



Microbial Manure Master™

A liquid manure bioaugmentation technology

ProfitProAG's Swine and Dairy/Beef Manure Bioaugmentation Programs for lagoons and pits include Microbial Manure Master™(MMM). This technology is a component of the Full-Circle Animal, Manure and Soil-Plant System™. It is recommended to use Manure Conditioner™ (MC) in conjunction with Microbial Manure Master to enhance manure digestion.

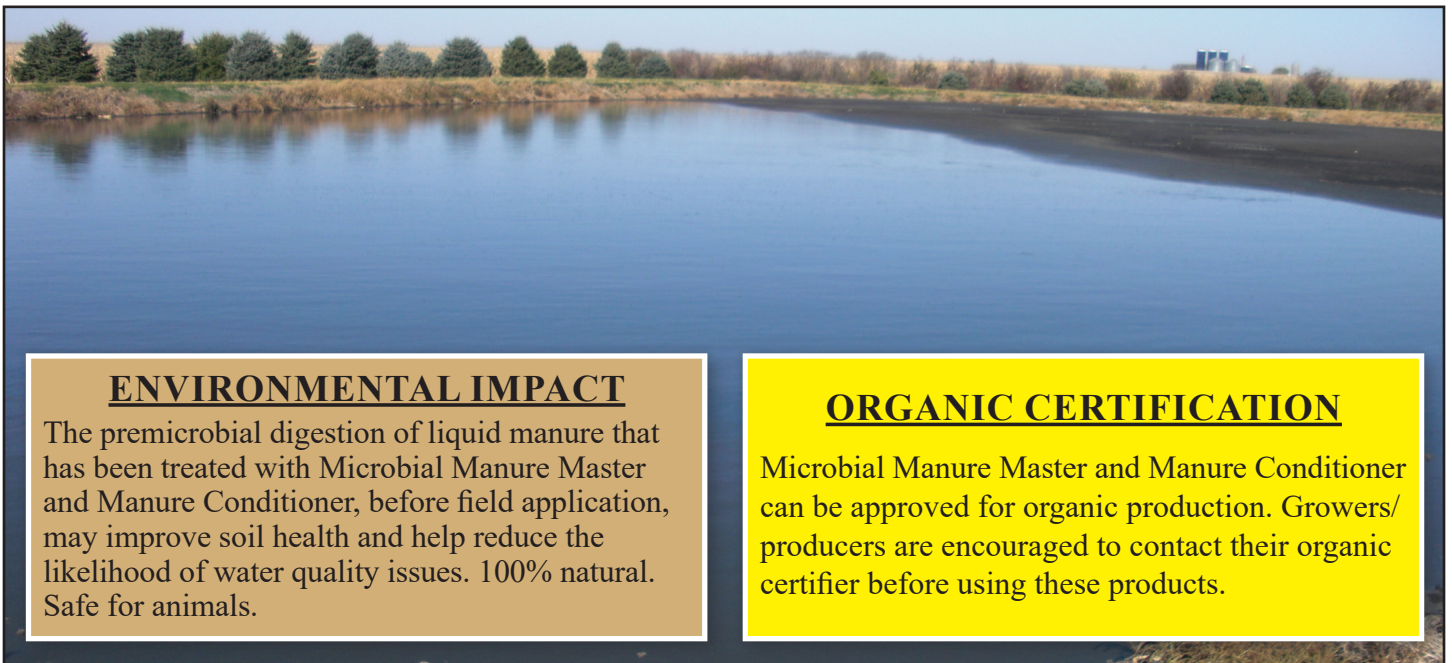
The Microbial Manure Master technology provides enhanced manure digestion critical to manure storage related issues and problems. It is designed specifically to provide the following benefits:

- Significantly reduces surface and bottom solids
- Provides a consistent manure slurry from first to last load
- Enhances manure fertilizer value
- Significantly reduces manure mixing at time of drawdown
- Reduces barn odor and odor on land applications
- Reduces hydrogen sulfide emissions
- Reduces fly and rodent populations in pits

In addition to the above benefits, Microbial Manure Master will:

- Enhance manure value on application
- Fix nitrogen
- Reduce manure salt levels
- Stimulate root growth
- Help improve soil health
- Help control nutrient runoff

These benefits, combined with sludge reduction and reduced mixing, more than justifies its use. Microbial Manure Master is designed to effectively digest organic solids. It reduces agitation requirements and improves the ease of pumping and application from pits or lagoons.



ENVIRONMENTAL IMPACT

The premicrobial digestion of liquid manure that has been treated with Microbial Manure Master and Manure Conditioner, before field application, may improve soil health and help reduce the likelihood of water quality issues. 100% natural. Safe for animals.

ORGANIC CERTIFICATION

Microbial Manure Master and Manure Conditioner can be approved for organic production. Growers/producers are encouraged to contact their organic certifier before using these products.

Refer to additional information on backside of this tech sheet.



More From Every Acre . . . More From Every Animal

Microbial Manure Master™ *continued*

Treatment Protocol:

For one million gallons of manure, use 40 gallons of Microbial Manure Master on an annual basis. Recommended use of Manure Conditioner at these rates: Swine 500 lbs and Dairy/Beef 1,200 lbs annually. Both products need to be applied monthly as this will increase the digestion of the manure. Agitation may be necessary to incorporate crust and bottom solids into the manure slurry.

Note: Make sure the treatment is poured over the Manure Conditioner and mixed into the liquid portion of the manure or both products applied through induction pump.

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| 1) After major pump-out or at the start of treatment: | 2) Scheduled monthly treatment: |
| a) MMM is 15 gal (inoculation rate) | a) 10 monthly treatments – 2.5 gal MMM (25 gallons total) |
| b) Treatment should occur 2 to 3 weeks after either the fall or spring pump-out, when pit/lagoon will be at its lowest capacity and fresh manure has accumulated. | b) Manure Conditioner: Swine – 4 more treatments of 100 lbs throughout the year |
| c) MC for Swine or Dairy/Beef treatment of 100 lbs poured down thru slats, across lagoon or in lift station | c) Manure Conditioner: Dairy/Beef – 10 more treatments of 100 lbs throughout the year |

Treatment for 350,000 to 400,000 gallons (1,000 to 1,200 head swine barn) manure pit – 15 gallons MMM:

- 1) After major pump-out or at the start of treatment:** 5 gal MMM & 100 lbs Manure Conditioner
- 2) Scheduled 10 monthly treatments of MMM:** 1.0 gallon (10 gallons total)
- 3) Scheduled MC: 2 treatments annually of 100 lbs/treatment (200 lbs total for 1,000 to 1,200 head barn). Always add with MMM.**

Note: A ProfitProAG manure management consultant will provide an annual manure treatment plan at time of product purchase.



Manure Conditioner™

A dry manure detoxifying and biological stimulant technology

GENERAL INFORMATION:

Manure Conditioner's main function is to tie-up toxins in the manure that slows manure microbial digestion. Treating manure with **Manure Conditioner** helps reduce pathogens by stimulating beneficial microbes, reducing ammonia release and overall odor, as well as increase decomposition, phosphorus/nitrogen retention and availability. It also aids in the reduction or elimination of top solids and bottom sludge. It is recommended to use **Manure Conditioner** in conjunction with **Microbial Manure Master**.

Treatment Protocol:

- **Swine Manure:** 500 lbs per million annually.
Apply 100 lbs to start and remaining 400 lbs as needed throughout the year (4 treatments).
- **Dairy/Beef:** 1,100 lbs per million annually.
Apply 100 lbs to start and 100 lbs monthly or as needed throughout the year (10 treatments).

It is recommended to apply Manure Conditioner over the top of the manure, then apply Microbial Manure Master over the Manure Conditioner. It's best to mix into the liquid portion of the manure. Agitation after treatment will enhance the manure digestion. Both products can also be applied in the loadout or manure induction pump.