



2023 RESEARCH TRIALS



CORN | SOYBEANS | WHEAT | RESIDUE MANAGEMENT | SUGAR BEETS

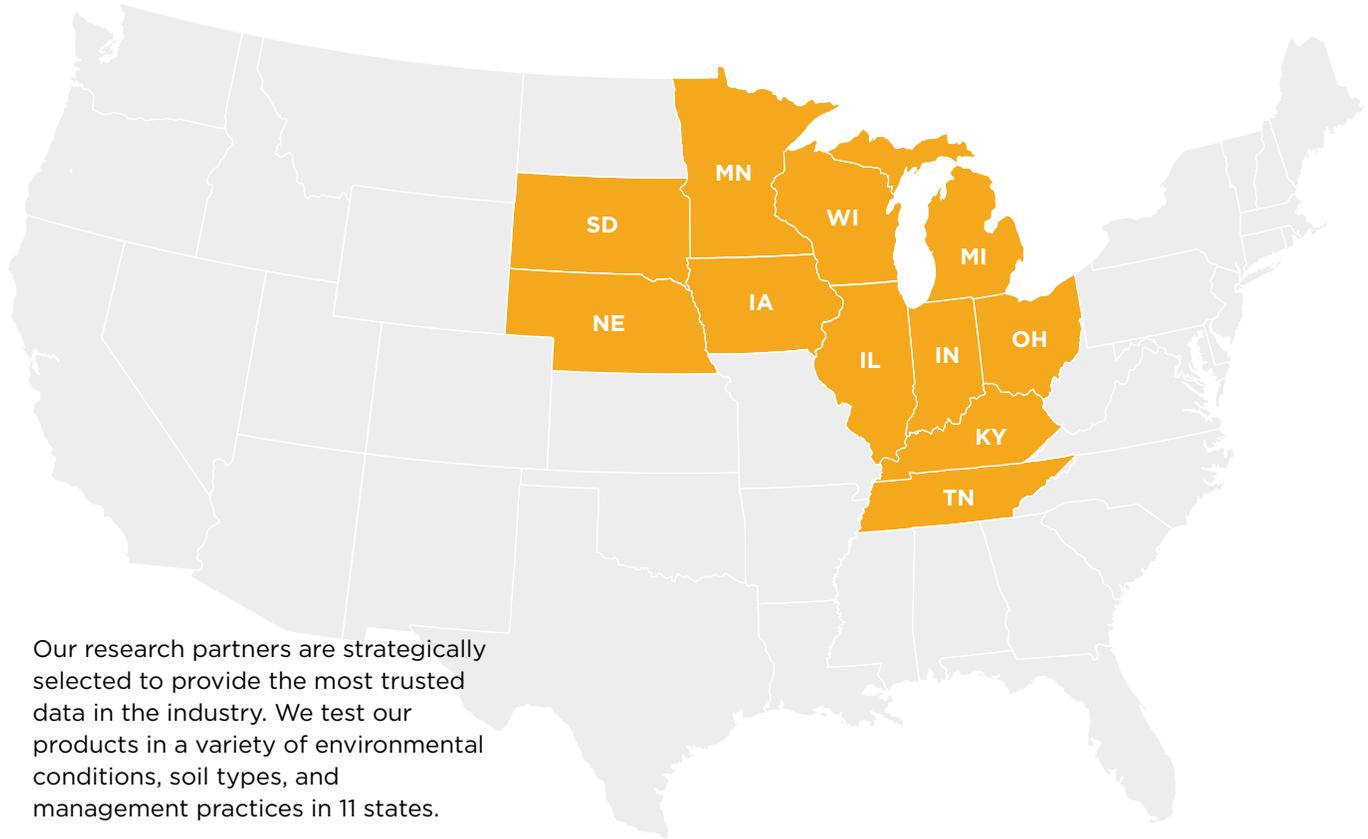
PROVIDING VALUE TO GROWERS

At The Andersons, ensuring that products deliver a positive return on investment while providing the utmost value to growers is paramount. This ethos lies at the core of our mission. With an unwavering dedication to excellence, we prioritize the consistent performance of our products on the farm. Here's how we achieve this:

- ▶ **Rigorous Field Trials:** Every year, we conduct numerous field trials to comprehensively evaluate our products for efficacy, application rates, timing, and more.
- ▶ **Regional Testing:** Spanning several states throughout the Midwest, our testing endeavors provide crucial insights into product performance under diverse geographies, soil compositions, and growing conditions.
- ▶ **On-Farm Practices:** Utilizing standard growing practices tailored to each geographical area, we ensure an accurate representation of how our products will perform on the farm, empowering growers with reliable data.
- ▶ **Independent Research:** To maintain transparency and reliability, we entrust the management of our research trials to esteemed third-party sites renowned for their unbiased and dependable results.
- ▶ **Practical Farm Research (PFR)[®] Trials:** By submitting our products to Beck's Hybrids for inclusion in their Practical Farm Research trials, we strive to attain the prestigious PFR Proven status, signifying the reliability of our offerings.

This guide encapsulates our 2023 research findings, meticulously compiled by The Andersons Agronomy Team. Our collective goal is to equip you with the insights necessary to make informed decisions for the upcoming growing season.

RESEARCH PARTNERS



Our research partners are strategically selected to provide the most trusted data in the industry. We test our products in a variety of environmental conditions, soil types, and management practices in 11 states.

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Visit The Andersons Plant Nutrient - Agriculture YouTube Channel for season-long updates, product information, and much more.



Visit and
subscribe to our
YouTube channel

PER PROVEN

TM



DIAMOND 6-24-6

MICROCARB® MICROBLITZ®



PHOSFIX®

KORRECT®

BECK'S PFR PROVEN™ PRODUCTS

THE ANDERSONS PFR PROVEN PRODUCTS

	PUREGRADE® DIAMOND 6-24-6	MICROCARB®	FIRST PASS® WITH MICROCARB®	MICROBLITZ®	PHOSFIX®	NEW! KORRECT®
Crop	Corn	Corn	Soybeans	Soybeans	Corn	Corn
Average Return on Investment	\$12.78	\$11.44	\$9.19	\$16.70	\$5.45	\$7.38
Average Yield Increase	8.2 bu/ac	4.0 bu/ac	2.7 bu/ac	1.9 bu/ac	2.8 bu/ac	2.7 bu/ac
Application	5 gal in- furrow	1 qt in- furrow	2 gal in- furrow	1 qt at R1	1 pt at V4	1 gal at R1

PFR PROVEN™



“For a product or practice to become PFR Proven, it needs to have been tested for a minimum of three years at multiple locations, it must provide a positive yield gain each year, and it must average a positive return on investment over the three-year period.”

- Beck's PFR Book 2023, page 15



CORN RESEARCH



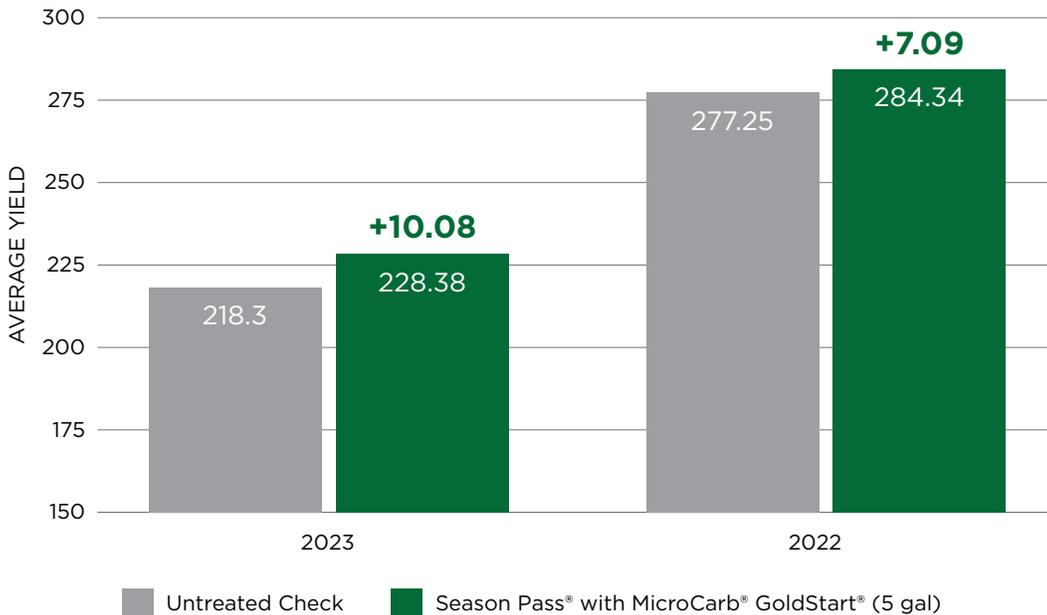
CORN IN-FURROW STARTER AND ADDITIVES



SEASON PASS® WITH MICROCARB® GOLDSTART®

Nebraska | In-furrow | Corn

RD-1381
RD-1376



PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

Season Pass® with MicroCarb
GoldStart® (5 gal)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 24, 2023

PLANT POPULATION

34,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Minimum Tillage

PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

Season Pass® with MicroCarb
GoldStart® (5 gal)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 16, 2022

PLANT POPULATION

34,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Conventional

CORN IN-FURROW STARTER AND ADDITIVES



PLOT INFORMATION

LOCATION

Covington, Ohio

DESCRIPTION OF TREATMENT

Season Pass® with MicroCarb® Diamond (5 gal)

Season Pass® with MicroCarb® Diamond (5 gal), Power Pass® (1 qt), Bio Pass® (1 pt)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 17, 2023

HYBRID

B09K10Q

PLANT POPULATION

32,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Conventional

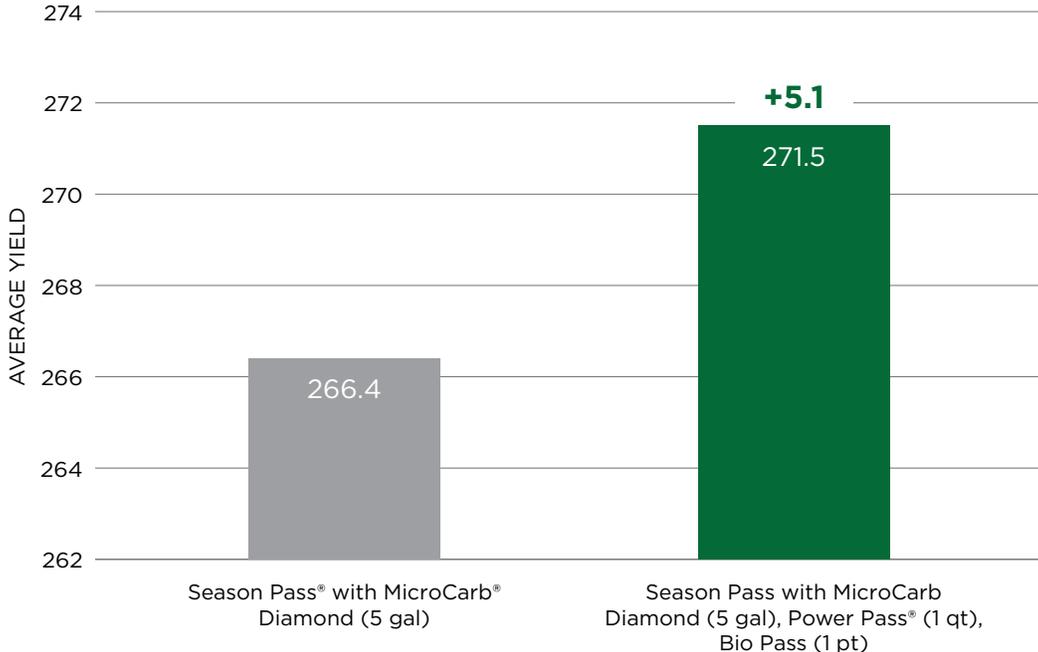
OBSERVATIONS

Power Pass and Bio Pass provide many agronomic benefits including increased root mass, earlier emergence, and increased yield at harvest. The microbes in Bio Pass were specifically selected for their ability to work in synergy with a corn starter to maximize the benefits. An increase of 5.1 bu/acre was observed at harvest.

SEASON PASS® WITH MICROCARB®, POWER PASS®, AND BIO PASS®

RD-1378

Ohio | In-furrow | Corn



CORN 2x2 STARTER AND ADDITIVES

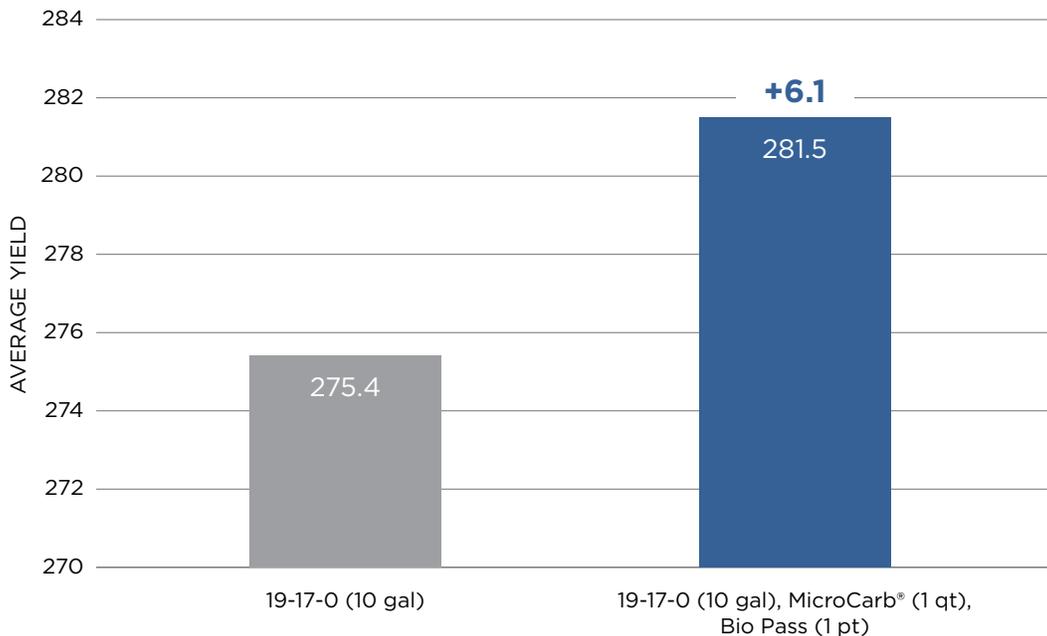
MICROCARB®



MICROCARB® AND BIO PASS®

RD-1378

Ohio | 2x2 | Corn



PLOT INFORMATION

LOCATION

Covington, Ohio

DESCRIPTION OF TREATMENT

19-17-0 (10 gal)

19-17-0 (10 gal), MicroCarb® (1 qt), Bio Pass® (1 pt)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 17, 2023

HYBRID

B09K10Q

PLANT POPULATION

32,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

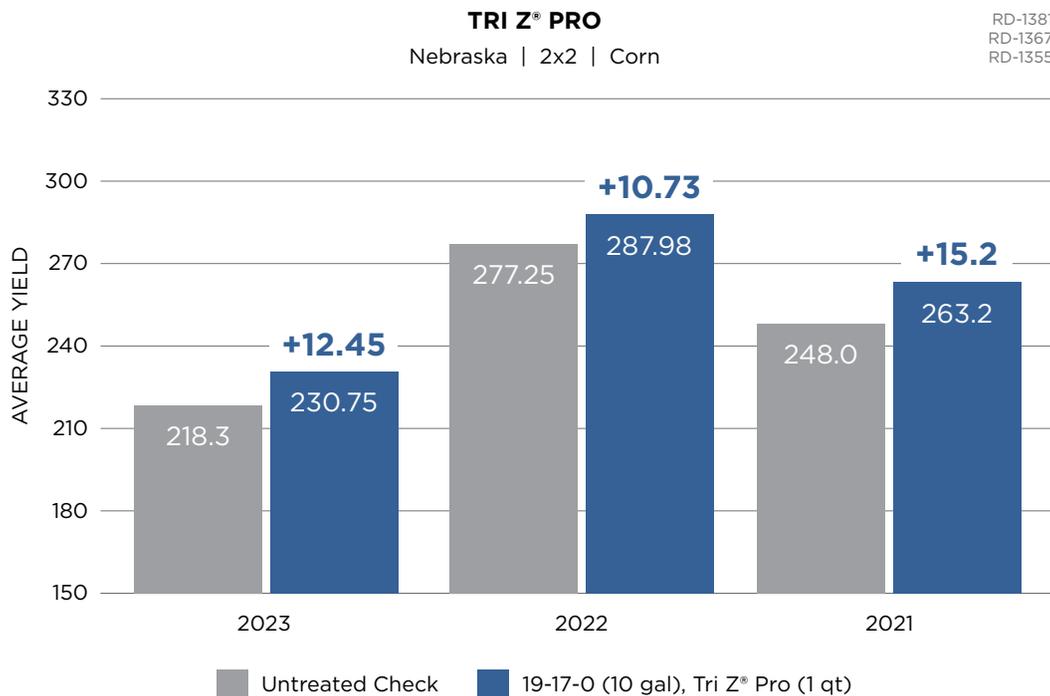
TILLAGE TYPE

Conventional



[LEARN MORE ABOUT BIO PASS®](#)

CORN 2x2 STARTER AND ADDITIVES



PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

19-17-0 (10 gal) Tri Z® Pro (1 qt)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 24, 2023

May 16, 2022

May 17, 2021

TREATMENT TIMING

At planting, 2x2

PLANT POPULATION

34,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Minimum Tillage (2023)

Conventional (2022, 2021)

OBSERVATIONS

Tri Z Pro is a blend of three zinc sources that maximize early season root growth and improve emergence. Year-over-year, the addition of Tri Z Pro has provided consistent yield results, averaging over a 12 bu/acre increase over the check.

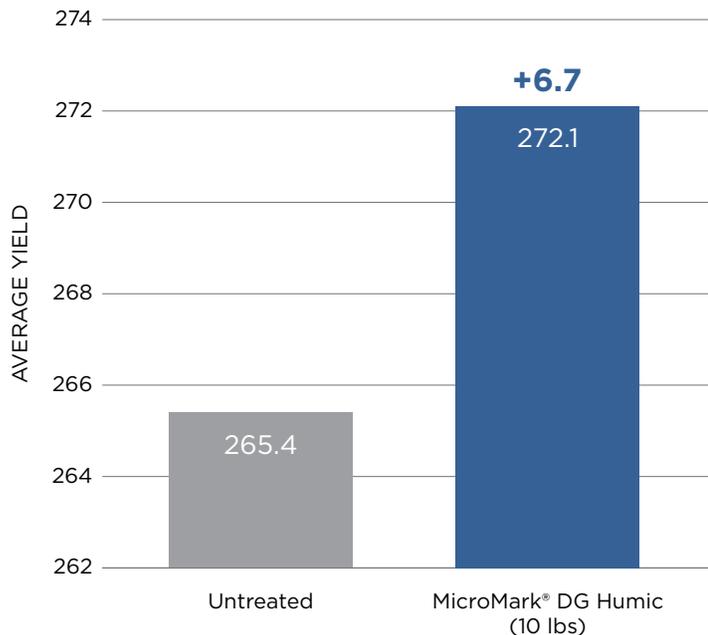
CORN GRANULAR MICRONUTRIENTS

MicroMark[®] DG *Humic*

MICROMARK[®] DG HUMIC

RD-1378

Ohio | In-furrow | Corn



PLOT INFORMATION

LOCATION

Covington, Ohio

DESCRIPTION OF TREATMENT

MicroMark[®] DG Humic (10 lbs)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 17, 2023

HYBRID

B09K10Q

PLANT POPULATION

32,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Conventional

OBSERVATIONS

MicroMark DG provided early season micronutrients and humic acid to give the crop a healthy start to the season. When scouting the field, an increase in kernel counts was observed.

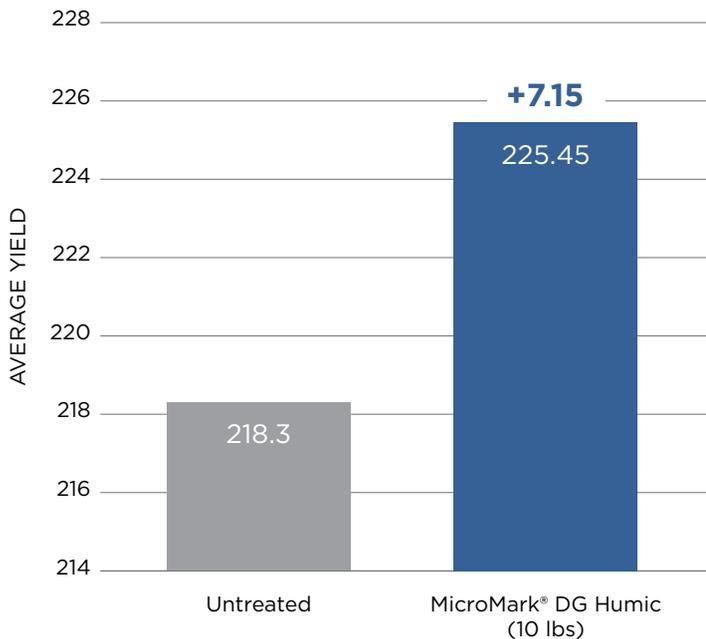
CORN GRANULAR MICRONUTRIENTS

MicroMark[®] DG Humic

MICROMARK[®] DG HUMIC

Nebraska | In-furrow | Corn

RD-1381



PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

MicroMark[®] DG Humic (10 lbs)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 24, 2023

HYBRID

PV113-V89 VT2PRIB

PLANT POPULATION

34,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

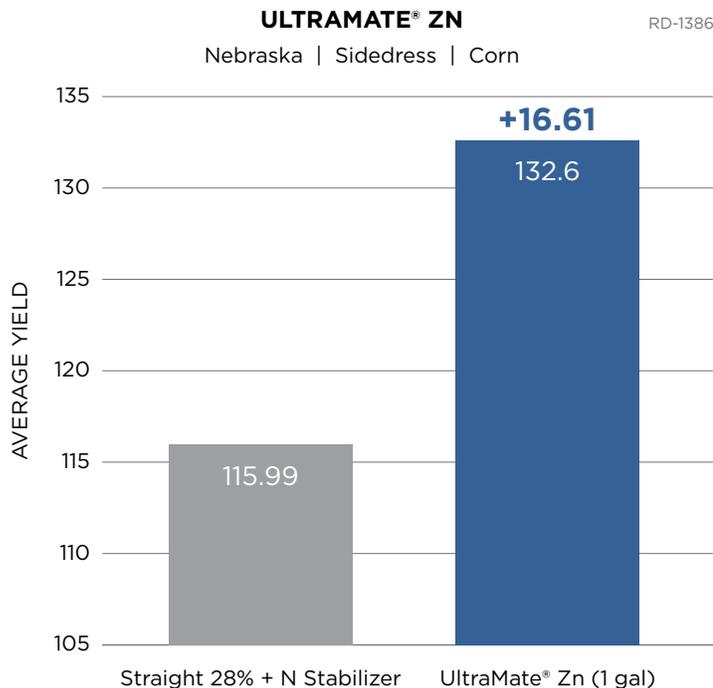
Minimum Tillage



**LEARN MORE ABOUT
MICROMARK[®] DG LINEUP**

CORN SIDEDRESS ADDITIVES

UltraMate[®] Zn



PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

UAN 28% (200 lbs of N)
UltraMate[®] Zn (1 gal)

TREATMENT TIMING

Sidedress

PLANTING DATE

April 24, 2023

HYBRID

DKC62-89 RIB

PLANT POPULATION

25,000

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Minimum Till

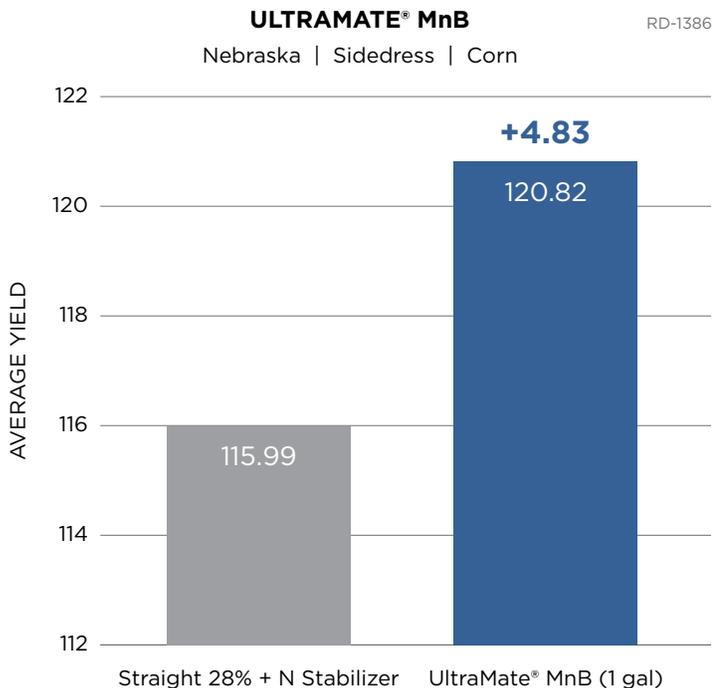
OBSERVATIONS

Severe drought conditions during the summer months impacted this plot. The addition of zinc stimulated root growth, allowing the roots to grow deeper in the soil profile to source much needed moisture.

The humic acid in UltraMate Zn allowed the plant to utilize nitrogen more efficiently by reducing leaching and improving soil structure.

CORN SIDEDRESS ADDITIVES

UltraMate[®] MnB



PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

UltraMate[®] MnB (1 gal)

TREATMENT TIMING

Sidedress

PLANTING DATE

April 24, 2023

HYBRID

DKC62-89 RIB

PLANT POPULATION

25,000

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Minimum Tillage



**LEARN MORE ABOUT
ULTRAMATE[®] LINEUP**

CORN FOLIAR

PHOSFIX[®] GEN II

IMPROVED
FORMULATION

PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

Phosfix[®] Gen II (1 pt)

TREATMENT TIMING

Foliar at V5

PLANTING DATE

April 25, 2023

HYBRID

PV113-V89 VT2PRIB

PLANT POPULATION

34,000

ROW SPACING

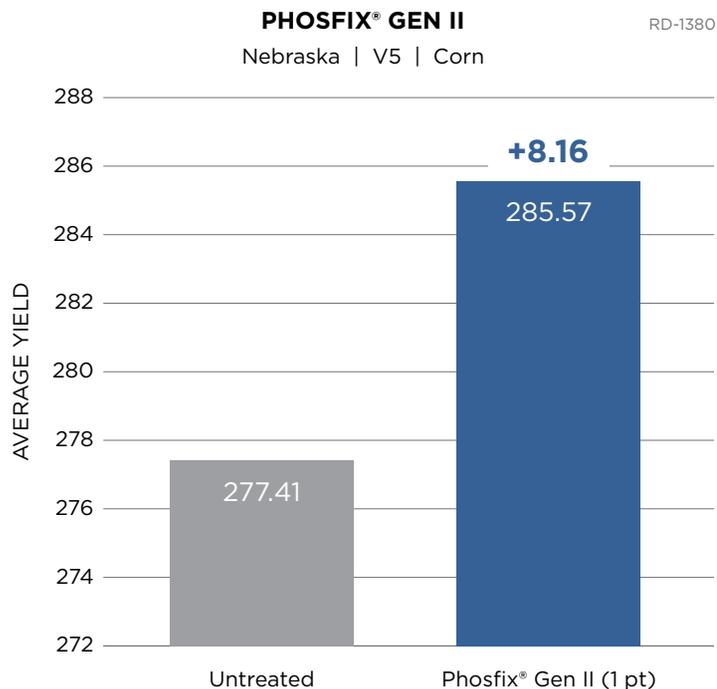
30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

Conventional



PRODUCT INFORMATION

Phosfix has a unique ability to reduce plant stress early in the season. The combination of cytokinin, gibberellin, auxin, phosphite, and carbon allow the crop to focus on yield determining growth stages. Kernel counts around the ear are increased when Phosfix is applied around V5.

CORN FOLIAR

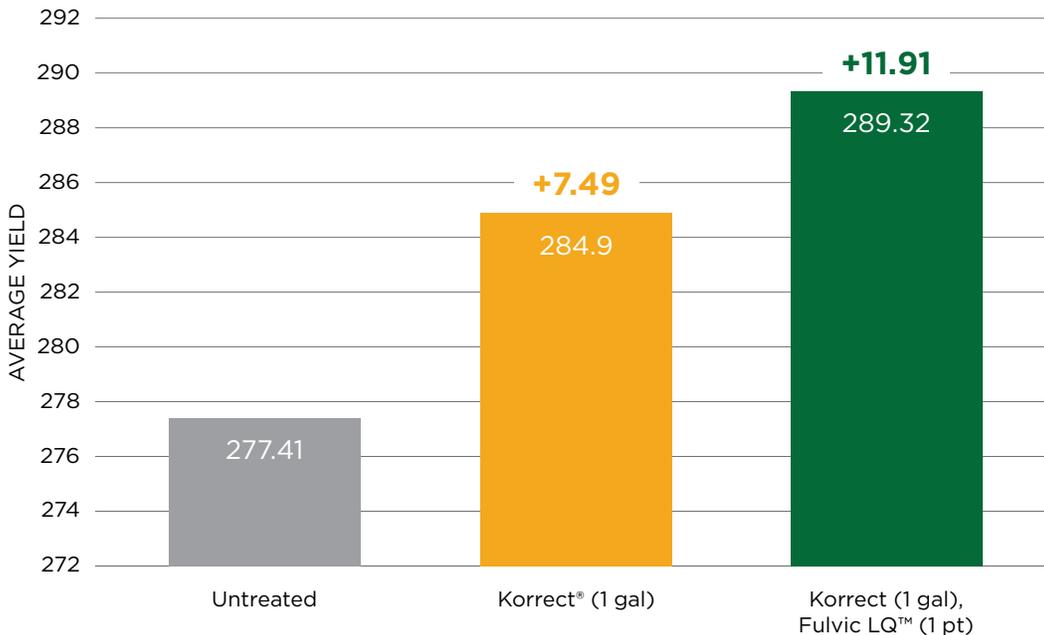
KORRECT®

Fulvic LQ™

KORRECT® AND FULVIC LQ™

RD-1380

Nebraska | V5 | Corn



PLOT INFORMATION

LOCATION

Aurora, Nebraska

DESCRIPTION OF TREATMENT

Korrect® (1 gal)

Korrect® (1 gal) and Fulvic LQ™ (1 pt)

TREATMENT TIMING

Foliar at V5

PLANTING DATE

April 25, 2023

HYBRID

PV113-V89 VT2PRIB

PLANT POPULATION

34,000

ROW SPACING

30 inches

PREVIOUS CROP

Soybeans

TILLAGE TYPE

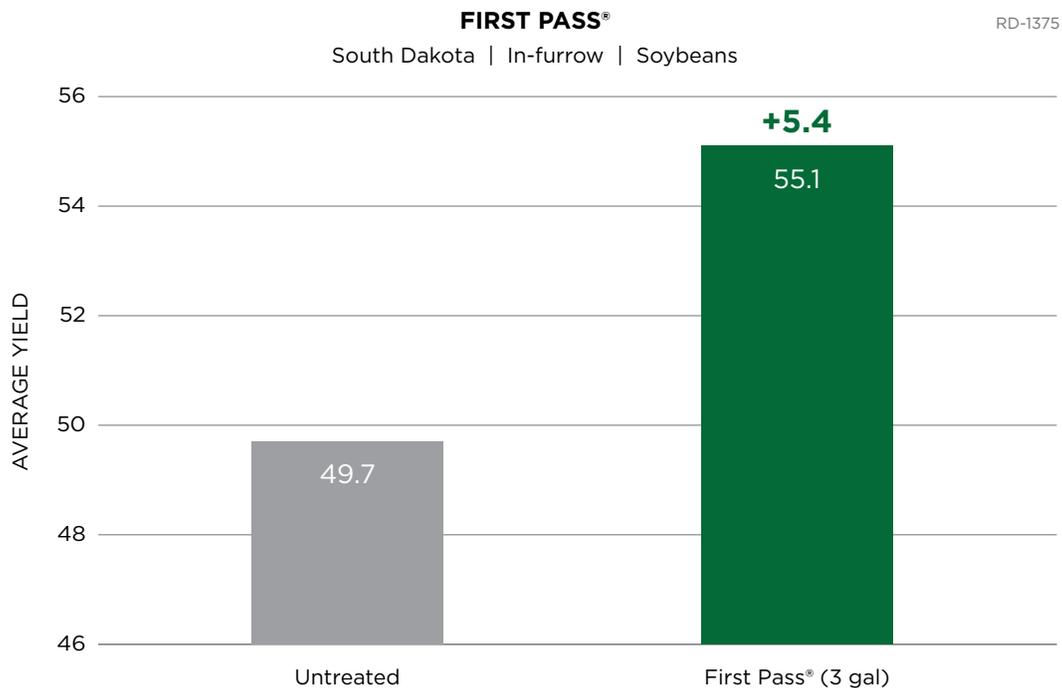
Conventional



SOYBEAN RESEARCH



SOYBEAN STARTER AND ADDITIVES



PLOT INFORMATION

LOCATION

Aurora, South Dakota

DESCRIPTION OF TREATMENT

First Pass® (3 gal)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 18, 2023

HYBRID

Enlist® E3 09E345N

PLANT POPULATION

160,000

ROW SPACING

30 inches

PREVIOUS CROP

Corn

TILLAGE TYPE

Conventional

SOIL TEST INFORMATION

pH 6.4

CEC 14.7

% OM 3.7

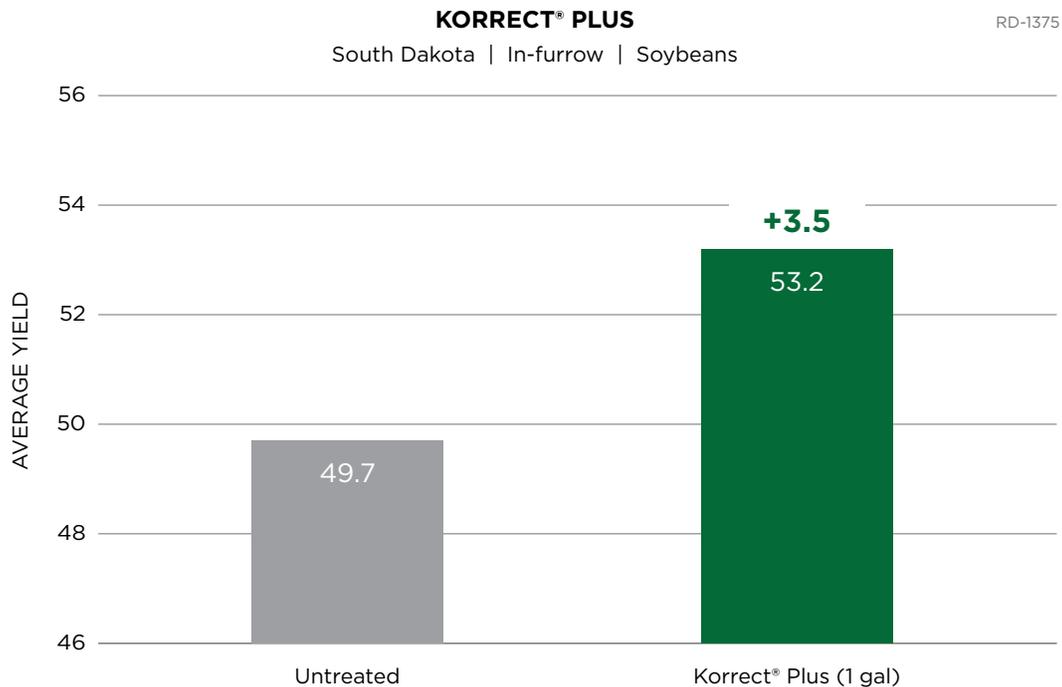
P ppm 3.7

K ppm 363

Mg ppm 414

SOYBEAN STARTER AND ADDITIVES

KORRECT® PLUS



PLOT INFORMATION

LOCATION

Aurora, South Dakota

DESCRIPTION OF TREATMENT

Korrect® Plus (1 gal)

TREATMENT TIMING

At planting, in-furrow

PLANTING DATE

May 18, 2023

HYBRID

Enlist® E3 09E345N

PLANT POPULATION

160,000

ROW SPACING

30 inches

PREVIOUS CROP

Corn

TILLAGE TYPE

Conventional

SOIL TEST INFORMATION

pH 6.4

CEC 14.7

% OM 3.7

P ppm 3.7

K ppm 363

Mg ppm 414

SOYBEAN FOLIAR

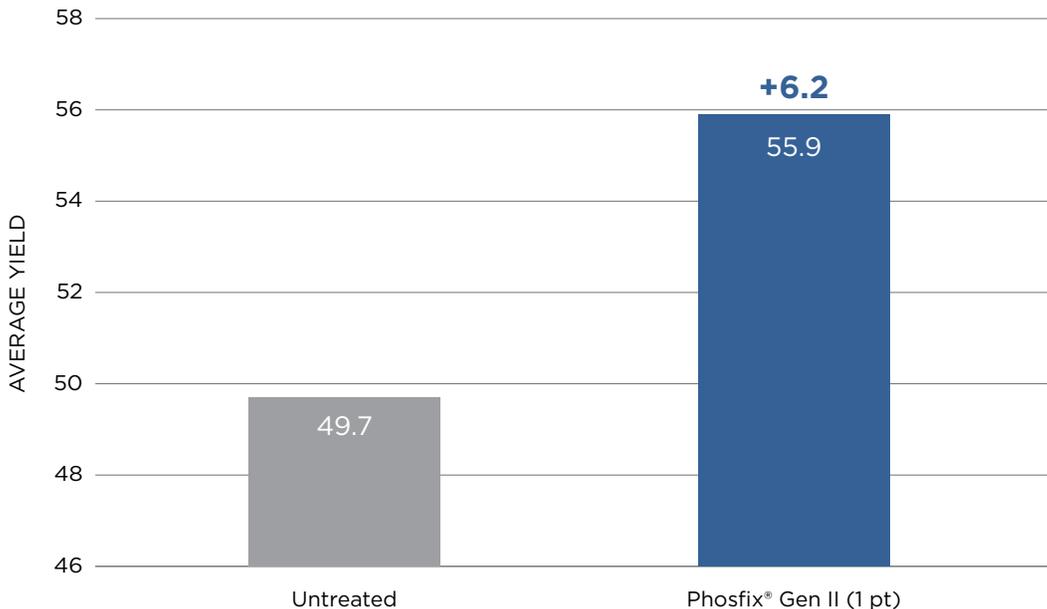
IMPROVED
FORMULATION

PHOSFIX[®] GEN II

PHOSFIX[®] GEN II

RD-1375

South Dakota | V5 | Soybeans



PLOT INFORMATION

LOCATION

Aurora, South Dakota

DESCRIPTION OF TREATMENT

Phosfix[®] Gen II (1 pt)

TREATMENT TIMING

Foliar at V5

PLANTING DATE

May 18, 2023

HYBRID

Enlist[®] E3 09E345N

PLANT POPULATION

160,000

ROW SPACING

30 inches

PREVIOUS CROP

Corn

TILLAGE TYPE

Conventional

SOIL TEST INFORMATION

pH 6.4

CEC 14.7

% OM 3.7

P ppm 3.7

K ppm 363

Mg ppm 414



**VIEW APPROVED
TANK MIX PARTNERS**

SOYBEAN FOLIAR

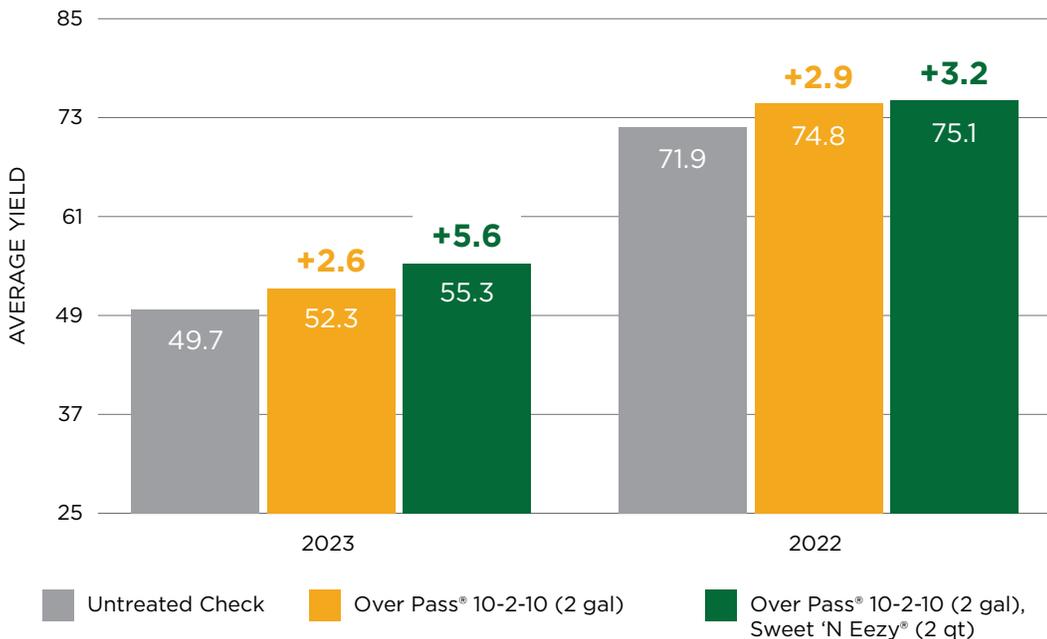


SWEET 'N EEZY®

OVER PASS® 10-2-10 AND SWEET 'N EEZY®

South Dakota | R3 | Soybeans

RD-1375
RD-1368



PLOT INFORMATION

LOCATION

Aurora, South Dakota

DESCRIPTION OF TREATMENT

Over Pass® 10-2-10 (2 gal)

Over Pass® 10-2-10 (2 gal),
Sweet 'N Eezy® (2 qt)

TREATMENT TIMING

Foliar at R3

PLANTING DATE

May 18, 2023

HYBRID

Enlist® E3 09E345N

PLANT POPULATION

160,000

ROW SPACING

30 inches

PREVIOUS CROP

Corn

TILLAGE TYPE

Conventional

SOIL TEST INFORMATION

pH 6.4
CEC 14.7
% OM 3.7
P ppm 3.7
K ppm 363
Mg ppm 414

OBSERVATIONS

Over Pass 10-2-10 combined with Sweet 'N Eezy has shown consistent yield results in our third party testing. The sugar in Sweet 'N Eezy provides an energy boost to the crop. This combination efficiently delivers nutrients for utilization.

SOYBEAN FOLIAR

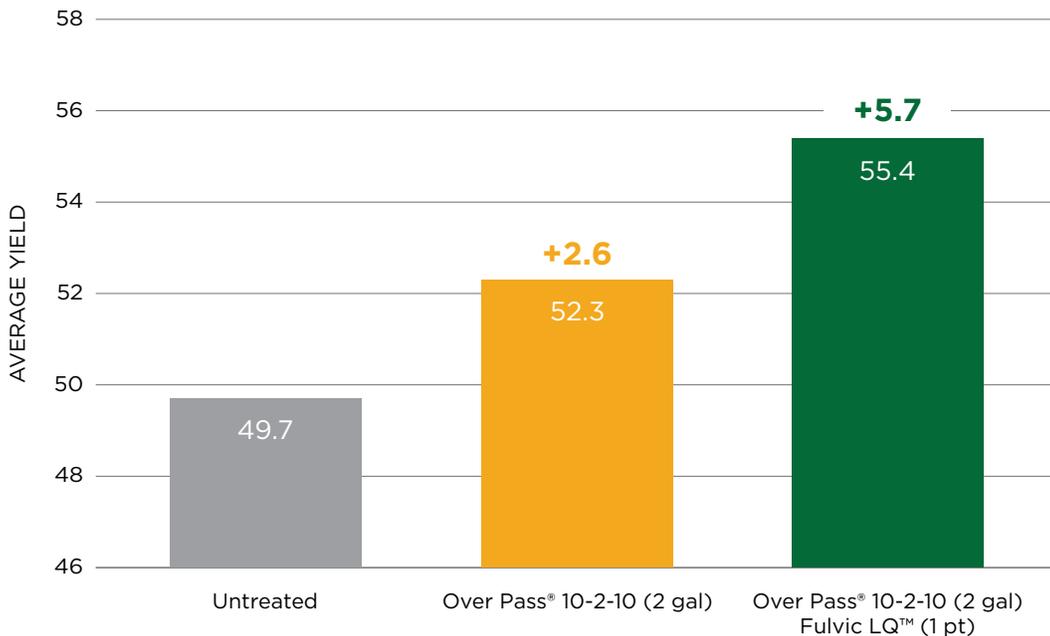


Fulvic LQ™

OVER PASS® 10-2-10 AND FULVIC LQ™

RD-1375

South Dakota | R3 | Soybeans



PLOT INFORMATION

LOCATION

Aurora, South Dakota

DESCRIPTION OF TREATMENT

Over Pass® 10-2-10 (2 gal)

Over Pass® 10-2-10 (2 gal),
Fulvic LQ™ (1 pt)

TREATMENT TIMING

Foliar at R3

PLANTING DATE

May 18, 2023

HYBRID

Enlist® E3 09E345N

PLANT POPULATION

160,000

ROW SPACING

30 inches

PREVIOUS CROP

Corn

TILLAGE TYPE

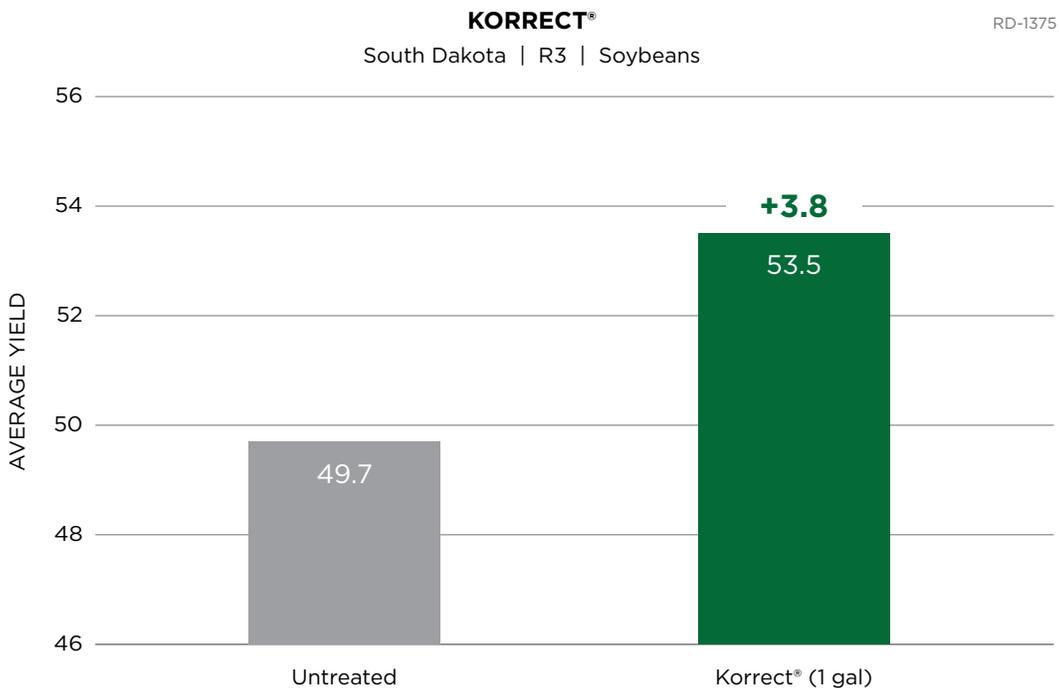
Conventional

SOIL TEST INFORMATION

pH 6.4
CEC 14.7
% OM 3.7
P ppm 3.7
K ppm 363
Mg ppm 414

SOYBEAN FOLIAR

KORRECT®



PLOT INFORMATION

LOCATION

Aurora, South Dakota

DESCRIPTION OF TREATMENT

Korrect® (1 gal)

TREATMENT TIMING

Foliar at R3

PLANTING DATE

May 18, 2023

HYBRID

Enlist® E3 09E345N

PLANT POPULATION

160,000

ROW SPACING

30 inches

PREVIOUS CROP

Corn

TILLAGE TYPE

Conventional

SOIL TEST INFORMATION

pH 6.4

CEC 14.7

% OM 3.7

P ppm 3.7

K ppm 363

Mg ppm 414



WHEAT RESEARCH

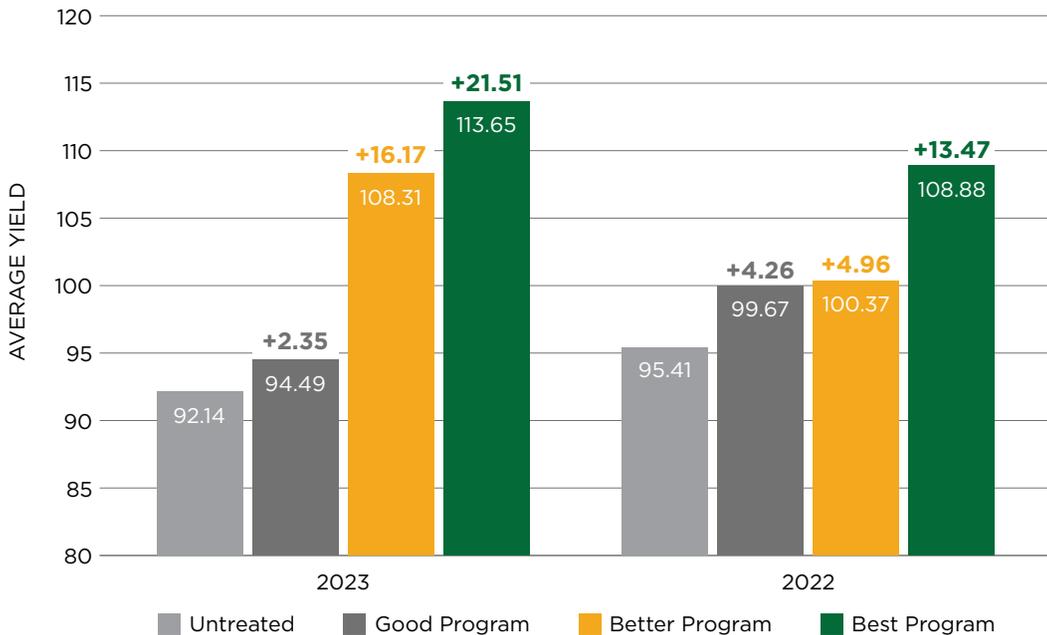


HIGH YIELD WHEAT PROGRAMS

HIGH YIELD WHEAT PROGRAMS

Wisconsin | Winter Wheat

RD-1384
RD-1374



TREATMENTS

GOOD PROGRAM

UltraMate® Zn (1 gal) at tillering

Over Pass® 22-0-2 (2 gal) at heading

BETTER PROGRAM

Phosfix® (1 pt) at tillering

UltraMate® Zn (1 gal) at tillering

MicroBlitz® (2 gal) at tillering

Over Pass® 22-0-2 (2 gal) at heading

BEST PROGRAM

Season Pass® with MicroCarb® (14 gal) at planting

Bio Pass® (1 pt) at planting

Phosfix® (1 pt) at tillering

Tri Z® Pro (1 qt) at tillering

MicroBlitz® (2 gal) at tillering

UltraMate® Zn (1 gal) at tillering

Over Pass® 10-2-10 (2 gal) at stem extension

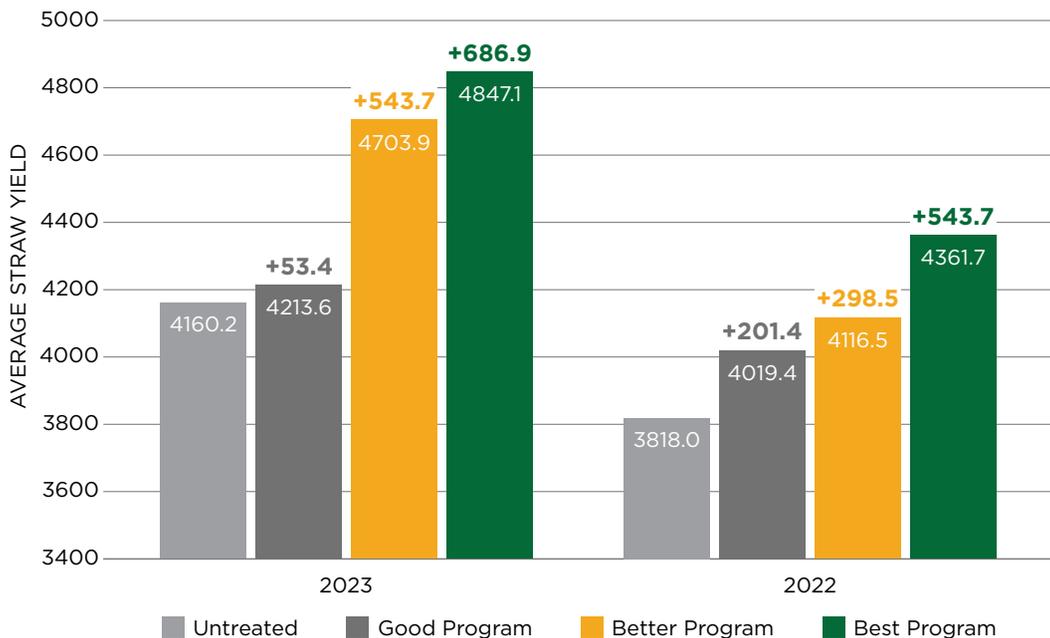
Over Pass® 22-0-2 (2 gal) at heading

HIGH YIELD WHEAT PROGRAMS

HIGH YIELD WHEAT PROGRAMS

Wisconsin | Winter Wheat

RD-1384
RD-1374



TREATMENTS

GOOD PROGRAM

UltraMate® Zn (1 gal) at tillering

Over Pass® 22-0-2 (2 gal) at heading

BETTER PROGRAM

Phosfix® (1 pt) at tillering

UltraMate® Zn (1 gal) at tillering

MicroBlitz® (2 gal) at tillering

Over Pass® 22-0-2 (2 gal) at heading

BEST PROGRAM

Season Pass® with MicroCarb® (14 gal) at planting

Bio Pass® (1 pt) at planting

Phosfix® (1 pt) at tillering

Tri Z® Pro (1 qt) at tillering

MicroBlitz® (2 gal) at tillering

UltraMate® Zn (1 gal) at tillering

Over Pass® 10-2-10 (2 gal) at stem extension

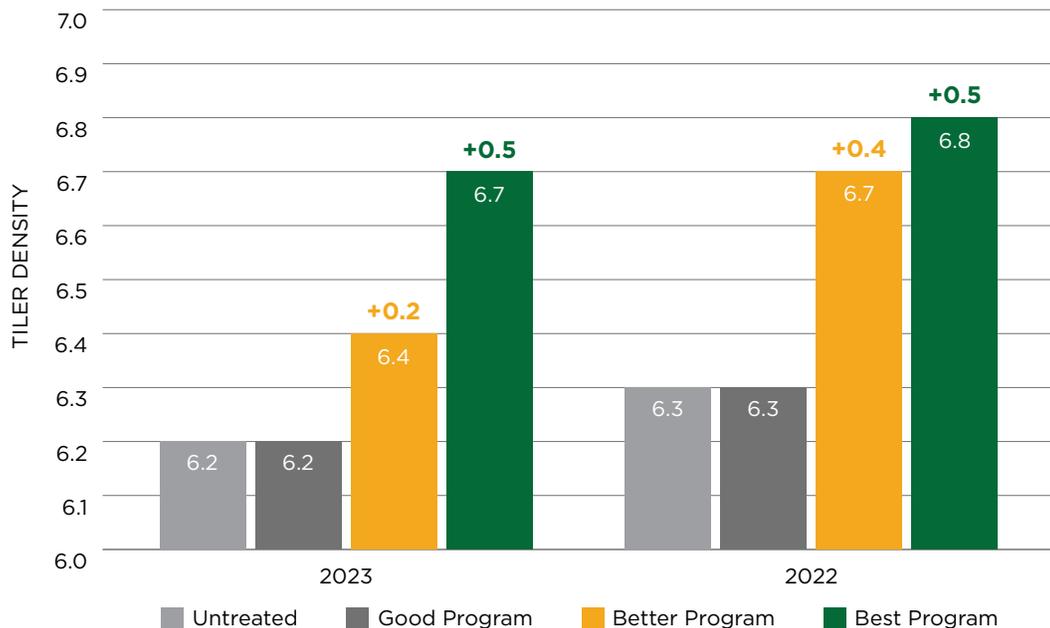
Over Pass® 22-0-2 (2 gal) at heading

HIGH YIELD WHEAT PROGRAMS

HIGH YIELD WHEAT PROGRAMS

Wisconsin | Winter Wheat

RD-1384
RD-1374



TREATMENTS

GOOD PROGRAM

UltraMate® Zn (1 gal) at tillering

Over Pass® 22-0-2 (2 gal) at heading

BETTER PROGRAM

Phosfix® (1 pt) at tillering

UltraMate® Zn (1 gal) at tillering

MicroBlitz® (2 gal) at tillering

Over Pass® 22-0-2 (2 gal) at heading

BEST PROGRAM

Season Pass® with MicroCarb® (14 gal) at planting

Bio Pass® (1 pt) at planting

Phosfix® (1 pt) at tillering

Tri Z® Pro (1 qt) at tillering

MicroBlitz® (2 gal) at tillering

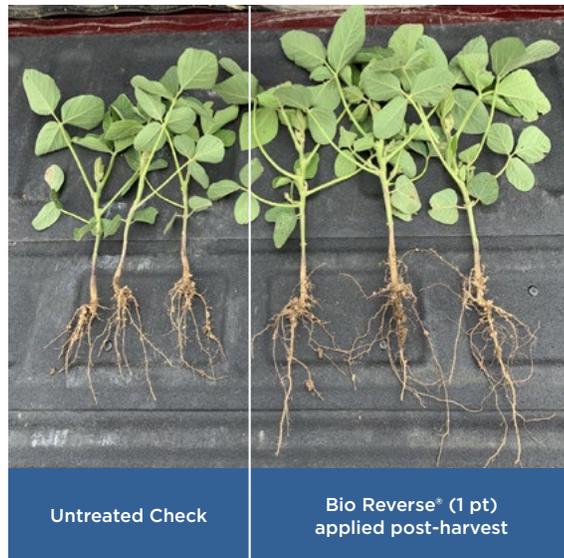
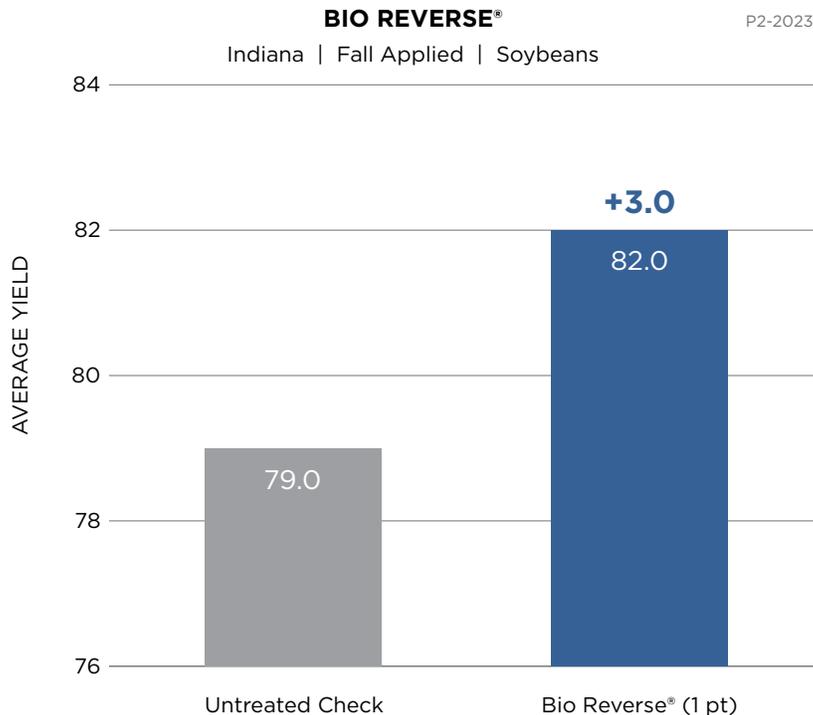
UltraMate® Zn (1 gal) at tillering

Over Pass® 10-2-10 (2 gal) at stem extension

Over Pass® 22-0-2 (2 gal) at heading

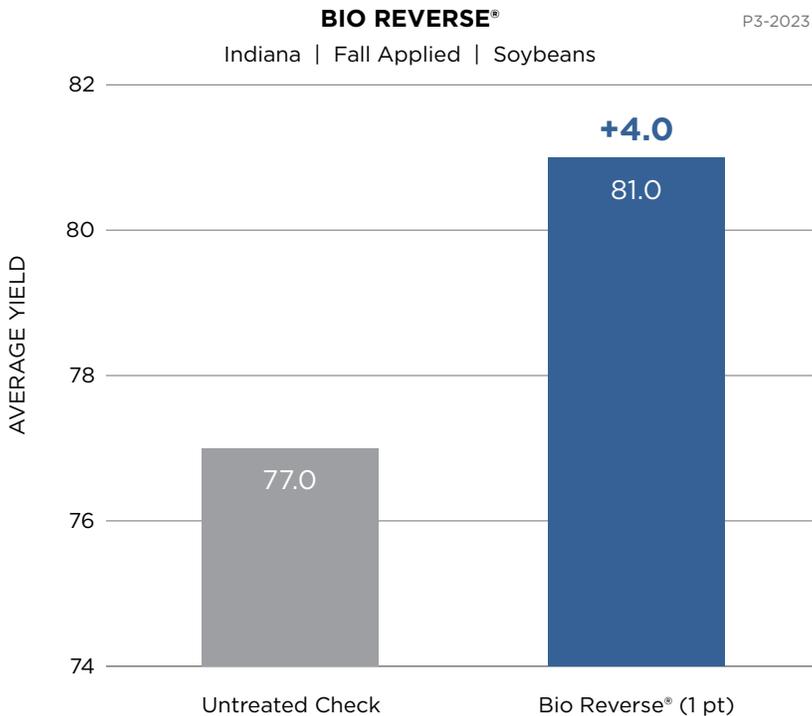


RESIDUE MANAGEMENT



OBSERVATIONS

Crops planted in the subsequent growing season after a fall application of Bio Reverse benefited from extra nutrients present in the soil. Bio Reverse crops were bigger both above and below ground with larger root systems and more full plants.

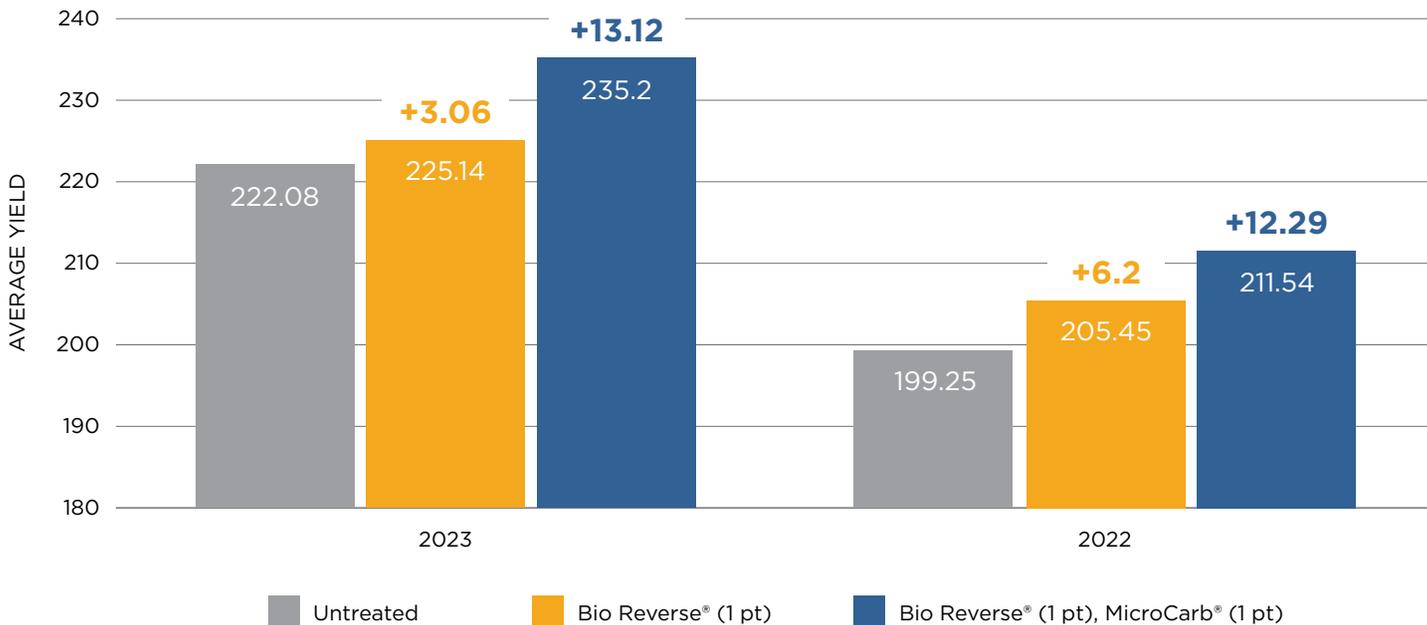




BIO REVERSE® AND MICROCARB®

Wisconsin | Corn

RD-1383
RD-1374

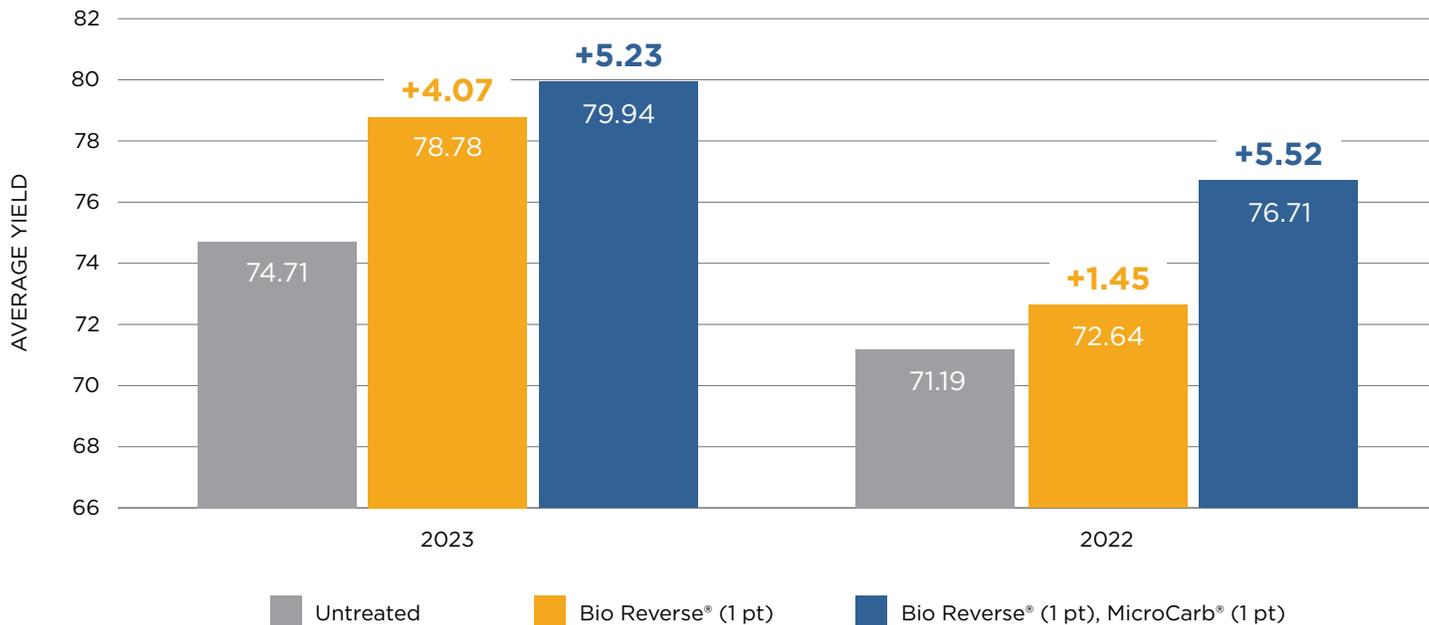




BIO REVERSE® AND MICROCARB®

Wisconsin | Corn

RD-1383
RD-1374





SUGAR BEET RESEARCH



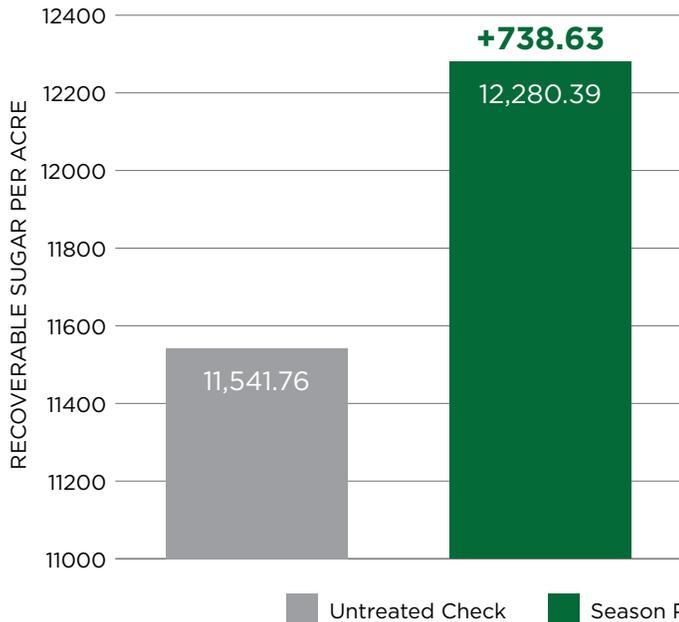
SUGAR BEET STARTER



P4-2023

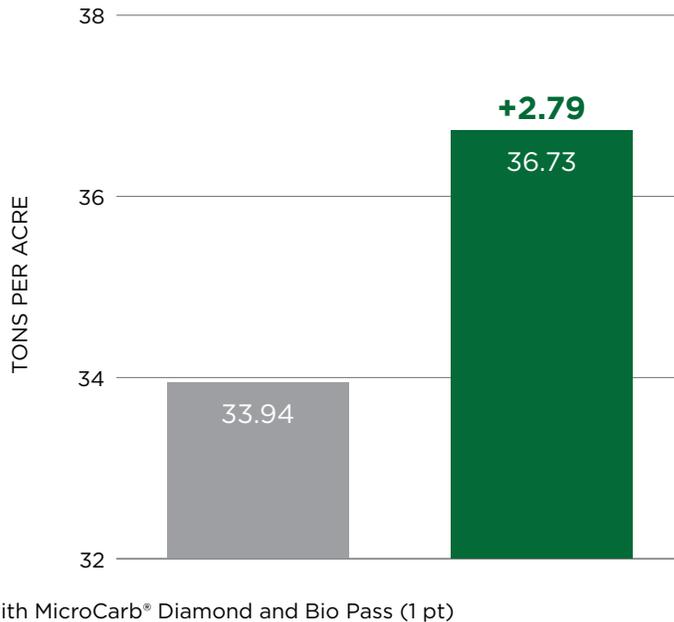
SEASON PASS® WITH MICROCARB® AND BIO PASS®

Minnesota | Sugar Beets | Recoverable Sugar



SEASON PASS® WITH MICROCARB® AND BIO PASS®

Minnesota | Sugar Beets | Tons



SUGAR BEET FULL SEASON

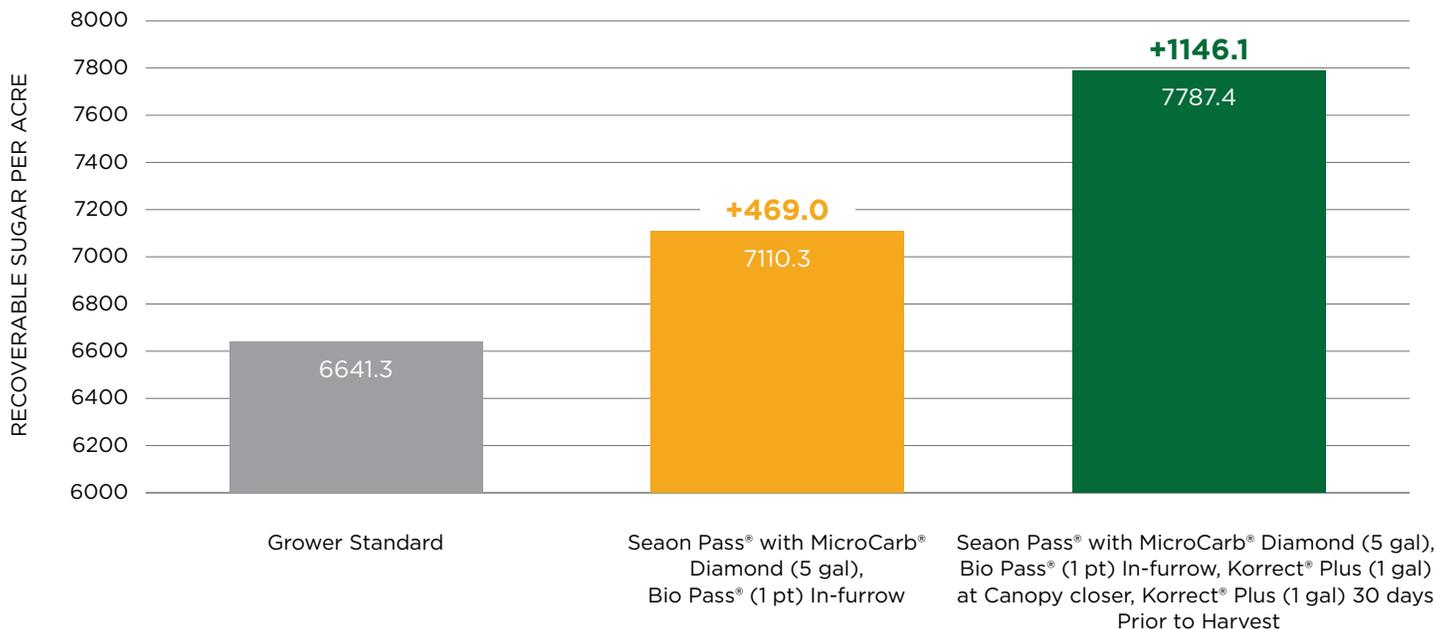


KORRECT® PLUS

SEASON PASS® WITH MICROCARB®, BIO PASS®, AND KORRECT® PLUS

P5-2023

Michigan | Sugar Beets | Recoverable Sugar



SUGAR BEET FULL SEASON

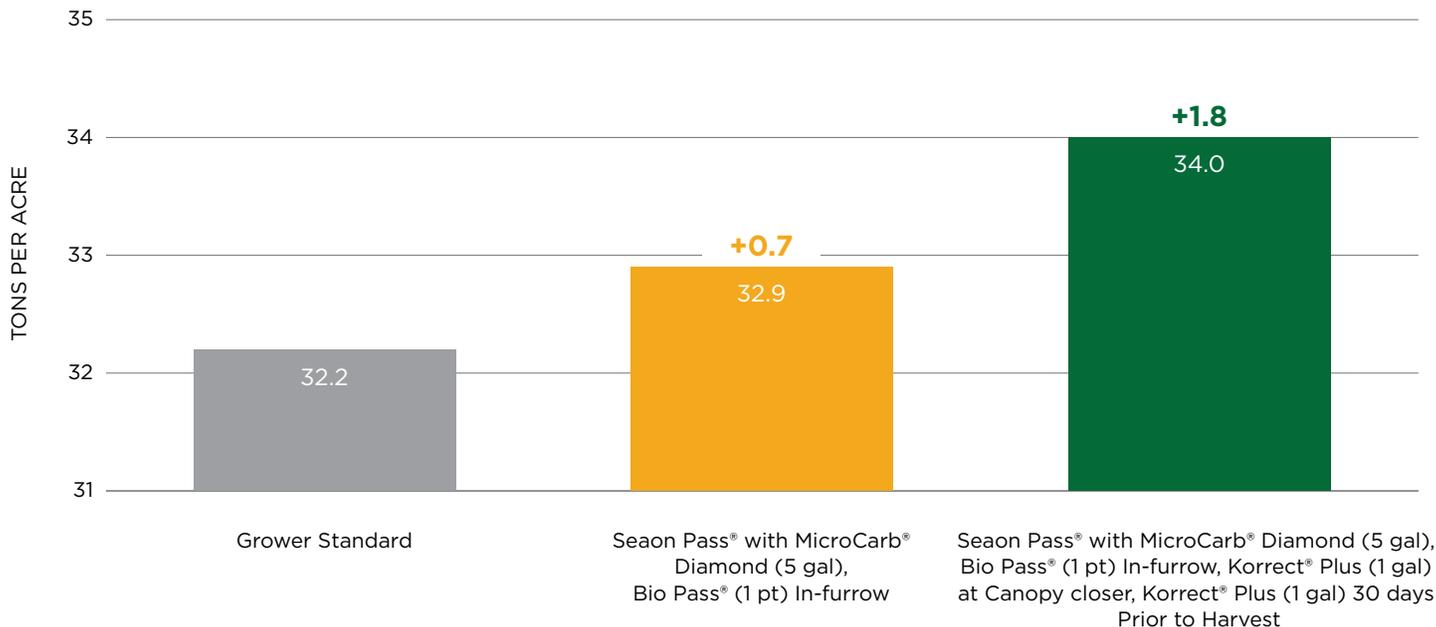


KORRECT® PLUS

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Michigan | Sugar Beets | Tons



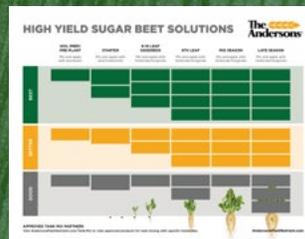
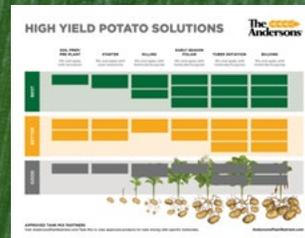
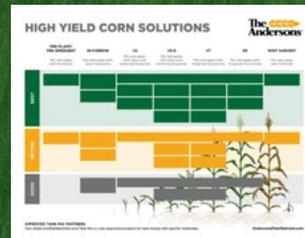
PLAN A SEASON-LONG APPROACH

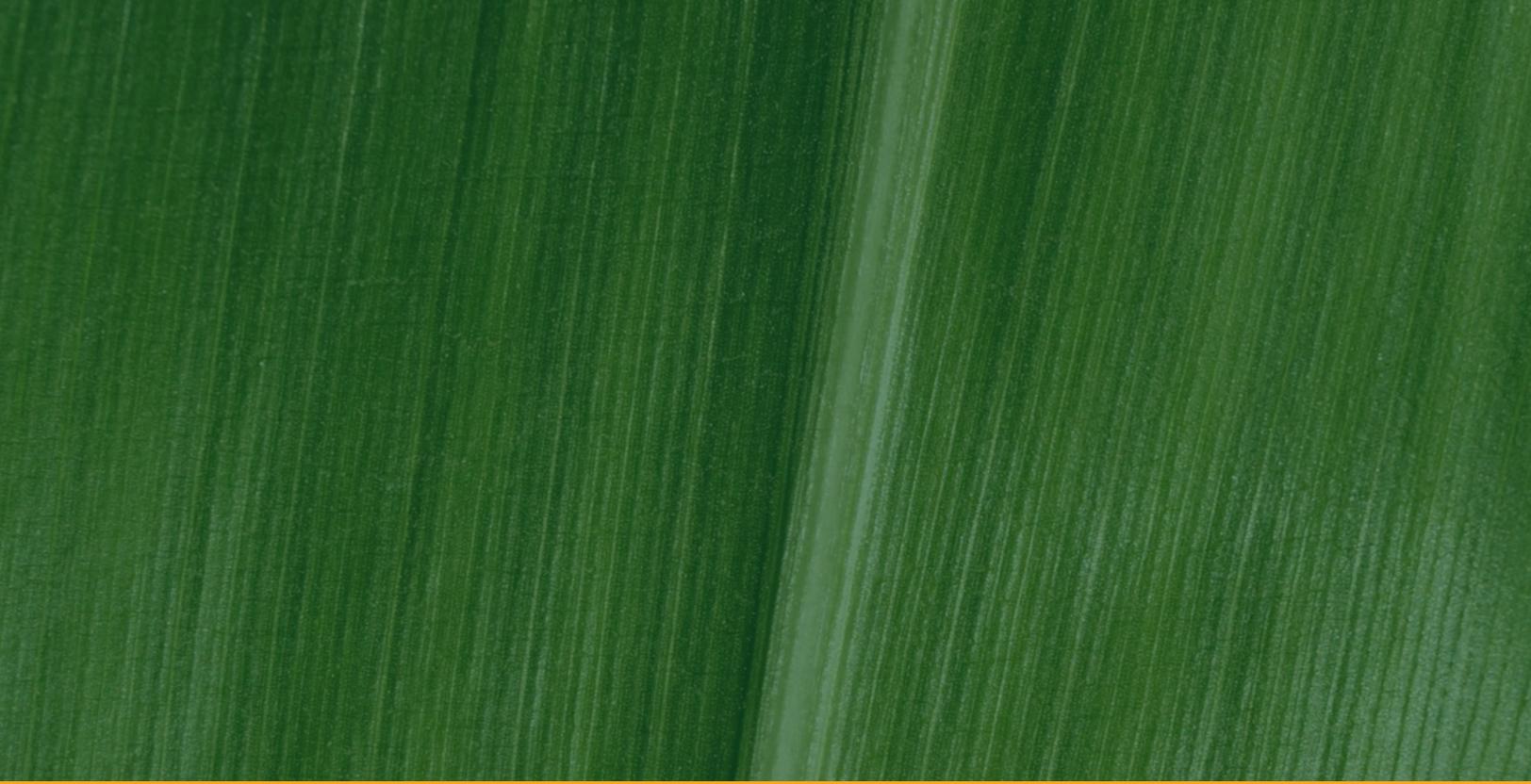
A properly-timed nutrient management program is essential for maximizing yields at harvest. Each crop has different nutrient needs throughout the growing season. Understanding critical growth stages and providing adequate nutrition is key to maximize crop productivity and achieve higher yields at harvest.

HIGH YIELD PROGRAMS AVAILABLE FOR:

- ▶ Corn
- ▶ Soybeans
- ▶ Wheat
- ▶ Dry Beans
- ▶ Green Beans
- ▶ Potatoes
- ▶ Sugar Beets
- ▶ Sweet Corn
- ▶ Cucurbits
- ▶ Organic Corn
- ▶ Organic Potatoes
- ▶ Organic Tomatoes
- ▶ Canola
- ▶ Durum Wheat
- ▶ Sunflowers

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