

Poultry Litter Amendment

BiOWiSH™ Manure & Odor Treatment (Poultry) significantly reduces ammonia levels at US poultry facilities

Background

BiOWiSH™ Manure & Odor Treatment (Poultry) was applied at four different contract broiler grower facilities in the US to demonstrate its efficacy in reducing ammonia levels in used poultry litter. The growers all operate in Arkansas and produce broilers for three of the largest poultry integrators in the US.

Ammonia emissions from poultry litter can cause several problems, including poor poultry performance. One study found ammonia levels as low as 20 ppm compromised the immune system of chickens, increasing the likelihood of diseases and respiratory system problems¹. High ammonia levels can also cause problems with feed conversion and weight gain in the chicks.

In addition to trouble with the birds, high ammonia levels can also cause problems for the health of agricultural workers and the environment.

BiOWiSH™ Manure & Odor Treatment (Poultry) is 100 percent natural, it is safe to use and requires no special training or safety equipment to apply.

Objectives

The specific focus of the trial was to assess the impact of BiOWiSH™ on ammonia levels and ventilation fan use time in poultry sheds.

Solution

BiOWiSH™ Manure & Odor (Poultry) was used for the trial. Specially formulated to digest sludge, manage nutrients and reduce odors from manure lagoons and pits, BiOWiSH™ Manure and Odor Treatment accelerates the breakdown of organic waste and odor causing molecules. BiOWiSH Technologies has other treatment products designed for use on beef, dairy, swine, and other animal production facilities.

BiOWiSH™ Manure & Odor Treatment Benefits

- Significantly reduces ammonia
- Accelerates the decomposition of manure
- Removes rather than masks odors
- Reduces Volatile Organic Compounds (VOCs)
- Promotes healthier litter/bedding
- Reduces fly numbers by reducing organic attractants
- 100% natural and non-toxic
- Safe for people and the environment

Available Sizes

- 100g/3.5oz
- 1kg/2.2lb
- 5kg/11lb
- 10kg/22lb



¹http://www.ag.iastate.edu/wastemgmt/Mitigation_Conference_proceedings/CD_proceedings/Animal_Housing_Amendments/Moore-Reducing_ammonia_with_Alum.pdf

Results

BiOWiSH™ Manure & Odor Treatment (Poultry) was applied at one barn at each of the four farms located in Arkansas. Each barn housed 20,000 birds. Drager gas monitor was used to record the ammonia levels. Ten days after application, and seven days after the birds were placed, ammonia levels in all four barns were significantly lower. As a result, significantly lower fan times were also recorded.

Results: Ammonia readings in ppm				
	Day of App.	Day 3 (bird placement)	Day 6	Day 10
Farm 1	210	20	20	0
Farm 2	140	40	0	0
Farm 3	80	0	0	0
Farm 4	40	0	0	0

Results: fan time in minutes each day				
	Day of App.	Day 3 (bird placement)	Day 6	Day 10
Farm 1	0	5	7	Temp Override
Farm 2	0	3	7	Temp Override
Farm 3	0	3	3	Temp Override
Farm 4	0	3	3	Temp Override

Conclusion

When the birds were placed, three days after BiOWiSH™ Manure & Odor (Poultry) was applied, the ammonia levels in all four barns were significantly reduced. Seven days after the birds were placed the ammonia levels at all four barns were 0 ppm. There were also significant reductions in how long ventilation fans were run each day, which presents growers an opportunity for energy cost savings. BiOWiSH™ Manure & Odor Treatment (Poultry) is a safe and effective way for poultry growers to reduce ammonia levels in used poultry litter.

Contacts

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