# environmentally Friendly Aggacallatione

products

THE US

www.MicrobeLift.com

Unmatched biotechnology provides full circle treatment benefits for barns, pits, lagoons, fields and crops, significantly enhancing manure management at all levels of manure containment. Microbe-Lift products provide multiple benefits for barn environments, pit conditions, manure value, odor-abatement and crops.

- Odor control in barn and field (including ammonia and hydrogen sulfide)
- Manure liquefaction (consistent top to bottom)
- Solids reduction (surface crust and bottom solids)
- Crop enhancement (includes greater yields with no additional input)

Microbe-Lift is a breakthrough in microbiology once thought impossible to achieve. Designed with a diverse consortium of bacterial cultures, these products provide unparalleled results throughout the manure management process.



Providing Environmental Solutions Since 1976

## Performance Counts! No aeration, no sludge boats, just superior biotechnology

MICROBE-LIFT treatments are designed specifically to resolve environmental issues in barns, manure storage pits, lagoons, and field application of manure. There is no other technology like it in the world. These products will help you achieve unmatched results in the barn and pit, rapid and sustainable odor control, improved manure value and a healthier, safer farm environment. No competitive product offers the same comprehensive set of benefits. Designed by scientists and tested on the farm, the Microbe-Lift line of agricultural products supports and improves the entire cycle of manure management.



60 days after start of treatment, had heavy surface and bottom solids

Starting with a solid surface, two weeks after start of treatment. See bubble reactions indicating biological activity.





**120 days after treatment -** pond is clean and clear!

To receive our brochure on MANURE HANDLING please ask your Microbe-Lift representative for Item# POPCATMANURE.



#### **The Microbe-Lift Promise**

Our technology team is constantly improving Microbe-Lift formulations to provide you with the best products to improve your profitability and the environment.

MICROBE-LIFT's consortium of purple sulfur, non sulfur, heterotrophic, phototrophic and autotrophic cultures are proven to reduce gas-generating reactions that result in carbon dioxide emissions via dark phase, light independent microbial processes. This novel technology resolves most, if not all, manure storage problems within barn environments and reduces land-applied manure odor, improves nitrogen retention and helps controls runoff resulting in improved nutrient management while providing enhanced soil and crop benefits.

# **MICROBE-LIFT BENEFITS**

- Odor Reduction barn, pit and field
- Pit Liquefaction
- Solids Reduction surface crust and bottom solids
- Ease of waste removal reduced to no agitation
- Consistent manure values top to bottom improved, consistent manure value
- Nutrient retention in biomass
- Reduced odor attracts fewer insect pests
- Promotes animal growth as a result of reduced stress
- Improves feed conversion efficiency
- Increased weight gain through improved feed conversion
- Mortality reduction as a result of improved health
- Eliminates field streaking due to poor liquefaction and consistency
- Control runoff by improving nutrient retention
- Improves biological activity in soil to enhance root and crop growth



The Ecological Laboratory Team



Ecological Laboratories State-of-the-Art Facility



#### All products are 100% natural, non-toxic, non-pathogenic, and biodegradable.

# Microbe-Lift<sup>®</sup>/HOG ODOR AND SOLIDS REDUCER

#### Specially formulated for MANURE PITS over slatted floors, outdoor manure lagoons and vertical holding tanks.

Using natural biological activity, Microbe-Lift's 100% natural and beneficial bacteria will breakdown organic buildups and convert them into a liquid slurry. This results in easier pump-outs.

#### Specific Benefits:

- Easy to apply.
- Environmentally friendly.
- Non-acidic, non-corrosive.
- Lowers free nitrogen levels.
- Liquefies organic solids.
- Reduces/eliminates surface crust.
- Keeps manure in a pumpable slurry.
- Promotes a cleaner and healthier environment and can lower death rates.
- Lowers odors in the barn during winter months, when there is not enough ventilation.
- Lowers odors in outdoor lagoons in the summer and when pumping.
- Increases fertilizer value vs. oxidizing agents ex:  $H_2O_2$  or  $KMnO_4$  which reduces fertilizer value.



# Microbe-Lift<sup>®</sup>/SA-AG SLUDGE AWAY FOR AGRICULTURE

Speeds up the removal of surface solids and bottom sludge naturally.

Designed to be used with MICROBE-LIFT®/Hog and MICROBE-LIFT®/DFP (Dairy) to handle the most difficult manure management issues.

#### Specific Benefits:

- Easy to apply.
- Environmentally friendly
- Organic and microbial based
- Reduces/eliminates surface crust.
- Binds phosphate and helps with the liquefaction and nutrient enhancement of manure
- Provides rapid, natural sludge and muck removal and works 80% faster than competitive products.





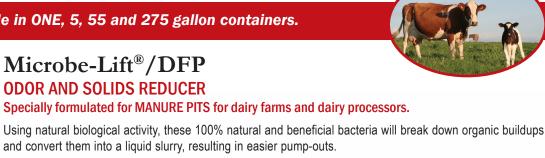
# Microbe-Lift<sup>®</sup>/OC ODOR CONTROL

#### Specifically designed to control manure odor in agricultural applications.

MICROBE-LIFT/OC binds odor molecules, including hydrogen sulfide, ammonia and other odorous compounds associated with the gaseous reaction that takes place in contained manure environments.

#### Specific Benefits:

- Easy to apply.
- Safe for humans, pets, plants, crops, trees and the environment.
- Organic and microbial based
- Binds odorous compounds.
- 100% reactive cellular matter
- Humic-fulvic-acid bio-stimulants



#### **Specific Benefits:**

- Easy to apply. Environmentally friendly.
- Non-acidic, non-corrosive.
- Lowers free nitrogen levels.
- · Reduces solids and increases capacity.
- Reduces/eliminates surface crust.
- · Breaks down whey from milk as well as fats.
- Lowers noxious odors.
- Safe for all livestock.
- Can be used in lagoons, pits, and waste holding tanks.
- Keeps manure in a pumpable slurry.
- Promotes a cleaner and healthy environment and can actually lower death rates.
- Increases fertilizer value vs. oxidizing agents. ex: H<sub>2</sub>O<sub>2</sub> or KMnO<sub>4</sub> which reduces fertilizer value.
- Lowers odors in the barn during winter months, when ventilation is reduced to retain heat.
  - Lowers odors in outdoor lagoons in the summer and when pumping.

# Microbe-Lift<sup>®</sup>/AOE-P **ODOR ELIMINATOR**

#### Specially formulated for POULTRY Production Facilities

MICROBE-LIFT/AOE-P utilizes biotechnology to maintain a cleaner, healthier environment for poultry houses and yards.

#### **Specific Benefits:**

 Reduces atmospheric ammonia concentration and associated toxicity by reducing ammonia gas generation from manure in litter. • Improves health and increases poultry production rate.

• Provides utility cost savings.

Reduces odors.

Accelerates degradation of litter wastes.

• Increases the nutrient value of the litter for composting.

• Effective on all types of poultry waste (turkey, chicken, duck, etc.).

Reduces ammonia emission from chicken manure.

# Microbe-Lift<sup>®</sup>/Nutri-Pack MICRONUTRIENTS FOR BENEFICIAL BACTERIA

#### Optimizes function of most beneficial bacteria, including nitrifying and denitrifying bacteria

MICROBE-LIFT/Nutri-Pack contains the full complement of essential minerals and micronutrients required by almost all beneficial microorganisms, especially nitrifying and denitrifying bacteria.

#### **Specific Benefits:**

- Ready to use.
- Safe for animals, aquatic life and plants.
- Supplies cofactors that enhance activity of enzymes produced by microorganisms.
- Insures that beneficial bacteria and other microorganisms in your pond, lagoon or wastewater system will function optimally in all types of environments and conditions.







# **Microbe-Lift Agriculture Products**

# Microbe-Lift<sup>®</sup>/BPCC BIOLOGICAL POULTRY COMPOSTING CONCENTRATE

A Specialized Blend of Microbes Formulated for Composting Poultry Bedding Specific Benefits:

- Speeds compost time
- Achieves compost temperature rapidly
- Aids in pathogen reduction
- Cycles ammonia to atmosphere during composting
- Reduces manure content
- Easy-to-apply liquid Non-acidic & non-corrosive
- Non-chemical, non-toxic, safe biological agent

# Microbe-Lift<sup>®</sup>/BDLC BIOLOGICAL DIGESTER LIQUID CONCENTRATE

# A Specialized Blend of Soil Microbes for a Value-Added Compost Specific Benefits:

- Contains known environmental isolates
- No GMO, no enzymes or chemical agents

No fertilizer added

• Safe for to humans, environment, plants and animals





# Microbe-Lift<sup>®</sup>/Algaway 60

# **CHEMICAL ALGAE ELIMINATOR**

Formulated for decorative, irrigation and retention ponds, water hazards and fountains

MICROBE-LIFT/ALGAWAY 60 eliminates most planktonic and filamentous algae quickly and efficiently so there is no plugging of irrigation lines and pumps. Do not use when fish are present.

## Specific Benefits:

- Safe for irrigation, turf, and shrubs
- EPA Registered

**Please note:** Algaway 60 is not available for sale, use or distribution in New York state

Generic dosage rates are provided on every label. However, since most agricultural systems are different we suggest you contact your Microbe-Lift distributor for dosage rates as well as application instructions for your system.

The following testimonials are just a few examples of the hundreds of letters we receive from farms using MICROBE-LIFT manure treatment products.

# Ben Hollingshead - Three Brothers Farms LLC

My name is Ben Hollingshead. I am a co-owner of Three Brothers Farms LLC. We operate a 4,800 head wean to finish hog barn for Cargill Pork in central Iowa. We started using MICROBE-LIFT/ HOG and MICROBE-LIFT/SA (Sludge Away) products after we had experienced severe foaming problems in our pit, and a fire due to a result of the foaming. We had used another pit product before using Ecological Laboratories' MICROBE-LIFT products to try to take care of our pit problem. The difference with Ecological Labs' products is that they really look at the entire system and formulate products that do not just treat the bottom solids in our pit but also add in a consortium of aerobic and facultative bacteria that are critical for the health of the ENTIRE pit.

Within a few weeks of the first application we noticed a difference in the appearance and smell of our pits. However, the true dealmaker was when we pumped the pits in the spring after only two and a half months on the program. Our custom applicator was absolutely amazed at the way the manure pumped. The consistency, texture and smell of the manure completely sold us on the products.

Furthermore, as the growing season continued it was clear that the crops were more even from the application, there were no waves or streaks in the fields that we had seen before when we do our fly over aerial imagery. We are very anxious to harvest the corn from the field that we spread on because I really think we will see a yield increase simply from the better nutrient availability in the manure from using ecological labs pit products. If that is not enough proof that MICROBE-LIFT works. Our barn air quality has greatly improved and we went the ENTIRE summer with absolutely no flies. We are extremely satisfied with all the products and the service we receive and will continue to use the products.

Ben Hollingshead - co-owner Three Brothers Farms LLC

# August 15, 2011- Swartz Family Farm

We farm 400 acres and for the past 12 years have been a contract finisher with Country View Family Farm operating a 2180/head finishing hog barn with a deep pit volume of 8,000,000 gallons. We have used Microbe-Lift Hog for approximately 9-10 years. We had surface crusting, which resulted in a fly problem and bottom solids. We have seen improvement in less crusting and lower fly population, which results in better herd health and lower mortality. Our service person has told us our barn has performed better than other similar barns. While a hog barn will always have odor, there is less odor in our barns and we really noticed less odor in the field application. The manure certainly is more consistent from the first load to the last load out. Unaware that we were using a product our manure hauler noticed the consistency immediately when we first started using the MICROBE-LIFT/Hog. While we have not done any trials we believe there is better nitrogen utilization by the crops. I believe MICROBE-LIFT is a good tool in the overall management of the barn. I recommend Microbe-Lift Hog.

Delbert Swartz, owner Swartz Family Farm

# **Testimonials for Microbe-Lift Agriculture Products**

# Matthew L. McClellan - McClellan Farms Inc.

For several years now I have used a combination of MICROBE-LIFT/Hog and Sludge Away products in my facilities that I own and operate with my family. McClellan Farms Inc. consists of 2 x 2,100 head finishing operations, and 1 x 8,800 nursery operation in Bradford County, Pennsylvania. The three buildings combined give us close to 2.5 million gallons of manure to manage each year. I started using MICROBE-LIFT to reduce odor from manure applied to the land and reduce gases being exhausted from ventilation fans. I wasn't sure what to expect from the product, especially because of the relatively lower cost compared to other products on the market claiming to do the same but costing much more money!

Not only have we noticed a major improvement in the odor reduction from the manure we land apply, the product has helped create an improved air quality environment inside the facility as well! I continue to have several neighbors ask us when we are going to spread manure, and it's always a pleasure to tell them we already have!

I am pleased to report reducing odor is only a small piece of the positive experiences we have had using the product. Another result is consistent flow of manure from the first load to the last load hauled. Achieving liquefied manure has translated into no nasty crust on the top of our manure, which is an open door for pests to run on and those horrible insects to nest and multiply!

The bottom line: MICROBE-LIFT has positively improved our manure management at our facility. I firmly believe that since I have started using MICROBE-LIFT it has allowed me to create a much more positive atmosphere within our facilities. I would be glad to recommend MICROBE-LIFT and share information with anyone regarding this product. Thanks for sharing your knowledge with me and getting me involved with your MICROBE-LIFT product!

Matthew L. McClellan, owner McClellan Farms Inc.

# Mr. Wolfe - Wolfe Power Line Dairy, PA

The use of MICROBE-LIFT/DFP at our farm eliminated blockages in the storage tank, eliminated bottom solids and surface crust, eliminated the requirement for costly tank mixing for several hours before manure removal, reduced barn and tank odor and odor on land applications which would attract flies and other pests.

In addition MICROBE-LIFT/DFP provided consistent manure from the top of the tanks (first pumping) to the bottom of the tank (last pumping).



Prior to MICROBE-LIFT/DFP's use the vessel had heavy surface and bottom solids. At draw down time no agitation was required, manure pumping only!



Providing Environmental Solutions Naturally Since 1976

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