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Two experiments were conducted to study the efficacy of a low inclusion commercial HSCAS (Myco-Ad®) in preventing the deleterious effects of Aflatoxin B1 (AFB) and Ochratoxin A (OCA) in broiler chicks. Arbor Acres broiler males individually caged were used in both experiments. The feed was experimentally contaminated with synthetic AFB or OCA from Sigma Labs, USA. In Experiment 1, 96 4-day-old chicks were randomly assigned four dietary treatments with 24 replications each. T I was a sorghum-soybean meal control diet, T II control + 2.5 kg/mt Myco-Ad®, T III control + 7.5 ppm AFB, and T IV control + 7.5 ppm AFB + 2.5 kg/mt Myco-Ad®. At 24 days of age, birds fed 7.5 ppm AFB contaminated diet showed severe macroscopic liver lesions, higher mortality, lower body weight, poorer feed conversion, and higher liver weight than chicks fed the control diet.

The addition of Myco-Ad® significantly prevented the impaired performance (BW 609 v 447 g; FC 1.62 v 1.92) and the gross liver lesions observed in chicks fed AFB. In Experiment 2, 64 7-day-old chicks were randomly divided into four dietary treatments with 16 replications each. T I was a sorghum-soybean meal control diet, T II control + 2.5 kg/mt Myco-Ad®, T III control + 2 ppm OCA, and T IV control + 2 ppm OCA + 2.5 kg/mt Myco-Ad®. Feeding OCA contaminated diet plus Myco-Ad® resulted in statistically significant heavier (770 v 706 g) and more efficient (FC 1.65 v 1.78) broilers, with markedly reduced macroscopic kidney lesions than those fed 2 ppm OCA at 28 days of age. In both experiments, the addition of 2.5 kg/ mt of Myco-Ad® to chick diets did not show any statistical difference in performance compared to the control diet, demonstrating its lack of interference with the absorption of nutrients. These results indicated that Myco-Ad® at 2.5 kg/mt was effective in preventing the toxic effects of AFB and OCA in broilers chicks. Key Words: Myco-Ad, Aflatoxin, Ochratoxin

Reference:

1. Casarin, A., Forat, M., Soto, E., Contreras, M. y Zaviezo, D.
2. Evaluation of the efficacy of a commercial hydrated sodium calcium aluminosilicate to reduce the toxicity of aflatoxin and ochratoxin in broiler chicks.
3. 2005 International Poultry Scientific Forum. Atlanta, GA, USA.

Two experiments were conducted to study the efficacy of a low inclusion commercial HSCAS (Myco-Ad®) in preventing the deleterious effects of Toxin T-2 (T-2) in broiler chicks. Feed in both experiments was experimentally contaminated with synthetic T-2 from Sigma Labs, USA. In Experiment 1, 75 1-d-old Arbor Acres straight-run broilers individually caged were randomly distributed into three dietary treatments with 25 replications each. T I was a corn-wheatsoybean meal control diet, T II control + 1 ppm T-2, and T III control + 1 ppm T-2 + 2.5 kg/mt Myco-Ad®. At 40 d of age, birds fed 1 ppm T-2 contaminated diet showed significant lower body weight, poorer feed conversion, smaller bursa and severe macroscopic oral lesions than chicks fed the control diet. The addition of Myco-Ad® significantly prevented the impaired performance (BW 1840 v 1381 g; FC 2.02 v 2.12), bursa damage and the severe oral lesions observed in chicks fed T-2. In Experiment 2, 32 5-d-old Ross male chicks were randomly divided into four dietary treatments with 8 replicatio The addition of 2.5 kg/mt of Myco-Ad® to chick diets did not show any statistical difference in performance and bone ash compared to the control diet, demonstrating its lack of nutrients absorption. These results indicated that Myco-Ad® at 2.5 kg/mt was effective in preventing the toxic effects of T-2 in broilers chicks.

Key Words: Myco-Ad, Toxin T-2

Reference:

1. Casarin, A., Forat, M., Soto, Fazekas, B., Tanyi, J. y Zaviezo, D.
2. Evaluation of the efficacy of a commercial hydrated sodium calcium aluminosilicate to reduce the toxicity of toxin T-2 in broiler chicks.
3. 2005 International Poultry Scientific Forum. Atlanta, GA, USA.