

User Guide

BiOWiSH[™] Manure & Odor (Beef & Dairy)

Dairy Production

BiOWiSH[™] Manure & Odor Treatment is a powerful blend of natural biocatalysts that effectively digests sludge, manages nutrient load and reduces odor from manure lagoons. This product is highly recommended for wastewater and influent streams with high cellulose or fiber content, as produced in dairy farms and beef feedlots.

BiOWiSH™ is 100% natural, non-toxic and safe for everyday use.

How will I know BiOWiSH[™] Manure & Odor is working?

Pump outs will be more efficient with less bottom sludge, water quality will be improved, and odor we be reduced. Product performance can also be demonstrated by comparison of lagoon laboratory analysis before and after BiOWiSH[™] treatment.

Benefits

- Accelerates the decomposition of organic waste (sludge)
- Reduces the need for pump outs
- Removes rather than masks odors
- Improves nutrient availability for crops
- Removes biofilm on concrete raceways



Dosing Recommendations

The use of BiOWiSH[™] Manure & Odor in an animal waste lagoon should begin with a series of weekly "shock" doses designed to quickly bring about a large amount of activity. After the four (4) week shock dose period it is necessary to continue to apply a weekly dose to effectively remove organic solids from the lagoon while minimizing odor.

The following table gives general recommendations on a 1000 cow basis.

BiOWiSH™	Week 1	Week 2	Week 3	Week 4	Week 5 Onward
lbs./week for 1000 cows	14.0	14.0	10.5	10.5	7.0

General recommendation program is \$9.00 per cow per year.

Dairies differ greatly in the ratio of number-of-cows to lagoon-capacity. For site specific dosing protocols please contact your local BiOWiSH distributor or email animalag@biowishtech.com.

General Application instructions

Simply add BiOWiSH[™] Manure & Odor Treatment powder concentrate directly or mix with water and apply. The powdered concentrate or water pre-mix can be added directly to the lagoon inflow, in the pump station, in the holding tank or wherever the effluent enters during a flow event to ensure dispersion throughout the lagoon.

When dissolving the powder into water, use a minimum of 2 gallons (8L) of water per 2.2lbs. (1kg) of BiOWiSH[™] Manure & Odor Treatment. Depending on volume delivered, a clean bucket delivered by hand is reasonable. For high volume applications a drum or tank with outlet valve and hose to allow gravity flow into the lagoon is ideal.

BiOWiSH[™] Manure & Odor Treatment is non-toxic and safe for everyday use. To download Material Safety Data Sheet, Hazards Identification and First Aid Information, go to www.biowishtech.com/msds.

Site Specific Applications

Systems with lagoons volumes over 15,000,000 gal per 1000 cows or extremely high sludge buildup may consider an increased dose rate to accelerate sludge digestion.

Systems with advanced solids separation upstream of their lagoons (rotating screens or mechanical separation with mesh <0.03" [0.75mm]) may result in lower dosing rate requirements.



Texas dairy before BiOWiSH™

Contacts

BiOWiSH Technologies Tel: +1 312 572 6700 Fax: +1 312 572 6710 Web: <u>www.biowishtech.com</u> Email: <u>animalag@biowishtech.com</u>



Texas dairy after BiOWiSH™

Biological help for the human race



Biological Help for the Human RaceTM