

# RESULTS FROM THE FIELD

## TESTIMONIALS

**John Torrance, Gladstone, IL**  
**2022 Illinois Soybean Yield Champion**

"We grew 113.1 bushel/AC. soybeans on a 200-acre river bottom farm near the Mississippi. I was pleasantly surprised by the REVLINE® HOPPER THROTTLE™ planter box treatment. It ran through the planter well – no caking or clogging. From the very start, these beans came out of the ground so quickly and so even. And they really were a nice, dark green from the very beginning."

**Josh Rausch, Primghar, Iowa**

"We applied RHTS this year and about a month ago we compared the plants side by side with untreated check trials and the treated soybeans were slightly taller and were progressing into the R stages much quicker than the untreated samples. We noticed larger root mass systems, as well. We also pulled tissues samples from the treated soybeans, and they were showing higher amounts of micronutrients."



# MERISTEM FEATURED PRODUCTS

## REVLINE® HOPPER THROTTLE™ SOYBEAN PORTFOLIO



### NUTRIENT & MICROBIAL PLANTER BOX DELIVERY SYSTEM

BIO-CAPSULE™ technology: the first tool to deliver biologicals safely to the furrow. Meristem's patented delivery system makes it happen—more bushels for less.

### NEW ADDITIONS TO RHTS FOR CROP YEAR 2024

**ION LOCK™ Zinc** provides several key benefits in soybeans, such as:

- Supplying a critical nutritional element to help drive early emergence in soybeans
- Increasing singulation performance
- Adhering microbes and biological agents to the seed coat

**RHTS microbial package** is a first-of-its-kind consortium of **12 mineralization and N-fixing microbe species** designed to improve soybean performance. Benefits include:

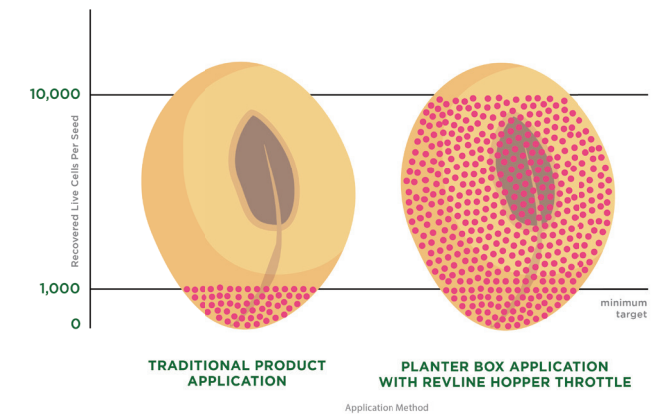
- Promoting early season vigor and uniform plant establishment over diverse regions and climates
- Driving maximum root growth and plant biomass in high-yield conditions
- Enhancing nutrient efficiency and yield stability in stressful conditions

**ETHER™ Enzyme Technology** is an optional upgrade designed to jumpstart microbial activity through the combination of the mannanase and lipase enzymes.

*Learn more about these additions on next page*

### STILL WITH THE CONTINUED POWER OF TERRASYM® BIOLOGICALS

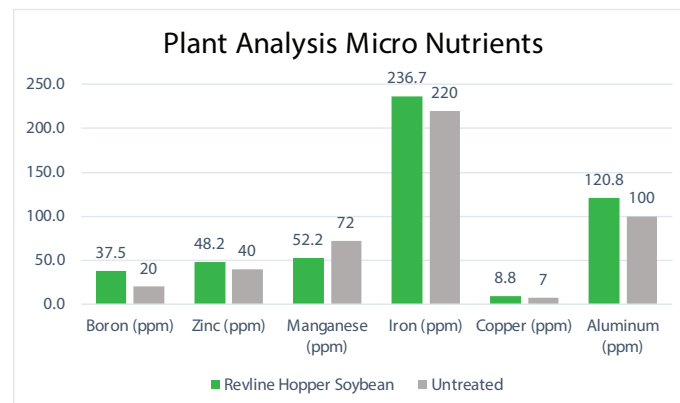
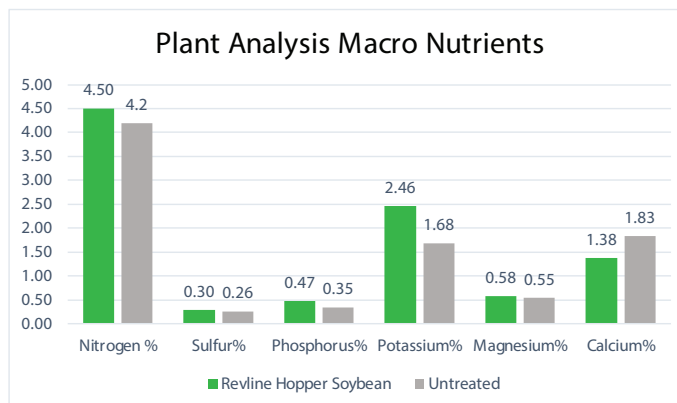
Terrasym's group of specially selected microbes establish a symbiotic relationship with the plant, thus improving plant development, nutrient uptake and ultimately creating a stronger crop that is more vigorous and more tolerant of abiotic stress from planting through harvest.



### BIO-CAPSULE = MORE LIVE CELLS PER SEED

To confirm even product distribution, seed lubricant plus the Terrasym biological was applied per grower standard practice. AIP agronomists collected seed samples at various progress points during planting (20%, 50%, and 80% completion). New Leaf Symbiotics scientists assessed the seed samples to confirm the living microbes found in Terrasym products were evenly distributed across large-scale commercial fields. Over 10,000 live cells per seed were found at each stage of planting, 10x more than traditional applications.

## REVLINE® HOPPER THROTTLE™ TRIALS



Source: 2023 Meristem trial data, Average of 7 locations in Indiana



# BIO-CAPSULE™ BENEFITS

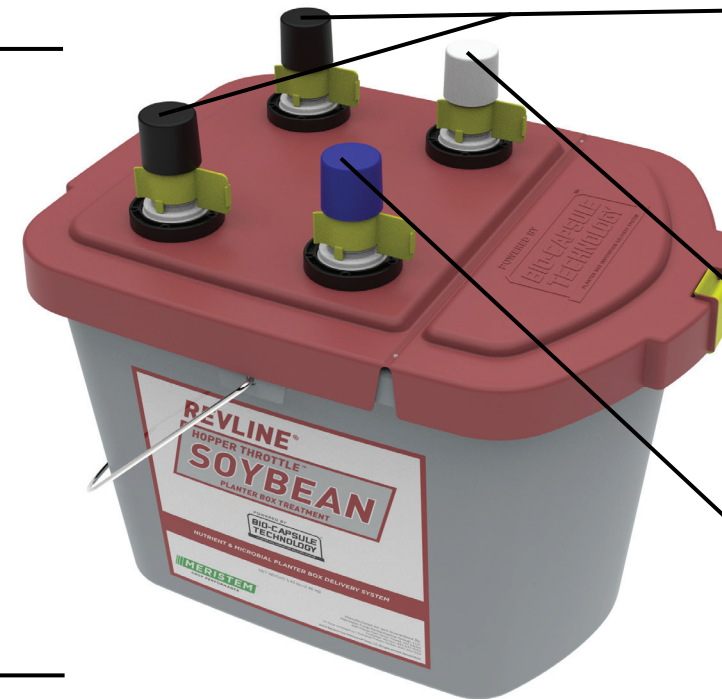
WITHIN  
THE BIO-  
CAPSULE™



<b>Azotobacter chroococcum</b>	Free-living nitrogen-fixing bacteria that can contribute significantly to plant nutrition and growth. Bacteria in this genus can also synthesize natural plant hormones and stimulate microbes in the rhizosphere.
<b>Azotobacter vinelandii</b>	Nitrogen-fixing bacteria which can take up nitrogen from air. Azotobacter species can also convert atmospheric nitrogen to ammonia.
<b>Azospirillum brasilense</b>	Rhizobacteria which is able to increase plant growth by fixing atmospheric N nonsymbiotically and by producing plant growth substances such as plant hormones (auxins).
<b>Azospirillum lipoferum</b>	Rhizobacteria known for its phytohormone production and nitrogen-fixing ability.
<b>Paenbacillus azotofixans</b>	Nitrogen-fixing bacterium which competitively colonizes plant roots and enhances plant growth by several direct mechanisms including phosphate solubilization, nitrogen fixation, degradation of environmental pollutants, and hormone production.
<b>Trichoderma harzianum</b>	Fungal microorganism well known for its positive association with plant roots—supporting plant health by improving root architecture and positively influencing plant nutrient uptake.
<b>Bacillus amyloliquefaciens</b>	Grows with plant roots and forms a long-lasting active biofilm on fine root hairs, resulting in an excellent bio-fertilizer that can activate soil nutrients by changing the forms of soil elements.
<b>Thiobacillus ferrooxidans</b>	Oxidizes iron as an energy source to support autotrophic growth and produces ferric iron as well as oxidizing sulfur—producing sulfates useful for the plant.
<b>Bacillus subtilis</b>	Solubilizes soil phosphorus and enhances nitrogen utilization, as well as promotes plant growth.
<b>Bacillus licheniformis</b>	Improves soil micro-ecology and increases fertilizer use efficiency. This bacterium grows with plant roots and provides season-long benefits.
<b>Bacillus pumilus</b>	Enhances plant-boron uptake through nutrient availability in the soil and has been documented to increase nitrogen uptake in plants.
<b>Bacillus megaterium</b>	Resilient bacterium that is known to produce phosphate-fixing and potassium-fixing fertilizers.
<b>Terrasym® Methylobacterium gregans</b>	A proven, industry-leading bio stimulant PPFM strain that generates massive root structures.
<b>RACEREADY™ Bradyrhizobia Inoculant</b>	A proprietary triple-stack that accelerates early-season nodulation for maximum nutrient uptake.
<b>ETHER ENZYME TECHNOLOGY</b>	ETHER Enzyme Technology is designed to work with live microbes to activate nutrient availability more quickly in the soil through the combination of two enzymes, mannanase and lipase. ETHER also dramatically improves the availability of phosphorus (P) and potassium (K) and provides a gateway for faster colonization of biologicals.

REVLINER® HOPPER THROTTLE™ SOYBEAN is powered by BIO-CAPSULE TECHNOLOGY™ - a patented delivery system that helps farmers save time, labor and fuel. The BIO-CAPSULE carrier system allows for the addition of multiple biological solutions safely packaged for convenient deployment at planting.

REVLINER® HOPPER THROTTLE™ SOYBEAN

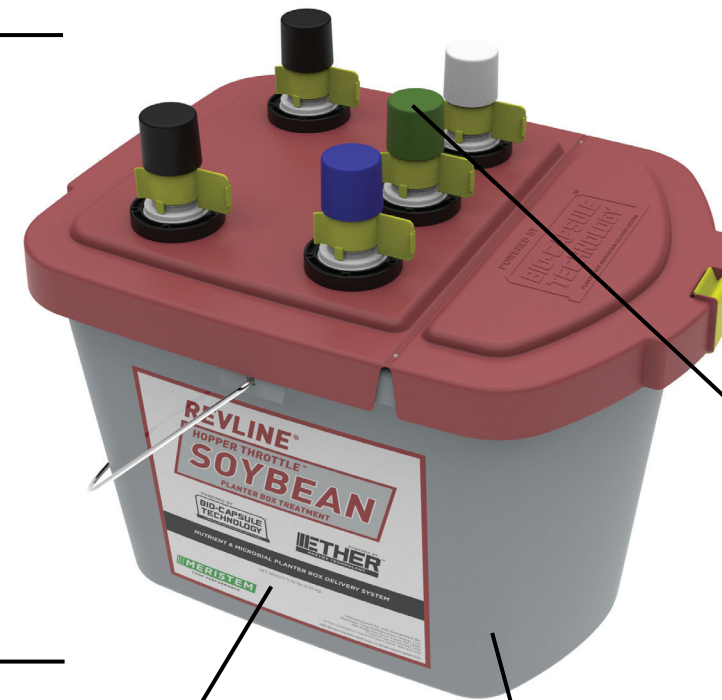


**Industry-Leading RACEREADY™ Bradyrhizobia Inoculant**  
Proprietary triple-stack accelerates early-season nodulation for maximum nutrient uptake.

**5 oz Terrasym®**  
Proven, Industry-Leading Bio Stimulant PPFM strains that generate massive root structures.

**Industry-Leading Bio-Fertility & N-Fixing Microbes**  
Azospirillum brasilense  
Azospirillum lipoferum  
Azotobacter chroococcum  
Azotobacter vinelandii  
Thiobacillus Ferrooxidans  
Paenbacillus Azotofixans  
Bacillus amyloliquefaciens  
Bacillus licheniformis  
Bacillus megaterium  
Bacillus pumilus  
Bacillus subtilis  
Trichoderma harzianum  
**CFU count 38 billion**

REVLINER® HOPPER THROTTLE™ SOYBEAN POWERED BY ETHER™



**ETHER ENZYME TECHNOLOGY**  
**NEW: ETHER™ Enzyme Technology**  
This Lipase & Mannanase enzyme combo fosters microbial activity for long-term benefits

**80/20 Talc/Graphite + Mn & Fe**

**NEW: 0.43 lbs IONLOCK™ Zinc**