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**Project #F031**

**Paw Burn Reduction in Broiler Chickens Through The Use of Feed Grade Enzymes**

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**“Feed Grade Enzymes Influence on Paw Burns”**

Research was conducted to determine if feed grade enzymes and dietary biotin reduce footpad problems in broilers. The enzyme trials were undertaken to determine if feed-grade enzymes improve footpad quality by reducing undigested complex carbohydrates passed into the litter. Six enzymes were fed in a three-feed program in two separate trials. Improvements in intestinal viscosity were observed with feeding of most enzymes. However, there were no measureable improvements in foot pad quality score in either trial.

Biotin has been reported to improve foot pad quality in turkeys and the commercial price of biotin has recently decreased to the point that enhanced supplementation may be economically viable. Two broiler trials involving four levels of biotin were fed during grow out to determine if higher than normal levels would help protect broiler footpads from paw burns. There were no observed improvements in foot pad lesions following the feeding of higher than normal levels of biotin.

Litter moisture was found to have a substantial effect on the development of footpad burns. Although, addition of moisture either early or late increased paw burns, broilers appeared to have the ability to reduce paw problems from early moisture exposure.

In general, feed grade enzymes and additional dietary biotin did not improve footpad quality measurably under conditions that enhance footpad lesion development (high protein feeds). Litter moisture did have a marked effect on paw lesion development, indicating that in-house environmental management can go a long way toward managing paw problems in the field.

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