



NATURAL MANURE TREATMENT



MTG
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The logo for MTG Environmental Inc. is centered within a rounded rectangular frame with a dark green border. The logo consists of the letters "MTG" in a large, bold, green, italicized font. Below "MTG" is the text "ENVIRONMENTAL INC." in a smaller, green, sans-serif font. At the bottom of the frame is the website address "mtsenvironmental.ca" in a green, sans-serif font.

WHAT IS IT?

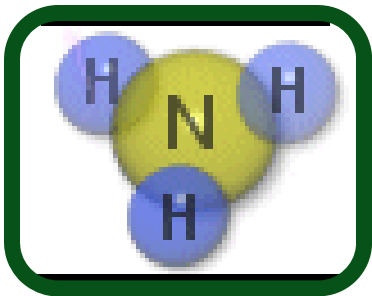
◎ Bio-DeSolve Manure Treatment has been designed to reduce odours and harmful gases in intensive livestock production operations.

◎ Bio-DeSolve Manure Treatment is available in liquid form to allow accurate, easy measurement.



INDUSTRY RESEARCH

Harmful gases, such as ammonia, are often significant limiting factors in terms of productivity and health. Chronic exposure to ammonia, even at lower levels (10 ppm), is a critical factor in lowered productivity..



Elevated concentrations of harmful gases, such as ammonia, are associated with several production factors including: reduction in average daily gain, increased number of days to market, as well as higher mortality rates and medication costs.

AMMONIA FACTS

- ⊙ Ammonia can reduce performance and increase the incidence of disease.
- ⊙ The typical range of ammonia in hog barns is 5 to 50 ppm, with numbers often in excess of the 25 ppm recommended threshold level.
- ⊙ Concentrations as low as 50 ppm ammonia can cause significant reductions in average daily gain
- ⊙ The concentration of ammonia can be as much as 60% higher at the animal breathing zone than at the human breathing zone.

BENEFITS OF MANURE TREATMENT



Bio-DeSolve Manure Treatment improves hog productivity by reducing odours and harmful gases that have detrimental effects on animal health and productivity.

Research and field trials have demonstrated significant reductions in ammonia, carbon dioxide and overall odours. By reducing levels of harmful gases, there is a corresponding improvement in animal health and productivity, not to mention improvements to the working environment. Production gains include:

- ⦿ increase in average daily gain,
- ⦿ decrease in feed conversion, and
- ⦿ reduction in days to market etc.

ADDITIONAL BENEFITS OF MANURE TREATMENT



⊙ Bio-DeSolve Manure Treatment also eliminates the crust on manure being stored by liquefying it, which in turn:

- ⊙ removes the breeding area for flies and insects, therefore reducing overall insect pressure
- ⊙ improves rodent control, as they are unable to travel across a crust
- ⊙ improves nutrient availability, as nutrients generally solidified in the crust are able to mix with the manure, leading to an increase in available N, P & K

EXPECTED RESULTS



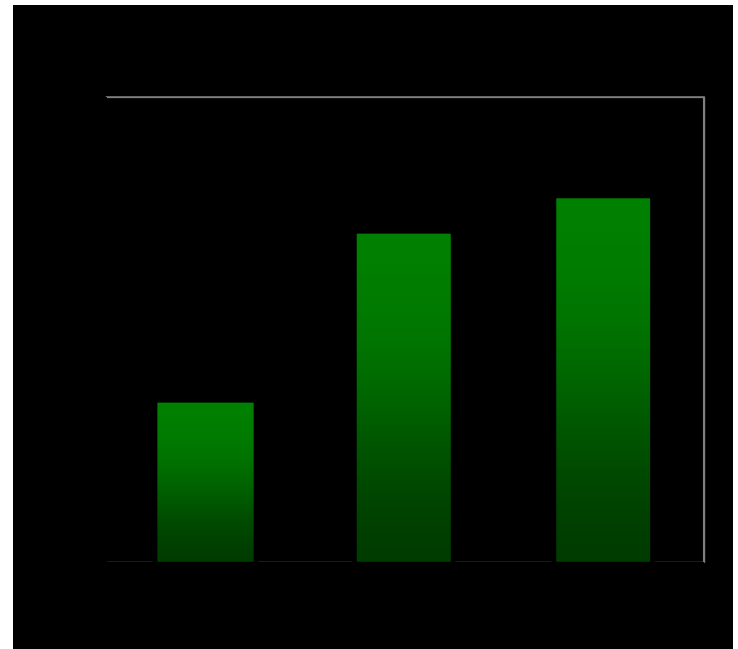
© Results may vary depending on the type and amount of feed used in total ration, the health and condition of the hogs, and individual farm management practices.

• Typically odour and ammonia control results are observed 2-6 weeks after initial treatment, while improvements to hog productivity and health are observed within 2-4 months

AIR QUALITY RESULTS

In separate trials involving Iowa State University, the Agricultural Utilization Research Institute (AURI), and the University of Guelph, the following air quality improvements were observed after using these products:

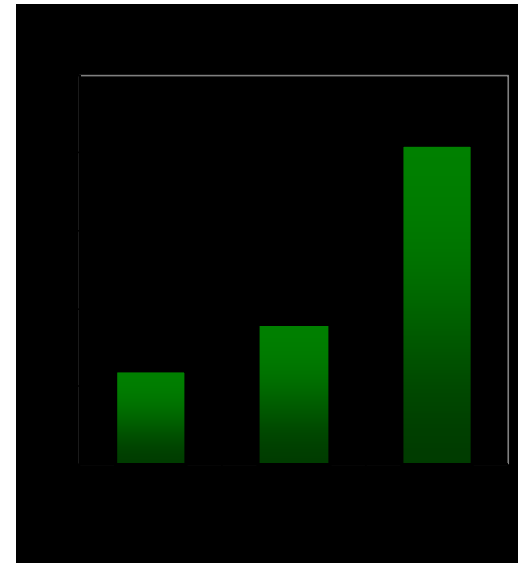
- ⊙ Up to 63% reduction in ammonia (NH₃)
- ⊙ Up to 57% reduction in overall odours
- ⊙ Up to 28% reduction in carbon dioxide (CO₂)



PRODUCTION RESULTS

In separate trials involving five independent farrow to finish hog producers and a total of 12,000 hogs, the following production improvements were observed:

- ⊙ Up to 6% (or 10 day) reduction in Days to Market
- ⊙ Up to 9% improvement in Rate of Gain
- ⊙ Up to 20.5% improvement in Feed Conversion



BENEFICIAL INGREDIENTS

- ⦿ Bio-DeSolve Manure Treatment is manufactured from non-toxic, natural ingredients.
- ⦿ The base product contains:
 - ⦿ Activated Carbon – which adsorbs and binds toxins and other compounds that can negatively impact animal health or inhibit natural microbial activity.
 - ⦿ Essential Trace Minerals – the product contains dozens of essential trace minerals which stimulate resident microbes that aid in reduction of harmful gases.
 - ⦿ Humic Acids/Humates – can assist in stabilizing intestinal microbe communities to improve feed efficiency, can assist in reducing excessive water loss through the intestine, and can tie up unwanted toxins which are excreted by the animal. In addition, humates can also improve biodigestion in the pits by stimulating activity levels of resident microbes.

APPLICATION

- **Lagoon and Slurry Storage: Initial treatment-** 20L Bio-Desolve per 375,000 L of manure (20L per 100,000 US Gal of manure). Apply directly to the lagoon or slurry storage beneath the crust in 2 or 3 locations.
- **Maintenance-** 10L per 375,000 L manure (10 L per 100,000 US gal). Apply directly through the barn flush or drainage system.
- **Straw Packs / Dry Mounds** 1 L of BioDeSolve mixed in 20 L of water treats 100 cu. meters. Pack or mound should be kept at a minimum of 35% for best results.
- **Mixed in the Feed:** CFIA approval pending.
- **Added to Drinking Water:** Use 10 ml per 100L of drinking water. Using a 1: 100 medicator, add 200ml to 20 litre stock solution and run through medicator.

PRODUCT LABEL



NATURAL MANURE TREATMENT

- An aid in the reduction of Odours and harmful gases for a safer and more pleasant environment for workers and livestock
- Speeds composting of solid manure and reduces solids in liquid manure
- Use for all types of livestock; Pigs, Cattle, Poultry, Sheep, Goats and Horses

DIRECTIONS FOR USE

Lagoon and Slurry Storage:

Initial treatment – 20L Bio-Desolve per 375,000 L of manure (20L per 100,000 US Gal of manure) Apply directly to the lagoon or slurry storage beneath the crust in 2 or 3 locations.

Maintenance – 10L per 375,000 L manure (10 L per 100,000 US gal) Apply directly through the barn flush or drainage system.

Straw Packs / Dry Mounds

1 L of Bio-DeSolve mixed in 20 L of water treats 100 cu. meters. Pack or mound should be kept at a minimum of 35% for best results.

Conditions in every barn, pit or lagoon will differ depending on system layouts, rations, climate, chemical use and the volume of manure to be treated. **For more complete recommendations call 1-800-294-9725.**

DO NOT FREEZE

10 Litres 20 Litres 1000 Litres



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