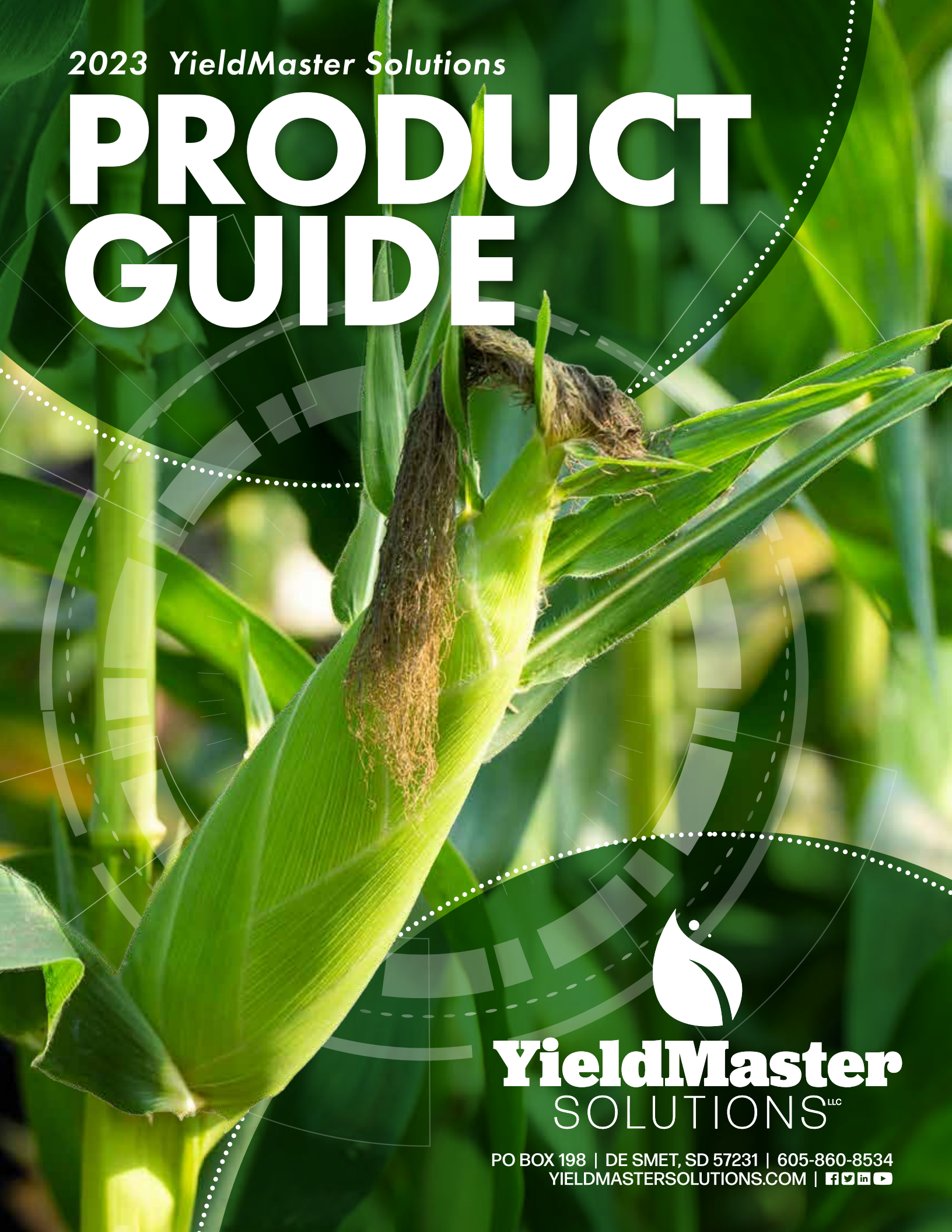

2023 YieldMaster Solutions

PRODUCT GUIDE

YieldMaster SOLUTIONS LLC

PO BOX 198 | DE SMET, SD 57231 | 605-860-8534
YIELDMASTERSOLUTIONS.COM |

LEADING THE WAY IN

YIELD ENHANCING SOLUTIONS

YieldMaster Solutions (YMS) is pleased to offer dealers and growers performance enhancing biological technologies, innovations to improve crop health and increase yield potential. Solutions include products from some of the most innovative biological suppliers in the industry: Azotic North America, Agrovive, EGE, Lo Mu Tech, Asido, and MycoGold. We offer a robust product portfolio for multiple crop types to meet specific operation and application needs including: seed coat, foliar, and in-furrow applications.

YieldMaster SOLUTIONS LLC

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YIELDMASTERSOLUTIONS.COM |

UNBIASED INDEPENDENCE

DEVOTED TO INTEGRITY

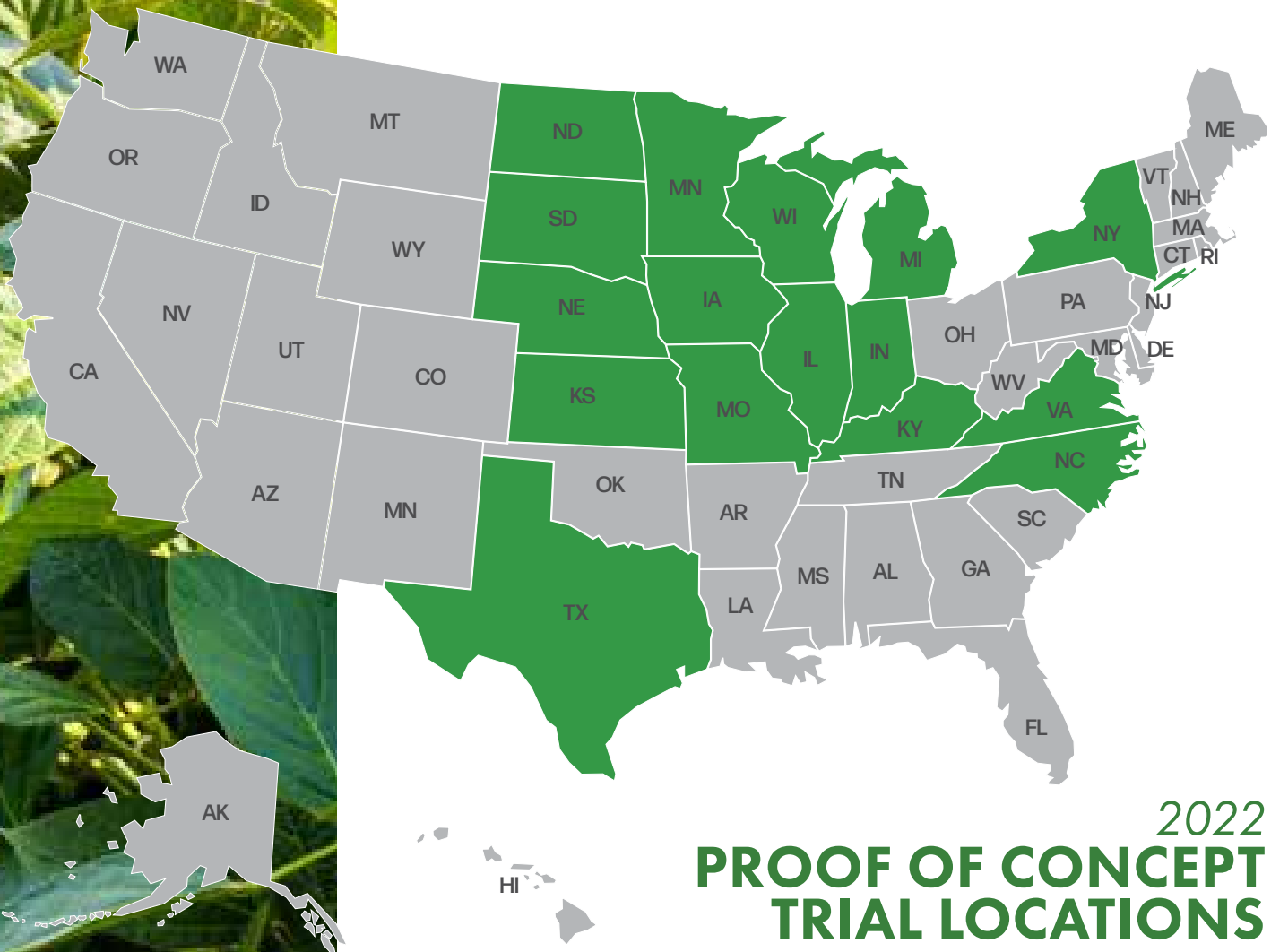
In our approach to promote biotechnology, YMS is a rare marketing company. Our discovery process is focused on two key factors:

1. Does it work?
2. Does it enhance the grower's ROI?

As a fiercely independent organization, we choose to identify and ground truth rather than manufacture.

All environmentally sound products that have shown the ability to improve plant health or function must earn their way into our elite portfolio through our Proof of Concept Trials.

YMS is equally selective about the technology partners we choose to align with. Partners must align with the YMS model for innovation and performance.



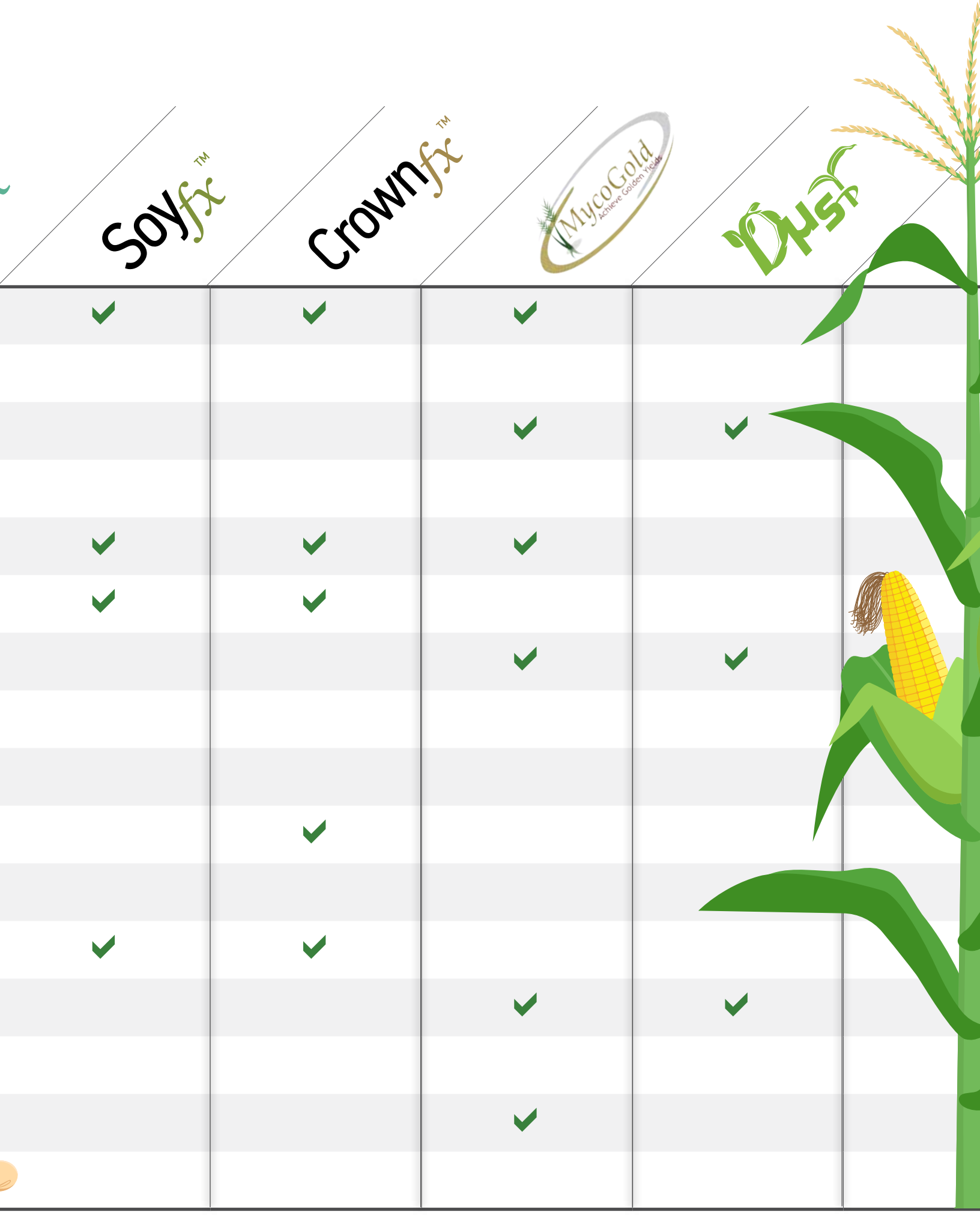
2022

PROOF OF CONCEPT TRIAL LOCATIONS

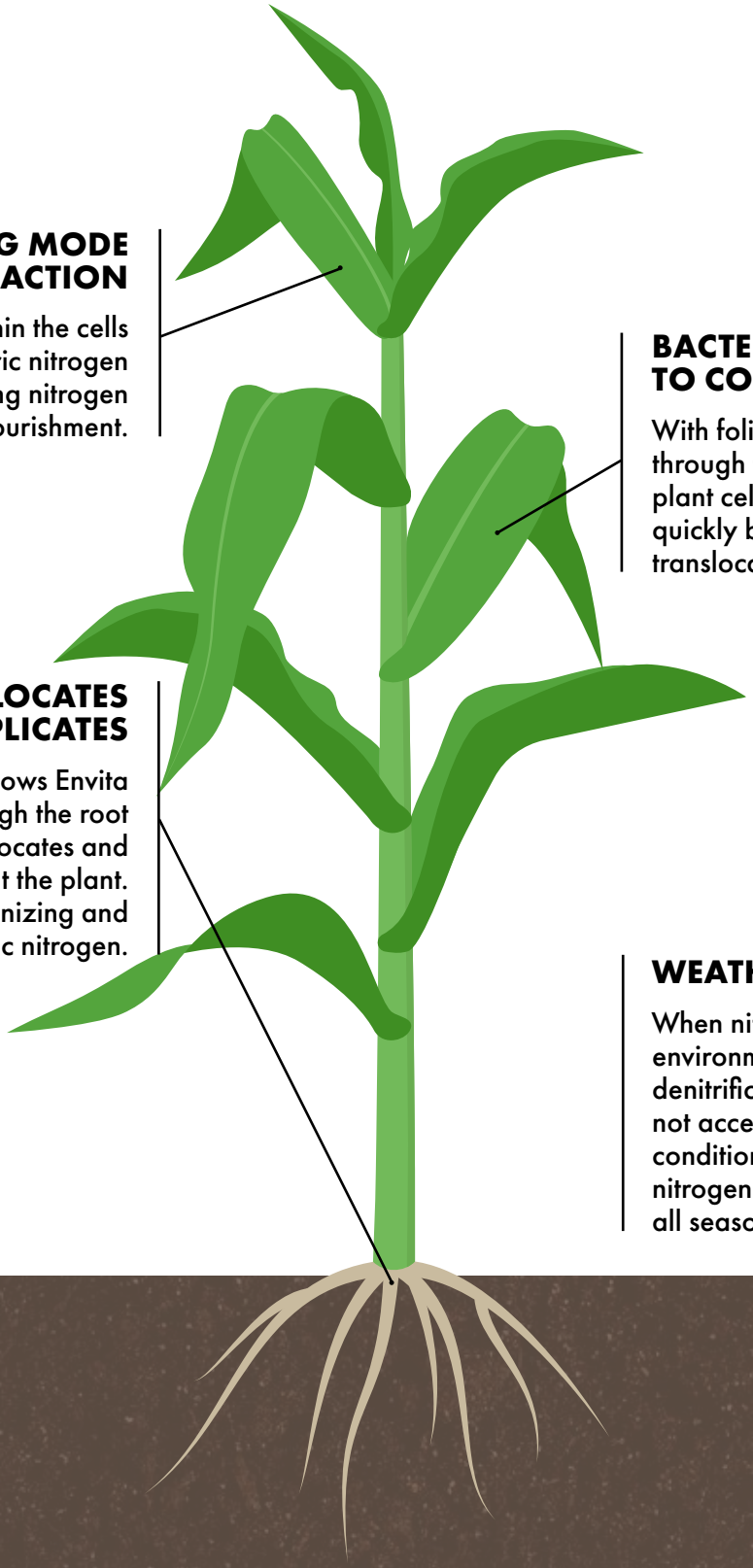
PRODUCT RECOMMENDATION CHART

	envita	Nutriquire	IONfx™
Crop Stress Relief	✔	✔	✔
Soil Health		✔	
Micronutrient Enhancement		✔	
Nitrogen Fixing	✔		
Phosphorous Solubilizer		✔	✔
Seed Treatment Option			✔
Talc/Graphite Replacement			
Starter Tank Mix Option	✔	✔	
Fertilizer Enhancement		✔	
Protein Enhancement	✔		✔
Tonnage Increase	✔	✔	✔
Foliar Option	✔	✔	✔
Planter Box Option			
Residue Management			✔
Soil Compaction		✔	
Manure Nutrient Enhancement		✔	

	Soyfx™	Crownfx™	MycoGold Achieve Golden Yields	Dust
	✔	✔	✔	
			✔	✔
	✔	✔	✔	
	✔	✔		
			✔	✔
		✔		
	✔	✔		
			✔	✔
			✔	



IMPACT *on the* PLANT



SEASON-LONG MODE OF ACTION

Bacteria create vesicles within the cells which capture atmospheric nitrogen providing season-long nitrogen nourishment.

BACTERIA ARE QUICK TO COLONIZE

With foliar application, Envita enters through the leaf stomata and into the plant cells. From there, the bacteria quickly begin to colonize and translocate throughout the plant.

TRANSLOCATES & REPLICATES

In-furrow application allows Envita bacteria to enter through the root zone where it translocates and replicates throughout the plant. The bacteria begin colonizing and capturing atmospheric nitrogen.

WEATHERPROOF NITROGEN

When nitrogen is lost to the environment through leaching, denitrification, volatility, or is simply not accessible due to drought conditions, Envita is there to deliver nitrogen where and when it's needed all season long.

ENhan
Fertility

N-fixing bacteria** that works from within the plant, applied in-furrow OR foliar, and across crops to supplement nitrogen **where and when it's needed.

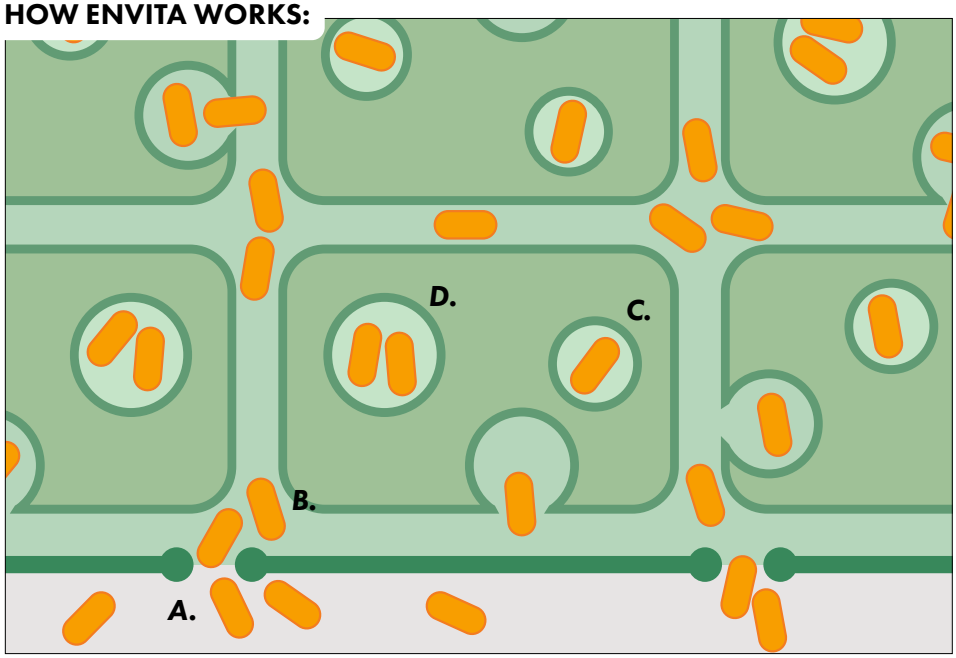
envita®

MULTI-YEAR CORN DATA

81%
POSITIVE RESPONSE

8 BU/ ACRE
ADVANTAGE
WHEN POSITIVE RESPONSE ACHIEVED

HOW ENVITA WORKS:



A. *Envita enters the plant through the root zone (in-furrow application) or leaf stomata (foliar application)*

B. *Envita bacteria works its way into the plant cell and colonies within the actual cell*

C. *Envita bacteria creates small vesicles or "air pockets" within the plant cell that have the ability of capturing nitrogen from the atmosphere*

D. *Envita repopulates within the cell*

ce your
Program

MULTI CROP USE

Corn · Soybeans · Wheat · Alfalfa · Sugar Beets
Potatoes · Canola · Cotton · & MORE

APPLICATION RATES

In-furrow: 3.2 fl. oz. per acre
Foliar: 3.2 fl. oz. per acre

In-furrow Starter Fertilizer
Tank Mix Directions:
Compatible with most starter fertilizers. Always perform jar test to confirm mixture compatibility. For best results follow product mixing protocol listed below:

Step 1
Load starter fertilizer into application tank

Step 2
Load 1 - 2.5 gallons of water per acre into application tank. Low salt fertilizers require less water, while higher salt fertilizers such as 10-34-0 require higher levels of water to buffer the salt's impact on the bacteria.

Step 3
Load 3.2 ounces (1 gallon treats 40 acres) of Envita into the fertilizer/water mixture in the application tank.
DO NOT ADD ENVITA DIRECTLY INTO FERTILIZER BEFORE ADDING WATER.

** The amount of time Envita is mixed with fertilizer in a tank is critical to the success of the product. For best results apply mixture of fertilizer, water, and Envita within 4-6 hours.*

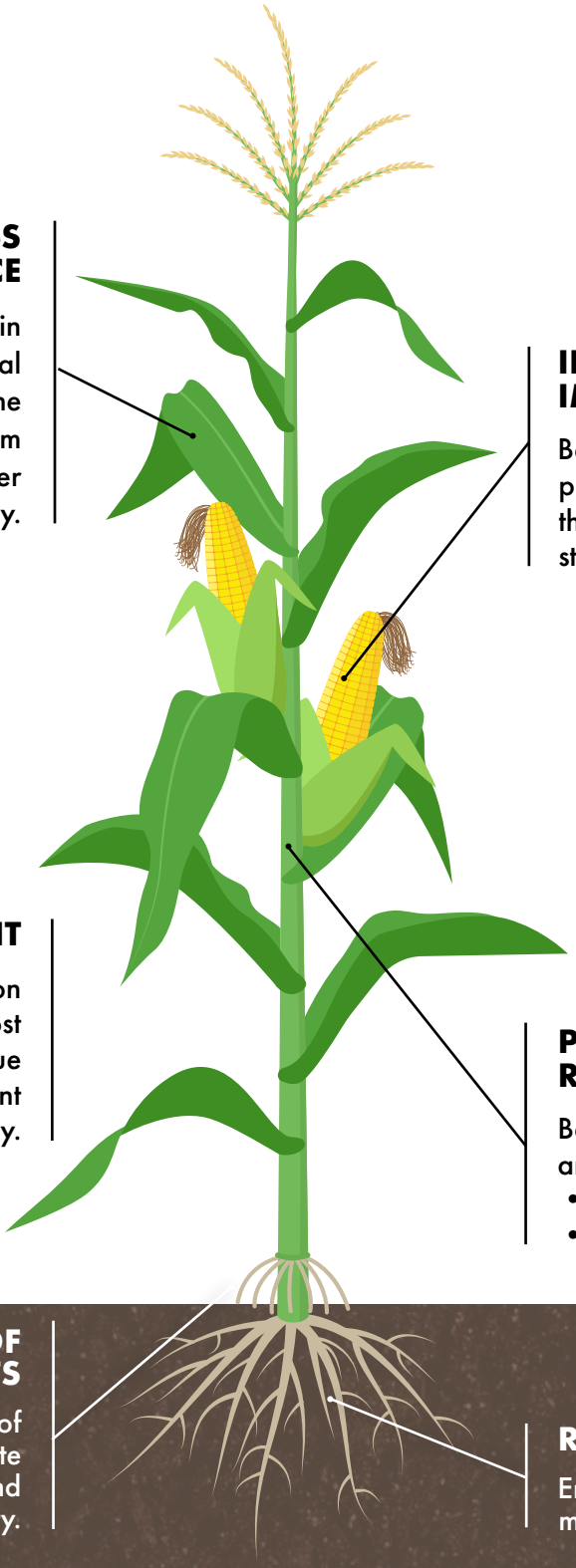
Foliar Application Directions:

- Envita is compatible with most herbicides, insecticides, and fungicides. Perform a jar test to confirm compatibility.
- If possible avoid mixing with Group 4 herbicides, however Performance Guarantee will still apply if used with Group 4 herbicides.
- Apply Envita between the V2-V6 stage in corn & V2-V4 stage in soybeans.
- Apply Envita with 15-20 gallons per acre of water for best results.
- For more product handling and application recommendations, please see the Best Practices Guide

Packaging

4x1 gal

IMPACT *on the* PLANT



HEAT & DROUGHT STRESS TOLERANCE

ION_{fx} bacteria modulate the pH within the plant which helps keep the internal temperature cooler throughout the course of the day. This mechanism allows the plant to operate longer throughout the day.

INCREASED EAR SIZE & IMPROVED EAR FILL

Bacteria within ION_{fx} will promote plant growth regulators that allow the plant to set a larger ear at the V5 stage.

RESIDUE MANAGEMENT

ION_{fx} bacteria accelerate digestion and softening of plant tissue post harvest for improved residue management and potential nutrient availability.

PLANT GROWTH REGULATOR RESPONSE

Bacteria found in ION_{fx} stimulate and create:

- Cell division
- Thicker stalks
- Larger leaves
- Larger ear set

DEVELOPMENT OF SECONDARY BRACE ROOTS

ION_{fx} encourages the development of secondary brace roots. This attribute provides increased access to water and soil nutrition and improves standability.

ROOT DEVELOPMENT

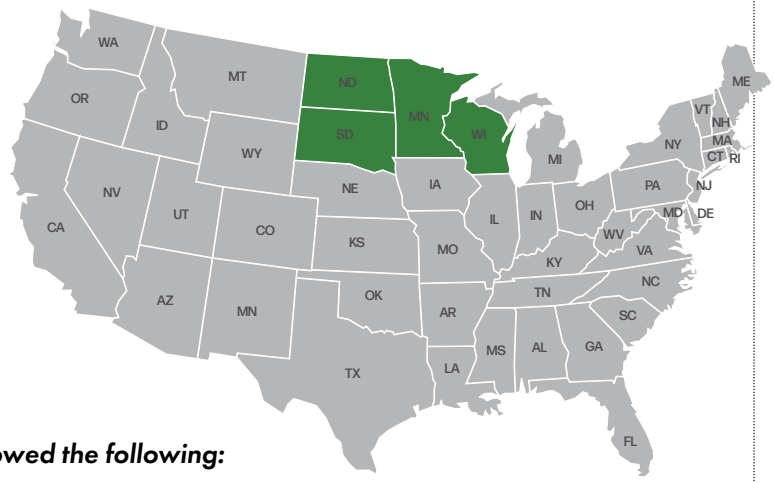
Enhanced root system allowing for more efficient nutrient & water uptake.

ION$_{fx}$™ is a mix of genetically identified and patented bacteria, along with archaea and fungi. While many microbes live naturally in a plant, this mix of microorganisms has been selected to support, enhance, or supplement plant functions. ION$_{fx}$ unlocks a plant's ability to produce growth regulators and metabolites.

ION$_{fx}$™

2021 ION$_{fx}$ GRAIN SUMMARY

Testing was conducted in 13 locations across four states with 19 comparisons of ION$_{fx}$ treated products vs. untreated *(control)*.



Results showed the following:

74%

WIN RATE

8.4

BU/ACRE RESPONSE

WHEN POSITIVE

FOR USE ON

Grain Corn, Silage Corn, Sorghum, Cotton, Canola, Flax

KEY BENEFITS

- Heat & drought stress mitigation
- Plant growth regulator response
- Increased ear size and improved ear fill
- Residue management

APPLICATION RATES

Seed
2 ounces per CWT seeds via seed treater. Can be co-applied with other products.

In-furrow
16 fl. oz. per acre with a minimum of 5 GPA rate.

Foliar: 16 fl. oz. per acre with 10 to 20 gallons water. For corn or sorghum apply between V3-V7.

Guaranteed Analysis

Non-plant Food
Pseudomonas fluorescense ..... 1.0 x 105 CFU/ml

Microorganisms exempt from CFR requirements ..... 40 CFR 725

Packaging

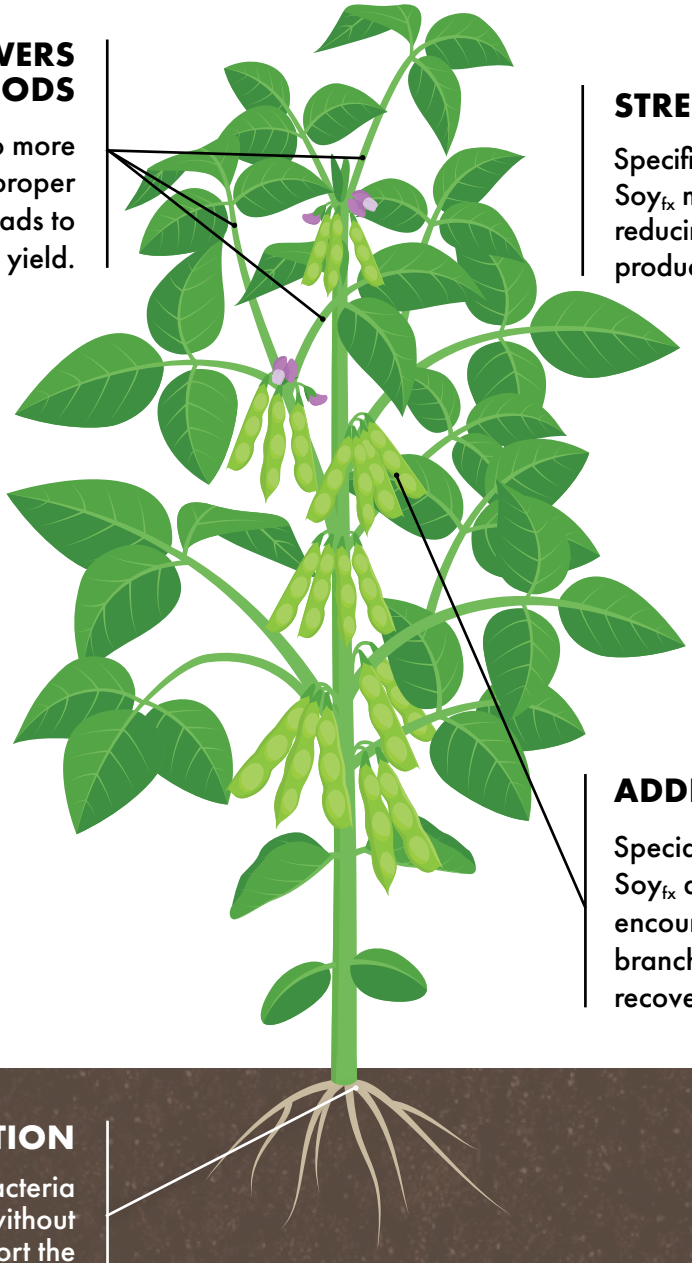
Seed Coat
4x1 gal

In-furrow or Foliar
2x2.5 gal
275 gal

IMPACT on the PLANT

INCREASED FLOWERS & PODS

Additional branching leads to more flowers and pods. With proper moisture and fertility this leads to higher yield.



STRESS MITIGATION

Specific strains of microbes within Soy_{fx} modulate pH throughout the day reducing plant stress and ethylene production.

ADDITIONAL BRANCHING

Specially identified microbes within Soy_{fx} activate the lower axillary buds encouraging the development of more branches. This attribute also aids in recovery after a hail event.

INCREASED NODULATION

Facultative anaerobic bacteria (bacteria that can survive without oxygen) promote and support the production of increased nodulation.

Soy$_{fx}$ ™ is a specific/unique combination of identified and tested microbials that elicit a positive crop response. Soy$_{fx}$ unlocks the plant's ability to produce growth regulators and metabolites that enhance production through biosynthetic pathway efficiencies.

Soy$_{fx}$ ™

EFFICACY AFTER HAIL EVENT

Photos taken approximately 1 ½ months after hailstorm.

BRANCHES, PODS & NODES

28%
MORE PODS PER PLANT

11%
MORE BRANCHES

23%
MORE NODULATION

FOR USE ON

Soybeans

KEY BENEFITS

- More branching per plant
- Increase in flowers and pods
- Increased nodulation
- Reduce plant stress
- Aids in hail damage recovery

APPLICATION RATES

Seed
2 ounces per CWT seeds via seed treater. Can be co-applied with other products.

In-furrow
16 fl. oz. per acre with a minimum of 5 GPA rate.

Foliar: 16 fl. oz. per acre with 10 to 20 gallons water. Early vegetative application (V2-V4) is ideal

Guaranteed Analysis

Non-plant Food
Bacillus megaterium ..... 1.0 x 105 CFU/ml

Microorganisms exempt from CFR requirements ..... 40 CFR 725

Packaging

Seed Coat
4x1 gal

In-furrow or Foliar
2x2.5 gal
275 gal

IMPACT on the PLANT

INCREASE IN TILLERS

An increase in head bearing tillers provides the opportunity for more straw post-harvest.

FASTER CANOPY

Faster canopy is achieved through an increase in tillering and leaf surface resulting in improved weed suppression and soil moisture retention.

IMPROVED ROOT DEVELOPMENT

Crown$_{fx}$ promotes early season lateral root development providing a good support system for tillering and shoot development.

Crown$_{fx}$™

SCOUTING RECOMMENDATIONS

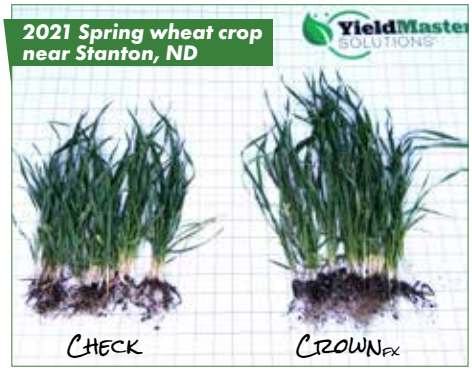
- **Early Season Emergence & Root Development:**
  Crown$_{fx}$™ promotes root development including early season lateral roots which provides necessary support for tillering and shoot development. Avoiding propiconazole during this phase is critical as a multispectral antimicrobial will terminate the symbiotic bonds with the plant.

- **Faster Canopy:**
  By supporting increased tillering and leaf surface area canopy can be established earlier. This can have an impact on weed pressures and moisture retention in the field.

- **Larger Flag Leaves:**
  Increased flag leaf surface area is directly linked to energy production during reproduction. This is critical to support the production of energy and carbohydrates for yield.

- **Increased Uniformity at Harvest and Protein Increases:**
  Plant height is typically increased and shows increased uniformity of height and reduced lodging due to increased support in the field. Protein levels are supported through the increase in metabolic processing in the plant. Fertility management is recommended to maximize protein levels realized at harvest.

- **Increased Straw Residues Post Harvest:**
  The increase in head bearing tillers creates the opportunity for increased straw residues in the field post harvest.



FOR USE ON

Small Grains

KEY BENEFITS

- Enhance root mass
- Release more tillers
- Increase seed head length
- Increase kernel counts
- Increase crude protein

APPLICATION RATES

Crown$_{fx}$ Seed Coat

- 2 ounce per CWT of seed via seed treater.
- Should not use hormone-based plant growth regulators (PGR) with this product because the combination may result in stunted growth.

Foliar Application

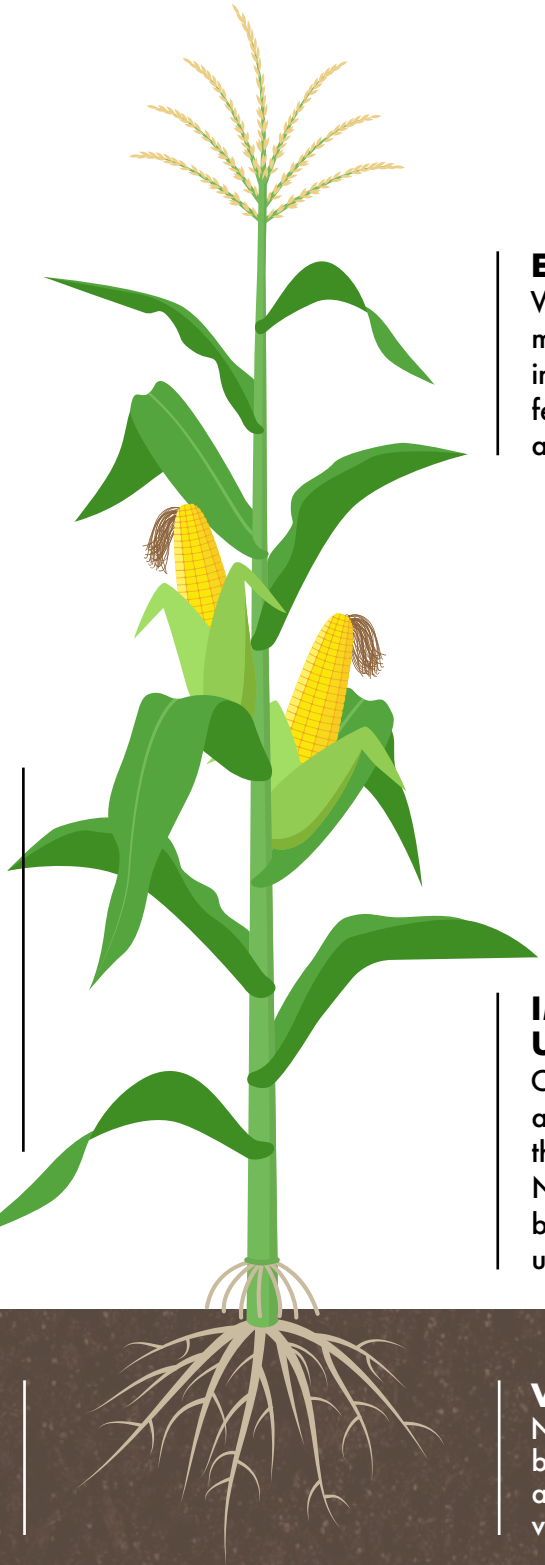
- 16 ounces per acre rate.
- Can be applied through ground application, fertigation, or aerial.
- Apply with 10-20 gallons of water.
- Do not tank mix with fungicides, PGR's, or glyphosate.

Packaging

Seed Coat
4x1 gal

Foliar
2x2.5 gal
275 gal

IMPACT on the PLANT



EASY TO APPLY
With a wide range of application methods, Nutriquire can be applied in-furrow, foliar, side dressed, or fertigated for easy incorporation into any operation.

INCREASE IN P & K AVAILABILITY
Nutriquire contains spore forming microbes that improve phosphorous and potassium availability through the creation of organic and inorganic acids. These organic and inorganic acids alter the pH locally allowing for the release of more phosphorous and potassium.

IMPROVED NUTRIENT UPTAKE
Overall plant nutrient efficiency, availability, and uptake is improved through the microbes found in Nutriquire as they aid in breaking soil bonds that typically make nutrients unavailable.

NITROGEN AVAILABILITY
Nutriquire converts soil N to plant available forms quicker allowing for less nutrient run off and improved plant availability.

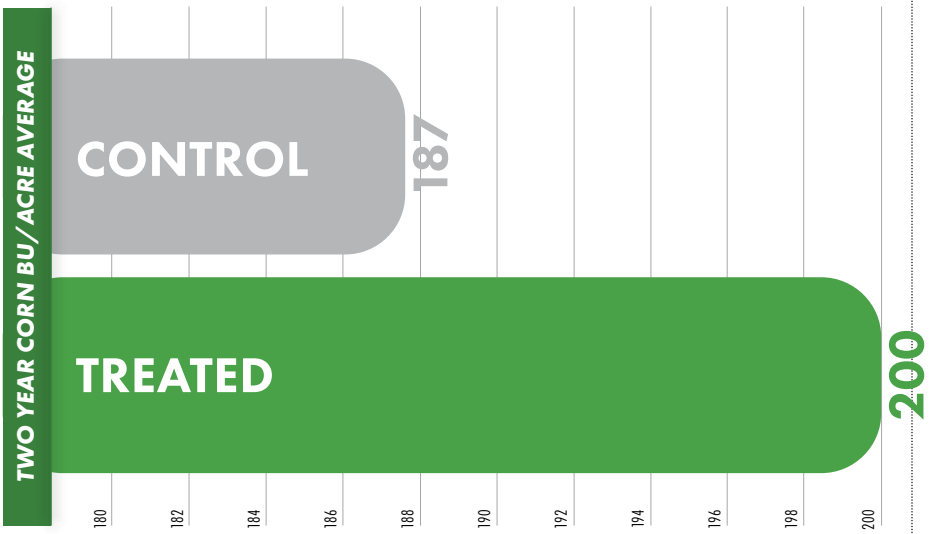
VERSATILITY
Nutriquire contains spore forming bacteria, meaning they are dormant, allowing for longer shelf life and versatility of application methods.

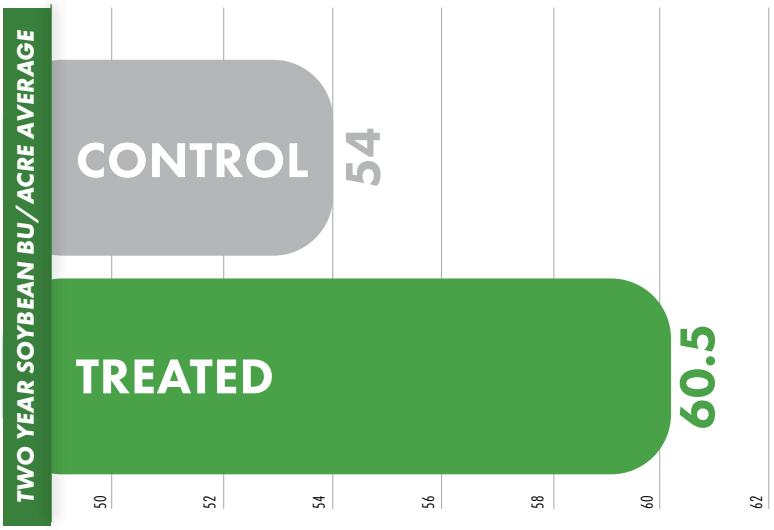
Nutriquire is a microbial-based product that increases the active biomass in the soil. Nutriquire introduces microbes into the soil resulting in improved plant vigor and nutrient cycling. Many of the bacteria found in Nutriquire are spore forming bacteria allowing for flexible mixing and application options.

Nutriquire™

Yuma Irrigation Research Foundation - Yuma, CO

CORN & SOYBEAN MULTI-YEAR TRIAL





MULTI CROP USE

Corn, Soybeans, Wheat, Alfalfa, Sugar Beets, Potatoes, Canola, Cotton, & MORE

KEY BENEFITS

- Enhances fertilizer by increasing plant nutrient uptake
- Improves availability of phosphorus and potassium
- Increases root mass growth
- Improves soil environment for plant growth by building the aerobic zone of the soil.
- Aids in unlocking nutrient tie up caused by high or low pH soils
- Stimulates soil microorganisms that provide essential nutrients for plants through their productive biological processes

APPLICATION RATES

Soil Applied:
- 32 oz/acre

Foliar Applied:
- 32 oz/acre
- 4-6 leaf or V7 to silking/tasseling

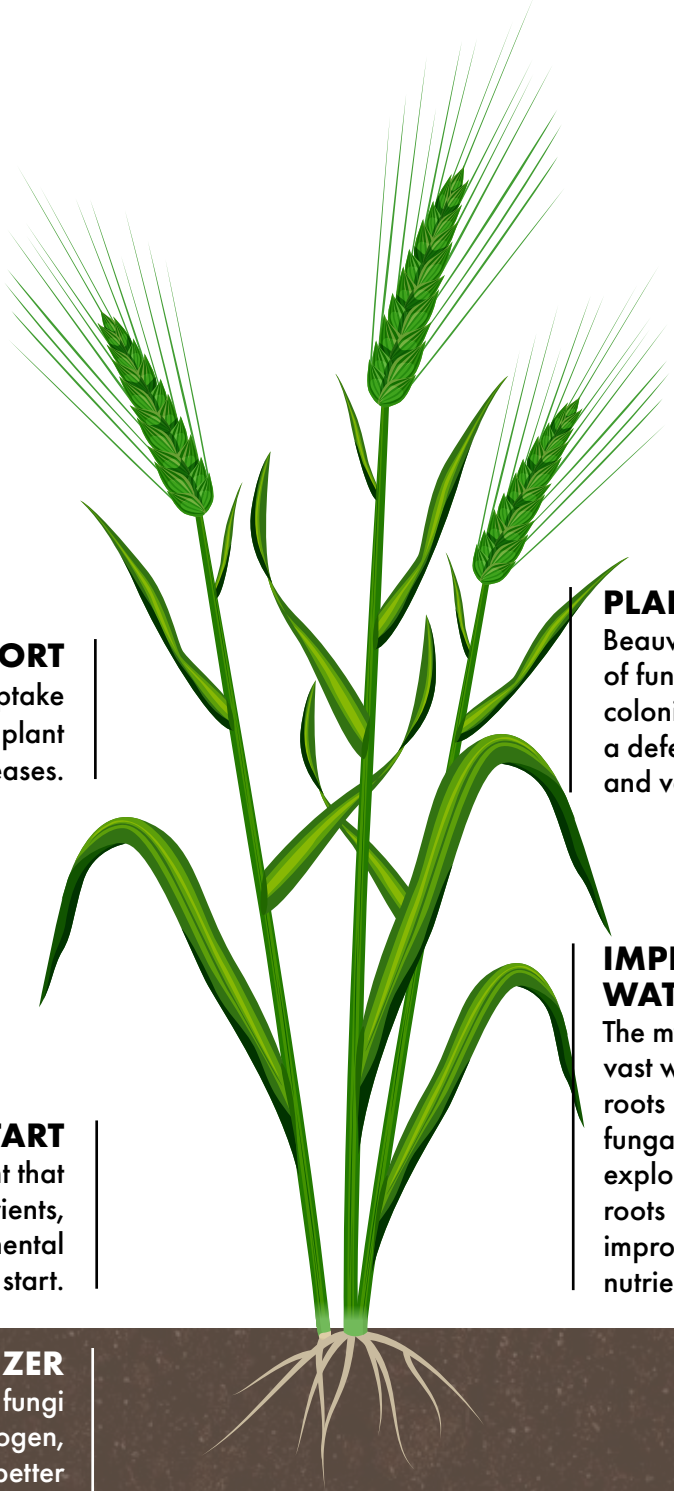
UAN:
- 32 oz/acre
- 4-6 leaf through tasseling

Methods of Application:
- Can be applied through overhead, aerial irrigation and mixed with sprayer tank containing starter fertilizers and/or herbicides, other methods of application.
- May be mixed with a 2,4-D herbicide, and glyphosate.
- Ensure tank is free of residue, avoid or treat chlorinated water if possible.
- Do not apply when a crop is severely stressed.
- Compatible with some fungicides and insecticides.

Packaging

2x2.5 gal
275 gal

IMPACT *on the* PLANT



PLANT GROWTH SUPPORT
MycoGold improves nutrient uptake and soil biology which supports plant growth, leading to yield increases.

PLANT DEFENSE
Beauveria bassiana is a specific strain of fungi found in MycoGold that colonizes systemically. This serves as a defense mechanism against disease and various insect pests

IMPROVED NUTRIENT & WATER UPTAKE
The mycorrhizal fungus grows as a vast web of tiny filaments in plant roots and the surrounding soil. The fungal threads, called mycelia, explore a larger area than the plant roots allowing the plant to naturally improve the ability for water and nutrient uptake.

OPTIMAL START
As a dry planter box treatment that contains a variety of micronutrients, MycoGold provides supplemental nutrition for an optimal start.

BIOFERTILIZER
MycoGold's key bacteria and fungi work as biofertilizers that fix nitrogen, unlock phosphorus, and create better root development and soil biology which allows better uptake of nutrients.

MycoGold® offers crop specific blends that are effective with improving production, creating better soil environments, and defending against disease and infestations. MycoGold is a complete package biological inoculant that starts working from germination all the way to harvest. MycoGold's key biologicals work as bio-fertilizers.

MycoGold
Achieve Golden Yields

MYCOGOLD ADVANTAGE

8-20% YIELD INCREASES
By improving nutrient uptake and soil biology, MycoGold seed inoculant supports plant growth leading to yield increases.

IMPROVED DROUGHT RESISTANCE
Since MycoGold seed inoculant supports water uptake from the soil, it strengthens plants in drought periods. This is of high importance in times of increasingly extreme climate conditions.

IMPROVED PEST RESISTANCE
Through root colonization, research has determined better plant defenses against disease. The Beauveria Bassiana fungi grows endophytically through the plant defending against various insect pests.

HIGH COUNTS OF ENDO FUNGI PROPAGULES
Propagules start benefiting the plant in the early stages and are more effective than spores for row crops short growing season.

3 IN 1 TALC REPLACEMENT PRODUCT

1. **Mycorrhizal Fungi Inoculant**
2. **Bacteria & Bio-Stimulant Package**
3. **Micro-nutrient Package**

FOR USE ON

Soybeans, Corn, Peanuts, Cotton, Sorghum, Wheat

KEY BENEFITS

- Improved nutrient and water uptake
- Improved Phosphorous uptake
- Defends against disease and insect pests
- Supplemental nutrition for optimal seedling start
- Talc/graphite replacement

APPLICATION RATES

Rate:
2 oz./ 50lb. of seed

Method of Application:
Similar to other seed lubricants, mix MycoGold evenly with seeds when filling the planter box using a grain auger or directly in the hopper or other container.

Dust is a new, innovative, patented product made to replace the grimy graphite/talc mix in the planter. Dust is a 100 percent renewable soy protein product. Microscopically, it has more round shapes than graphite and talc, which are materials that are milled out of the ground. Dust's round shapes provide lubricity for mechanical parts in meters and relief of static friction while making your seeds flow better through your planter. You will find it clean and safe to use.

Low Mu Tech

Dust

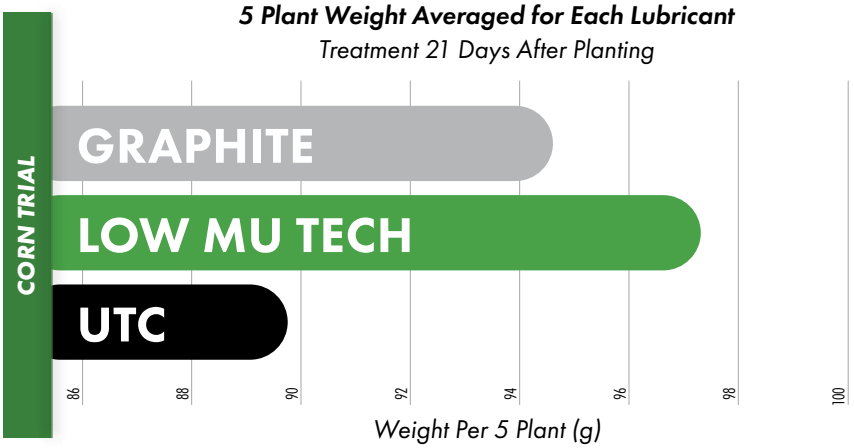
Cleaner. Safer. Soy.®

Low Mu Tech

CORN & SOYBEAN MULTI-YEAR TRIAL

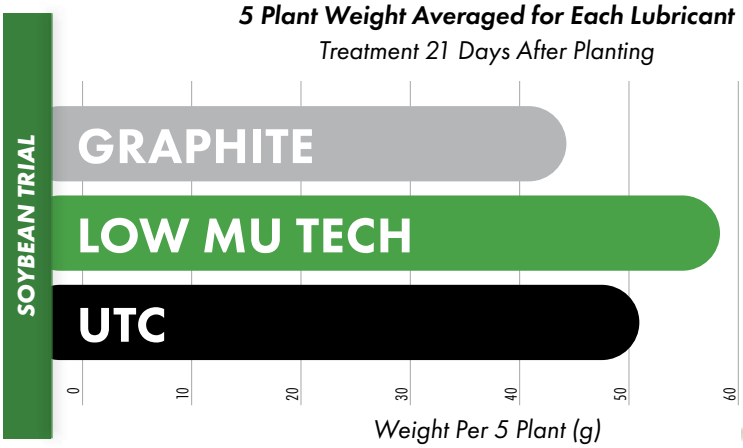
5 Plant Weight Averaged for Each Lubricant

Treatment 21 Days After Planting



5 Plant Weight Averaged for Each Lubricant

Treatment 21 Days After Planting



Greenley Research Center
University of Missouri

THE REPLACEMENT IS BETTER THAN THE ORIGINAL.

INNOVATION; IN THE PLANTER BOX.

FOR USE ON

Multi-Crop

KEY BENEFITS

- Replacement for talc & graphite in planter
- Made with 100% soy protein & lecithin
- Patented, microplastic-free, seed lubricant
- Used on 7 million+ acres per year on more than 20 different crops

DIRECTIONS FOR USE

1) Open container. Contents will settle in transport.
2) Begin with 1 scoop of product per unit of seed (i.e. about 1 oz per unit of seed). Usage rates vary by planter type and size. The link below will give you more detailed usage information.
3) Put lid back on container.
4) Keep container closed and in a dry location.Treat the same way you use graphite/talc.

REMINDER

WITH DUST, LESS IS MORE

To calculate the amount of DUST need for planting use the ratio of 1 scoop equals 1 oz of DUST.

ROW UNIT PLANTER

1 Scoop for 1 Bag

CENTER FILL PLANTER

1 Scoop for 2 Bag

Scan QR code for additional instructions.

** Read and follow all labeled instructions*

ALSO OFFERING

MICRONUTRIENTS

	CROP		USE RATES
Finish Line	**Corn**	*A blend of multiple and highly available potassium sources to boost yields late in the season. The micronutrients and fulvic acid are there to provide a synergistic effect to provide late season plant health, as well as provide nutrient efficacy in the corn plant.*	**In-furrow:** 1 qt/ac **Foliar:** 1 qt/ac
Finish Line B	**Soybeans**	*A blend of multiple and highly available potassium sources to boost yields late in the season. The micronutrients and fulvic acid are there to provide a synergistic effect to provide late season plant health, as well as provide nutrient efficacy in the soybean plant.*	**In-furrow:** 1 qt/ac **Foliar:** 1 qt/ac
Essential 5	**Multi Crop**	*A blend of the five essential micronutrients that are highly compatible with other fertilizers. It also contains fulvic acid for nutrient uptake and can be applied in-furrow or foliar.*	**In-furrow:** 1 qt/ac **Foliar:** 1 qt/ac

ege Products

RATES & APPLICATION BIOLOGICALS

SEED APPLIED

		SEED TREATMENTS	
PRODUCT	RATE	FUNGICIDES	INSECTICIDES
Soy_{fx}	2 oz/CWT	Most	Most
ION_{fx}	2 oz/CWT	Most	Most
$Crown_{fx}$	2 oz/CWT	Most	Most

FOLIAR OR IN-FURROW

PRODUCT	RATE/ACRE	APPLICATION TIMING	SHELF LIFE
Soy_{fx}	16 oz	IF or V3 - R1	1 Year
ION_{fx}	16 oz	IF or V3 - V8	1 Year
$Crown_{fx}$	16 oz	Foliar	1 Year
Nutriquire	32 oz	IF or Foliar	2 Year
Envita	3.2 oz	IF or V2-V6	1 Year
Finish Line	1 qt	Foliar	2 Year
Finish Line B	1 qt	Foliar	2 Year
Essential 5	1 qt	Foliar	2 Year

PLANTER BOX

PRODUCT	RATE/ACRE	APPLICATION TIMING	SHELF LIFE
MycoGold	2 oz./ 50lb. of seed	at planting	1 Year
Dust	.5-1 oz/ 50lbs. of seed	at planting	3 Year

1. Follow applicator pressure and application settings | *A jar test is recommended to ensure compatibility*

** Read and follow all labeled instructions*

			APPLICATOR[1]	
LIFE ON SEED	STORAGE TEMP *(F)*	MIXING	ATOMIZER	NOZZLE
up to 90 days	39-82°	Alone or slurry	yes	yes
up to 90 days	39-82°	Alone or slurry	yes	yes
up to 90 days	39-82°	Alone or slurry	yes	yes

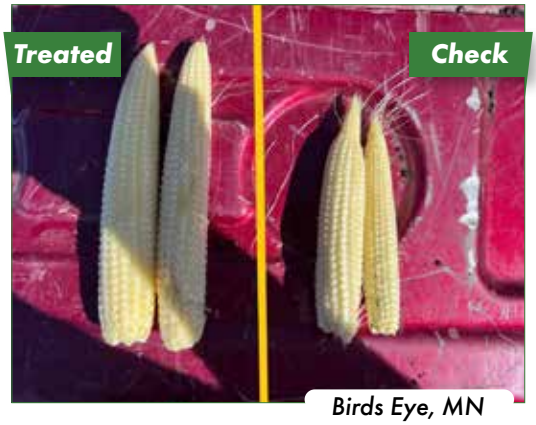
LIFE IN SOLUTION[2]	STORAGE TEMP *(F)*	STORAGE CONDITIONS	ADJUVANT REC.
4-6 hrs	39-82°	out of sun do not freeze	yes
4-6 hrs	39-82°	out of sun do not freeze	yes
4-6 hrs	39-82°	out of sun do not freeze	yes
4-6 hrs	39-82°	out of sun do not freeze	yes
4-6 hrs	39-82°	out of sun do not freeze	yes
not applicable	33-95°	do not freeze	yes
not applicable	33-95°	do not freeze	yes
not applicable	33-95°	do not freeze	yes

LIFE IN SOLUTION[2]	STORAGE TEMP *(F)*	STORAGE CONDITIONS	ADJUVANT REC.
4-6 hrs	33-95°	do not freeze dry place	yes
4-6 hrs	0-100°	dry place	yes

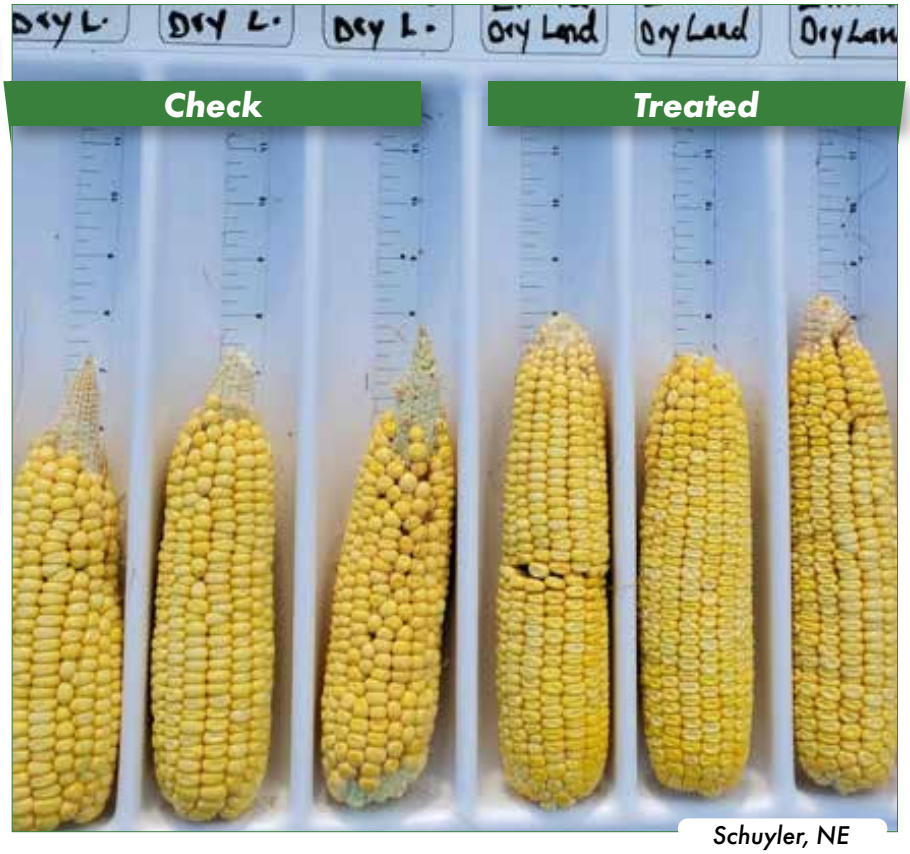
PHOTOS *FROM THE FIELD*

envita

Birds Eye, MN



Birds Eye, MN



Schuyler, NE

IONfx™

Lake Preston, SD

Soyfx™

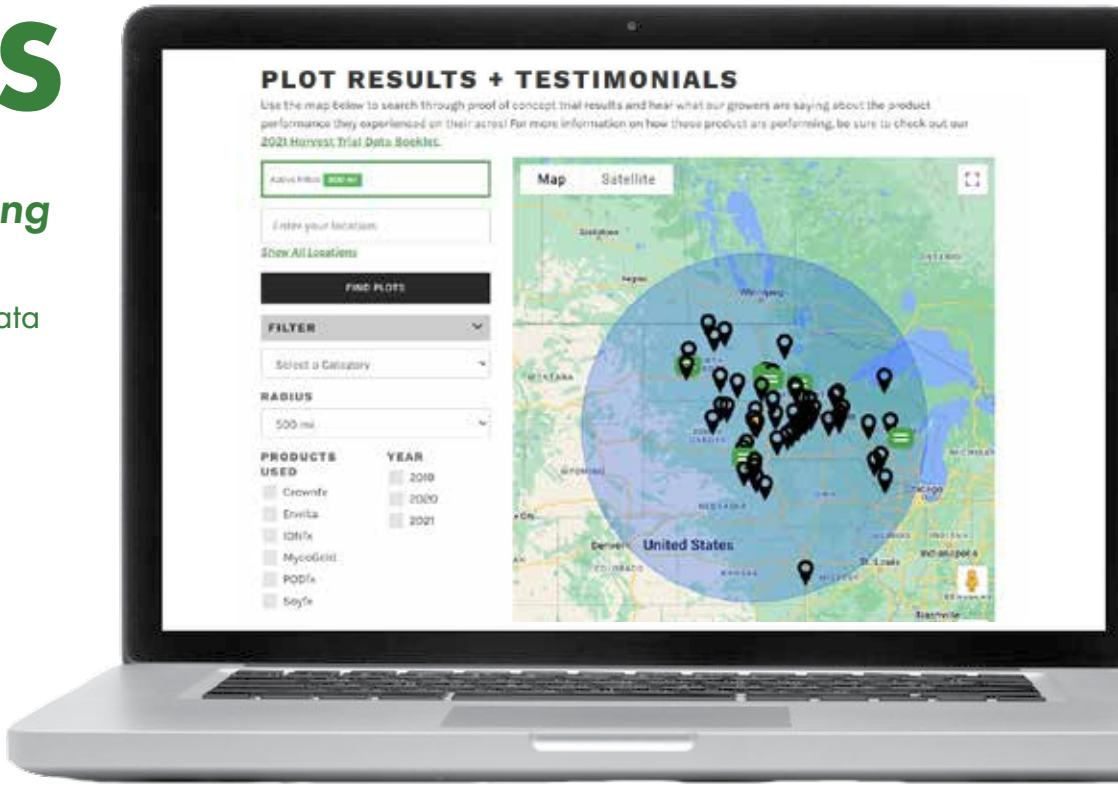
Osakis, MN

** Read and follow all labeled instructions*

RESULTS

Curious on how YMS products are performing in your area?

Take a look at our latest trial data by visiting our plot results and testimonials page.



LET'S CONNECT

Want to learn more about YMS product offerings?

Fill out our contact us form and a representative will reach out to answer any of your questions.

BIOLOGICAL INNOVATIONS

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