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## Assessment of the Efficacy of Bentonite-Montmorillonite Binder or Yeast to Alleviate Effect of Aflatoxin in Turkey Poults

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### Abstract

In a 28-day feeding trial, the alleviation of the effect of aflatoxicosis in turkey was investigated by feeding 2 concentrations of yeast and bentonite-montmorillonite binders (BB) in diets contaminated with aflatoxin. One hundred and ninety two 21-day-old turkey poults were randomly allotted to six experimental diets in a completely randomised design (CRD) as follows: D1 (positive control without aflatoxin), D2 (negative control with 0.15 mg kg<sup>-1</sup> of aflatoxin), D3 (negative control + 3 g kg<sup>-1</sup> BB), D4 (negative control + 6g kg<sup>-1</sup> BB), D5 (negative control + 1.5 g yeast kg<sup>-1</sup> diet), D6 (negative control + 3.0 g yeast kg<sup>-1</sup> diet). The experiment was conducted under standard experimental conditions and all animal management procedures were followed. Addition of BB or yeast in the aflatoxin contaminated diets significantly improved the feed intake and body weight gain of turkey poults. Feed conversion ratio also showed significant improvement in turkeys fed positive control diets (D1), and diets that were treated with yeast and bentonite-montmorillonite binder in D3, D4, D5 and D6 when compared with the negative control diet (D2) which was not treated with any toxin binder. No significant difference ( $p > 0.05$ ) was observed in the values of serum parameters in this study both for diets containing toxin binder and none. However, values of packed cell volume, haemoglobin and red blood cells were significantly improved with addition of yeast or BB. In conclusion, addition of yeast and bentonite-montmorillonite binder at the two levels in this study was able to bind the aflatoxin in the diet, thus making the aflatoxin in the diet ineffective.

**Keywords:** Aflatoxin, alleviation, bentonite-montmorillonite, turkey poults, yeast