non-soluble forms
- Increases the number of interception points for roots to access bioavailable Zinc early in the growing season
- Provides flexibility in storage, transport and blending

NOTES

wolftrax

INNOVATIVE NUTRIENTS

BORON DDP®

B
DDP

PRODUCT DESCRIPTION

Wolf Trax™ Boron DDP combines three forms of Boron into a Dry Dispersible Powder, or DDP, with a proprietary adjuvant package to achieve synergy with a carrier such as fertilizers for improved plant uptake. Wolf Trax Boron is delivered along with every granule or prill, providing more feeding sites in closer proximity to plant roots for earlier uptake.

Guaranteed Analysis	
Boron (B) 100% Water Soluble	18.50%

Derived from: Boric acid, Sodium Tetraborate and Potassium Tetraborate

Product Specifications		
Appearance	**Color**	**Carrier Load (w/w)**
Powder	Pink	0.40%

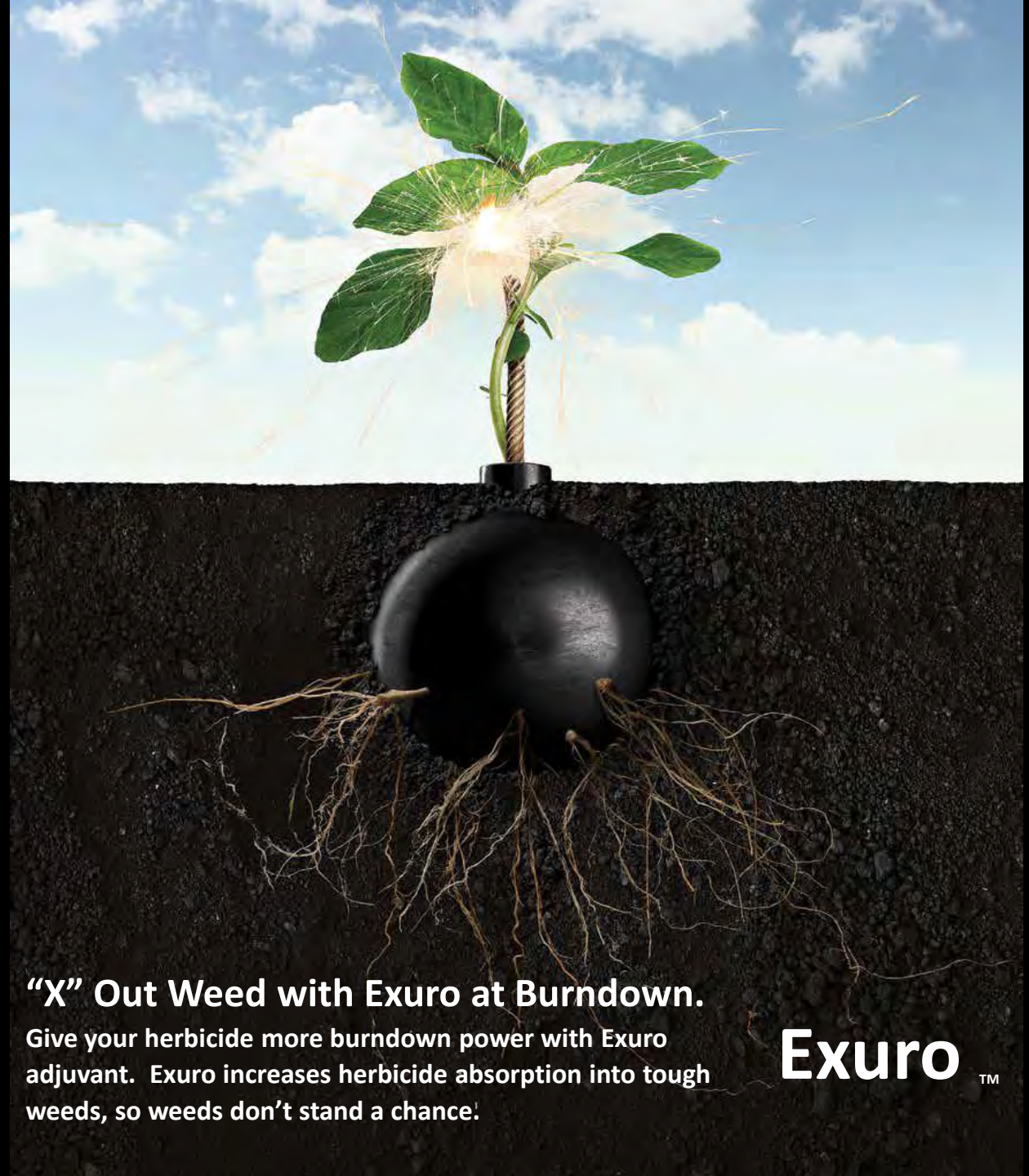
Typical Carriers: 15-15-15, DAP, MAP, MKP, MOP, SOP, UREA and others

Fertilizer Amount	Wolf Trax Boron DDP (max)	Elemental B
1 Ton (2,000 lbs.)	8 lbs.	1.48 lbs.

KEY BENEFITS

- Adheres to carriers with EvenCoat® Technology, through the combination of electrostatic interaction and the aid of a proprietary adjuvant blend
- Extends window of availability by combining three sources of Boron
- Increases root absorption of Boron by milling which multiplies the reactive surface area
- Increases the number of interception points for roots to access bioavailable Boron early in the growing season
- Even distribution in the field and around the carrier reduces the potential for Boron hotspots that can cause toxicity
- Provides flexibility in storage, transport and blending

NOTES


“X” Out Weed with Exuro at Burndown.
Give your herbicide more burndown power with Exuro adjuvant. Exuro increases herbicide absorption into tough weeds, so weeds don’t stand a chance.
Exuro ™

Field Advantage
OTTAWA COOP

Why Precision Farming?

-Take inventory of fertility on each field.

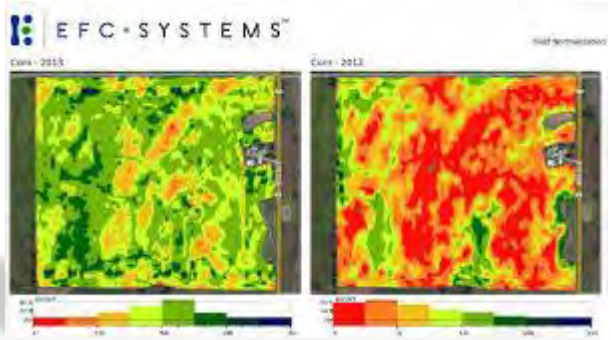
-Stop throwing fertilizer $ where it is not needed.

-Variable rate application technologies allow you to place the products only where needed to maximize crop productivity.

-Utilize Yield data and make it useful in fertility, seed, and production.

-Know the right placement of seed hybrids for maximum profitability.

-To be an overall better manager of all farming practices.



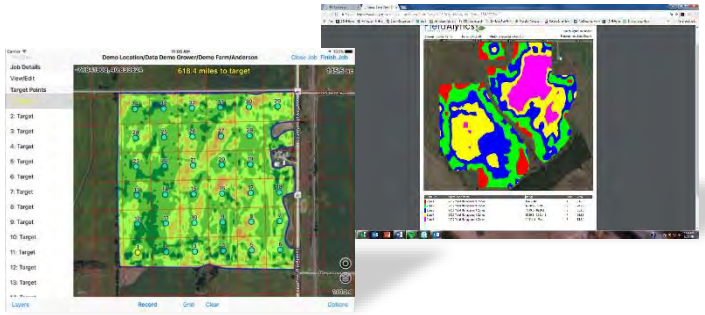
Solutions for Better Decision making

-Maximize economic yields by utilizing information based on sound decision making.

-Utilized multi years of information trends for decision making.

-Make hybrid/variety decisions based on your operations performance.

-Utilize multi-layers of information in analysis process.



CROP SCOUTING

Field Advantage
OTTAWA COOP

- Monitor fields from preplant burn down applications to dry down for harvest.
- Find problems at a minimal stage before it reaches the Economic Injury Level (EIL)
- Full team of agronomists develops the best treatments/recommendations.
- Best chance to maximize yield by catching problems early.

What's Included?

Weekly field checks

- Weeds, diseases, insects
- Deficiencies
- Growth stages, Population counts, Yield estimates
- Tissue/Soil Sampling for nutrient monitoring
- General crop health monitoring

Call the **Ottawa Coop Production Office** for further information if interested.
(785) 242-1032

Corn Seed Treatment Options

Any amount of corn can be treated with the following components, all treated corn is non-returnable and must be picked up in a black box.

Rapidity

- Blend of growth additives and micronutrients.
- Enhances crop establishment, uniformity of stand, and germination
- Offsets early nutrient deficiencies
- Optimal combination of nutrients for stimulating germination

Triad

- Formulated with optimal ratio and concentration of plant hormones
- Reduces negative effects caused by stress
- Boosts plant growth and development for higher yield potential

Rapidity: $15/unit

Tripidity (Rapidity & Triad): $20/unit

Prepay discount for ordering Tripidity before 12/30/18 of $2/unit

Corn Seed Treatment

RAPIDITY™ ST
BIOSTIMULANT

RAPIDITY ST BIOSTIMULANT IS A UNIQUELY DESIGNED SEED TREATMENT THAT PROVIDES ESSENTIAL NUTRIENTS AND BIOSTIMULANT ADDITIVES WHICH CAN MAXIMIZE EARLY SEEDLING VIGOR AND CROP DEVELOPMENT, FOR MAXIMIZING YIELD POTENTIAL.

Product Features	Why is This Important?
Germination	
• Optimal combination of nutrients to help stimulate germination and offset early growth reducing nutrient deficiencies.	• Germinating seedlings can only draw from the energy within the seed until the start of photosynthesis. Rapidity ST provides the building blocks for cell walls, membranes and the components of key growth processes before the plant can create its own.
Early Seedling Development	
• A blend of proprietary growth additive and micronutrients to support enhanced crop establishment and vigor.	• Rapidity ST provides the nutrients, intermediates, and activates the necessary enzymes so the seedling spends more energy on growth, as opposed to sourcing and processing. • Rapidity ST proprietary growth additives provide the plant with amino acids which are the building blocks of proteins (including enzymes). Photosynthesis and respiration cannot occur without many different types of enzymes.
Application Flexibility	
• Flexible formulation designed for use with various production practices.	• Rapidity ST can be mixed with fungicide and insecticide seed treatments. Also compatible with rhizobia/inoculant seed treatments when applied simultaneously and may be applied as an over-treatment.

YIELD ENHANCER

Corn Seed Treatment

YIELD ENHANCER
SEED TREATMENT PRODUCTS

TRIPIDITY™ ST

Tripidity ST biostimulant is a uniquely designed seed treatment that provides essential nutrients and biostimulant additives which can maximize early seedling vigor and crop development, for maximizing yield potential.

- *Tripidity ST is a unique blend combining essential macro and micro nutrients and a proprietary blend of plant extracts to stimulate seed germination and to maximize early seedling growth and vigor. Tripidity ST also includes a balanced ratio of three hormones designed to work together to enhance seed germination and seedling establishment, provide stress reduction in cold soils, enhance cell elongation, and increase nutrient uptake for higher yield potentials.*
- *Multiple factors start affecting yield the moment the seed is planted. Treating seeds with an industry leading fungicide and insecticide, coupled with effective biostimulants will drive and increase yield.*
- *Germinating seedlings can only draw from the energy within the seed until the start of photosynthesis. Tripidity ST provides the building blocks for cell walls, membranes, and the components of key growth processes before the plant can create its own.*

Balanced Ratio of Hormones

Cytokinin (Kinetin)

Stimulates cell division, involved in shoot growth, delays leaf senescence and activates dormant buds.

Gibberellic Acid (GA)

Stimulates seed germination, shoot elongation, flowering, and regulates production of hydrolytic enzymes in grains.

Indole-3-Butryic Acid (IBA)

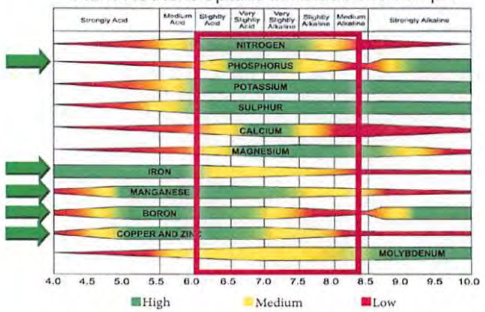
IBA is an auxin that enhances root growth; involved in apical dominance, stimulates cell elongation, enhances fruit and seed development.

GUARANTEED ANALYSIS
0-0.70-0

Available Phosphate (P_2O_5)	0.70%
Manganese (Mn)	0.05%
0.05% EDTA Chelated Manganese	
Boron (B)	0.50%
Iron (Fe)	0.10%
0.10% EDDHA Chelated Iron	
Zinc (Zn)	0.50%
0.50% EDTA Chelated Zinc	

Derived from: Diammonium phosphate, Manganese EDTA, Boron ethanolamine, Ortho-Ortho Iron EDDHA & Zinc EDTA.
EDTA is ethylenediaminetetraacetic acid.

Plant Nutrient Uptake in Relation to Soil pH



Biostimulants can increase yield by allowing the crop to perform at an optimum level, even under stress.

Soybean Seed Treatment Options

Rancona XT Plus **(Fungicide)**

-Protects seed from both seed-borne and soil-borne pathogens.
-Better chance of good stand
-Protection up to 3 weeks after planting

Rancona Complete **(Fungicide/Insecticide)**

-Contains all benefits of Fungicide treatment
-Added broad spectrum insect protection
-Up to 60 days of protection after planting, systemic so the product is absorbed into plant while growing.

Preside CL **(Inoculant)**

-High count live rhizobia bacteria with up to 90 days on seed out of ground survival
-Increased emergence and nodulation
-Takeoff technology included for increased nitrogen utilization

Calvin Wenger
Seed Manager
calw@ottawacoop.com
620-504-2135

SEED

DEKALB®

ASGROW®

STINE®

Mycogen® SEEDS

ROUNDUP READY 2 XTEND SOYBEANS

Offering Liberty Link, Roundup Ready 2 Xtend, and new this year in limited supply GT27 Liberty Link soybeans that offer tolerance to both Glyphosate and Glufosinate as well as HPPD Class 27 Herbicides. Ask about our aggressive early order pricing opportunities.

Burlingame South


Burlingame


Burlington

Crop Production


Edgerton


Ottawa
Elevator D


Leloup


Melvern

Midland


North Lawrence


Ottawa
COOP
Ottawa Co-op
CASEY'S

Overbrook


Pauline
COOP

Scranton


South Lawrence


Waverly

2019 Burlingame Research Farm Corn Yield Results

Planted: 6/7/2019 (24K Pop.) – Harvested: 12/4/2019

Main Corn Plot: (4 rows each trial, 30" Spacing, 315' plot lengths)

- **Crop + (Total of 4 trials or 16 rows)**
  - 142.6 bu., 105.9 bu., 136.3 bu. & 133.0 bu.
  - Average = 129.4 bu./acre = $464.55/acre
  - ROI (vs. Untreated) = 5.1 bu./acre (+) = $18.31/acre (+) = ($12.06/acre Profit)
- **Crop+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 150.3 bu., 137.4 bu., 120.2 bu. & 121.1 bu.
  - Average = 132.2 bu./acre = $474.60/acre
  - ROI (vs. Untreated) = 7.9 bu./acre (+) = $28.36/acre (+) = ($17.98/acre Profit)
- **Untreated (Total of 4 trials or 16 rows)**
  - 125.6 bu., 117.8 bu., 128.2 bu. & 125.7 bu.
  - Average = 124.3 bu./acre = $446.24/acre
- **Untreated w/ Take Off (Total of 4 trials or 16 rows)**
  - 131.5 bu., 123.2 bu., 137.1 bu. & 128.7 bu.
  - Average = 130.1 bu./acre = $467.06/acre
  - ROI (vs. Untreated) = 5.8 bu./acre (+) = $20.82/acre (+) = ($16.69/acre Profit)
- **Seed+/Crop+ (Total of 4 trials or 16 rows)**
  - 130.8 bu., 140.1 bu., 123.2 bu. & 114.0 bu.
  - Average = 127.0 bu./acre = $455.93/acre
  - ROI (vs. Untreated) = 2.7 bu./acre (+) = $9.69/acre (+) = ($1.28/acre Profit)
- **Seed+/Crop+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 128.4 bu., 133.6 bu., 126.9 bu. & 116.8 bu.
  - Average = 126.4 bu./acre = $453.78/acre
  - ROI (vs. Untreated) = 2.1 bu./acre (+) = $7.54/acre (+) = ($5/acre Loss)
- **Seed+ (Total of 4 trials or 16 rows)**
  - 133.0 bu., 128.3 bu., 123.8 bu. & 119.6 bu.
  - Average = 126.2 bu./acre = $453.06/acre
  - ROI (vs. Untreated) = 1.9 bu./acre (+) = $6.82/acre (+) = ($4.66/acre Profit)
- **Seed+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 129.5 bu., 118.3 bu., 135.3 bu. & 127.7 bu.
  - Average = 127.7 bu./acre = $458.44/acre
  - ROI (vs. Untreated) = 3.4 bu./acre (+) = $12.21/acre (+) = ($5.92/acre Profit)

Field Advantage
OTTAWA COOP

Product Pricing

Crop+ (8 oz/acre) = **$6.25/acre**

Take Off (1 pt/acre) = **$4.13/acre**

Seed+ (8 oz/100 lb seed) = **$2.16/acre**

Crop Price (bu.)

$3.59/bu. (forward contracted)

OTTAWA COOP

2019 Burlingame Research Farm Soybean Yield Results

Planted: 6/7/2019 (140K Pop.) – Harvested: 11/9/2019

Main Soybean Plot: (4 rows each trial, 30" Spacing, 315' plot lengths)

- **Crop + (Total of 4 trials or 16 rows)**
  - 65 bu., 67.9 bu., 70.8 bu. & 72.9 bu.
  - Average = 69.2 bu./acre = $579.20/acre
  - ROI (vs. Untreated) = 1.6 bu./acre (+) = $13.39/acre (+) = ($7.14/acre Profit)
- **Crop+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 59.5 bu., 69.8 bu., 69.9 bu. & 72.6 bu.
  - Average = 67.9 bu./acre = $568.32/acre
  - ROI (vs. Untreated) = 0.3 bu./acre (+) = $2.51/acre (+) = ($7.87/acre Loss)
- **Untreated (Total of 4 trials or 16 rows)**
  - 58.1 bu., 71.0 bu., 68.4 bu. & 73.1 bu.
  - Average = 67.6 bu./acre = $565.81/acre
- **Untreated w/ Take Off (Total of 4 trials or 16 rows)**
  - 61.7 bu., 67.1 bu., 70.1 bu. & 76.1 bu.
  - Average = 68.8 bu./acre = $575.86/acre
  - ROI (vs. Untreated) = 1.2 bu./acre (+) = $10.05/acre (+) = ($5.92/acre Profit)
- **Seed+/Crop+ (Total of 4 trials or 16 rows)**
  - 65.4 bu., 70.4 bu., 76.4 bu. & 68.6 bu.
  - Average = 70.2 bu./acre = $587.57/acre
  - ROI (vs. Untreated) = 2.6 bu./acre (+) = $21.76/acre (+) = ($13.35/acre Profit)
- **Seed+/Crop+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 71.5 bu., 70.0 bu., 73.9 bu. & 67.3 bu.
  - Average = 70.7 bu./acre = $591.76/acre
  - ROI (vs. Untreated) = 3.1 bu./acre (+) = 25.95$/acre (+) = ($12.54/acre Profit)
- **Seed+ (Total of 4 trials or 16 rows)**
  - 59.6 bu., 64.9 bu., 75.6 bu. & 71.9 bu.
  - Average = 68.0 bu./acre = $569.16/acre
  - ROI (vs. Untreated) = 0.4 bu./acre (+) = $3.35/acre (+) = ($1.19/acre Profit)
- **Seed+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 65.2 bu., 71.3 bu., 68.8 bu. & 69.0 bu.
  - Average = 68.6 bu./acre = $574.18/acre
  - ROI (vs. Untreated) = 1.0 bu./acre (+) = $8.37/acre (+) = ($2.08/acre Profit)

Field Advantage
OTTAWA COOP

Product Pricing

Crop+ (8 oz/acre) = **$6.25/acre**

Take Off (1 pt/acre) = **$4.13/acre**

Seed+ (8 oz/100 lb seed) = **$2.16/acre**

Crop Price (bu.)

$8.37/bu. (forward contracted)

OTTAWA COOP

2019 Le Loup Research Farm Corn Yield Results

Planted: 4/26/19 (24K Pop.) – Harvested: 10/14/19

Main Corn Plot: (4 rows each trial, 30" Spacing, 500' plot lengths)

- **Crop + (Total of 4 trials or 16 rows)**
  - 88.2 bu., 102.1 bu., 119.9 bu. & 106.6 bu.
  - Average = 104.2 bu./acre = $422.01/acre
  - ROI (vs. Untreated) = 0.5 bu./acre (+) = $2.02/acre (+) = ($0.48/acre Profit)
- **Crop+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 108.5 bu., 104.4 bu., 95.7 bu. & 112.8 bu.
  - Average = 105.4 bu./acre = $426.87/acre
  - ROI (vs. Untreated) = 1.7 bu./acre (+) = $6.88/acre (+) = ($3.50/acre Loss)
- **Untreated (Total of 3 trials or 12 rows)**
  - 105.1 bu., 109.2 bu. & 96.8 bu.
  - Average = 103.7 bu./acre = $419.99/acre
- **Untreated w/ Take Off (Total of 3 trials or 12 rows)**
  - 126.8 bu., 107.8 bu. & 111.6 bu.
  - Average = 115.4 bu./acre = $467.37/acre
  - ROI (vs. Untreated) = 11.7 bu./acre (+) = $47.39/acre (+) = ($43.26/acre Profit)
- **Seed+/Crop+ (Total of 4 trials or 16 rows)**
  - 72.3 bu., 140.7 bu., 92.8 bu. & 101.9 bu.
  - Average = 101.9 bu./acre = $412.70/acre
  - ROI (vs. Untreated) = 1.8 bu./acre (-) = $7.29/acre (-) = ($15.14/acre Loss)
- **Seed+/Crop+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 129.4 bu., 122.0 bu., 112.2 bu. & 94.1 bu.
  - Average = 114.4 bu./acre = $463.32/acre
  - ROI (vs. Untreated) = 10.7 bu./acre (+) = $43.34/acre (+) = ($30.80/acre Profit)
- **Seed+ (Total of 3 trials or 12 rows)**
  - 111.2 bu., 86.6 bu. & 116.8 bu.
  - Average = 104.9 bu./acre = $424.85/acre
  - ROI (vs. Untreated) = 1.2 bu./acre (+) = $4.86/acre (+) = ($2.70/acre Profit)
- **Seed+ w/ Take Off (Total of 3 trials or 12 rows)**
  - 111.7 bu., 126.1 bu. & 115.9 bu.
  - Average = 117.9 bu./acre = $477.50/acre
  - ROI (vs. Untreated) = 14.2 bu./acre (+) = $57.51/acre (+) = ($51.22/acre Profit)

Field Advantage
OTTAWA COOP

Product Pricing

Crop+ (8 oz/acre) = **$6.25/acre**

Take Off (1 pt/acre) = **$4.13/acre**

Seed+ (8 oz/100 lb seed) = **$2.16/acre**

Crop Price (bu.)

$4.05/bu. (forward contracted)

OTTAWA COOP

2019 Le Loup Research Farm Soybean Yield Results

Planted: 4/26/19 (140K Pop.) – Harvested: 11/27/19

Main Soybean Plot: (30" Spacing, 550' plot lengths)

- **Crop + (Total of 4 trials or 16 rows)**
  - 51.1 bu., 53.1 bu., 54.0 bu. & 53.3 bu.
  - Average = 52.9 bu./acre = $440.66/acre
  - ROI (vs. Untreated) = 3.8 bu./acre (+) = $31.65/acre (+) = ($25.40/acre Profit)
- **Crop+ w/ Take Off (Total of 3 trials or 12 rows)**
  - 55.5 bu., 56.3 bu. & 51.5 bu.
  - Average = 54.4 bu./acre = $453.15/acre
  - ROI (vs. Untreated) = 5.3 bu./acre (+) = $44.15/acre (+) = ($33.77/acre Profit)
- **Untreated (Total of 5 trials or 20 rows)**
  - 49.7 bu., 55.9 bu., 30.1 bu., 53.1 bu. & 56.7 bu.
  - Average = 49.1 bu./acre = $409.00/acre
- **Untreated w/ Take Off (Total of 3 trials or 12 rows)**
  - 49.3 bu., 68 bu. & 50.2 bu.
  - Average = 55.8 bu./acre = $464.81/acre
  - ROI (vs. Untreated) = 6.7 bu./acre (+) = $55.81/acre (+) = ($51.68/acre Profit)
- **Seed+/Crop+ (Total of 4 trials or 16 rows)**
  - 54.5 bu., 57 bu., 37.7 bu. & 55.8 bu.
  - Average = 51.3 bu./acre = $427.33/acre
  - ROI (vs. Untreated) = 2.2 bu./acre (+) = $18.33/acre (+) = ($9.92/acre Profit)
- **Seed+/Crop+ w/ Take Off (Total of 4 trials or 16 rows)**
  - 51.0 bu., 57.5 bu., 57.2 bu. & 53.3 bu.
  - Average = 54.8 bu./acre = $456.48/acre
  - ROI (vs. Untreated) = 5.7 bu./acre (+) = $47.48/acre (+) = ($34.94/acre Profit)
- **Seed+ (Total of 4 trials or 16 rows)**
  - 53.4 bu., 55.3 bu., 56.8 bu. & 42.5 bu.
  - Average = 52 bu./acre = $433.16/acre
  - ROI (vs. Untreated) = 2.9 bu./acre (+) = $24.16/acre (+) = ($22.0/acre Profit)
- **Seed+ w/ Take Off (Total of 3 trials or 12 rows)**
  - 39.8 bu., 51.5 bu., 51.5 bu. & 58.7 bu.
  - Average = 50.4 bu./acre = $419.83/acre
  - ROI (vs. Untreated) = 1.3 bu./acre (+) = $10.83/acre (+) = ($4.54/acre Profit)

Field Advantage
OTTAWA COOP

Product Pricing

Crop+ (8 oz/acre) = **$6.25/acre**

Take Off (1 pt/acre) = **$4.13/acre**

Seed+ (8 oz/100 lb seed) = **$2.16/acre**

Crop Price (bu.)

$8.33/bu. (forward contracted)

OTTAWA COOP

TEST PLOT DATA
Leloup, KS

DEKALB ® CORN DELIVERING A 120 Bu/Acre AVERAGE

PLANTING DATE	4/26/19
HARVEST DATE	10/14/19
Population	24,000

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
DEKALB	DKC51-25RIB	14.5	111.1
DEKALB	DKC55-85RIB	14.1	115.7
DEKALB	DKC59-82RIB	15.1	139.0
DEKALB	DKC61-40RIB	14.6	145.8
PIONEER	P1151AM	15.1	108.0
DEKALB	DKC62-53RIB	15.0	131.6
DEKALB	DKC63-55RIB	16.4	110.9
DEKALB	DKC64-25RIB	15.6	112.3
DEKALB	DKC65-95RIB	16.0	105.9

TEST PLOT DATA
Baldwin, KS

DEKALB ® CORN DELIVERING A 84.5 Bu/Acre AVERAGE

PLANTING DATE	4/20/19
HARVEST DATE	10/28/19
Population	27,000

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
DEKALB	DKC51-20RIB	14.1	74.7
DEKALB	DKC51-25RIB	14.3	73.8
DEKALB	DKC52-35RIB	14.2	72.8
DEKALB	DKC54-65RIB	14.2	77.3
DEKALB	DKC55-85RIB	14.2	89.5
PIONEER	P0589AM	14.4	90.5
DEKALB	DKC57-23RIB	14.3	89.0
DEKALB	DKC59-82RIB	14.5	96.8
DEKALB	DKC62-53RIB	14.6	96.3

TEST PLOT DATA
Overbrook, KS

DEKALB ® CORN DELIVERING A 136.5 Bu/Acre AVERAGE

PLANTING DATE	4/22/19
HARVEST DATE	10/24/19
Population	27,000

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
DEKALB	DKC60-88RIB	14.5	140.0
DEKALB	DKC61-41RIB	15.0	169.6
PIONEER	P1151AM	13.8	147.8
DEKALB	DKC62-53RIB	13.4	127.2
DEKALB	DKC63-55RIB	14.1	149.9
DEKALB	DKC63-57RIB	14.9	153.2
DEKALB	DKC64-25RIB	14.4	99.2
DEKALB	DKC65-81RIB	14.7	101.5
DEKALB	DKC65-95RIB	14.2	140.1

TEST PLOT DATA
Rantoul, KS

DEKALB ® CORN DELIVERING A 137.2 Bu/Acre AVERAGE

PLANTING DATE	4/16/19
HARVEST DATE	10/3/19
Population	27,500

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
DEKALB	DKC60-88RIB	15.1	128.1
DEKALB	DKC61-40RIB	15.5	145.6
PIONEER	P1151AM	15.8	134.6
DEKALB	DKC62-53RIB	15.6	144.8
DEKALB	DKC63-55RIB	16.6	137.4
PIONEER	DKC63-57RIB	15.4	134.3
DEKALB	DKC64-25RIB	15.8	134.3
DEKALB	DKC65-81RIB	16.4	136.2
DEKALB	DKC65-95RIB	16.4	139.5

TEST PLOT DATA
Rantoul, KS

DEKALB ® CORN DELIVERING A 114.4 Bu/Acre AVERAGE

PLANTING DATE	4/16/19
HARVEST DATE	10/3/19
Population	27,500

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
DEKALB	DKC51-20RIB	14.5	119.4
DEKALB	DKC51-25RIB	14.3	125.2
DEKALB	DKC52-35RIB	14.5	119.9
DEKALB	DKC54-65RIB	14.4	121.0
DEKALB	DKC55-85RIB	14.4	119.5
PIONEER	P0589AM	14.7	94.2
DEKALB	DKC57-23RIB	14.3	89.7
DEKALB	DKC59-82RIB	14.4	109.9
DEKALB	DKC62-53RIB	15.1	131.0

TEST PLOT DATA
Burlingame, KS

ASGROW ® SOYBEANS DELIVERING A 56.0 Bu/Acre AVERAGE

PLANTING DATE	6/7/19
HARVEST DATE	11/11/19
Population	135,000

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
ASGROW	AG41X8	7.9	66.1
ASGROW	AG44X0	8.3	62.6
PIONEER	P46A93X	8.4	57.1
ASGROW	AG45X6	7.5	60.7
ASGROW	AG47X9	7.8	55.3
ASGROW	AG48X7	8.3	48.7
ASGROW	AG48X9	9.0	49.3
ASGROW	AG49X0	9.8	48.6

TEST PLOT DATA
Leloup, KS

ASGROW ® SOYBEANS DELIVERING A 49.7 Bu/Acre AVERAGE

PLANTING DATE	6/11/19
HARVEST DATE	11/8/19
Population	135,000

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
ASGROW	AG41X8	13.0	54.9
ASGROW	AG43X7	12.7	53.0
ASGROW	AG44X0	12.7	56.0
PIONEER	P46A93X	12.5	47.5
ASGROW	AG45X6	12.3	48.3
ASGROW	AG47X9	12.9	50.3
ASGROW	AG48X7	13.3	44.9
ASGROW	AG48X9	12.1	47.4
ASGROW	AG49X9	13.5	45.4

TEST PLOT DATA
Rantoul, KS

ASGROW ® SOYBEANS DELIVERING A 37.0 Bu/Acre AVERAGE

PLANTING DATE	6/13/19
HARVEST DATE	11/8/19
Population	135,000

BUSINESS BRAND	PRODUCT BRAND	HARV. MOIST.	Yield
ASGROW	AG41X8	11.7	39.7
ASGROW	AG43X7	11.8	29.2
ASGROW	AG44X0	11.7	26.2
PIONEER	P46A93X	11.7	39.0
ASGROW	AG45X6	11.7	46.9
ASGROW	AG47X9	11.8	32.5
ASGROW	AG48X7	11.9	35.5
ASGROW	AG48X9	11.7	40.8
ASGROW	AG49X9	11.9	43.2