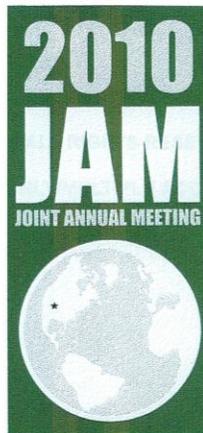


Abstracts

**American Dairy Science Association®
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**July 11-15, 2010
Denver, Colorado
<http://adsa.psa.ampa.csas.asas.org/meetings/2010>**

**Journal of Animal Science, Volume 88, E-Supplement 2
Journal of Dairy Science®, Volume 93, E-Supplement 1
Poultry Science®, Volume 89, E-Supplement 1**



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JULY 11-15, DENVER, COLORADO**

986 Evaluation of the efficacy of Myco-Ad in preventing aflatoxin toxicity in broiler chicks. C.A. Mallmann¹, P.Dilkin¹, L. Giacomini¹, R.H. Rauber¹, and D.Zaviezo^{*2}, ¹*Universidade Federal de Santa Maria, Laboratorio de Analises Micotoxicológicas (LAMIC), Santa Maria, RS, Brasil,* ²*Special Nutrients, Miami, FL.*

The dietary use of 0.25% Myco-Ad has been proven to effectively prevent the toxic effects of aflatoxin B1 (AFB), ochratoxin and T-2 toxin in broilers. Studies were conducted to evaluate the AFB adsorption capacity of Myco-Ad and its efficacy in preventing the deleterious effects of high levels of AFB in broiler chicks; as part of the regulatory anti-mycotoxin additives (AMA) approval process in Brazil. Three hundred day-old Cobb male chicks were placed in battery cages randomly distributed into 5 treatments with 6 replications each and fed a basal corn-soy diet containing or exceeding NRC recommendations. All ingredients used were tested free of mycotoxins contamination. Treatments were: 1 basal diet; 2 basal + 0.5% Myco-Ad; 3 basal+ 2.8 ppm AFB; 4 basal + 2.8 ppm AFB + 0.25% Myco-Ad and 5 basal + 2.8 ppm AFB + 0.5% Myco-Ad. AFB was obtained from a culture material containing 96.4% AFB; 1.61% Aflatoxin B2 and 1.99% Aflatoxin G1 produced in LAMIC. Myco-Ad adsorption capacity of 1 ppm AFB was above 95% and 97% at 0.25 and 0.5% respectively. Results at 21 d of age indicated that broiler fed 2.8 ppm AFB contaminated diet presented significant ($P \leq 0.05$) lower feed intake (31%), smaller body weight (29%), heavier liver weight (56%) and lower plasma protein levels (54%) than chicks fed the control diet. The addition of Myco-Ad (0.25-0.5%) significantly ($P \leq 0.05$) improved feed intake (32-40%) body weight (24-33%), liver size (17-30%) and plasma proteins (19-33%) observed in chicks fed the AFB contaminated diet. The addition of 0.5% Myco-Ad to the chick diet did not show any statistical difference in performance, relative liver weight or total plasma proteins compared with the control diet, demonstrating its lack of interference with the absorption of nutrients. These results indicated that 0.25% Myco-Ad was effective in preventing the toxic effects of AFB in broiler chicks; and therefore met the requirement for AMA registration in Brazil.

Key words: Myco-Ad, aflatoxin.S