Effect of Dietary Supplementation of Yeast Fractions (Safmannan®) on Growth Performance and Nutrient Digestibility in Broiler Chickens Fed Adulterated Rice Bran

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This study investigated the effects of dietary supplementation of yeast fractions (Safmannan®) on growth performance and nutrient digestibility in broiler chickens fed rice bran adulterated with paddy husk. A total of 96 one-day-old Cobb 500 broiler chicks were randomly allocated to four treatment groups (n = 4 replicates, 6 birds per replicate) and fed one of four isonitrogenous and isoenergetic diets: T1 – corn-soybean-based control diet, T2 – control diet + 0.05% Safmannan®, T3 – control diet + paddy husk adulterated rice bran, and T4 – control diet + paddy husk adulterated rice bran + 0.05% Safmannan®. Growth performance was assessed weekly, and ileal nutrient digestibility was evaluated on day 33. At the end of the 35-day feeding period, carcass yield, breast muscle yield, and weights and lengths of digestive organs were measured. Dietary supplementation with 0.05% Safmannan® (T2) increased ($P < 0.05$) the final body weight (1691 g per bird), weight gain (1651 g per bird), and improved the feed conversion ratio (1.36 g/g). Inclusion of paddy husk adulterated rice bran (T3) reduced ($P < 0.05$) the growth performance, while the combination of Safmannan® with paddy husk (T4) showed partial recovery. Safmannan® supplementation also improved ($P < 0.05$) the carcass yield (72%), breast muscle percentage (32%), and digestive organ development when fed paddy husk adulterated diets. Apparent ileal dry matter digestibility was higher ($P < 0.0001$) in T2 (82%), with the lowest values observed in T3 (75%). Safmannan® supplementation enhanced growth performance and nutrient digestibility, while mitigating the adverse effects of adulterated rice bran in broiler diets.

Keywords: Broiler chicken, growth performance, nutrient digestibility, yeast postbiotics

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