

FoliarBlend[®]

by  AgriGro

JUST ADD LIFE™



roshni
crop sciences pvt. ltd.



FOLIAR TREATMENT

◆ FOR USE ON ALL CROPS ◆

YOU'RE ALREADY STANDING ON...

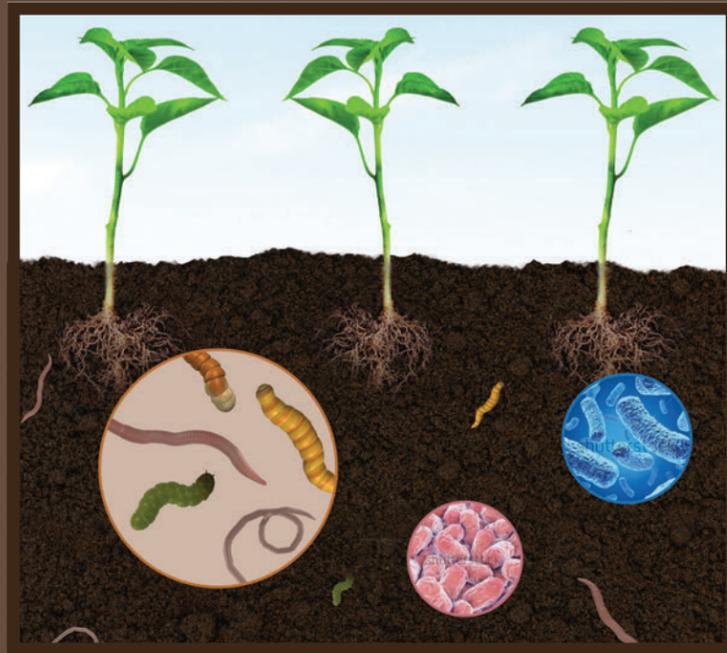
THE KEY TO BIGGER YIELDS AND BETTER PROFITS

To maximize your yield and profit potential, look beyond the standard options to your soil and your plant's biological system.

As you push the limits to get more from every acre of production, it's time to look beyond the standard options like the newest trend in equipment, the latest seed genetics or the hottest chemical that promises to solve your problem. To truly maximize yield and increase profit margin, you must consider the critical role **FoliarBlend®** will play by increasing the population counts of beneficial micro-organisms in your current growing practices. In fact, neglecting this essential component in crop production can lead to many yield problems.

What if you could simply tank mix a product as part of your normal spray program that has a targeted effect on the soil and plant's biological system — one that improves soil structure, promotes healthy soil for better growing conditions, increases fertilizer efficiency, supports vibrant and robust plant growth, and boosts yields? **FoliarBlend®** is designed to do just that and more. It does what chemicals, conventional fertilizer and physical tillage alone can't, and fills a growing void that is missing in today's agriculture.

WHY IS SOIL BIOLOGY SO IMPORTANT?



With permission from **The Soil and Water Conservation Society** (SWCS), the following information are excerpts from the *Soil Biology Primer* and are provided for educational purposes, describing the interaction and importance of a healthy biological soil for different purposes including crop production. The SWCS does not endorse AgriGro®.

For more information, visit the NRCS soil biology site: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/biology/>

How the Food Web Serves the Land Manager

- Fertilizer requirements may decline as a healthy food web efficiently stores and cycles nutrients.
- Nitrates do not leach into groundwater when soil organisms hold nitrogen in the rooting zone.
- Water quality is protected when organisms effectively degrade pollutants.
- More water soaks into soil and can be used by crops as biological activity enhances soil structure.
- Less topsoil is lost to water and wind erosion where soil organisms have stabilized the soil structure.
- Pesticide use can be reduced as disease suppression improves with a healthy soil food web.

Soil and Water Conservation Society (SWCS). 2000. Soil Biology Primer. Rev. ed. Ankeny, IA: Soil and Water Conservation Society.

How Bacteria Enhance Soil Quality

- Feed other members of the food web.
- Decompose organic matter.
- Help keep nutrients in the rooting zone and out of surface and ground water.
- Enhance soil structure, improving the flow of water and reducing erosion.
- Compete with disease-causing organisms.
- Filter and degrade pollutants as water flows through soil.

Soil and Water Conservation Society (SWCS). 2000. Soil Biology Primer. Rev. ed. Ankeny, IA: Soil and Water Conservation Society.

How Fungi Enhance Soil Quality

- Decompose complex carbon compounds.
- Improve accumulation of organic matter.
- Retain nutrients in fungal biomass, reducing leaching of nutrients out of the root zone.
- Physically bind soil particles into aggregates.
- Are an important food source for other organisms in the food web.
- Improve plant growth when mycorrhizal fungi become associated with the roots of some plants.
- Compete with plant pathogens.
- Decompose certain types of pollutants.

Soil and Water Conservation Society (SWCS). 2000. Soil Biology Primer. Rev. ed. Ankeny, IA: Soil and Water Conservation Society.

How Protozoa Enhance Soil Quality

- Release nutrients stored in microbial biomass for plant use.
- Increase decomposition rates and soil aggregation by stimulating bacterial activity.
- Prevent some pathogens from establishing on plants.
- Provide prey for larger soil organisms, such as nematodes.

Soil and Water Conservation Society (SWCS). 2000. Soil Biology Primer. Rev. ed. Ankeny, IA: Soil and Water Conservation Society.

How Nematodes Enhance Soil Quality

- Regulate the populations of other soil organisms.
- Mineralize nutrients into plant available forms.
- Provide a food source for other soil organisms.

Soil and Water Conservation Society (SWCS). 2000. Soil Biology Primer. Rev. ed. Ankeny, IA: Soil and Water Conservation Society.

How Arthropods Enhance Soil Quality

- Improve soil structure through burrowing and the creation of fecal pellets.
- Control disease-causing organisms.
- Stimulate microbial activity.
- Enhance decomposition through shredding of large plant litter and mixing of soil.
- Regulate healthy soil food web populations.

Soil and Water Conservation Society (SWCS). 2000. Soil Biology Primer. Rev. ed. Ankeny, IA: Soil and Water Conservation Society.

How Earthworms Enhance Soil Quality

- Shred and increase the surface area of organic matter, thus stimulating microbial decomposition and nutrient release.
- Improve soil stability, porosity, and moisture-holding capacity by burrowing and aggregating soil.
- Improve water infiltration by forming deep channels and improving soil aggregation.
- Turn soil over, prevent disease, and enhance decomposition by bringing deeper soil to the surface and burying organic matter.
- Improve root growth by creating channels lined with nutrients.

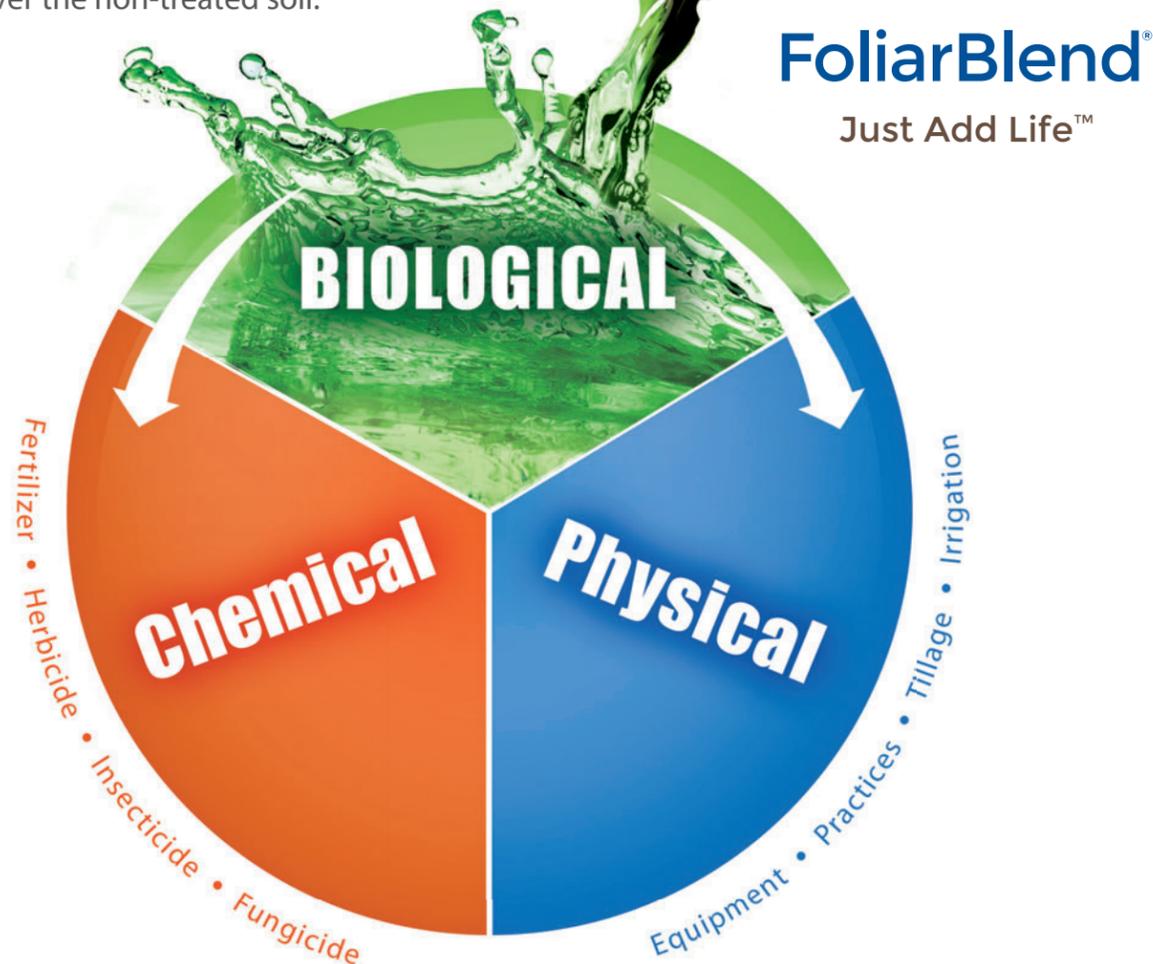
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HOW DOES FOLIARBLEND® HELP IMPROVE YOUR SOIL BIOLOGY? *FIND OUT NEXT...*

THE 3 SOIL PROPERTIES AND THE BIOLOGICAL EDGE

As previously illustrated by the USDA, there are numerous benefits that can be leveraged by having a healthy, biologically active soil.

FoliarBlend's® ability to leverage your growing medium has been proven in multiple studies, where the active ingredients in FoliarBlend® increased existing beneficial microbial (CFU) populations up to 5,000% within 72 hours over the non-treated soil.



In order for growers to maximize their yield and profit potential, they must look beyond the physical and chemical options to their soil and plant's biological systems. FoliarBlend® helps growers create healthier, more balanced soils and plants that produce higher yields with superior quality — all by enhancing the biological aspect of crop production.



IMPACT ON SOIL BIOLOGY

FoliarBlend® is a new generation of technology, containing complex carbohydrates, essential plant nutrients, a proprietary blend of beneficial enzymes, amino acids and a host of nutritional supplements not found in ordinary N-P-K fertilizers.

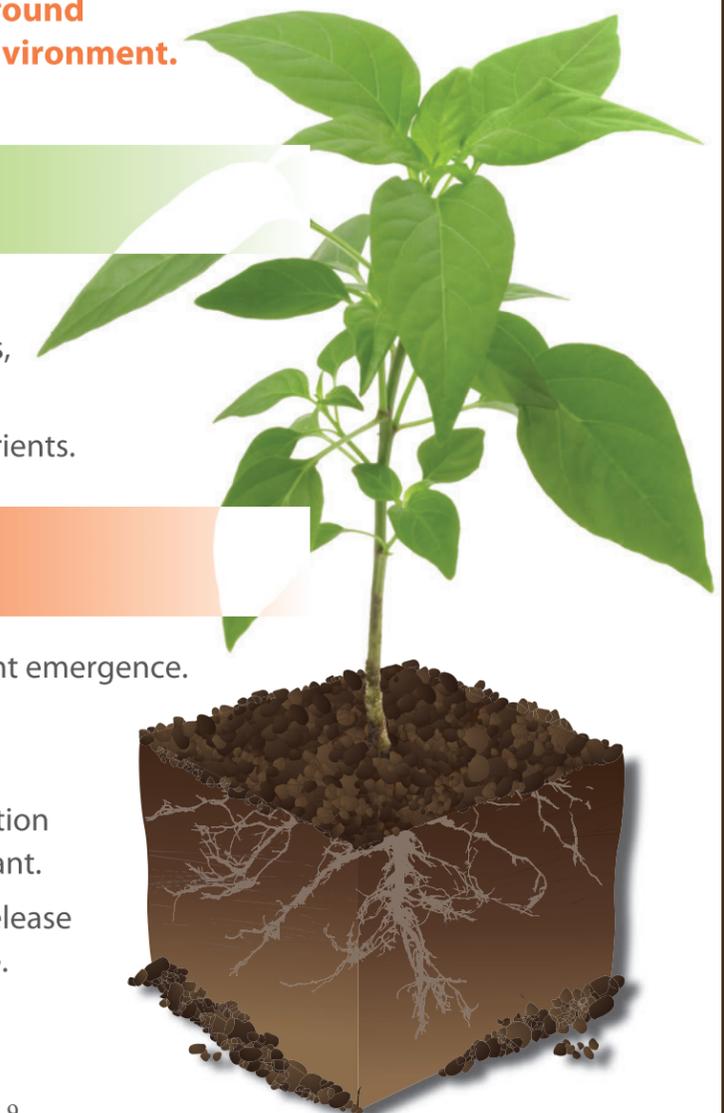
FoliarBlend® technology has a profound effect on both the plant and soil environment.

A HEALTHY BIOLOGICALLY ACTIVE SOIL INCLUDES:

- Balanced population of beneficial fungi, bacteria, protozoa, nematodes, arthropods and earthworms.
- Balance of soil macro and micro-nutrients.

BENEFITS OF A HEALTHY BIOLOGICALLY ACTIVE SOIL:

- Increased seed germination and plant emergence.
- A surge in early and sustained root development.
- Optimized efficiency in water regulation and utilization within the soil and plant.
- Enhanced nutrient mineralization (release of soluble nutrients) for plant uptake.
- Reduced soil pathogens.



FOLIARBLEND® WORKS THE WAY NATURE INTENDED

FoliarBlend® delivers a wide range of benefits for growers who want to create a healthier, more efficient growing environment and maximize their return on investment. University research, as well as independent field trials by growers around the world, show that regular use of FoliarBlend® contributes to better fertilizer utilization, improved plant growth and vigor, increased root development, better soil conditions, less disease and insect pressure, higher yields and better crop quality.

“ I have used FoliarBlend® on our almond transplant trees over the last eight years. With the trees we have treated, we can see to the row that they are taller and healthier with greater trunk mass and more vigor than those not treated, and they produce more yield.

- Randy D.
Central California

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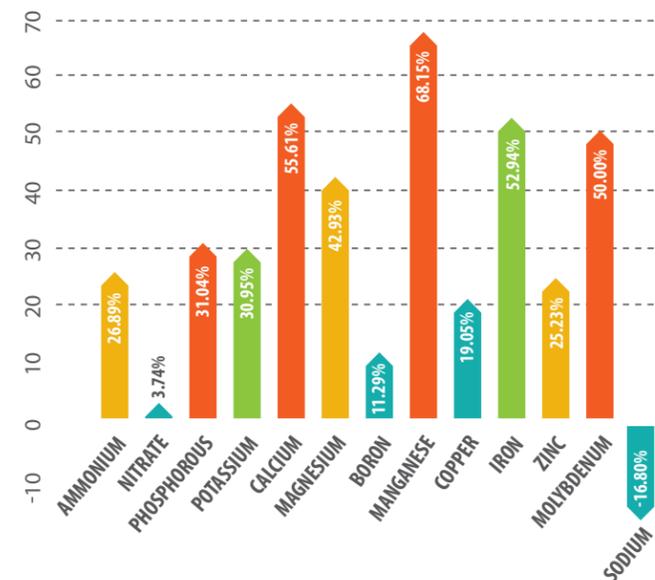
DON'T LEAVE YOUR PROFITS IN THE DIRT!

If your soil is like most, you probably have an abundance of insoluble nutrients that are not available to your crops. **Many of these nutrients are fertilizers you've invested in but are receiving no benefit from.** FoliarBlend® can access these nutrients and put them to work for your crop this growing season.

When soil applied or placed in furrow at planting, **the active ingredients in FoliarBlend® trigger natural biological processes that create an explosion of beneficial microbial growth of up to 5,000% within 72 hours of application.** This increased enzymatic and microbial activity works to release insoluble nutrients in the soil and convert them to a soluble form plants can utilize. By improving the uptake and availability of applied fertilizers and those nutrients presently in the soil, FoliarBlend® helps “Get what you're paying for” out of the soil and into the plant.

This tremendous increase in available nutrients has a direct effect on the growth and development of your crops, resulting in healthier, higher quality plants with better yields. By improving nutrient uptake, the yield and quality of forage and feed crops are also improved considerably. Increases in tonnage of 10 to 20% and relative feed values of 20 to 50 points are quite common with FoliarBlend® on these type of crops.

University testing has proven that when applied broadcast to the soil or placed in-furrow at planting, the active ingredients in FoliarBlend® create significantly higher concentrations of available nitrogen, calcium, copper, potassium, magnesium, manganese, phosphorus, boron, molybdenum, iron and zinc compared to untreated soils. FoliarBlend® also boosts the concentration of these nutrients in the vegetative tissue as well, having a positive result on yield, test weight and quality.



PERCENT OF INCREASE IN NUTRIENT AVAILABILITY USING FOLIARBLEND®

In a detailed University study, the ingredients in FoliarBlend® significantly increased the uptake and availability of 12 macro and micronutrients while lowering the levels of sodium in the soil and plant tissue.

Conclusion: FoliarBlend® not only improves yield and plant growth, but has the potential to reduce environmental pollution by more efficient utilization of fertilizer nutrients and thus the potential reduction of applied fertilizers.

Research conducted by Lincoln University
Jefferson City, MO

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Increased Microbial Activity, Improved Nutrient Cycling and Better Residue Management

In nature, when plants and animals expire, over time they decay with exposure to water, sun, air and the family of naturally occurring micro-organisms called decomposers. However, in most commercially farmed soils, biological activity in the soil has become very low. This leaves partially decomposed organic matter and crop residue to accumulate, minimizing the soil's effectiveness to transfer nutrients and increasing the risk of seedling disease. The result is a greater dependence on applied fertilizers and chemical fungicides to sustain favorable growing conditions.

FoliarBlend® re-invigorates this natural biological process by increasing the populations of indigenous decomposing micro-organisms in the soil.

In fact, research by EMSL Labs, New York, NY, verified FoliarBlend® was able to stimulate microbial activity by 5000% within 24 hours of application. This improves the natural bio-degradation process which allows the earth to recycle itself, resulting in more organic matter and the production of humus, a valuable source of plant nutrition. By stimulating microbial activity, crops benefit from an increase in available nutrients as well as the production of plant beneficial proteins and enzymes, and physical improvements to the soil strata these microbes generate. The plant/soil system becomes healthier and more efficient in its uptake of nutrients, requiring less water and less conventional N-P-K fertilizer to produce higher crop yields.

QUALITY OVER QUANTITY

More of the Good, Less of the Bad

While high microbial populations in a growing environment are important, a better indication of a soil's health and production capabilities are the types of microbes involved. This brings to light another advantage of FoliarBlend®, the ability to elevate the number of beneficial species.



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SOIL BENEFITS

Soils with low levels of microbial activity will not be as productive as those with elevated levels of beneficial micro-organisms, regardless of the amount of fertilizer applied.



- Improves soil structure; tilth, porosity and friability.
- Assists in seed germination and early plant growth.
- Improves development of root systems.
- Improves the availability of resident soil minerals and fertilizer materials.
- Aids in the detoxification of pollutants (chemical residues, salts).
- Improves natural resistance to pests and drought.
- Suppresses soil borne pathogens reducing the need for chemical pesticides and fungicides.
- Minimizes the impact of pH extremes.
- Improves water management within soil.
- Improves crop quality and yields.



FOLIARBLEND® BENEFITS

HEALTHIER SOILS ♦ STRONGER PLANTS ♦ HIGHER YIELDS



“ We farm 3,000 acres of rice, corn, soybeans and wheat and have been using **AgriGro**® products for over 30 years. In the beginning we noticed a significant yield increase. Long term, we have seen our soil texture become more mellow with fewer clods and a lot more earthworms. Disease pressure is almost non-existent and we hardly use any fungicides. Thirty years later, we still see a consistent yield increase with **AgriGro**® products.

- **Lee W.**
Wright Brothers Farms, MO

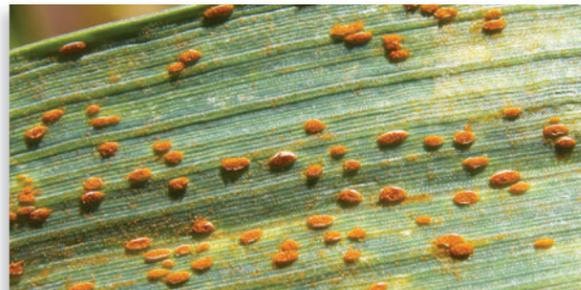


- Better yields, higher test weight and greater crop quality as a result of improved plant nutrition.
- Offsets the negative effect of glyphosate by minimizing “yellow flash”.
- Triggers an explosion of beneficial soil bacteria which speeds up the breakdown of crop residue, builds humus and improves soil structure, drainage and tilth.
- Lowers sodium levels in the soil.
- **Increases healthy indigenous microbial activity in the soil or growing medium with increases of up to 5,000% within 72 hours of application over non-treated soil.**
- Derived from many different types of beneficial bacteria — including aerobic and anaerobic micro-organisms — the product is effective in both well drained and tight soils.
- Improves nutrient release and solubility by up to 60% compared to non-treated soils by speeding up the breakdown and improving the availability of both naturally occurring and applied nutrients. Depending on soil test levels, growers may be able to reduce P & K inputs by 30% and more.
- A source of essential micronutrients, proteins, enzymes, amino acids and complex carbohydrates not available in ordinary N-P-K fertilizers.
- **Supports overall plant development.**
- Can be easily applied in conjunction with other liquid applications, pesticides, herbicides, fungicides and conventional fertilizers through ground, air or fertigation systems.
- Supports plant health, minimizing the effects of weather related stress.
- When stored properly, **FoliarBlend**® has a shelf life of four years without losing effectiveness.



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FACING THE CHALLENGES



Extreme temperatures, adverse weather conditions, disease, insect pressure, inadequate and imbalanced plant nutrition — all of these conditions can rob your crops of the yield and profits you deserve. When applied as part of a good management program, **FoliarBlend[®]** works to keep your plants and the immediate soil environment, “spiked up” with the nutritional supplements required to maximize yield and support plant health.

FoliarBlend[®] simply helps your crop reach its genetic yield potential by boosting plant growth, increasing nutrient uptake, supporting plant health and quality, and building a healthy growing environment. Research has proven that crops treated with **FoliarBlend[®]** are healthier, have improved nutrient uptake and availability, plant growth and higher yields.

FoliarBlend[®] represents a new generation of technology, containing complex carbohydrates, essential plant micronutrients, a proprietary blend of beneficial enzymes, amino acids and a host of nutritional supplements not found in ordinary N-P-K fertilizers. **FoliarBlend[®]** has a profound effect on both the plant and the soil environment.



Performance In The Field

Field tests show that **FoliarBlend[®]**, when added to full or reduced rates of fertilizer, has consistently outperformed full rates of N-P-K alone. Research and grower testimonials also indicate that FoliarBlend[®] is superior to other competitive technologies, especially when comparing its ease of application, impact on yield, effect on growing conditions in the soil, the cost savings received from reduced conventional fertilizer and chemical inputs, and the return on investment from using the product.

COST SAVINGS YOU CAN SEE

FoliarBlend[®] is cost effective for virtually any grower regardless of size. Growers routinely report a profit from **FoliarBlend[®]** from the savings they realize in conventional fertilizer and chemical inputs alone. When you add FoliarBlend’s impact on yield, the financial return can be significant. **In fact, we feel a grower should receive a “minimum” of \$3 returned for every \$1 spent on FoliarBlend[®] or else we are simply not doing our job.** Most growers discover their return to be far greater, especially in high value specialty crops like fruits and vegetables.

“ If you give **FoliarBlend[®]** a fair test, it will prove itself and put more money in your pocket. It pays for itself in a hurry if you use it right.

- **Les Thomas**
Thomas Farms, Butler County, MO



FOLIAR FEEDING

An Important Link to Healthier Plants and Higher Yields

What can you do to maintain top yield potential? The best defense against yield loss and disease is a healthy plant. Maintaining a high nutrient content helps to ensure plant health. Compatible with most conventional liquid fertilizers and chemicals, **FoliarBlend® is an easy way to improve plant growth, yield and quality.** Applications timed before or during key growth stages in crop development or nutrient demand can help plants overcome “hidden hunger,” where nutrient availability falls short of crop demand for top yields.

Plants seldom have all the nutrition or energy they need to maintain all the blooms or kernels they have initiated. Too often, many of the blooms fall off or kernels slough off in the early stages of development and yields suffer. **FoliarBlend®** can help prevent against bloom and kernel loss resulting from inadequate nutrition and support your crops through critical stages of growth for increased yields.

FoliarBlend® can be compared to a multi-vitamin, ensuring the plant is as prepared as possible to respond when stress strikes.

FOLIAR BENEFITS

- Boosts yields and plant health.
- Tank mixes with most all conventional liquid fertilizers and chemicals for easy application.
- Supports optimal photosynthetic activity.
- Improves plant growth.
- Supplies essential plant nutrition for healthier plants.
- Improves overall yields and crop quality.



It's Like a Multi-Vitamin For Plants

It bears repeating, the best defense against yield loss and disease is a healthy plant.

Regular applications of FoliarBlend® support overall plant health. This also improves the plant's ability to better withstand environmental stress.



ENVIRONMENTAL EFFECT

FOLIARBLEND'S IMPACT ON WATER

FoliarBlend[®]
by AgriGro

ECO FRIENDLY.

FoliarBlend[®] is a natural, 100% environmentally friendly product.

ZERO PATHOGENS.

FoliarBlend[®] does not contain pathogenic micro-organisms.

100%

zero

30%

REDUCTION. Real world experience has shown that the addition of FoliarBlend[®] may help reduce water consumption by as much as 30%.

FoliarBlend[®] is designed to safely promote plant growth, improve soil conditions and enhance water conservation.

Real world experience has shown that the addition of FoliarBlend[®] as part of a comprehensive fertilization program may help reduce water consumption in some cases by as much as 30%. While the exact level of water reduction will be affected by many variables, you can count on FoliarBlend's ability to improve the water efficiency of plants in the following ways:

- Supports efficient water uptake and absorption.
- Supports optimal water regulation and retention within the plant.
- Improves porosity, friability and drainage in the soil.



Supports efficient water uptake and absorption.

FoliarBlend[®] increases the availability of phosphorus and other essential plant nutrients in the soil. Phosphorus is important in root growth and development. When root growth is optimized, there is a larger root surface with which to take up water and other nutrients, making the plant more efficient. Providing plants with enough phosphorus to meet their demand allows plants to grow to their fullest capacity, including the most extensive root system they are capable of -- a more robust root system occupies a larger volume of soil, which in turn, increases the volume of water available to the plants.

Supports optimal water regulation and retention within the plant.

FoliarBlend[®] influences other essential plant nutrients making them more available to plants. For example, FoliarBlend[®] increases potassium levels in the plant. Potassium regulates water uptake by controlling transpiration through the leaves. Potassium also helps to move nutrients into and within the plant. Other plant nutrients, such as calcium, influence the thickness of cell walls and also the thickness of the cutin layer on leaves, stems and fruits. The cutin layer is the waxy surface on plants that reduces water loss.

Improves porosity, friability and drainage in the soil.

FoliarBlend[®] increases the porosity of many soils and makes the soil looser. Roots have difficulty penetrating heavy clay soils. FoliarBlend[®] increases the friability (looseness) of soils enabling roots to be longer, deeper, and more branched. This increased root growth increases the surface area of the roots, the volume of soil and amount of water available to the plant. Another aspect of increasing friability is that with increased air space, the water holding capacity of the soil also increases. Thus, there is more water available to the roots in a given volume of soil. As the soil becomes more porous, water more easily drains from the soil. While this would appear to have a negative effect on water conservation for lawns and gardens, it does not. Plant roots require oxygen to grow and thrive. They require oxygen to take up plant nutrients and water. If the soil around the roots is too wet (a condition called "wet feet"), the plants do not have enough energy (from respiration) to take up water and essential nutrients. That is why over-watering can cause a plant to wilt. Poorly drained clay soils tend to become wet and stay wet, making it difficult for plants to take up water. What is needed is a balance between water and air in soil pores. FoliarBlend[®], by increasing friability, porosity, and good drainage, helps increase the water efficiency of plants and contributes to water conservation.



HOW CAN FOLIARBLEND® HELP?

FoliarBlend® contains numerous chelated micronutrients, which can reduce the nutrient tie up effect caused by glyphosate on RR crops. Since the micro-nutrients in **FoliarBlend®** are chelated, it can be tank mixed with glyphosate to minimize “yellow flash” symptoms without reducing the efficacy of the herbicide. For added insurance against “yellow flash” symptoms and resulting yield drag, it is advisable to add AgriGuardian™ Micro Mix to all glyphosate applications. Field trials have shown the combination of **FoliarBlend®** and Micro-Mix can further enhance yield, plant health and crop quality.

Glyphosate kills by shutting down the natural defense system within the targeted weed species. This is done by chelating and making unusable key micro-nutrients required by certain biochemical pathways within the plant.



The ingredients in FoliarBlend® engage and elevate the plant’s natural defense system prior to any period of stress. This makes the plants stronger, healthier and better prepared to fend off disease, weather related stress and other factors that can rob your crop of valuable yield.