

2025 Corn Guide

ROI BIOLOGICALS

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Our Goals for Our Growers

“ROI Biologicals serves farmers who are focused on improving their crop production productivity. We believe increasing productivity can only be accomplished by identifying then removing limiting factors.

With this goal in mind, ROI has developed a comprehensive system, consisting of production practices and bio-solution products, that boost beneficial plant and soil microbial activity. Higher microbial activity is the key to removing the limiting factors which hinder balanced nutrition and healthier plants.

Healthier plants with high microbial activity producing nutritionally balanced plants improves crop yields and quality, lowers costs per unit of production, and solves problems which results in higher profits for our growers.”

Cody Goins, CEO, ROI Biologicals



2025 Corn Microbial Nutrition Program

Preplant Broadcast

BAMB 1 gal.

See page 4 for details.

Bio-Amp MP 1 lb.

See page 5 for details.

(or) Bio-Amp 1 gal.

See page 6 for details.

Seed Treatment

Endo-Fight 1 oz.

See page 7 for details.

In Furrow

Relay 1 gal.

See page 8 for details.

With Post Herbicide

Network 1 qt.

See page 9 for details.

With Veltyma at V10

Katapult 2 qts.

See page 10 for details.

Fortress 1 qt.

See page 11 for details.

“Consistently raising farm crop yield averages and assisting growers in setting world records has been extremely rewarding.

Producing nutritionally balanced plants is the first step to getting consistent results from your investment dollar. ***We recommend a nutrition program for the crop and a nutrition program for the microbes.***

While we do sell bio-solution products individually, our complete bio-solution program of management practices, including timely plant tissue samples with strict protocols, has been proven to produce the most consistent and profitable results.”

Cody Goins, CEO, ROI Biologicals





Ensuring high microbial activity prior to planting is one of the key steps in maximizing yields.

Jumpstart your soil microbial activity with a strong blend of boron, molybdenum, Bio-Amp, and new M-COM technology. Designed for pre-plant application, BAMB ***stimulates soil microbes prior to crop emergence*** which promotes robust early-season plant growth.

Boron and Molybdenum for Plant Health: These micronutrients play critical roles in bacteria and fungi feeding, which impact nutrient assimilation, ensuring your crops are healthier and more resilient to environmental (abiotic) stress.

Bio-Amp Enhances Soil Microbial Activity

- Stable soil aggregates formed by fungi protect against soil erosion.
- Enhanced soil structure promotes better water infiltration and reduces surface runoff
- Improved aggregation increases the soil's capacity to retain water and minerals, particularly potassium.

M-COM, a blend of one old and one new plant growth promoters, M-COM boosts soil microbe populations that increases the availability of nearly all essential nutrients. These naturally derived plant growth promoters not only boost the numbers of beneficial microbes, but also stimulate plants to be more resilient to abiotic stresses.

Use Rates: One GPA pre-plant with burndown/pre-emerge herbicide

Experience the power of nature's best with our advanced water-soluble formulation of Micronized Humic and Fulvic Acids.

Introducing Bio-Amp MP Water Soluble Micronized Concentrate. Designed for agricultural use, Bio-Amp MP enhances nutrient availability, promotes healthy root development by improving soil structure and boosts plant growth.

- Enhanced Nutrient Uptake:

Humic and fulvic acids improve the absorption of macro and micronutrients, ensuring your plants receive the essential elements they need for vibrant health. Humic and Fulvic acids also feed and stimulate the growth of beneficial soil microbes, particularly fungi.

- Improves Soil Structure:

Stable soil aggregates formed by fungi protect against soil erosion. Enhanced soil structure promotes better water infiltration, reduces surface runoff and reduces the impact of compaction. Improved aggregation increases the soil's capacity to retain water and minerals.

- Multiple Mine Technology:

Comprised of humic and fulvic acids from multiple mines, Bio-Amp MP contains a balance of functional groups which ensures the highest bioactivity on the market. No single mine has the "perfect" humic or fulvic acid...so we have sourced from multiple mines to create the most balanced, broad-spectrum humic and fulvic acid possible.

Use Rates: *Apply 1- 3 lbs. /acre pre-plant. Dissolve in water prior to adding burndown /pre-plant herbicides and/or nitrogen to spray tank.*





Bio-Amp is the only humic acid product that is full of diverse life!

- Bio-Amp is our humic and fulvic acid product. Bio-Amp is made with a patented extraction process that includes multiple humic mine sources, maximum retention of functional groups of humic acids, natural carbohydrates and amino acids, as well as retaining over 1,000 species of soil microorganisms from humate materials.
- Bio-Amp contains naturally occurring bacteria, fungal species, and algae species.
- Bio-Amp is shown to improve numbers/populations of soil microbes within 24 hours of application. Most products take 1-3 weeks before they begin to “feed” microbes due to the chemicals in the extraction process.
- Bio-Amp is **non-KOH extracted**. KOH extraction produces higher lab testing concentrations of humic acid, but it destroys most of the biology in the humic acid parent material.
- Our new extraction method ensures the survivability of over 90% of the microorganisms from the parent material. Because of this, our new humic acid product is loaded with beneficial bacteria, fungi, and algae that will improve root and plant health when applied pre-plant, in furrow, in 2x2/with nitrogen, or foliar.

Use Rates:

One gal. broadcast with nitrogen fertilizer or chemical burndown 1 gal. per 100 gallons of UAN solution

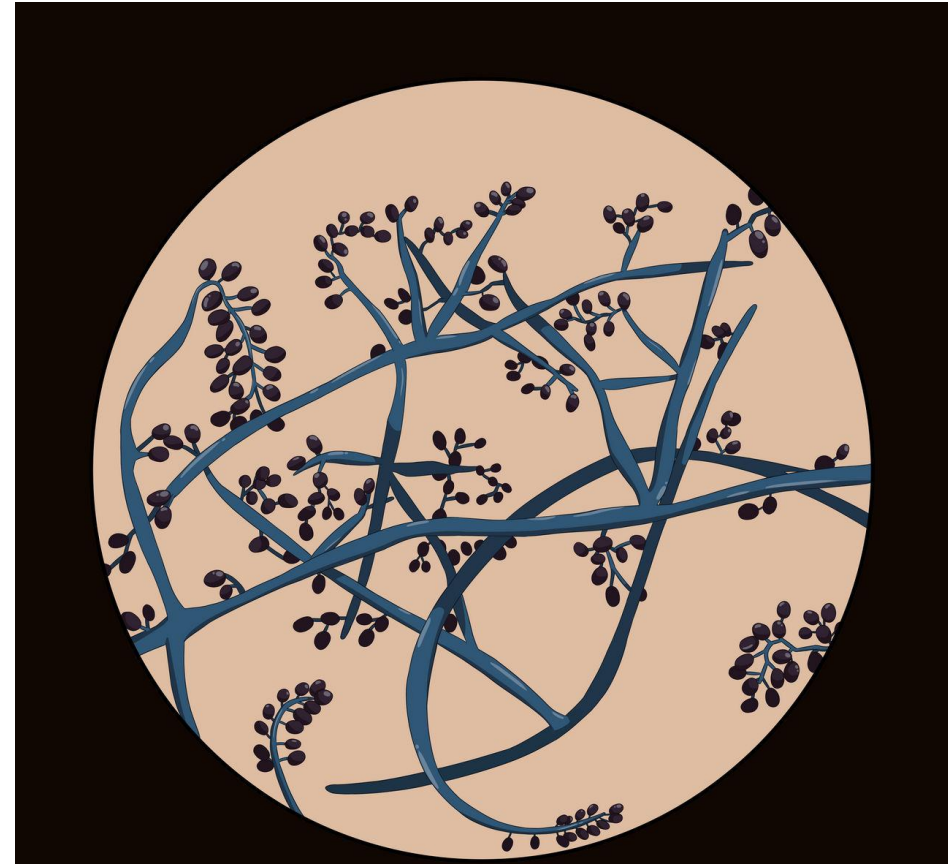
Endo-Fight

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Entomopathogenic fungi for corn, soybeans, wheat, sorghum, cotton, potatoes, and more.

Endo-Fight is a multi-purpose fungus that can be applied to seed as a seed treatment, a dry planter box application (talc/graphite replacement), or applied as a liquid either in furrow or as an early post foliar spray. It performs multiple functions that improve plant health and yield, such as:

- **Beneficial metabolite production:** Endo-Fight produces dozens of beneficial metabolites that it shares with its host plant (your crop). These chemicals enhance plant performance against abiotic stress such as heat, cold, drought, disease attack, insect attack, and other stressful situations that your crop faces every year.
- **Nutrient uptake:** Endo-Fight has been shown to increase zinc, calcium, iron and other nutrients. Nutrient content increases of 20% or more have been recorded in leaf samples in over 80% of side-by-side comparisons.
- **Insect suppression:** Endo-Fight grows inside the entire plant. When certain insects walk across the plant surface, Endo-Fight attaches to the insect and grows around it, suffocating and killing the insect within 2-5 days of contact.
- **Beneficial metabolite production:** Endo-Fight produces dozens of beneficial metabolites that it shares with its host plant (your crop). These chemicals enhance plant performance against abiotic stress such as heat, cold, drought, disease attack, insect attack, and other stressful situations that your crop faces every year.



Use Rates: 1.0 oz. in furrow or seed applied (liquid)
2.0 ozs. per acre planter box

- **Grain quality improvement:** Heavier kernel weights are the main contributor to higher yields from Endo-Fight use. Dramatically improved grain quality in both corn, sorghum and wheat is common. USDA grades show significant reductions of DON and other mycotoxins. Defects, damaged seeds, and live insects in grain have also been dramatically reduced in post-harvest grain quality samples.



**Designed by world record corn grower
David Hula**

Relay is designed for in furrow use on corn, cotton and sorghum.

Relay has a high rate of the plant growth promoter, C-COM, organic acids, amino acids, cold water algae, and other proprietary biological inputs.

- Relay also contains zinc and molybdenum.
- Genetic signaling is enhanced by up to 300%, improving nutrient uptake and translocation, as well as providing powerful stress mitigation.
- Root mass, biomass, and early phosphorus levels greatly increase for high corn yields.
- ***Relay has shown an average increase of 1.7 rows around in corn from 2020-2024.***

Use Rates: *In furrow: or in 2X2 starter: one gallon per acre*

Network

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Network is used in furrow and foliar, has been used in countless farm records, state records and even on the past six World Records. This is our number one product across the country for corn, soybeans, wheat, cotton, and speciality crops.

Network is a product that contains humic and fulvic acid, amino acids, seaweed extract, multiple microalgae strains, zinc, molybdenum, and two proprietary plant growth promoters (PGPs). We **individually test every ingredient in this product** by growing microorganisms to verify each ingredient is growing and multiplying microbes, with a focus on growing soil fungi.

- Network consists of six biological base components with over 100 individual compounds that stimulate plants and microbes. Network also contains two specific micronutrients that enhance the stimulation and populations of soil microorganisms.
- Broad-spectrum food source for soil microbes that increases populations of both beneficial bacteria and fungi
- Patented PGP, plus a secondary proprietary plant growth promoter, which is highly synergistic with the original PGP. Together these PGPs increase resistance to both biotic and abiotic stresses.
 - Faster germination and emergence when applied in furrow
 - Increased nutrient uptake and translocation in the plant
 - Improved abiotic stress tolerance and disease/insect resistance in treated crops
 - Improved rhizosphere and phyllosphere population and diversity

Use Rates: *In furrow: 2-4 qts. per acre*
Foliar application with nutrients: 2 qts. per acre per application
Foliar application with post herbicides: 1 qt. per acre



Katapult

An elite potassium product that promotes the uptake and translocation of K and other nutrients.

All ingredients in Katapult have been proven to significantly improve photosynthesis, maximizing nutrient uptake and grain fill of all crops. The higher content of acetate in Katapult compared to other potassium acetate products on the market means peak photosynthetic efficiency and translocation of nutrients. The addition of molybdenum, cobalt, fulvic acids, and our proprietary M-COM technology provides a strong synergistic effect of all products that may be tank mixed with Katapult.

- Katapult is designed for corn and soybean applications with fungicide. It has proven to ***extend fungicidal activity***.
- Katapult contains a high load of fulvic acids and potassium acetate, with the highest acetate content on the market plus ROI's M-COM technology for improved uptake and translocation.
- Katapult improves microbial activity, raises photosynthetic efficiency by up to 4X, keeps crop canopy cooler and increases nutrient uptake + grain fill + yield.



Use Rates: 1-2 quarts per acre per application
(Corn use at V7-V10 and again at tassel/brown silk)



Top single app yield improvement product from 2020-2023 on corn and soybeans.

Fortress is our #1 blend of biologicals for foliar tank mixes with fungicides. In this product you will find fulvic acid, other organic acids, true kelp extract, multiple strains of microalgae, a stress mitigating PGP, boron, and molybdenum. These ingredients help to boost photosynthesis and extend the longevity of applied fungicides. Fortress functions as a complexing agent for micronutrients and provides a source of natural plant growth promoting compounds and added organic carbon.

- Fortress is designed to maximize results with fungicide applications on soybeans, corn, wheat, watermelons, cotton, and other crops.
- Fortress contains high rates of organic acids, cold water algae, bio-stimulants, and key nutrients for extending fungicide activity.
- Yield data has shown a 6+ bushel increase on corn and 4+ bushel increase on soybeans with one quart applied with fungicides compared to fungicide alone (average of multiple replicated trials on both corn and soy).
- Fortress provides improved photosynthesis, mitigates stress during reproductive stages, increases uptake and translocation of nutrients, extends life of fungicides, and improves grain fill on all crops.

Use Rates: *1 qt. per acre with fungicide application on any crop*

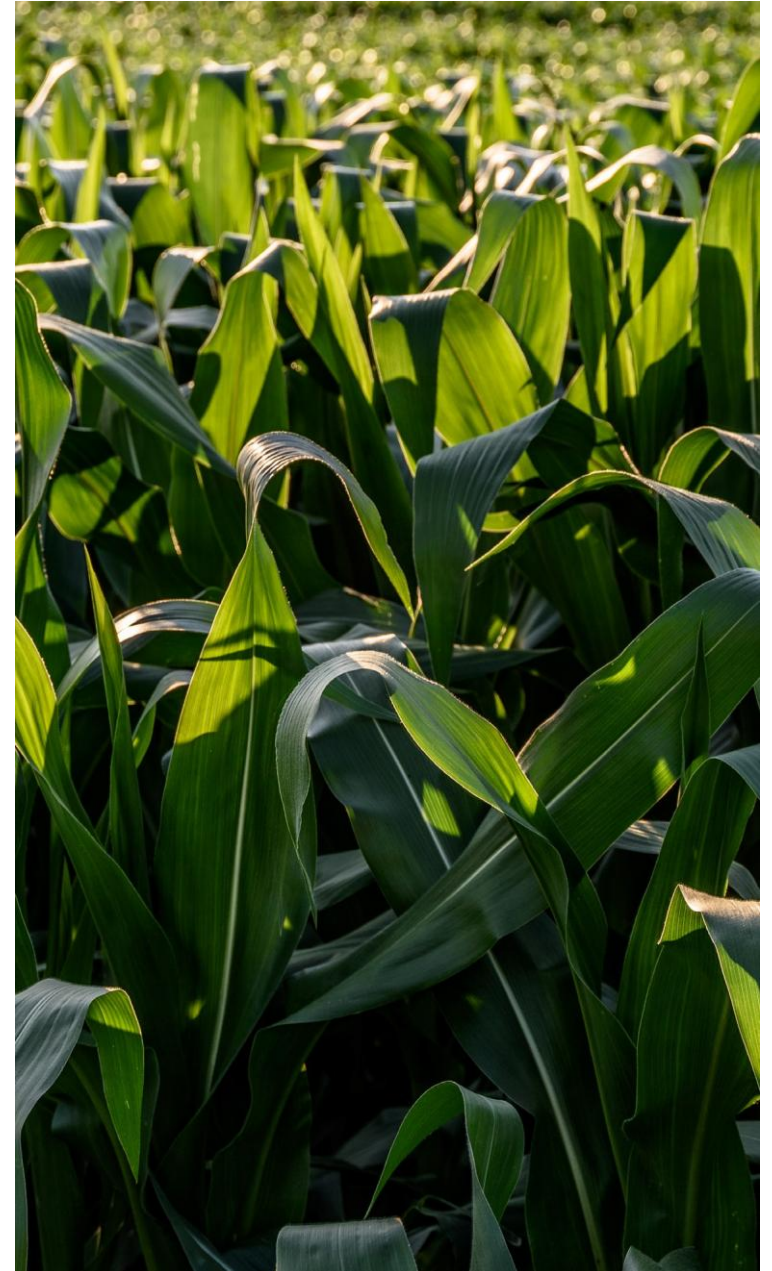
Other Considerations

The Value of Tissue Sampling

To increase your crop yields, it is critical to identify and remove the plant's limiting factors. Why spend money on your acres until you know exactly what is most limiting?

Tissue Sampling:

- Enables growers to identify nutrients that limit yields or quality
- Allows deficiencies or imbalances (limiting factors) to be corrected in-season (remove stress) to increase crop yields and quality
- Identifies nutrient deficiencies or imbalances required to protect crops from diseases and insects
- Lowers costs because excessive rates and unnecessary nutrient applications are avoided
- ROI's proprietary AgPLUS tissue sampling database uses 176 algorithms to identify which nutrient is MOST limiting to yield. ROI also utilizes 44 virtual weather stations across the country to ensure accurate data.
- You must remove what is most limiting to see a yield increase. If you don't correct the most limiting nutrient, you are not likely to get a consistent response to any treatment.





Four Components of Corn Yield

Corn yield is made up of four components. Increasing yields requires implementation of a full system that maximizes each one of these four components.

To replicate success (yield increase) it is critical to know which component(s) of yield was impacted.

To help growers improve yields, we offer a review and analysis of yield components on your farm. This analysis reveals the areas that need most improvement and develop an action plan to maximize those components for your specific operation.

Biologicals

ROI classifies "biologicals" into three separate categories: **prebiotics** (feeds living organisms), **probiotics** (contains living organisms), and **plant growth promoters** (PGPs) which are naturally derived substance that stimulates and enhances plant growth and development. It is important to understand what you are using and specifically how that product adds value.

Soil Biology Sampling

ROI offers soil biology sampling to evaluate your levels and ratios of the four key soil microorganisms: bacteria, fungi, protozoa, and nematodes. To track the success of biological programs, we can measure and remeasure biology after application.

| Testimonials

Notes |

“It is refreshing to work with a company that is truly passionate and interested in being part of one’s team in the path to higher yields while focusing on ROI. Cody has continued to demonstrate his value to our farm by the proven success of his products.”



David Hula | Charles City, VA

World Record Corn Yield 2013, 2015, 2019, 2021, 2023

“Not only do the products give us the results we covet, but Cody is willing to listen and learn with us.”



Randy Dowdy | Valdosta, GA

World Record Corn Yield 2014

World Record Soybean Yield 2016, 2019

“More than just telling you to put out a product, Cody takes the time to teach you how a product works, tell you what it’s doing and why we are doing that. He helps you understand the science behind it to achieve greater yields and, as his company name says, greater ROI.”



Alex Harrell | Smithville, GA

World Record Soybean Yield 2023, 2024
