STRONG MICROBIALS

Strong Microbes for a Stronger World

PRODUCT CATALOG

Strong Microbials® delivers sustainable microbiological solutions to improve agricultural processes and conserve resources.

Version Two - 2023

Contents

About Us

HISTORY

Milwaukee, WI | Est. May 2012

Strong Microbials®' vision is to help shape the future so that the world's population will be healthy and strong, its ecosystems prosperous and stable, and its resources plentiful and renewable. Sustainable agriculture is essential for healthy livestock, abundant food production, and necessary for human health and the stimulation of world economics.

Our company is independent and locally owned. We are based in the old historic "Milk Plant" building in Milwaukee, Wisconsin. We are honored to be part of Milwaukee's rich manufacturing history. While still the land of beer and fermentation, Milwaukee was once one of the great industrial cities of the world. We are proud to make our products here and help restore our city's tradition of manufacturing. We say with great enthusiasm, "Made in the USA".

Our ingredients are locally sourced, thoroughly vetted for quality assurance, and chosen based on highly researched outcomes. University studies have proven the efficacy of microbes to help fight pathogens and promote health. We have taken this knowledge from the lab and into the field with premium probiotic mixes, high-end crop preservatives, soil, seed, and root amendments. Our most popular product is SuperDFM®-Honeybee™, chosen by America's largest commercial beekeepers to support their hives' health.

From scientists, who are also beekeepers

American Beekeeping Federation member since **2015**

STRONG MICROBIALS

Strong Microbes for a Stronger World

CONTACT US

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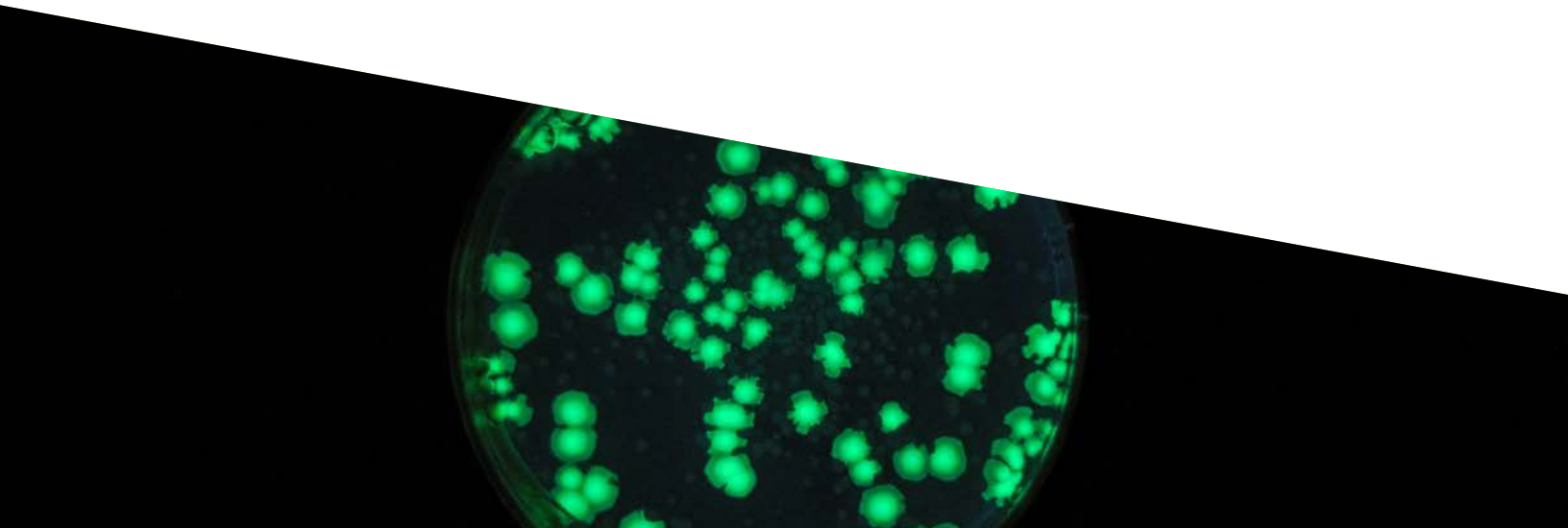
SuperDFM® Products

Probiotics help digest food and produce energy.

- Steer
- Equine
- Dairy
- Poultry
- Sheep
- SuperDFM®-Honey Bee™
- Goat
- SuperDFM®+P801™
- Swine
- SuperDFM®Extend™



DFM FAQs

Probiotics are considered growth and health stimulators.

1 What age can I feed probiotics?
All products can be fed to any age animal. Make sure to follow the dosage instructions.

2 How can I administer this?
DFMs can be fed dry with your feed or mixed with the water supply. Please follow instructions listed on the package.

3 Why should I use this?
DFMs are biological supplements that help to overcome many challenges, working from the inside of the gut to promote healthy animals. Benefits include improved feed conversion, better absorption of nutrients, and improved digestion.

4 Why do animals need probiotics?
Probiotics promote digestive tract health and support gut microbiome functions.

5 How often should I feed probiotics?
Probiotics can be fed right after birth. Daily doses are ideal, but probiotics will benefit the animal most during times of stress and after antibiotic treatment.

✓ SuperDFM® is the key to strong livestock performance

✓ SuperDFM® works from the moment it is applied

✓ SuperDFM® is safe for all animals

SuperDFM®-Steer

Probiotic supplement for feedlot cattle mixed into milled feed or used to top dress the feed.

Guaranteed Analysis:

Total Lactic Acid Bacterial Count (minimum): 1.0 x 10^{10} CFU/g
(L. casei, L. acidophilus, E. faecium)

Total *Propionibacterium* Count (minimum): 2.5 x 10^{9} CFU/g *(P. freudenreichii)*

Ingredients:

Sucrose, Dried *Propionibacterium freudenreichii fermentation* product, Dried *Lactobacillus acidophilus* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Dried *Bacillus subtilis fermentation* product, Dried *Bacillus licheniformis* fermentation product, Dried *Lactobacillus casei* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

56 Applications
112 Applications
224 Applications

SuperDFM®-Steer contains *Bacillus subtilis, Bacillus licheniformis, Bacillus amyloliquifaciens*. In a 2009 study, Wehnes et al. showed that scouring calves treated with Bacillus DFM experienced less severe scours and had decreased scours recurrence. Bacillus DFM reduced therapeutic costs in scouring calves.

SuperDFM®-Steer contains *Lactobacillus acidophilus and Propionibacterium freudenreichii*. In a 2015 study, Wisener et al. showed that feeding beef cattle *Lactobacillus acidophilus* and *Propionibacterium freudenreichii* lowers pathogenic E.coli shedding.

SuperDFM®-Dairy

Propionic acid bacteria, lactic acid bacteria, *Bacillus* probiotic supplement for dairy cows.

Guaranteed Analysis:

Total Lactic Acid Bacterial Count (minimum): 1.0 x 10^{10} CFU/g
(L. casei, L. acidophilus, E. faecium)

Total *Propionibacterium* Count (minimum): 2.5 x 10^{9} CFU/g *(P. freudenreichii)*

Ingredients:

Sucrose, Dried *Propionibacterium freudenreichii* fermentation product, Dried *Lactobacillus acidophilus* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Lactobacillus casei* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

56 Applications
112 Applications
224 Applications

SuperDFM®-Dairy contains *Enterococcus faecium* and *Lactobacillus plantarum*. Studies by Oetzek et al. 2007 and Nocek et al. 2003 showed that *Enterococcus faecium* and *Lactobacillus plantarum* increase milk yield and milk fat and reduces antibiotic treatment.

SuperDFM®-Sheep

All-natural probiotic supplement for sheep; can be fed to goats.

Guaranteed Analysis:

Total Lactic Acid Bacterial Count (minimum): 1.0 x 10^{10} CFU/g
(L. casei, L. acidophilus, E. faecium)

Total *Propionibacterium* Count (minimum): 2.5 x 10^{9} CFU/g *(P. freudenreichii)*

Ingredients:

Sucrose, Dried *Propionibacterium freudenreichii* fermentation product, Dried *Lactobacillus acidophilus* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Lactobacillus casei* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

56 Applications
112 Applications
224 Applications

SuperDFM®-Goat

Probiotic supplement for goats

Guaranteed Analysis:

Total Lactic Acid Bacterial Count (minimum): 1.0 x 10^{10} CFU/g
(L. casei, L. acidophilus, E. faecium)

Total *Propionibacterium* Count (minimum): 2.5 x 10^{9} CFU/g *(P. freudenreichii)*

Ingredients:

Sucrose, Dried *Propionibacterium freudenreichii* fermentation product, Dried *Lactobacillus acidophilus* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Lactobacillus casei* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

56 Applications
112 Applications
224 Applications

SuperDFM®-Equine

All-natural probiotic supplement for horses.

Guaranteed Analysis:

Total Lactic Acid Bacterial Count (minimum): 1.0 x 10^{10} CFU/g
(L. casei, L. acidophilus, E. faecium)

Ingredients:

Sucrose, Dried *Lactobacillus reuteri* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Dried *Lactobacillus casei* fermentation product, Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

56 Applications
112 Applications
224 Applications

Benefits of SuperDFM® Equine:

Restore stomach health after antibiotics
Alleviate stress during travel
Aid in digestion and maintaining weight
Healthier, shinier coat
Reduce diarrhea
Stronger hooves

SuperDFM®-Swine

Probiotic supplement for pigs

Guaranteed Analysis:

Total Lactic Acid Bacteria 1.0 x 10^{10} CFU/g
(L. casei, L. acidophilus, E. faecium, L. plantarum)

Ingredients:

Sucrose, Dried *Lactobacillus acidophilus* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Dried *Lactobacillus casei* fermentation product, Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

56 Applications
112 Applications
224 Applications
2,000 Applications

SuperDFM®-Poultry

Can be fed to all chickens, broilers, layers, turkeys, ducks, geese, guineas, pheasants, quails, and silkies.

Guaranteed Analysis (Commercial):

Total Min. Lactic Acid Bacterial Count: 5.4 x 10^9 CFU/g
(P.acidilactici, L. acidophilus, E. faecium, L. plantarum, L. reuteri)
Total Min. Yeast Count: 2.0 x 10^8 CFU/g *(S.cerevisiae)*

Guaranteed Analysis (Backyard):

Total Min. Lactic Acid Bacterial Count: 1.6 x 10^9 CFU/g
(P.acidilactici, L. acidophilus, E. faecium, L. plantarum, L. reuteri)
Total Min. Yeast Count: 1.0 x 10^8 CFU/g *(S.cerevisiae)*

Ingredients:

Sucrose, Dried *Pediococcus acidilactici* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Lactobacillus acidophilus* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Dried *Lactobacillus reuteri* fermentation product, active dry yeast *(Saccharomyces cerevisiae),* Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product

Sizes:

23.2 lb (Commercial) - One scoop = 5 grams. Use 4 scoops per 1000 birds for the first 5 days of life. Then use 1/2 scoop per 1000 birds daily until market.

135 g (Backyard) - One scoop = 0.75 grams. For chicks, dilute 1 scoop per quart of drinking water daily. For adult birds, use 1 scoop per 1 gallon of drinking water daily.

Poultry Science Association's 2009 review of DFM trials in poultry production demonstrated

- ✓ **Improved BW gain**
- ✓ **Decreased morbidity**
- ✓ **Decreased incidence of bird and human pathogens**
- ✓ **Increased economic profitability**

Premium Probiotics for Honey Bees

Created by Scientists

#1 *Lactobacillus acidophilus*

Induces immune response in honey bees, characterized by increased expression of antimicrobial peptide abaecin.[1]

#4 *Lactobacillus plantarum*

helps detoxify pesticides such as neonicotinoid imidacloprid.[4]

#7 *Bacillus pumilus*

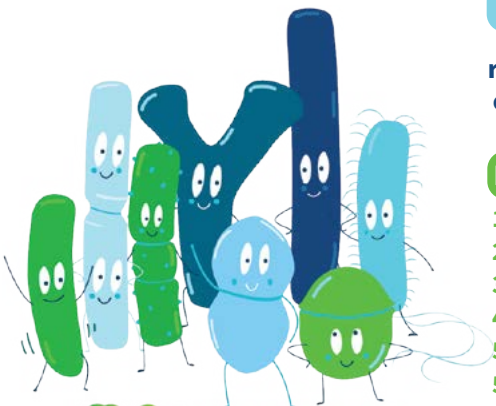
can survive for long periods of time in harsh environments, then **inhibit growth of multiple pathogens.**[7]

#2 *Enterococcus faecium*

can be scarce in the honey bee environment because of its high susceptibility to pesticides such as glyphosate and chlorpyrifos. *Enterococcus* bacteria found in bee bread produce bacteriocin-like **inhibitory substances against multiple pathogens.**[2]

#5 *Bacillus subtilis*

is a "fungistatic" microbe, meaning it **prevents the growth of molds and other undesirable fungi,** including *Ascosphaera apis,* **which causes chalkbrood disease.**[5.1] Feeding *Bacillus subtilis* has a **strong positive effect on honey bee colony health and performance.**[5.2]



STRONG MICROBIALS

Strong Microbes for a Stronger World

#3 *Bifidobacterium bifidum*

digests dietary polysaccharides and **produces B vitamins: thiamine, riboflavin, and folic acid.** Feeding *Bifidobacterium bifidum* to honey bees **increased their fat levels.**[3]

#6 *Bacillus licheniformis*

secretes secondary metabolites, which **inhibit the growth of pathogens** such as *Paenibacillus larvae.*[6]

#8 *Pediococcus acidilactici*

rescues honey bees from the adverse effects of pesticides and pathogens.[8]

SuperDFM®-HoneyBee™
7 Probiotic Bacteria
Original All Season formula

SuperDFM®+P801™
8 Probiotic Bacteria
Protection Against Pesticides

SuperDFM®Extend™
3 Probiotic Bacteria
Formulated for Bee Feed

MADE IN USA AMERICAN PRODUCT

StrongMicrobials.com

Based on Peer-Reviewed Studies

1. Evans and Lopez 2004
2. Audisio et al. 2005
3. Kaznowski et al. 2004
4. Daisley et al. 2017
5.1 Reynaldi et al. 2004
5.2 Sabaté et al. 2012
6. Alippi and Reynaldi 2006
7. Reynaldi et al. 2004
8. Peghaire et al. 2020

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HoneyBee FAQs

1

Is feeding microbes to bees natural? Why should we give probiotics to the bees?

SuperDFM®-HoneyBee™ ingredients are naturally occurring microbes, produced using fermentation of natural ingredients. In nature, honeybees naturally acquire billions of microbes in their gut and ingest naturally occurring microbes in resources they collect (water, nectar, and pollen). Microbes ferment and preserve bee bread and help digest proteins and carbohydrates in the honeybee gut. Additional microbes acquired through probiotic supplementation support healthy balance in the gut and provide nutritional benefits.

2

Can SuperDFM®-HoneyBee™ be applied frequently? Is it possible to apply too much?

SuperDFM®-HoneyBee™ is safe to use, and there are no adverse effects if you use more than the recommended application. SuperDFM-HoneyBee contains powdered sucrose or sugar, but it is not a substitute for bee feed.

3

Can I mix Super DFM®-HoneyBee™ into pollen patties?

No, we do not recommend mixing SuperDFM®-HoneyBee™ in any prepared food for honeybees, as moisture will lower the efficacy of lactic acid bacteria in the product. Our Extend™ product can be used for pollen patties and syrup.

4

If I feed SuperDFM®-HoneyBee™ to a nucleus colony, do I give less than recommended application?

No, SuperDFM®-HoneyBee™ application size does not change whether the bee colony is small or large. If the colony is rapidly growing or you are splitting the colony, feed SuperDFM®-HoneyBee™ more frequently (ex. 2-3 weeks apart).

5

Can I put unopened packages of Super DFM®-HoneyBee™ in the freezer over winter and take them out the next year and use them?

Yes, you may certainly do so. It will work very well for the preservation of SuperDFM®. Make sure to seal the bag before freezing.

6

Has anyone ever use Super DFM®-HoneyBee™ for *Nosema*/bee dysentery?

Yes, we do recommend SuperDFM for mitigating *Nosema*. Many of our customers achieve controlling *Nosema* spores below an economic threshold of 1 million spores per bee, and prevent nosemosis outbreaks, with an application of SuperDFM®-HoneyBee™ every 30 days.

SuperDFM®-HoneyBee™

The world's first probiotic for honey bees.

Guaranteed Analysis Commercial:

Total Lactic Acid Bacterial Count (minimum) 1.5 x 10^9 CFU/g
(*L. acidophilus, E. faecium, L. plantarum*)

Total Yeast Count (minimum) 1.0 x 10^8 CFU/g *(S. cerevisiae)*

Contains over **7.5 Billion CFUs** (Colony-forming Units) of **LAB** (Lactic Acid Bacteria) per serving.

Guaranteed Analysis Hobbyist:

Total Lactic Acid Bacterial Count (minimum) 1.0 x 10^9 CFU/g
(*L. acidophilus, E. faecium, L. plantarum*)

Total Yeast Count (minimum) 1.0 x 10^8 CFU/g *(S. cerevisiae)*

Contains over **10 Billion CFUs** (Colony-forming Units) of **LAB** (Lactic Acid Bacteria) per serving.

Ingredients:

Sucrose, Dried *Lactobacillus acidophilus* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Bifidobacterium bifidum* fermentation product, Dried *Lactobacillus plantarum* fermentation product, active dry yeast *(Saccharomyces cerevisiae)*, Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Bacillus pumilus* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

Hobbyist:	Commercial:
10 Applications	2000 Applications
50 Applications	5000 Applications
100 Applications	50,000 Applications
1000 Applications	100,000 Applications

Benefits include:

- ✓ Maximize Nutrition
- ✓ Support Brood Buildup
- ✓ Strengthen Immunity

Easy to use!
Just sprinkle on top of the brood frames, or use our MicroCloud(™) DFM applicator.

Feed dry; monthly.

Keep in cool, dry place for up to 5 years.

SuperDFM®+P801™

Now with *Pediococcus* for even stronger pesticide protection

Guaranteed Analysis:

Total Lactic Acid Bacterial Count (minimum) 2.0 x 10^9 CFU/g
(L. acidophilus, E. faecium, L. plantarum, P. acidilactici)

Total Yeast Count (minimum) 1.0 x 10^8 CFU/g *(S. cerevisiae)*

Contains over **10 Billion CFUs** (Colony-forming Units) of **LAB** (Lactic Acid Bacteria) per serving.

Ingredients:

Sucrose, Dried *Lactobacillus acidophilus* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Bifidobacterium bifidum* fermentation product, Dried *Lactobacillus plantarum* fermentation product, Active dry yeast *(Saccharomyces cerevisiae)* product, Dried *Bacillus subtilis* fermentation product, Dried *Pediococcus acidilactici* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Bacillus pumilus* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:

50 Applications

500 Applications

2500 Applications

5000 Applications

Feed Before, During, and After Commercial Pollination for the Best Pesticide Protection

SuperDFM®+P801™ is a powerful blend of 8 beneficial bacteria specifically **formulated for commercial pollinators' exposure to pesticides.**

Exciting new research shows that Pediococcus rescues honey bees from the adverse effects of pesticides.

***Decreased boscalid + thiamethoxam mortality from 41% to 15%!**

*Peghaire et al. 2020

MicroCloud™

Apply SuperDFM® in seconds with MicroCloud™ air compressor attachment

SuperDFM®Extend™

Bacillus based probiotic for Bee Feed

Guaranteed Analysis:
7.5 Billion CFUs per serving
Total *Bacillus* Count (minimum): 1.5 x 10^9 CFU/g *(B. subtilis, B. licheniformis, B. pumilus)*
Contains over **7.5 Billion CFUs** (Colony-forming Units) of **LAB** (Lactic Acid Bacteria) per serving.

Ingredients:
Sucrose, Dried *Bacillus subtilis* fermentation product, Dried *Bacillus licheniformis* fermentation product, Dried *Bacillus pumilus* fermentation product, Dried *Bacillus subtilis* fermentation extract

Sizes:
100 Applications
2000 Applications

Directions: Use 5 grams / 1.5 teaspoon / 1 scoop per hive.

Feeding Options:
Add 5 grams Extend per 1 gallon of bee feed/syrup,
or 5 grams Extend per 1 pound of pollen substitute,
or dust Extend powder over the top of the brood frames.

Add to Supplemental Feedings
- During spring buildup and splits
- Before stressful events
- 7-10 days after antibiotic treatments
- Do not overheat (130°F)

SuperDFM®Extend™ is the newest advancement in probiotic coverage. Made of 3 hardy, long-lasting *Bacillus* bacteria. Extend™ is tough enough to be added to liquid bee feed!

"Researchers demonstrated that *Bacillus subtilis* isolated from honey and bee gut have antimicrobial activity against *Paenibacillus larvae* and *Ascosphaera apis*, important honey bee pathogens." Reference: Sabaté DC, Carrillo L, Audisio MC. Inhibition of *Paenibacillus larvae* and *Ascosphaera apis* by *Bacillus subtilis* isolated from honeybee gut and honey samples. Res Microbiol. 2009 Apr;160(3):193-9.

Use 1.5 teaspoons/5 grams per hive

When you can't feed **SuperDFM®** monthly, **Extend™!**

SuperDFM®Extend™ is a hardy blend of 3 long-lasting *Bacillus* bacteria.

These three hardy *Bacillus* bacteria have been scientifically shown to inhibit the growth of molds, fungi, and pathogens.

• Only 5 grams of **SuperDFM®Extend™** contains a concentrated amount of bacteria - **7.5 Billion CFUs (colony-forming units) per serving!**

• Do not overheat (above 130°F)

Probiotics are essential during spring buildup, stress, and when supplemental feeding is necessary.

SuperDFM®-HoneyBee™

Dry Feed Every 30 Days

SuperDFM®-P801™

Feed Before, During & After Pollination

SuperDFM®-Extend™

Add to Supplemental Feed

biomantra™

BioMantra™ Soil, **Root**, and **Seed**, also known as **soil probiotics**, biologicals, microbials, and soil inoculants, are powerful tools for soil restoration which **feed and stimulate microbial activity** creating **healthy soil and resilient plants**. Healthy, **microbe-rich soil** thirstily **absorbs water, minimizing run-off** and **standing water**. **Better yield, drought resistance, and nutrient uptake** are just the short-term benefits of using BioMantra Soil. The long-term includes healthier soil that is more **disease-resistant for stronger crops**.

BioMantra ™ Soil microbes pull nitrogen and carbon dioxide from the atmosphere and increase the ability of the soil to retain water and carbon.

BioMantra ™ Seed can be mixed with any type of seed to help with uniform germination. Studies show that even a 24-hour delay in germination across plantings can decrease crop yields by up to 18%.

BioMantra ™ Root contains essential microbes, enzymes, humic acid, and mycorrhizal fungi that help roots dig deeper, be more fibrous, access more nutrition, and increase drought tolerance and recovery!

BioMantra ™ Commercial is a combination of the specialized bacteria in BioMantra™ Soil and BioMantra™ Root to give growers an advantage and alternative to chemicals and fertilizers. This boosts fertilizer and unlocks trapped NPK for increased nutrients and yields.

BioMantra™ Soil

Ingredients: *Azotobacter chroococcum, Bacillus megaterium, Frateuria aurantia, Bacillus subtilis,* Humic acids (Potassium Humate), Seaweed extract (*sargassum weightii*), Protein hydrolosates (non-GMO origin), Dextrose (microbial food)

BioMantra™ Seed

Ingredients: *Azotobacter chroococcum, Bacillus megaterium, Frateuria aurantia, Bacillus subtilis*, Dextrose (microbial food)

BioMantra™ Root

Ingredients: *Paenibacillus azotofixans, Bacillus megaterium, Bacillus subtilis, Glomus mosseae*, Humic acids (Potassium Humate), Seaweed extract (*sargassum weightii*), Ascorbic Acid (non-GMO origin), Thiamine (Vitamin B1), Dextrose (microbial food)

BioMantra™ Commercial

Ingredients: *Azotobacter chroococcum, Bacillus megaterium, Frateuria aurantia, Bacillus subtilis Paenibacillus azotofixans, Glomus mosseae,* Humic acids (Potassium Humate), Seaweed extract *(Sargassum weightii),* Protein hydrolosates (non-GMO origin), Dextrose (microbial food), Ascorbic Acid (non-GMO origin)

Soil health starts with naturally restoring beneficial microbes.

BioMantra™ FAQs

1 Are BioMantra™ products compatible with pesticides/herbicides?

BioMantra™ products are compatible with pesticides/herbicides.

Avoid using BioMantra™ products five days before and after fungicides which may harm the microbes.

Avoid spraying during bad weather conditions.

2 What are storage recommendations for BioMantra™ products?

Use before expiration date printed on product labels.

Store in a cool and dry space.

Avoid exposure to direct sunlight and heat source.

3 In what sizes are BioMantra™ products available?

All BioMantra™ products are available in convenient 1.1 lb, 22 lb and 50 lb packages. Can also be available in bulk packages for larger applications.

10 oz. BioMantra Seed treats 5 acres.
- Use 1/4 cup (2 oz) per acre.
- 5 applications per bag.

1 lb. BioMantra Soil treats 8,000 sq ft.
- Use 1 oz (4 scoops) per gallon per 500 sq ft.
- 16 applications per bag.

25 lb. BioMantra Soil treats 5 acres.
- Use 5 lb per acre.
- 5 applications per pail.

1 lb. BioMantra Root treats up to 3 acres.
- Use 1 scoop (1/4 oz) per 2,000 sq ft.
- 64 applications per bag.

20 lb. BioMantra Root treats up to 64 acres.
- Use 5 oz per 1 acre.
- 64 applications per pail.

Uses

Greenhouses: Be able to treat and have your plants flourish without the need for extra chemicals. BioMantra™ will help flowering and green plants thrive for a fuller-looking landscape or arrangement.

Home turf management: Add BioMantra™ in with your new and current grass seeding or plantings to see a wonderful lawn sooner. This is a safe pet-friendly product that can help get your landscape looking its best.

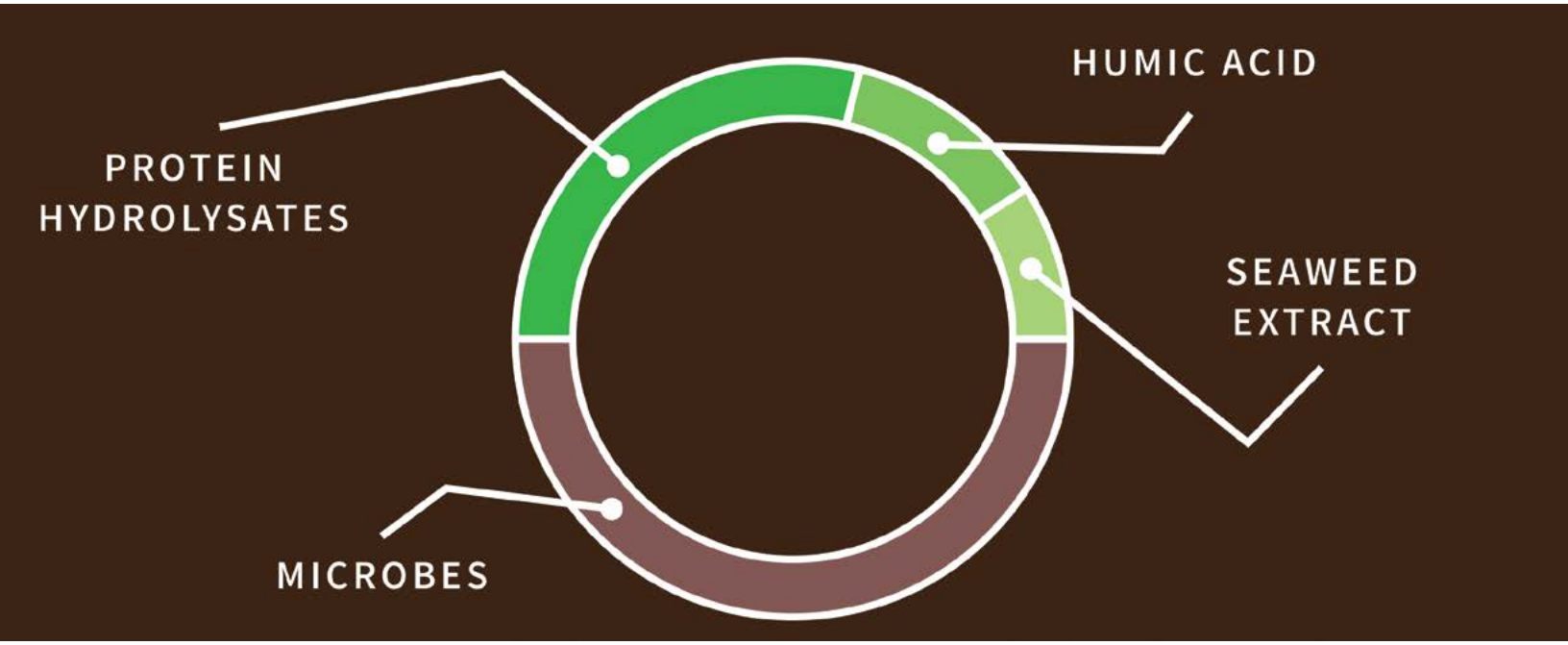
Vegetable/Fruit growers: See a better return for your hard work. BioMantra™ bacteria products help use the nutrients in the soil for beneficial plant use. An added benefit is drought and disease resistance. Improves the nutritional value of your crops.

Schools: Maintain your grounds and fields without the added chemicals. Biomantra™ will help turf and plantings thrive with the aid of safe and natural bacteria. Worn areas will come back to life sooner and stay healthy with heavy use.

Golf: Have greener greens and lusher fairways without the need for extra chemicals or fertilizers. Apply BioMantra™ Soil 2 times a year in your sprinkler system or with a broad-spectrum spreader. Biomantra™ helps break down the nutrients that are locked in the soil so they can be better used by the plant. Healthier plants allow for a better green system to combat against diseases and drought. Healthier plants also will regenerate faster against damage and rough use from divots and traffic.

City parks: Make your city look healthy without concern of negative chemical effects on people and animals. Use BioMantra™ for great-looking parks, playground facilities, greener cityscapes, and sports fields. Less waste, less chemical use, and a budget-friendly solution for your city. This can be applied with your spring and fall fertilizers.

BioMantra™ Soil is the best way to release the NPK that is trapped in your soil.



Humic Acid - High in organic carbon; increases cation exchange capacity, mineral chelation and soil porosity.

Seaweed Extract - Support cell division, shoot initiation and shoot development; helps in flowering and seeding.

Protein Hydrolysates - Contains amino acids from vegetative origin.

Produced using **Protein Hydrolysis**.

PLANT NUTRIENT CONTENT

Sample ID	Control	BioMantra
Nitrogen	2.07	2.72
Phosphorus	0.36	0.59
Potassium	1.69	2.44
Magnesium	0.43	0.40
Calcium	0.73	0.82
Sulfur	0.15	0.21
Sodium	0.002	0.001
Iron	76	98
Manganese	23	38
Boron	8	8
Copper	8	12
Zinc	22	22

Stage of growth: R4

Use it yearly in the spring along with your spring fertilizer mix.
You can also apply in your planter box.

Agriculture Uses

The fate of your crop is in the ground you plant. A single teaspoon of fertile soil contains millions of bacteria and fungi – elements essential to plant life. BioMantra™ biologics naturally enrich your soil with the bacteria and fungi necessary to help your crops thrive. Bacteria stimulate roots to grow deeper which facilitates carbon return and creates more porous soil for better water retention. BioMantra™ Soil releases the NPK trapped in your soil for immediate plant uptake, allowing your crops to become more disease and drought-resistant. BioMantra™ Seed enables uniform germination, resulting in a better yield and healthier crop. **A healthy plant starts with healthy soil.**

Short term benefits: Better yield, higher drought and disease resistance, deeper roots, better nutrient uptake

Long-Term Benefits: Self-sustaining soil, less fertilizer and chemical dependence, healthier plants, more carbon, less compaction, best ROI, decreased inputs

Best used on corn, soybeans, cranberries, potatoes, hemp and any other large-scale crop.

Improves the nutritional value of your crops.

SuperSile® Products

Get more out of your operation.

All SuperSile® Inoculants have a specific blend of bacteria and enzymes that are the solution to a better crop. From added animal nutrition, less dry matter loss and improved daily gain, Strong Microbial®'s products are all-natural, non-GMO, and safe for all animal species. We offer some of the most highly concentrated inoculant with fewer fillers. SuperSile® was designed to flow through any application system, giving you better coverage and less downtime on your operation.

Forage
Forage LB+
Organic Forage
Organic Forage LB+

Dry Hay
Dry Hay LB+
Organic Dry Hay
Organic Dry Hay LB+

Silage
Silage LB+
Organic Silage
Organic Silage LB+
SilageSuper LB+

High Moisture Corn
High Moisture Corn LB+
Organic High Moisture Corn
Organic High Moisture Corn LB+
High Moisture Corn Super LB+

Dry
Dry LB+
Dry Concentrated
Dry Concentrated LB+

SuperSile® FAQs

1 **Why use SuperSile®?**
We have 4 strains of bacteria that cover the entire fermentation cycle. Our added enzymes assist the animal in producing more. Our inoculant does not plug up applicators. We have less filler so you can do more work with less product.

2 **How do I apply?**
We offer both Dry and Water Soluble. They may be applied with any brand applicator.

3 **Can I apply too much?**
No. Over-application will not harm the crop or burn it out. There are no chemicals or harmful additives to SuperSile® Inoculant.

4 **How much do I apply?**
Please refer to the mixing charts available at the end of this catalog or on our website.

Benefits include:

✓ Faster fermentation allows the feed to retain more nutrients and preserves them for animal use

✓ 5% more milk

✓ 3% improved Dry Matter recovery and Feed Efficiency

✓ 5% average daily gain

✓ Treating your feed will cut down on feed costs

SuperSile® Forage

Available in **50, 100 and 200 ton** foil packages.

Forage

Lactic acid bacteria 150,000 CFU/Gram crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

Forage LB+

Lactic acid bacteria 150,000 CFU/Gram crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic Forage

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 150,000 CFU/Gram crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic Forage LB+

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 150,000 CFU/Gram crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

SuperSile® Silage

Available in **50, 100, 200 and 500 ton** foil packages.

Silage

Lactic acid bacteria 100,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

Silage LB+

Lactic acid bacteria 100,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic Silage

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 100,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic Silage LB+

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 100,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

Silage with Super LB+

Lactic acid bacteria 400,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

SuperSile® Dry Hay

Available in **50 and 100 ton** foil packages.

For use up to 26% moisture

Dry Hay

Lactic acid bacteria 170,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

Dry Hay LB+

Lactic acid bacteria 170,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic Dry Hay

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 170,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic Dry Hay LB+

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 170,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

Dry Hay is safe for all animals. It will not turn hay colors.

SuperSile® High Moisture Corn

Available in **50 and 100 ton** foil packages.

High Moisture Corn

Lactic acid bacteria 200,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

High Moisture Corn LB+

Lactic acid bacteria 200,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic High Moisture Corn

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 200,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

Organic High Moisture Corn LB+

Certified by MOSA and OCIA. This contains all the same bacteria and enzymes as our regular products with a organically derived sucrose and without the added artificial coloring.

Lactic acid bacteria 200,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

High Moisture Corn with Super LB+

Lactic acid bacteria 400,000 CFU/gram of crop *(L. buchneri, L. plantarum, E. faecium, P. acidilactici, L. casei)*

SuperSile® Dry

Available in **50 pound** bags.

SuperSile® Dry

Lactic Acid Bacteria, not less than 150,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

SuperSile® Dry LB+

Lactic Acid Bacteria, not less than 150,000 CFU/gram of crop *(L. plantarum, L. buchneri, E. faecium, P. acidilactici, L. casei)*

One bag treats 50 tons of forage or small grains OR 70 tons of corn silage OR 25 tons of Dry Hay at 18-21% moisture OR 25 tons of Hi-moisture Corn.

Apply at the following rates:

Forage - 1 pound per ton
Corn Silage - 0.7 pounds per ton
Dry Hay - 2 pounds per ton
Hi-Moisture Corn - 2 pounds per ton

SuperSile® Dry Concentrated

Available in **40 pound** bags.

SuperSile® Dry Concetrated

Lactic Acid Bacteria, not less than 500,000 CFU/gram of crop *(L. plantarum, E. faecium, P. acidilactici, L. casei)*

SuperSile® Dry LB+

Lactic Acid Bacteria, not less than 500,000 CFU/gram of crop *(L. plantarum, L. buchneri, E. faecium, P. acidilactici, L. casei)*

Treats 200 tons of haylage, or 100 tons of Hi-moisture corn.

Apply at the following rates:
Forage or silage - 0.2 pounds per ton
Hi-Moisture corn - 0.4 pounds per ton

iManure

Manure Digestant Product

Guaranteed Analysis:

2.0 x 10^{10} CFU/g

Ingredients:

Sucrose, Dried Bacillus subtilis fermentation product, Dried Bacillus amyloliquifaciens fermentation product, Bacillus licheniformis fermentation product, Bacillus pumilus fermentation product.

Sizes:

5.51 lbs- 50 packs - Treats 2.5 million gallons

22.04 lbs - 200 packs - Treats 10 million gallons

Benefits of iManure:

Pump faster and easier with iManure products. Less agitation, clumping and smells means cutting down on equipment and labor for pumping, agitation and irrigating. Less solids also means a larger storage capacity.

Bacillus bacteria work on methane, ammonia, and hydrogen sulfide to cut down on odor both in the pit and during transport or application. Less odor can also aid in reduced fly and pest population. This can also result in happier neighbors!

With a more liquid manure, soil absorption will be quicker with less run-off and better nutrient retention in the field.

Strong Microbials® helps bees, farmers, and the planet through the power of microbes.

Thank you for your business.

Our company is dedicated to helping farmers and beekeepers by applying scientific discoveries to overcome modern challenges. We offer safe solutions that help you achieve the best end results and return on your hard work and investment. Our company is family owned and small enough that every employee understands that the success of our company is tied to the success of our customers.

Every batch of our inoculants and DFMs is tested and exceeds label specifications. Our customer service phones are available 24/7. We offer real solutions to everyday problems and search for biologic responses to overcome problems anticipated on the horizon.

Strong Microbials® is Safe Feed, Safe Food Certified.

This means that our practices and products are upheld to the highest quality and scrutiny. We inspect and certify all production activities, ingredients, and suppliers.

The Safe Feed/Safe Food Certification Program establishes comprehensive standards of excellence that go beyond existing regulations to maximize food and feed safety. Excelling at every aspect of feed production is “Our Responsibility, Our Promise” to regulators, customers, and consumers.

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