A study of the effects of litter treatments on commercial broilers.

Background: Previous study of Litter Disease Management (LDM™) treatment demonstrated that by introducing natural non-pathogenic bacteria in conjunction with a rich carbon source to the litter bed will cause a rapid natural release of ammonia prior to placement of the animals and reduce the occurrence of harmful pathogens, thus resulting in a healthier environment for the animals to thrive.

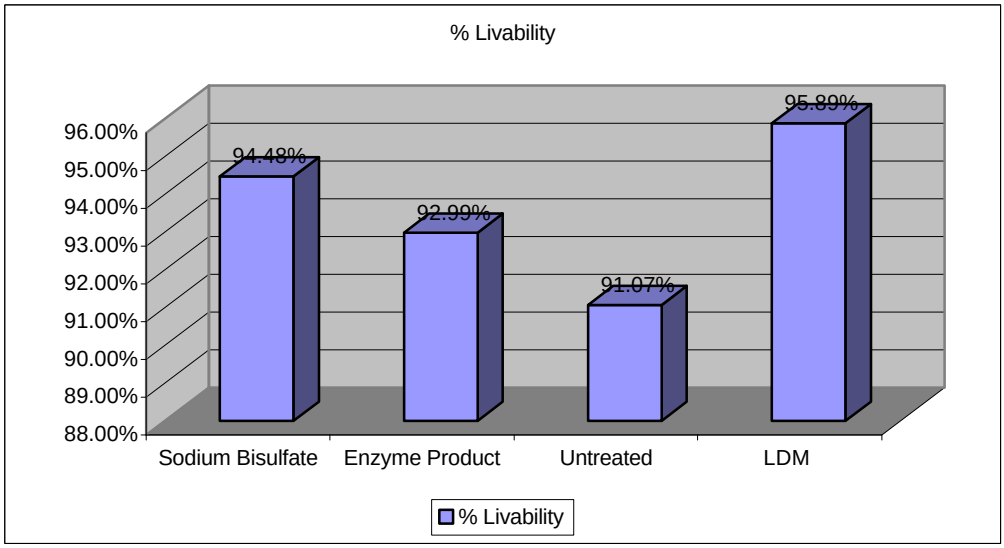
Study Design: The study is designed to compare the effectiveness of LDM™ against current litter treatments. The study performed at a commercial poultry facility: 12 barns were compared, three were treated with Sodium Bisulfate (PLT), three with an Enzyme product (ESS), four were treated with LDM™, and 2 were untreated as controls. 15,000 High Y & Ross cross chicks were placed in each barn. The barns were maintained in similar manners of temperature and general environmental conditions, feed and vaccinations were consistent between the barns.

Results of Study: Percentage Livability in the Sodium Bisulfate barns was 94.48%, Enzyme product was 92.99%, LDM™ was 95.89%, and the untreated control was 91.07%. The results of the 12 houses compared, yielded a greater livability in the LDM™ treated barns over all other compared treatments.

LDM™ yielded a 1.47% greater livability compared to Sodium Bisulfate.

LDM™ yielded a 3.02% greater livability compared to the Enzyme product.

LDM™ yielded a 5.02% greater livability compared to untreated control.

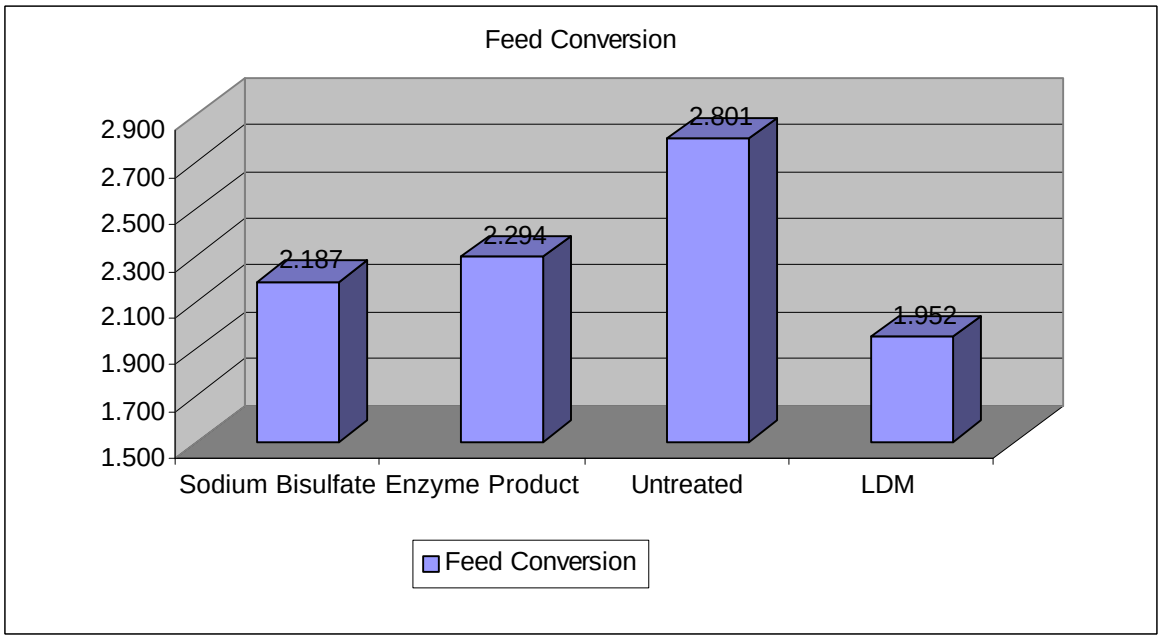


Feed conversion in the 12 barns of the study, in the Sodium Bisulfate barns was 2.18, Enzyme product was 2.29, LDM™ was 1.95, and the untreated control was 2.80. The results of the 12 houses compared, yielded a greater feed conversion in the LDM™ treated barns over the control and competitors barns.

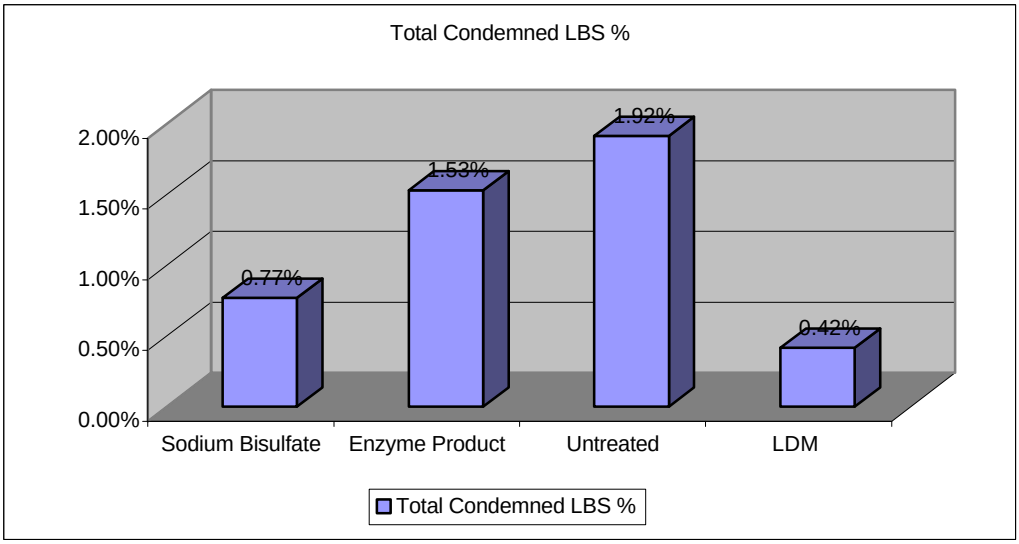
LDM™ yielded 11.79% improvement in feed conversion compared to Sodium Bisulfate.

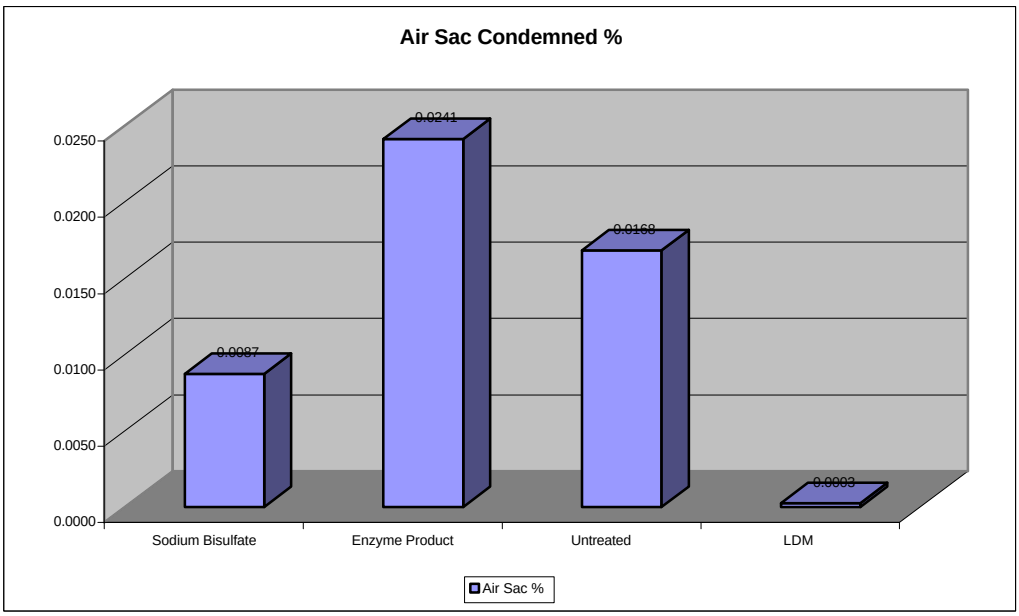
LDM™ yielded 17.43% improvement in feed conversion compared to the Enzyme product.

LDM™ yielded 43.58% improvement in feed conversion compared to untreated control.



Total condemned pound of harvested product is the amount of product condemned due to a condition rendering either a portion of or the entire carcass unfit for human consumption. In the 12 barns of this study, in the Sodium Bisulfate barns condemnation was 0.77%, Enzyme product was 1.53%, LDM™ was 0.42%, and the untreated control was 1.92%. The results of the 12 houses compared, provided a greater processed pounds in the LDM™ treated barns over the control and competitors barns. Note: There was a significant decrease in the Air Sac condemnation, there was also a significant decrease in the occurrence rate of salvageable air sac lesions.





LDM™ yielded .35 less total condemnation compared to Sodium Bisulfate.

LDM™ yielded 1.11 less total condemnation compared to the Enzyme product.

LDM™ yielded a 1.5 less total condemnation compared to untreated control.

LDM™ yielded a 95 % reduction in airsaculittisis condemnation and reprocessing over the other products compared in this study.

Hypothesis: The reduction in airsaculitis is believed to be based upon regeneration of the litter bed, the core principle behind the action of LDM™. Studies performed confirm that birds exposed to high ammonia levels are at greater risk of e-coli infections resulting in airsaculittis.

http://www.wam.umd.edu/~iestevez/extension/ppv4n1.pdf

The hypothesis stated are to be followed with studies confirming the reduction in ammonia exposure to flocks, and the competitive inhibition of pathogenic organisms on poultry litter.

Conclusions: The results of this study indicate the use of LDM™ significantly increased the livability and decreased the feed conversion rates of the flocks compared, while decreasing total condemned % and Airsaculittis incidence rates. Based on the data in this study, poultry producers could anticipate improved farm productivity and plant cost reductions in condemnation and labor hours due to reprocessing. While removing the possible chemical contaminates to the farm traditional treatments currently use, LDM™ provides a nontoxic environmentally compatible alternative.