



BIOLOGICAL FARM MANAGEMENT SYSTEM™
PRODUCT INFORMATION

NATURAL GROWING THROUGH BIOLOGY



BFMS[®]

BIOLOGICAL FARM MANAGEMENT SYSTEM

ABOUT TAINIO BIOLOGICALS, INC. PRODUCTS

Since 1985 the Tainio Biological Farm Management System (BFMS[®]) has been successful throughout the United States and around the globe in sustainably producing healthy, high yielding crops. We attribute our success to our complete line of superior biological products, and our proven plant nutrition program.

NEEDED

A great deal of research has been, and continues to be conducted in the field of PGPR (as well as other beneficial soil and rhizosphere organisms). This research, combined with years of tests, trials, and sales, has led to the utilization of PGPR to stimulate production, quality, and sustainability for the agricultural community as a whole. Microbes are the soil's digestive system; breaking down organic matter and through humification, building into healthy soil, releasing nutrients to make them available for plant uptake, and eliminating toxins, to name just a few important roles.

COST EFFECTIVE

The BFMS[®] program saves money while helping to grow healthy, high quality, nutritionally balanced crops. BFMS[®] achieves higher crop yields while reducing fertilizer input, and reduces or eliminates the need for chemicals. And it just gets better and better with each year under the BFMS[®] program.

DIVERSE

Other microbial products contain only a few strains of bacteria, and often only produce marginal results. The secret to our success is diversity. Decades of study have resulted in formulas that fulfill many of the diverse roles played by indigenous microbe populations in healthy soils. Tainio biological products contain many and varied species of soil microorganisms, most of which are Plant Growth-Promoting Rhizobacteria (PGPR).

EFFICIENT

All of our microbe products contain hundreds of millions of microbes per gram of carrier. For economical, lightweight shipping and consistent quality and stability, these products come in a dry powdered form. All microbes are grown from pure single species cultures, dried, and then blended into specific formulas.

SAFE

All Tainio Biologicals formulas contain only indigenous and normal inhabitants of natural soils and fresh water. They are classified as non-pathogenic and non-toxic class I agents by the American Type Culture Collection Catalogue.

VERSATILE

Tainio's comprehensive line of products offers a customized program to fit every grower's needs, whether it's for orchards, vineyards, cereal grains, vegetable crops, berries, greenhouse, medicinal herbs, or commercial flowers and ornamentals. With many products listed with OMRI, CDF Organic, and/or the WSDA Organic Program, BFMS[®] products are compatible with all modalities, from conventional to organic.

BFMS® MICROBIAL PROCESS

Tainio Biologicals, Inc.'s microbial products have many and varied species of Soil Based Organisms (SBOs) that are cultured in our laboratory, formulated in sequential order and held in a dry form through suspended animation (like hibernation) for reconstitution and use at a later time. Culturing of these microorganisms is a process of binary fission (division of the cell and exponential growth), by growing the microbes in a liquid media or broth, using a process called submerged fermentation. The microbes are then inoculated into a sterile medium that is placed in an environmentally controlled room where massive growth of the microbes take place. Strict quality control is maintained throughout the process. With each cultured batch, samples are taken and tests are run to check for purity and enumeration of the microorganisms. The dried and ground finished product contains hundreds of millions of beneficial microbes per gram.

Manufacture and quality control/quality assurance of microbial products has become a fine science. The dedication of the Tainio Biologicals team assures the end user that performance of these products are consistent, reliable and evident. **Biological Farm Management** is the result, and soil and plant health are the benefits.

THE MANY ROLES AND BENEFITS OF SOIL MICROBES:

Healthy Plant Growth

- Produce important growth promoting phytohormones
- Reduce and repair damaging effects of plant pathogens

Plant Nutrition

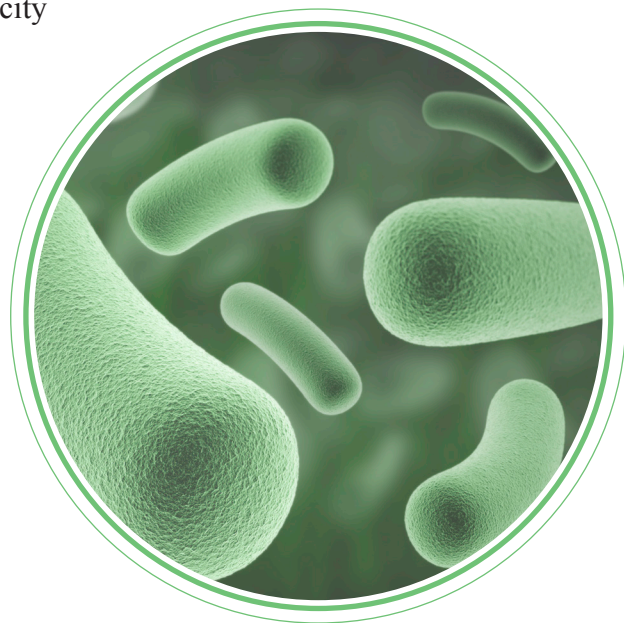
- Increase nutrient availability to plants by conversion of insoluble minerals into available forms
- Fix atmospheric nitrogen
- Phosphate solubilization
- Produce chelating compounds to make iron available to roots

Digestion

- Break down organic debris in soil
- Break down soil toxins

Soil Tilth

- Improve soil structure and water-holding capacity
- Reduce or eliminate erosion and compaction
- Reduce drought stress



A photograph of dark brown soil, likely compost or rich garden soil, piled on a white surface. The soil is clumpy and contains some small roots and organic matter. A semi-transparent brown banner is overlaid on the top right of the image, containing the text "Soil and Seed Inoculants" in white serif font.

Soil and Seed Inoculants

SOIL INOCULANT PRODUCTS

In Nature's sustainable recycling plan, all living organisms must return to their basic forms of mineral and organic matter at the end of their life cycle, through the process of decomposition. In the cycle of life, death and decomposition, dead organic matter is recycled into life-sustaining materials that perpetuate the rich biodiversity of our planet.

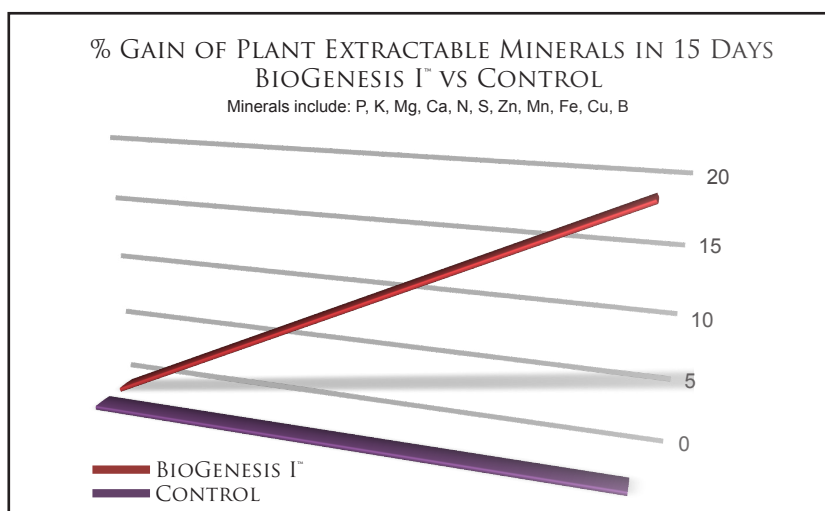
None of this would be possible without microbes, which play a vital role in many life cycles, including carbon, phosphorous and nitrogen cycles.

Tainio Biologicals, Inc.'s mission is to help you create the healthiest, most sustainable and productive soil possible, in which to grow nutritionally balanced food. A close observation of Nature's activities has resulted in the creation of our Biological Farm Management System™ (BFMS®), a complete line of biological products that work to improve crop health, increase yields, and promote healthy soils.

All of our products are built around the principle of multiple microbial inoculation. Multiple microbial inoculation emulates the natural organic processes which occur in the evolution of ecosystems. All efforts made in the past to use single microbe inoculates have met with limited or no success due to the antagonism created within the working system of microbe populations found within the soil. These native microbe species can become restricted in their activities in the presence of mass numbers of single microbial populations.

SOME BENEFITS OF MULTIPLE MICROBIAL INOCULATION:

1. Reduced toxicity levels in soil, which establishes very low stress growth functions in plant growth.
2. Soil microbes break down and release nutrients stored in the mineral particles of the soil, converting these nutrients through a process known as mineralization, which can only take place in the presence of an efficiently functioning ecosystem.
3. Beneficial acids and amino acids (including citric acid, oxalic acid, tartaric acid, malic acid and galactouronic acid) produced through the activities of microbes and other soil organisms dissolve and chelate (make available) mineral nutrients.
4. The conversion/recycling of organic matter, through decomposition, into a key substance known as humus.
5. Soil microorganisms serve in the conversion of most any substance into reusable elements, based on nature's principle that everything living must decompose and be converted into a usable substance in order to preserve and regenerate life. Inoculating with natural microbes assists and speeds up this essential process.



Microbes play a vital role in a plant's ability to extract minerals from the soil. The graph above shows a 19% increase in plant extractable minerals in just 15 days after applying BioGenesis I™.

BIOGENESIS

BioGenesis is the flagship product of the Tainio Biologicals line of microbial inoculants, formulated with a broad spectrum of beneficial microbial populations for optimum soil health, plant growth, and uptake of essential trace elements.

BioGenesis contains a specially formulated microbial support package to maximize the survival and growth rate of the beneficial bacteria to ensure fast and effective root colonization.

BioGenesis is approved for organic use by OMRI and WSDA, and when used as directed, will not clog drip irrigation, sprinklers or spray nozzles.



APPLICATION:

- Row Crops: Apply in seed row at a rate of 1 pound per acre.
- Root Dip: For trees or plants, mix 1 pound of BioGenesis™ and 12.5 oz. of Pepzyme G™ (or Pepzyme Clear for certified organic trees and plants) in 20 gallons of water. Dip roots into solution and plant. For optimum results, let plant roots soak in solution overnight before planting.
- Potted Plants: Mix 1 gram of BioGenesis™ into potting soil mix of each house plant. Each 1 gram treats one 6” pot.
- Potting Mix: Use approximately 10 grams of BioGenesis™ per cubic yard of moderately dry soil mix.

BIOGENESIS III™ SEED TREATMENT

Specially formulated with a mix of specific live beneficial microbes with a minimum microbe count of millions per gram of carrier, BioGenesis III Seed Treatment promotes healthy emergence and greater seedling vigor.

BioGenesis III Seed Treatment comes in a dry powdered form to ensure quality and stability, and for lightweight shipping.



APPLICATION:

- Planter Box: Can be applied dry in seed box at a rate of 56 grams per acre.
- Slurry: Can be applied at a rate of 56 grams per acre. When mixed in liquid form, the material should be used within 4 hours of mixing. When product has dried on the seed, seed can be stored as normal with very little microbe deterioration.



MYCOGENESIS

Mycogenesis™, a sister product to BioGenesis™, contains our best blend of beneficial microbes with added mycorrhizal fungi, and is designed especially for use in root dipping and deep root injection.

What is mycorrhizal fungi?

The term mycorrhizal -- which literally means fungus (myco) root (rhiza) -- refers to the symbiotic relationship between certain fungi and plant roots. These fungi receive sugars from the plant, and in return, aid the plant in the uptake of water and nutrients in the soil.

The mycorrhizal fungi form branch-like structures called hyphae, which extend the surface area of root hairs to provide more access to resources available in the soil. Hyphae are smaller than root hairs, and therefore able to penetrate further into the soil to seek out nutrients and water. When the resources in the immediate area are depleted, the hyphae simply extend further into the soil to find new supplies.

Mycorrhizal fungi + beneficial bacteria

With the increased usable surface area provided to the plant by the mycorrhizal fungi, the plant has greater access to the resources present in the soil; and by adding the Tainio Biologicals, Inc. blend of beneficial bacteria, those resources are broken down through enzymatic action, facilitating easier uptake by the mycorrhizal fungi. The beneficial bacteria also benefit from the enzymes secreted by the fungi. A symbiotic relationship is formed wherein plant, mycorrhizae, and bacteria all benefit and flourish.



Early test results showing the dramatic effects when Mycorrhizal fungi are combined with Tainio microbes.

APPLICATION:

- Potted Plant Drench: Mix 1 gram of MycoGenesis™ into 1 gallon of water. Fully saturate soil with the mixture to ensure good contact with plant roots. Use approximately 10 grams of MycoGenesis™ per cubic yard of soil mix.
- Row Crops: Apply in seed row at planting at a rate of 1 pound MycoGenesis™ per acre.
- Root Dip: For trees or plants, mix 1 pound of MycoGenesis™ in 20 gallons of clean water. Dip roots into solution and plant.
- Root Injection: For trees, mix 1 pound of MycoGenesis™ in 20 gallons of clean water. For established trees, inject 64-128 ounces per tree into the root zone around the drip-line of the tree.
- For Best Results: Add 12.5 oz. of NutraNeed or a Pepzyme™ product for every 1 pound of MycoGenesis™ applied.

RHIZOGENESIS™ ROOT DIP

Designed to give new plantings a running start, RhizoGenesis™ Root Dip is scientifically formulated with our premium blend of plant growth enhancing soil-based microbes, root nourishing mycorrhizal fungi, and super absorbent polymers that serve as tiny moisture-holding sponges. RhizoGenesis™ helps promote strong, healthy root growth and enhances soil microbe metabolism and reproduction by holding vital pockets of moisture around the plant's root zone.

APPLICATION:

For bare root trees, seedling flats, transplants, etc. Mix 1 pound of RhizoGenesis™ and 12.5 oz. of NutraNeed, Pepzyme G™, or Pepzyme Clear™. Dilute with up to 20 gallons of water, as needed to treat 300-600 trees, or plants to cover 1 acre. Dip roots into solution and plant. For optimum results, let plant roots soak in solution overnight before planting. Any remaining solution may be used as a side dress after planting or poured directly onto the soil.

SPECTRUM™

Spectrum™ is specially formulated for fall application in preparation for spring or fall planting, but can be used at anytime and for all crops.

Spectrum™ contains a wide variety of live beneficial soil microorganisms and provides effective multiple microbial soil inoculation.

For best results, use in furrow at the time of planting or incorporate into the soil at time of application, or apply with humate to provide U.V. protection.

Recommended application rate: 50 grams per acre



SPECTRUM + MYCO™

Designed with budget-conscious crops in mind, Spectrum + Myco™ combines all of the powerful plant supporting benefits of Spectrum and mycorrhizal fungi in one convenient package.

Recommended application rate: 155 grams per acre



SPECTRUM DS™

Spectrum DS is designed for use in drought-stressed, high salinity soils. Drought stress greatly impacts plants by reducing yield, crop quality, and the availability of soil nutrients, leading to higher input costs, and lower profits. Blended with an emphasis on organisms that help the plant cope with osmotic stress. Spectrum DS can help mitigate these damaging effects and allow crops to thrive in harsh environments.

Recommended application rate: 50 grams per acre



SPECTRUM PSB™

Phosphorus is an essential nutrient required for plant growth that is generally present in the environment, but largely unavailable for uptake by the plant. Phosphorus that is present in the soil, both naturally and applied through fertilization, tends to dissipate quickly by leaching into water, becoming biologically bound in organic forms, or forming insoluble complexes which the plant cannot process. The phosphorus solubilizing bacteria (PSB) found in Spectrum PSB break down these bound or insoluble forms of phosphorus, making them available for use by the plant.

Recommended application rate: 75 grams per acre



SPECTRUM NFB™

Beyond legumes and the nodules that house rhizobia, another type of Nitrogen Fixing Bacteria (NFB) exist; Free Living NFB. These are organisms that work with all plant types and not just legumes. This unlocks the atmospheric nitrogen into a plant usable form. Spectrum NFB combines the powerful benefits of these robust nitrogen fixing organisms, with the full array of plant growth promoting rhizobacteria (PGPR) that you have already come to rely on from Spectrum, in one easy to use package.

Recommended application rate: 75 grams per acre



APPLICATION OF SPECTRUM PRODUCTS:

- Average application rate: See above
- May be applied to soil by aerial spraying, ground sprayer, shanked in with fertilizer liquids, by furrow or flood irrigation, hand lines or center pivot sprinkler, or sprinkler or drip irrigation.
- Protect from U.V. damage by incorporating immediately, or applying with BFMS® NutraNeed™ or BFMS® Soluble Humate Powder. Pepzyme™ or NutraNeed™ is always recommended with Spectrum™ products to enhance and speed microbe activity.

BIOCAPS™

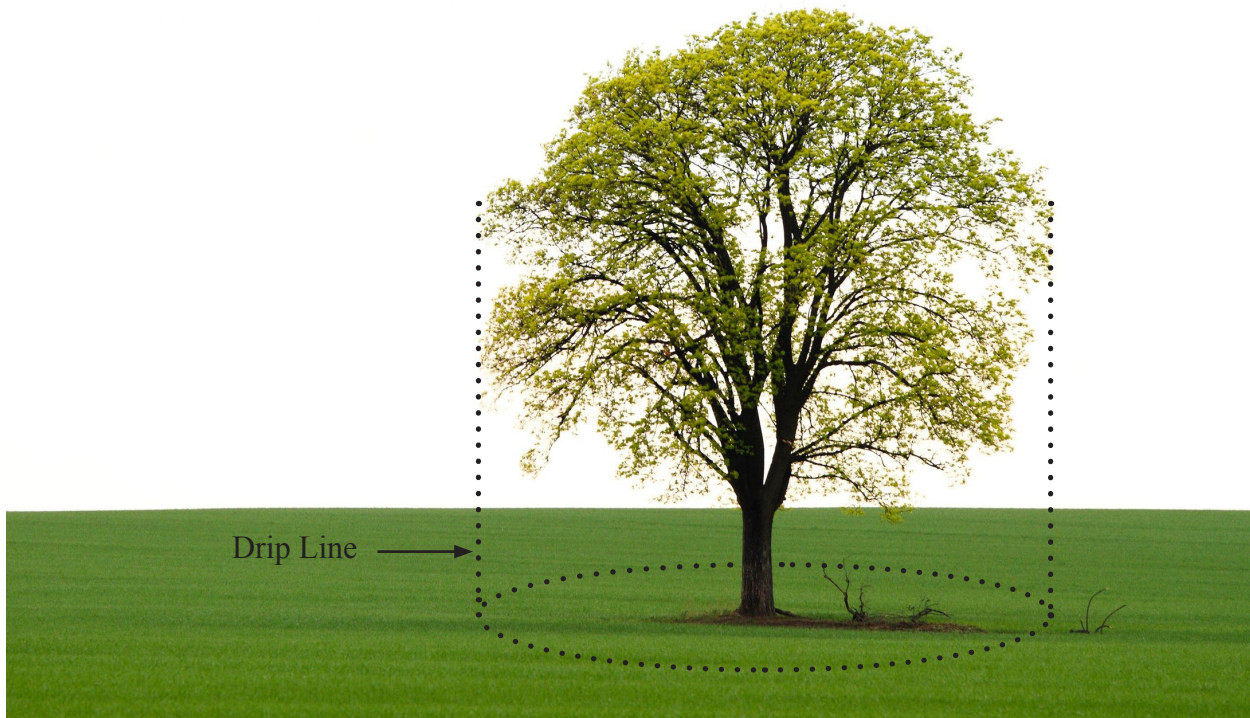
BioCaps™ are water-soluble gelatin capsules that deliver a powerful package of beneficial microbes directly to the root zone of your trees and shrubs, right where they're needed. BioCaps™ contain a special formula designed to generate healthy tree and shrub growth, while helping to build healthy soil.



BioCaps™ are available in a 13 gram size for large trees, and a 2.5 gram size for small ornamentals and shrubs.

APPLICATION:

- 13 gram caps:
Apply 1 capsule 6 inches deep, into soil at the drip line of the tree (2 or more BioCaps may be used depending on the size and health of the tree).
- 2.5 gram caps:
Used around small shrubs and in planter boxes; insert at a shallower depth according to size of the plant (1 capsule is generally used).



BioCaps™ are a part of our BioGarden® line of home gardening products. For more information on this and our other BioGarden® products, please visit our website, www.tainio.com.

A pipette with blue liquid is positioned above several test tubes. The background is a soft-focus laboratory setting. A blue banner is located in the upper right corner.

Enzymes

ENZYME PRODUCTS

Healthy soil contains 8,000-12,000 lbs of living organisms in a single acre. Each one of these organisms carries out many thousands of actions or reactions every day in order to keep itself alive, healthy, and reproducing. Each of these metabolic reactions depends on specialized proteins, called enzymes. Without these enzymes, life would not be possible. Enzymes are not a fertilizer, nor are they live microbes. Enzymes are products generated by all living organisms, including microbes.

Life is an energetic balancing act. Every organism wants to be healthy and reproduce. If energy is diverted to enzyme production, the plant and/or microbe has less energy available for reproduction. By supplementing the soil environment with enzymes, we help to support reproduction and maximize yield.

Our line of liquid enzyme products, called Pepzyme, consists of a wide variety of enzymes and produce a very broad and balanced spectrum of microbe stimulation potential.

PEPZYME G™

Pepzyme G™ (2-13-2) is designed to be applied to canopied crops such as turf, grass seed, and other crop foliage. It may also be applied directly onto the soil. This product stimulates microbes found on the plant foliage and in the soil. Pepzyme G™ is recommended with any BFMS® microbial soil inoculant or root dip for maximum performance.

PEPZYME CLEAR™

Pepzyme Clear™ is an excellent organic alternative to Pepzyme G™.

For use in remediation, see page 19.

NUTRANEED™

NutraNeed™ offers all the benefits of a Pepzyme product, plus humates in one package. It is designed for stimulating native soil bacteria and can be used on all types of crops and soils. NutraNeed™ may be applied to the soil by aerial spraying, ground sprayer, shanked in with fertilizer liquids, through seed drill starter-fertilizer application, through sprinkler systems, or by furrow or flood irrigation.



APPLICATION:

Average application rate: 12.5 fluid oz. per acre

Dilute with sufficient water to get uniform coverage.

Apply just before, during, or immediately after planting for maximum benefits.

Apply to crop residues after harvest, prior to tillage, to promote decomposition and soil improvement.

May be applied to fallow or re-crop ground prior to fall planting, or in preparation for spring crops.

Apply Pepzyme™/NutraNeed™ any time there is adequate moisture available.

Incorporate with shallow tillage to increase effectiveness of digestion.

RECOMMENDED PEPZYME™ APPLICATION

Crop	Pepzyme™ G/Clear/ NutraNeed	Rate	Time
Alfalfa, Grass, Clover	G	12.5 oz/acre	On new crop at planting. Established crops in fall/spring
Peanuts	G	12.5 oz/acre	2-4 leaf stage
Rice	Clear	12.5 oz/acre	2 weeks after transplant
Soybeans	G	12.5 oz/acre	At sowing/2-4 leaf stage
Tuber Vegetables	G	12.5 oz/acre	At planting
Wheat, Barley, Oats, Peas, Lentils, Corn, Beans, Canola	G	12.5 oz/acre	At planting
Fruit, Berries	G	12.5 oz/acre	Soil applied annually
Trees (all types)	G	12.5 oz/acre 1:4000 root dip	Root dip at planting
Organic Applications	Clear/NutraNeed	12.5 oz/acre	Varies by crop

Foliar Nutrition



FOLIAR PRODUCTS

Soil fertility often cannot be amended in time to make effective corrections during one short season. Foliar feeding is a fast and effective way to correct nutrient deficiencies, or supplement any nutrient program as plants are able to absorb nutrients through the surface cells and stomata of their foliage. When applied as a foliar, beneficial microbes increase atmospheric nitrogen and phosphorus absorption rates of the plant leaves, thus reducing the amount of supplemental nutrients needed.

MICRO 5000™ FOLIAR FERTILIZER

Micro 5000™ (5-15-10) Foliar Fertilizer is a soluble dry powder consisting of live beneficial microbes in a carefully balanced nutrient package. Micro 5000™ is designed to be applied to foliage at least once per spring and fall, and ideally several times during the growing season for the development of vegetables and fruit.

A few of the benefits of Micro 5000™ :

- Leaf color is richer, sooner
- Yields tend to increase the first season of use
- Leaf size is larger sooner and stays larger than on other trees
- Fruit set tends to be heavier than average
- The return bloom is greatly improved
- Fruit size is much larger than average
- Produces fruit with longer shelf life and higher nutritional values

APPLICATION:

Average Rate: 75 g - 156 g per acre.

- With agitation or recirculation: Mix soluble powder in spray tank.
- Without agitation or recirculation: Premix before adding to spray tank.

Can be tank-mixed with most other agricultural inputs (consult your dealer). Apply in 10 to 20 gallons of water per acre of foliage, depending on crop type and foliage density, covering foliage with fine mist.

Nutritional support for orchards and crops is most effective when Micro 5000™ is alternated with PZ1000™ every 10-14 days throughout the growing season.

MICRO 5000™ ORGANIC*

Micro 5000™ Organic (0-0-15) Foliar Fertilizer offers the same great benefits of our original Micro 5000™, in an organic form. When using Micro 5000™ Organic on organic crops, do not alternate with PZ 1000™



PZ 1000™ FOLIAR FERTILIZER

PZ 1000™ (4-8-20) Foliar Fertilizer has a broad base foliar nutrient package with an emphasis on potassium. PZ 1000™ is used as a nutrient correction and to enhance flowering and fruit setting.

For best results PZ 1000™ can be alternated with Micro 5000™ every 10-14 days.

This product may be used several times during the growing season for additional nutrient support of the crop. PZ 1000™ is economical, even if used 6 or 8 times throughout the season; the resulting crop yield increase more than justifies repeated applications.

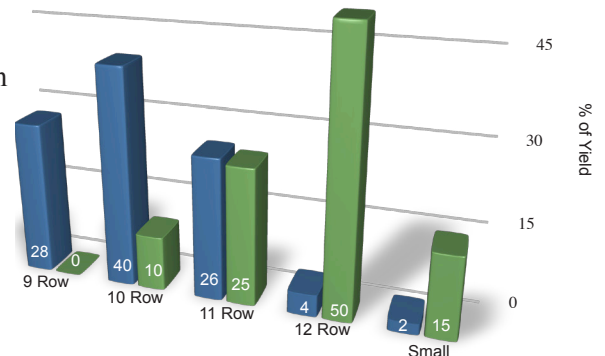
Used as a foliar, the microbial additions to the foliage increases atmospheric nitrogen and phosphorus absorption rates of the plant leaves, thus reducing the amount of supplemental nutrients needed.

CHERRY ORCHARD FIELD TRIAL

BFMS® foliar treated orchard produced 28% premium grade cherries vs. 0% produced by the control orchard. Total production increased by 50% in weight on the BFMS® orchard program.

- 9 Row:** Largest size cherries
- 10 Row:** Large Cherries
- 11 Row:** Medium Cherries
- 12 Row:** Small Cherries
- Small:** Not acceptable size for market

- **BFMS**
The BFMS portion was treated with Micro 5000™ and PZ 1000™ foliar fertilizers.
- **Control**



A close-up photograph of several golden wheat stalks, showing the intricate details of the grain heads and the long, thin awns. The stalks are arranged diagonally across the frame, with some in sharp focus and others blurred in the background. The lighting is bright and even, highlighting the natural texture and color of the wheat.

Crop Stubble/ Compost Digestion

BIODIGESTER™

BFMS® BioDigester™ is a blend of beneficial soil microbes, formulated with an emphasis on cellulose digesting fungi and bacteria.

Field Stubble Digestion:

BioDigester™, a blend of cellulose digester microbes, makes short work of dead plant material left in the field after harvest, breaking down debris into living, humus-rich soil.

BioDigester™ digests most annual crop debris including:

- Wheat
- Corn
- Soybean
- Sugarcane
- Rice straw
- Vegetables
- Hemp

Compost:

BioDigester™ aids in the digestion of compost materials such as rotted manure, grass clippings, and paper products.

Decomposition of organic matter into compost requires blending all of the varying materials collected to provide a balanced food supply for the digester microorganisms. (No single material is sufficient as a balanced food source.)

Nitrogen is the essential element of protein for microbial growth and reproduction, and carbohydrates are required for an energy and carbon source. A shortage of nitrogen rich materials causes slow growth rates of the microorganisms and slows down decomposition due to the lack of high heat needed for both exponential growth of the microbes and decomposition.

Ideally, the carbon to nitrogen ratios of a good compost program should be 30 to 1. The precise amount of either carbon or nitrogen is extremely difficult to ascertain, but knowing proper ratios is not critical as long as the compost is working well and warm. As a general rule, use 2/3 high carbohydrate matter (dry leaves, stems, straw, paper, etc.) to 1/3 green succulent matter high in nitrogen content. Fresh green materials, like weeds or grass clippings, are high in nitrogen content. It is better to put in too much of the nitrogen rich material than not have enough to heat the decomposing matter. However, having an excess of high nitrogen matter causes an excess of gas to be released when the compost is turned.

APPLICATION:

After harvest, mix in water and spray-apply solution to plant debris at a rate of 50 grams per acre, and disc in. BFMS® Pepzyme G™ is recommended in combination with BioDigester™ for best results.

BioDigester™ will only digest dead cellulose material and will not harm live plants.

Bioremediation



BIOREMEDIATION

Photos: A cleanup project in an irrigation lagoon using MicroClear II (now OP-8) and Pepzyme Clear. Results were achieved in approximately six weeks.



Photos courtesy of Lawrence London

OP-8™

OP-8™ contains a powerful blend of beneficial petroleum-digesting soil microbes and specially designed to digest petroleum hydrocarbons and other toxins from contaminated soils and waters. OP-8 assists nature in achieving the biological balance needed to ease the pressures of excessive and toxic contaminations.

When applied to a lake or pond, OP-8 assists the natural microbial balance needed to ease the pressure of excessive contamination. When the efficient natural systems begin to work, microbe populations and natural distributions return to normal levels. As the nitrogen and phosphate levels return to normal, the water begins to clear and assimilation of the organic materials once again comes into balance.

OP-8 can be used on lakes, ponds, watering troughs, aquariums, animal manure pits, and sewage lagoons to digest organic debris and tie up mineral elements, which at higher concentrations cause excessive growth of toxic bacteria and organic matter.



APPLICATION:

Soil application: Apply at a rate of 2.5 pounds (1,134 grams) mixed with 20 gallons of water per acre of surface area, and spray apply to surface of contaminated area. Incorporate into soil immediately.

Water application: Apply at a rate of 255 grams per acre of pond surface area in enough water for adequate coverage.

To prevent plugging: Spray with large size (60 gpm flood jet) nozzle.

For best results:

Apply OP-8™ with Pepzyme Clear™ at a rate of 1 gallon (128 oz) per acre or 87 mls/1,000 sq. ft.

PEPZYME CLEAR™

Pepzyme Clear™ is a high quality, stable enzyme product designed specifically to be used in conjunction with OP-8™ for water cleanup. This product has low toxicity to humans and is safe to handle when used as directed.



APPLICATION:

Average Rate: For remediation purposes, apply at a rate of 1 gallon per surface acre.

For farm use, please see page 12.

PRODUCT LIST

<u>PRODUCT</u>	<u>APPLICATION RATE</u>	<u>AVAILABLE SIZE</u>
BioCaps™ 13 gm	1 Cap per tree	Pkgs of 5 & 25 capsules
BioCaps™ 2.5 gm	1 Cap per shrub/small tree	Pkgs of 16 & 50 capsules
BioDigerster™	50 grams per acre	1 ac., 5 ac., 10 ac., 25 ac., 100 ac.
BioGenesis™ *O,C,W	454 grams (1 pound) per acre	1 ac., 5 ac., 10 ac., 25 ac.
BioGenesis III™ Seed Treatment* ^O	28 grams per 100 pounds of seed	1 ac., 5 ac., 25 ac., 100 ac.
Carbo II™	0.5 pound per acre	1 lb., 5 lb., 10 lb., 25 lb.
Micro 5000™	75 grams per acre	2 ac., 5 ac., 10 ac., 25 ac., 100 ac.
Micro 5000™ Organic* ^{O,C,W}	75 grams per acre	2 ac., 5 ac., 10 ac., 25 ac., 100 ac.
MycoGenesis™ * ^O	454 grams (1 pound) per acre	1 ac., 5 ac., 10 ac., 25 ac.
NutraNeed™ * ^W	12.5 fluid ounces per acre	5 ac., 10 ac., 25 ac., 50 ac.
OP-8™ * ^O	2.5 pounds per acre	1 lb., 5 lb., 10 lb., 25 lb.
Pepzyme™ Clear* ^W or G	12.5 fluid ounces per acre	5 ac., 10 ac., 25 ac., 50 ac.
PZ 1000™	75 grams per acre	2 ac., 5 ac., 10 ac., 25 ac., 100 ac.
RhizoGenesis™ Root Dip	1 pound per acre	1 ac., 5 ac., 10 ac., 25 ac.
Spectrum™ * ^{O,C,W}	50 grams per acre	1 ac., 5 ac., 10 ac., 25 ac., 100 ac.
Spectrum DS™ * ^{O,C}	50 grams per acre	1 ac., 5 ac., 10 ac., 25 ac., 100 ac.
Spectrum + Myco™ * ^O	155 grams per acre	1 ac., 5 ac., 10 ac., 25 ac., 50 ac.
Spectrum NFB™ * ^{O,C}	75 grams per acre	1 ac., 5 ac., 10 ac., 25 ac., 100 ac.
Spectrum PSB™ * ^{O,C}	75 grams per acre	1 ac., 5 ac., 10 ac., 25 ac., 100 ac.

*O = OMRI Listed for Organic Use

*C = CDFA Registered Organic Input Material

*W - WSDA Registered for Use in Organic Agriculture



APPROXIMATE APPLICATION RATE BY VOLUME

PRODUCT	10,000 SQ. FT.	1 ACRE
BioDigester™	4 tsp	1/3 cup
BioGenesis™	3/4 cup	3 cups
Carbo II™	6 tbsp	1 1/2 cups
Micro 5000™	1 tbsp	1/4 cup
Micro 5000™ Organic	1 tbsp	1/4 cup
MycoGenesis™	3/4 cup	3 cups
NutraNeed™	6 tbsp	1 1/2 cups
Pepzyme G™	6 tbsp	1 1/2 cups
Pepzyme Clear™	6 tbsp	1 1/2 cups
PZ 1000™	4 tsp	1/3 cup
RhizoGenesis™	3/4 cup	3 cups
Spectrum™ /Spectrum DS™	2 tbsp	1/2 cup
Spectrum + Myco™	1/3 cup	1 1/4 cups
Spectrum PSB™ /Spectrum NFB™	3 tbsp	3/4 cup

Helpful Conversions:

1 Dry Ounce = 28.35 Grams

8 Fluid Ounces = 1 Cup

1 Acre = 43,560 sq ft

1 Hectare = 2.47 Acres

Measurements are only approximations for your convenience. Due to the nature of the product, density, and therefore volume, may vary. For greater accuracy, please measure by weight rather than volume.



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