Top growers choose Biovante™ for seed, soil and plant health.
Who We Are

Biovante™ was established in 2009, but our story is as old as dirt.

Based on three decades of research into soil biologicals, Biovante products restore the soil with a host of naturally occurring organisms, maximizing growth potential. Our mission, simply put is, “better yields today, better soil forever.”

We apply those same principles to our business approach. Our goal is customer satisfaction in every transaction, resulting in long-term and mutually beneficial relationships.

Agribusiness is evolving, and we at Biovante are proud to be a part of the science that is shaping tomorrow’s farms. And while we’re excited to serve as a valued partner in increasing near-term yields, we’re equally excited about contributing to long-term health and stewardship. Because honesty, integrity and authentic interest in your success – that’s more than what we do. That’s who we are.

Healthier Farms. Higher Yields.

For decades, agriculture has been too focused on the health of the plant as the end-all, be-all, of the farming operation. We’re just now realizing the tremendous role the soil and its diverse ecosystem plays on the long-term health of a crop. Biovante™ products treat the seed, soil and plant as one connected system to achieve amazing results.

It’s time to rethink health on your farm and add Biovante.
Our Products and Their Potential

No matter the brand, Biovante seed treatments can lead to higher rates of emergence and start plant growth on a path toward greater yields.

Adding Biovante’s strong microbial life into soil can bring about balance and a positive change for the longevity of any farm. The soil will have greater capacity to; manage moisture, fend off insects and diseases, reduce weed pressure, as well as provide a richer portfolio of nutrients - thus allowing immediate or future reduction of synthetic inputs.

Biovante offers solutions to reduce plant stress, prevent or eliminate plant diseases, along with nutrient inputs that produce healthier plants that are more “alive” at harvest and produce higher quality grain - and more of it!

Some Biovante products contain nutrients that are critical to plant growth in multiple stages of development. These dual-purpose products offer growers an effective and cost-effective way to deliver the right nutrition to their field throughout the year.

Biovante additives are important in fine tuning your farming operation. These products add crop specific nutrients as well as reduce the loss of vital nutrients throughout the growing season. This efficient approach results in better use of your investments.

VIDEOS & CASE STUDIES
See growers from across the country discuss how Biovante products helped them realize personal, state and national record yields.

PRODUCT & APPLICATION INFO
Learn more about our easy-to-follow mixing and application processes at biovante.com.

CUSTOM ROI CALCULATOR
Our useful ROI calculator uses industry averages and first-hand yield data to calculate your approximate cost per acre.

NEWS & IN-FIELD UPDATES
We’re proud of our growers and we love to share their Biovante success stories. Follow real Biovante growers at biovante.com.
PROVIDE MORE ENERGY TO THE SEED

Pentilex™ AQUA is a patent pending, environmentally friendly seed treatment designed to accelerate germination and seedling emergence even under stressful conditions. The technology driving Pentilex AQUA improves germination conditions, resulting in a more uniform stand.

Through independent studies, this process has shown to increase yields by as much as 10%. Within hours of planting, Pentilex AQUA goes to work delivering what the seed needs to germinate and emerge.

Regardless of seed type, Pentilex AQUA enables the seed to better combat cold and wet soil conditions that could possibly slow – or even terminate – seed development.

PRODUCT SNAPSHOT

» A patent pending seed treatment that accelerates seed germination and emergence
» Enables faster seed emergence, even under stressful conditions
» Encourages a more uniform stand
» Reduces abiotic stress on the seed such as cold and wet soil conditions
» Environmentally friendly

“This country isn’t really known for corn. We’ve seen an 11:1 return on investment with the Pentilex. I would recommend Biovante™ to anybody.”

– Zach Stroh, Stroh Farms, Okarche, Oklahoma
BioFlex™ is a biological seed treatment developed to prime the seed, speeding up the germination and emergence timeline. This BPI technology maximizes the genetics of a seed to ensure proper seedling vigor and uniform growth.

There isn’t a product on the market that contains the population of microorganisms that are in BioFlex. Similar to its biological counterparts (BioGold™/BioRed™), BioFlex has a population of over 1 million microorganisms in just one teaspoon of concentrate.

On-farm studies have shown 5-8 bu./acre increases on soybeans for the last two years. At an estimated cost of $3.02 per acre at 100,000 seed planting population, or $6.05 per acre at 200,000 seed planting population, this product can provide a strong ROI.

PRODUCT SNAPSHOT

- BPI Technology = Bio-Primed Inoculant Technology
- Free-living nitrogen promoting, disease fighting, and growth enhancing microorganisms
- Contains those mainstream microorganisms such as: mychorrizae fungi, rhizobium bacteria, azotobacter bacteria and others that are well known to increase root mass, improve root nodulation and nutrient uptake
- A true biological inoculant

"Our highest proven yield was 309.9 bushels... an Arkansas state record. That field had Pentilex™ Aqua mixed with BioFlex™ seed treatment."

– Perry Galloway, 2013 Arkansas NCGA Corn Yield Champion.
BETTER SOIL. BETTER CROPS. BETTER ENVIRONMENT.

BioGold™ is a highly concentrated liquid soil amendment that contains free-living soil microbes. This product requires an incubation before application to which it will then deliver a full load of: actinomycetes, algae, bacteria, fungi, and protozoa. These are all important as they play the roles of producers, predators, prey, and decomposers.

BioRed™ is a version of BioGold that contains free-living soil microbes. This product requires an incubation before application to which it will then deliver a full load of: actinomycetes, algae, bacteria, fungi, and protozoa.

These are not crop-specific products, but soil-based products. No matter the geography, every soil is in need of microbes from these categories to help relieve the pressures of yield demands. BioRed and BioGold microbes are recyclers, regenerators, facilitators, inhibitors, mobilizers, producers, and equalizers. These microbes are not all consumed in one season, however, with yearly applications, BioRed and BioGold will replenish the life of the soil.

This new life, built over multiple years, could even allow growers to reduce nitrogen fertilizer inputs by as much as 50% – 75%, and can potentially reduce the need for herbicides, insecticides, and fungicides.

PRODUCT SNAPSHOT

- Delivers aerobic (oxygen present) and anaerobic (no oxygen present) microorganisms to soil
- 1 teaspoon of BioRed™ has 1 million population of microorganisms
- These microorganisms have the ability to capture atmospheric nitrogen, bring it into the soil and then convert it into an available energy source for the plant as needed
- Potential of generating 40 - 180 units of N per acre under favorable conditions
- Over time, can reduce the need for nitrogen input by 50% – 75%

RESULTS

**SOYBEANS**

- 2010 Sweet Springs Farm, NC
  - Side by side: 67.8 vs 78.1
  - Full season soybeans: 2010 S4770 vs 2010 S4770
- 2014 Test Plot, Central Illinois
  - 70 units 28.5% at planting + BioRed™, 70 units 28% sidedress at knee high:
    - 18-46-0 80#, 0-0-50 80#
  - 32 oz. per acre
  - $28 Nitrogen exchange

**CORN**

- 2011 Twin Rocks Farm, IN
  - Fall Residue Test: 183.6 vs 202.6
  - Applied 32 oz. per acre immediately following 2012 harvest
  - 34,500 seed population
  - Becks 5508K3
CREATE A REFUGE FROM DISEASE

Elixor™ is an EPA-registered, systemic fungicide and bactericide containing an industry-leading concentration of 57% active ingredient. This product helps control Phytophthora, Phytophthora, other root rots, and kills fungal diseases on contact. Elixor boosts a plant’s immune response against mildews, common rusts and leaf blights, which in turn increases crop yields.

Studies are underway with Elixor to test the control or prevention of Goss’s Wilt. Contact Biovante™ to learn of these findings.

PRODUCT SNAPSHOT

» The only Fungicide and Bactericide on the market
» A cost-effective alternative compared to other fungicides in the market
» Slows the growth of the disease pathogen and inhibits the formation of spores
» Ingredients naturally encourage the plant’s own defense mechanisms to fight fungi
» pH neutral
» Can easily be tank mixed with starter fertilizer as well as other biologicals

RESULTS

EPA-Registered Fungicide/Bactericide Foliar Treatment

16 oz./acre in-furrow
NATURAL IV THERAPY FOR THE PLANT

Infusion 2.0™ is a liquid soil and foliar supplement derived from proactive sea minerals. This solution instantly enhances the immune system of the plant, providing a boost in energy and growth. Disease occurs during acidic conditions – Infusion 2.0 will mineralize and alkalize the soil, balance the pH and fight off insects, fungi, and other pathogens.

Nutrients within Infusion 2.0 are collected deep from within the ocean where high concentrations of non-polluted mineral-rich water are located. Along with increasing nutrient capacity in the plant, Infusion 2.0 symbiotically works with microorganisms in the soil, enhancing the natural uptake from the soil to the plant. During non-favorable growing conditions (i.e., cool temperatures, damp soil conditions, compact soils, hot temperatures), Infusion 2.0 produces energy for the plant by metabolizing biological systems such as carbon cycle, cell respiration, nitrogen cycle, mineralization, and photosynthesis.

PRODUCT SNAPSHOT

- Over 90 trace minerals harvested from the most oxygenated parts of the ocean
- Delivers an immediate health boost to dry and stressed plants
- Complements soil biologicals, better facilitating flow of nutrients between soil and root system
- Ready-to-spray solution that can be mixed with most insecticides, herbicides and fungicides

“Last year, when we ran some of these products and what we saw was amazing frankly. I think we’re going to continue using the products aggressively.”

– Mike Rother,
Grower

RESULTS

July 1, 2012 after 12 days over 100°F
GIVE YOUR CROPS A SAFETY NET OF NUTRITION

MICRO-8+™ delivers a blend of eight high-quality micronutrients in the form of soluble, dissolvable granules. These eight essential micronutrients are designed to supplement standard fertility programs, correcting known or suspected deficiencies in plant structures. MICRO-8+ also contains non-ionic surfactant for better plant absorption. It can be applied on all agricultural, horticultural, and ornamental crops that require and respond to nutritional supplements. MICRO-8+ is compatible with a wide range of fertilizers and pesticides. However, a compatibility test should be performed before mixing, especially with Phosphorus (P) fertilizers. This product contains Boron (B), so do not apply near seeds or very young roots. This product brings both EDTA and sulfate chelated micronutrients to the plant supplying a stable and efficient mix of plant essential nutrients to the system. Applying early and throughout growing season to the crop will help reduce yield loss. If plant is under stress it is best to consult with Biovante on the application of Micro-8+. In some situations, under stress conditions, the application of Micro-8+ could cause added stress to the plant possibly reducing yield.

PRODUCT SNAPSHOT

» Dry soluble micronutrients
» Mixture of EDTA and Sulfate micronutrients plus added surfactant
» Ease of dissolving into solution (jar test recommended)
» Broad spectrum micronutrients cover nutrient needs for essentially all types of plants

RESULTS

<table>
<thead>
<tr>
<th>Yield (kg/ha)</th>
<th>2014 Pioneer Corn Test Plot, Mississippi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>236.1</td>
</tr>
<tr>
<td>Micro-8+™</td>
<td>241.9</td>
</tr>
<tr>
<td>Increase</td>
<td>+5.8</td>
</tr>
</tbody>
</table>

2014 Pioneer Corn Test Plot, Mississippi
By using some of the Biovante products, BioMate being one, it’s allowed us to take some poor productive soils and just make them more fertile.

– David Hula, 2013 NCGA National Champion

BioMate™ is a highly concentrated mix of complex sugars, including Glucose, Fructose, Sucrose, Maltose and two strains of energy-promoting bacteria. BioMate provides immediate energy to soil microbes and cellular development with the potential of generating up to 201,000,000 calories per gallon of product.

There is nothing like BioMate anywhere else in the industry. The generated sugars have been processed so the microbes and/or plant do not have to go through the intricate process of breaking down sugar into a usable form. We also added two strands of bacteria that aid in sugar production, maintaining high polysaccharides – the binding agents needed in the soil to hold aggregates together.

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THE VERSATILE CHOICE

Assist 45™ is an innovative liquid fulvic-humic mix that assists in soil regeneration and the formation of organic minerals over time. This bio-organic compost contains 70 essential trace minerals, allowing nutrients to become more available to the plant. Assist 45 also helps build organic matter and rapidly returns life to unhealthy crops.

Unlike other fulvic and humic acid products on the market, Assist 45 is formulated by a patented extraction process that keeps viable nutrients in solution longer. Assist 45 can be used in these industry interests: Agriculture, Horticulture, Floriculture, Hydroponics, Aeroponics, Turf Management/Maintenance, Mine/Landfill Reclamation, Dune Stabilization, Road/Hwy: Erosion Control, and Hydro Seeding.

PRODUCT SNAPSHOT

» Contains 76 trace minerals to accelerate plant metabolism
» Aerates soil for better root growth and penetration
» Carboxyl groups help retain ammonium ions longer and/or chelate nitrates
» Catalyzes enzyme reactions
» Detoxifies pollutants and assimilates into cell structure
» Increases permeability of the cell membrane
» Improves chemical residue mitigation in the soil profile
» Increases activity of existing beneficial microorganisms in the soil

RESULTS

» 16 oz./acre of Assist 45™
» With starter fertilizer
» Only $1.22/A
$16.33/A ROI
>> 135% return on investment

1 OUNCE = MORE CALORIES THAN 860 POUNDS OF SUGAR

BioMate™ is a highly concentrated mix of complex sugars, including Glucose, Fructose, Sucrose, Maltose and two strands of energy-promoting bacteria. BioMate provides immediate energy to soil microbes and cellular development with the potential of generating up to 201,000,000 calories per gallon of product.

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PRODUCT SNAPSHOT

» Generated sugar = instant activity
» 201,000,000 calories per gallon
» 1 oz. = 1.5M calories
(1 lb. sugar = 1,740 calories)
» Contains: Glucose, Fructose, Sucrose, Maltose plus two strands of energy-promoting bacteria
» Feeds soil microbes and conserves nitrogen
» Detoxifies pollutants and assimilates into cell structure
» Increases permeability of the cell membrane
» Improves chemical residue mitigation in the soil profile
» Increases activity of existing beneficial microorganisms in the soil

RESULTS

» 6 oz./acre applied at R3
» $1.69/acre cost

“By using some of the Biovante products, BioMate being one, it’s allowed us to take some poor productive soils and just make them more fertile.”

– David Hula, 2013 NCGA National Champion
UNLEASH THE POTENTIAL

Incite™ is a revolutionary, flowable, silica compound that protects soil microbes and plant integrity as it develops. Many variables can block or limit soil biological activity, nutrient uptake and plant development. Incite reduces these harmful variables by forming a barrier around soil microbes and their critical nutrients. Silica in the soil allows soil compounds to freely flow for better plant uptake through the root system.

When applied as a foliar treatment, silica will protect developing plants from abiotic stresses, such as heat and lack of moisture. Like sunblock prevents sunburn, Incite will reduce the stress to the plant by creating this protective layer as the plant grows. This allows cell respiration, metabolism and photosynthesis to continue without being slowed down or stopped.

PRODUCT SNAPSHOT

- To date, the ONLY encapsulated silica compound on the market that benefits and increases plant health
- Has the ability to form a layer around soil microbes and critical soil nutrients
- Protects growing plants from abiotic stress, such as heat and lack of moisture
- Silica in the soil allows soil compounds to freely flow for better root uptake

RESULTS

**CORN GRAIN RESULTS AT HARVEST**

<table>
<thead>
<tr>
<th>Control</th>
<th>Incite™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture - 19.43%</td>
<td>Moisture - 16.36%</td>
</tr>
<tr>
<td>Protein - 7.23%</td>
<td>Protein - 4.70%</td>
</tr>
<tr>
<td>Test Weight - 49.3</td>
<td>Test Weight - 53.1</td>
</tr>
<tr>
<td>Phosphorus - 25</td>
<td>Phosphorus - 28</td>
</tr>
<tr>
<td>Potassium - 36</td>
<td>Potassium - 37</td>
</tr>
<tr>
<td>Magnesium - 0.05</td>
<td>Magnesium - 0.00</td>
</tr>
</tbody>
</table>

**RESULTS**

2013 Becks PFR Dawns, IL

- 36,000 harvest population
- 16 oz. @ V5
- $14.88/acre cost

2014 Corn Test Plot, Central Illinois

- 16 oz./acre applied pre-plant
- $14.88/acre cost

2013 Sweet Springs Farm, NC

- Pioneer 3730
- 16 oz. @ V5

+13.1
+16.4
PROTECT YOUR N-VESTMENT

NitroCon™ enhanced efficiency fertilizer is specially formulated to manage nitrogen levels in your soil. When everything you put into your ground has a cost to apply (fuel, time, etc.), your fertilizer should be doing more than fertilize. NitroCon helps block the enzyme urease, which in turn, slows the breakdown of nitrogen. By keeping more nitrogen in the soil, NitroCon reduces the need to add more nitrogen over the long term – reducing your input costs.

PRODUCT SNAPSHOT

» Enhanced efficiency of nitrogen fertilizer
» Keeps nitrogen in the soil longer, slowing denitrification, leaching and volatilization
» Helps block the enzyme urease, slowing the breakdown of nitrogen

PRODUCT SNAPSHOT

» Targeted nutrition for in-furrow corn, soybeans and cotton crops
» Compatible with a wide range of fertilizers and pesticides (jar test recommended)
» Designed to deliver the right nutrition during critical emergence stage

A TARGETED BLEND THAT UNLOCKS GROWTH POTENTIAL

MicroKey (IFC)™ is an in-furrow fertilizer additive, designed for the maintenance of nutrient levels in plant structures – or the correction of known or suspected deficiencies. It includes a mix of targeted micronutrients for use with corn, soybeans and cotton crops. Its unique formulation delivers what these crops require most during the critical emergence stage of growth.

PRODUCT SNAPSHOT

» Targeted nutrition for in-furrow corn, soybeans and cotton crops
» Compatible with a wide range of fertilizers and pesticides (jar test recommended)
» Designed to deliver the right nutrition during critical emergence stage

2014 Corn Test Plot, Central Illinois
224
209.9
215
217
210
209.9
+9.5
+33.5

Control MicroKey(IFC)™

.25 lb./acre in-furrow $3.85/acre cost

2014 Corn Test Plot, Central Illinois
245
209.9
+33.5
+9.5

Control NitroCon™

1 qt./ton with liquid 32%
Let’s grow, together.

Chris Masters
PRESIDENT

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