

# Individual and synergic influence of aflatoxin B1 and ochratoxin A on the productive, hematological and genetic parameters of the male broiler breeds

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**ABSTRACT:**

This experiment was designed to study the individual and synergic effect of fungal toxins (aflatoxin B1 and ochratoxin A) on the productive, hematological and genetic parameters of the male broiler breeds ISA (Institute Selection Animal). A factorial experimental setup (2×2) was maintained where, aflatoxin B1 were at the concentration of 0 and 3µg/g diet and ochratoxin A were at the concentration of 0 and 5µg/g diet. The birds were reared from 1 day to 3 weeks old. Results showed that the individual effect of fungal toxins aflatoxin B1 and ochratoxin A, have significantly reduced ( $P \leq 0.05$ ) the body weight, the blood serum traits (proteins, albumin and cholesterol), and significantly ( $P \leq 0.05$ ) increased mortality and relative weight of internal organs (liver, kidney, spleen, pancreas, gizzard, heart and bursa). It also reduced alanine amino transferase enzymes (ALT) with an increase of uric acid concentration. Fungal toxins had a significant effect ( $P \leq 0.05$ ) on cell division and different types of chromosomal aberrations. Fungal toxins synergic influence was more harmful on the traits studied.

**Keywords:**

Synergic, Aflatoxin B1, Ochratoxin A, Hematological, Male broiler breeds.