

SOYBEAN

PRODUCT PORTFOLIO

biottrinsic
by indigo

 **SATISFACTION
GUARANTEE**
100% with replant policy.

INDIGO'S BIOLOGICAL SEED TREATMENT

Plant for Performance and Grow with Confidence

Soybean

biotrinsic® M34

biotrinsic® M34 is a powerful microbe that improves nutrient loading into the soybean plant resulting in greater root and plant growth which leads to a stronger healthier plant that can better withstand stresses during the yield critical stages of flowering and pod fill.

NEW BREAKTHROUGH TECHNOLOGY TO INCREASE NUTRIENT UPTAKE IN STRESSFUL CONDITIONS

Have you experienced variability, environmental, or nutrient stress that impacts yield in your fields or across your farm?

If so, this can result in shortened soybean plants, low pod number, low seed number, dry or shriveled seeds and pods, wilting plants, and yield loss. What if there was a product that could help your soybean plant withstand the stresses that are negatively impacting yield?

M34 STARTS WORKING FROM THE MOMENT YOU PLANT THE SEED AND WORKS FROM THE ROOTS TO THE SHOOTS TO IMPROVE ENVIRONMENTAL STRESS TOLERANCE AND NUTRIENT LOADING ALL SEASON LONG TO HELP YOUR CROP BETTER WITHSTAND THE STRESSES NEGATIVELY IMPACTING YIELD



FEATURES AND BENEFITS

- › biotrinsic® M34 is a live microbe that forms a symbiotic relationship with the soybean plant. It helps to improve the bioavailability and uptake of key macro and micronutrients needed for plant growth.
- › Improves plant tolerance to environmental stress resulting in the potential for improved yield
- › Provides drought protection through flowering and pod fill maximizing the potential of a greater return on your investment

+2
Avg bu/a

2 years field trials

- › low rainfall
- › higher temperatures
- › moderate soil water holding capacity

*Product performance information based on third-party field trials. Results will vary across growers and farm operations. A number of variables may affect agronomic outcomes. Indigo does not make any representations, warranties or guarantees as to any specific results or outcomes. Product may not be available in all areas. Limitations, terms, and conditions apply.

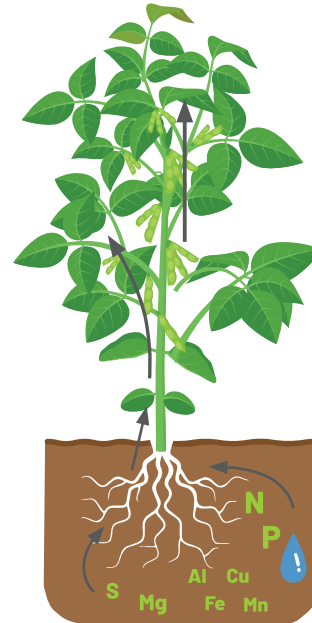
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HOW IT WORKS

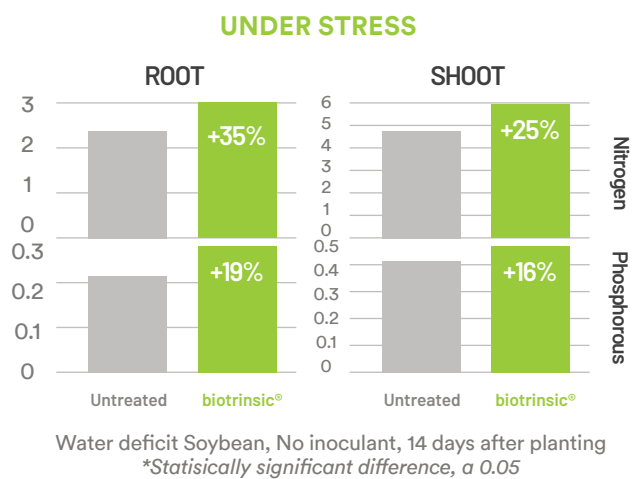
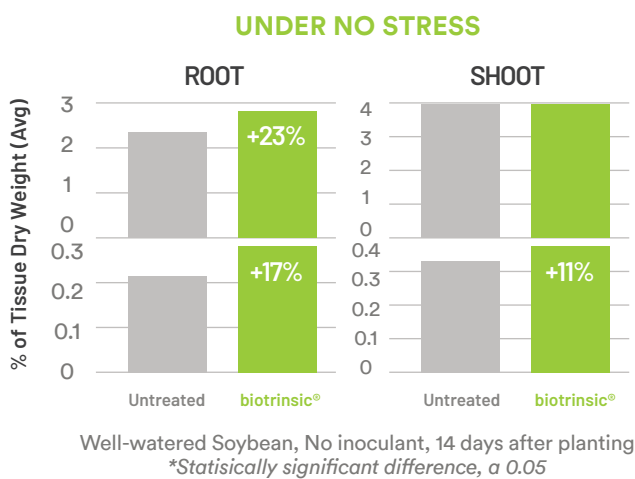
biotrinsic® M34 is our proprietary microbe that works to mine more nutrients from the soil and then load them into the plant. This leads to greater growth and resilience to stress throughout the season.

- M34 WORKS BY REDUCING THE SOIL PH AROUND THE ROOTS TO INCREASE THE AVAILABILITY AND MOBILITY OF NUTRIENTS. MANY OF THE NUTRIENTS THAT ARE OFTEN LACKING ARE MORE AVAILABLE AT A LOW SOIL PH.
- BIOTRINSIC® M34 SIGNIFICANTLY IMPROVES WATER-SOLUBILITY OF KEY MICRONUTRIENTS REQUIRED FOR PLANT GROWTH.
- IMPROVEMENT IN SOIL TO PLANT NUTRIENT UPTAKE IS MOST PRONOUNCED IN M34 TREATED PLANTS UNDER WATER DEFICIT CONDITIONS. THIS MEANS THAT WHEN DROUGHT STRIKES DURING THE CRITICAL FLOWERING AND POD FILL STAGES, BIOTRINSIC® M34 TREATED PLANTS DEMONSTRATE GREATER RESILIENCE.
- IN THE LAB, WHEN WE COMPARE TREATED TO UNTREATED SOYBEAN WE HAVE OBSERVED THE TREATED NUTRIENT CONTENT BEING REDUCED IN THE SOIL AND INCREASED IN THE PLANT'S ROOT AND SHOOT.
- IN THE FIELD, WHEN WE COMPARE TREATED TO UNTREATED SOYBEAN LEAVES USING SAP ANALYSIS WE SEE INCREASED NUTRIENT CONCENTRATIONS.



- N** NITROGEN
- P** PHOSPHORUS
- S** Sulfur
- Mg** Magnesium
- Al** Aluminum
- Cu** Copper
- Fe** Iron
- Mn** Manganese
- MOISTURE**

M34 RESULTS IN MORE NITROGEN AND PHOSPHOROUS IN THE WHOLE PLANT



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M34 SHOWS MORE SHOOT AND ROOT BIOMASS



M34 consistently shows an increase in the lab and field



+20%
shoot biomass

+154%
tap root biomass

Average values measured two weeks after planting in plants treated with biotrinsic® M34

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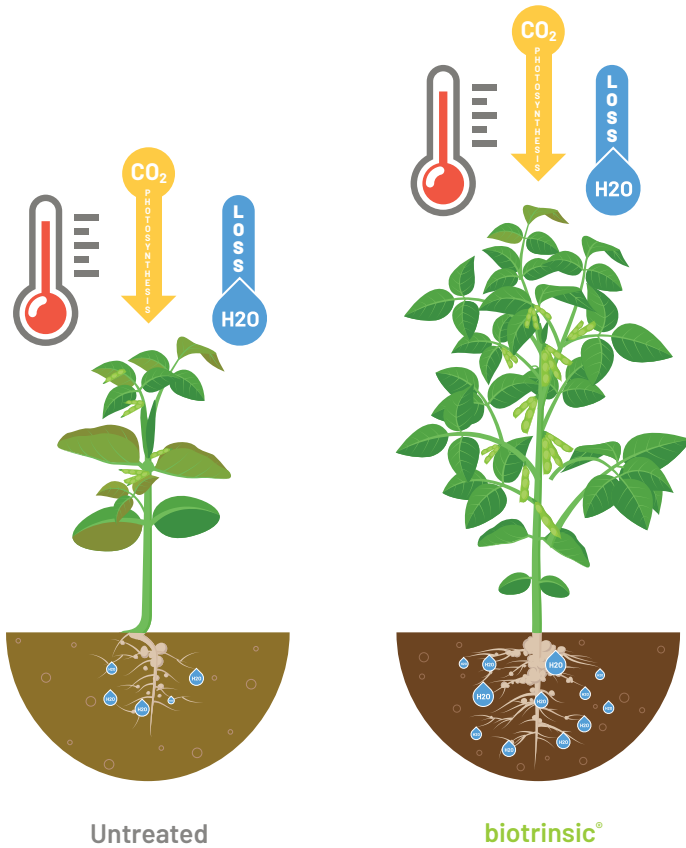
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IMPROVING DROUGHT TOLERANCE LEADS TO INCREASED YIELDS

Flowering and pod fill are two critical growth stages where a soybean plant uses approximately 60% of its seasonal water use. A soybean crop is likely to have lower yields due to water deficit during the pod fill stage than they are earlier in the season.

Performance of M34 was shown to have superior results in soils with lower water holding capacity and in climates that were hotter and drier.

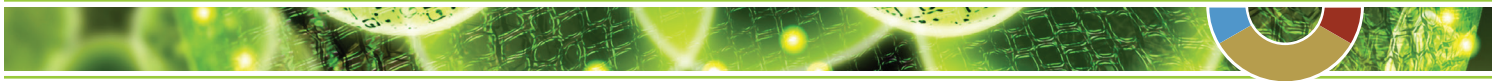


As **SOYBEAN** plants grow and develop their transpiration increases, and soil water depletion happens faster. Soybean vegetative growth only require 0.7 inches of water per week, but flowering (stages R1 and R2) plants need twice that amount (1.4 inches of water per week). Once bean pods are elongating (R3), soybean water use increases to 1.4-1.75 inches of water per week. A soybean crop uses more water and is more likely to have lower yields due to a water deficit during the pod-fill stage than they are earlier in the season.¹



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¹ <https://coolbean.info/2020/06/16/soybean-irrigation-reproductive-growth/>



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PRODUCT DETAILS

CAN BE USED ON

- › Fields where nutrient deficiencies have limited yields in the past
- › Fields where temperature exceeds 94°F during the growing season
- › Dryland fields where rain fed crops are limited by moisture
- › Crops that are planted in an ideal or late planting window
- › All soybean varieties and traits

HOW TO USE IT

- › Seed treater friendly
- › By applying it directly to the seed the microbes are adhered to the roots where it starts working immediately supporting plant health and nutrition. You don't have to worry about weather events stripping away your investment.
- › The low use rate allows additional room on the seed so it can be applied with other products.
- › Applications on the seed creates an immediate team between microbes and plants positively improving plant and root growth with no wasted time. Our seed treatment starts working the moment you plant because it's on the seed.
- › FP provides 365 days and WP provides 180 days on-seed stability giving the flexibility you need during the planting season.
- › Broad chemical compatibility so it can be used with your existing treatments. Always reference Indigo's compatibility guide.



Formula	Pkg Treats	Pkgs/ Case	Case	Case Treats	Unit Measures
FP	40 units	5	5x1x40	200 units	50 lbs
FP	250 units	1	1x250	250 units	50 lbs

FP Application Rate: 1 vol oz/CWT

Formula	Pkg Treats	Pkgs/ Case	Case	Case Treats	Unit Measures
WP	40 units	5	5x2x40	400 units	50 lbs

WP Application Rate: 1.60 fl oz/CWT
(after dilution in mix tank slurry)

5X1X40 UNITS



X5



250 UNITS



5X2X40 UNITS



X10



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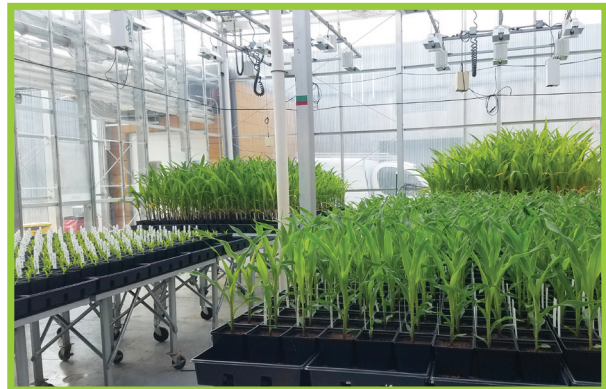
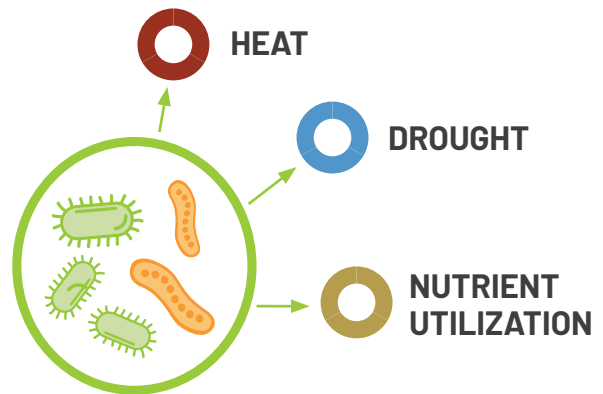
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THE SCIENCE BEHIND THE DIFFERENCE

Microbiomes, or communities of microbes, help maintain internal processes for all living things – Indigo focuses on identifying microbes that have evolved in conjunction with plants over time to optimize their health and maximize their productivity.

At Indigo, we identify which of these microbes are most beneficial to a plant's health through the application of algorithms and machine learning. We further prove their performance at our research laboratories and greenhouses in Boston, Massachusetts and Research Triangle Park, North Carolina along with extensive field trials throughout the United States. Our resulting seed treatment products complement a plant's natural process to improve health and development across each phase of life, while boosting crop yields.



WHAT MAKES BIOTRINISIC® DIFFERENT

More Beneficial for Your Crop

Microbes are selected to address the key stresses that limit crop yield potential. This allows you to select the right biottrinsic® products based on the stresses that have the greatest impact on your farm.

From Plants for Plants

biottrinsic® is a collection of over 30,000 all naturally occurring microbes that have been extracted from plants thriving in stressful conditions. We isolate microbes that are abundant in plants that are thriving under stress while other plants around them are not. This allows us to tailor our products to a specific crop and set of stresses.

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