



The Effect of a Dietary Prebiotic on Japanese Quails Growth Performance

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Objectives: Today, the withdrawal of antibiotics from poultry industry caused poultry nutritionist to search for the alternatives to conquest the risk factors of cross-resistance acquisition by harmful bacteria. Prebiotics are defined as nondigestible food ingredients that can be utilized by some of the intestinal microflora, which beneficially affect the host performance. Thus, the purpose of this study was to evaluate the effect of a dietary prebiotic (Active MOS) on Japanese quails growth performance.

Materials and Methods: A total of 80 seven-days-old unsexed Japanese Quails (*Coturnixcoturnix japonica*) were used in a completely randomized design with 2 treatments and 4 replicates. The birds were randomly allocated to 8 pens (ten birds per pen). The main ingredients of the diets included corn and soybean meal. The experimental diets contained 2 levels of a prebiotic (0, 2 g/kg). The prebiotic that was used in this experiment was Active MOS (drived from *Saccharomyces cerevisiae*, 25 % MOS, 30% BGLucan, Brazil). Birds had access to water and food *ad-libitum*. The diets were formulated to meet the nutrient requirements of the quail as recommended by NRC (1994). The body weight, feed intake and feed conversion ratio of the birds was measured weekly. Data from this experiment were analyzed by analysis of variance using GLM procedures (SAS institute, 2008).

Results and Discussion: Birds fed supplemented diets presented lower FCR at all of the experimental periods ($P < 0.05$). Also, feed intake was reduced and body weight gain was increased in the second and thirds weeks of the experiment ($P < 0.05$). Overall, quails fed with prebiotic Active-MOS during 7 to 42 days of age showed better growth performance. However, it was reported that prebiotic supplementation improved feed conversion ratio of broiler breeders numerically, however, the differences were not significant statistically (Hajati et al., 2014). It has been claimed that the benefits of MOS is based on its specific properties such as modification of the intestinal flora, reduction in turnover rate of the intestinal mucosa and modulation of the immune system (Hajati et al., 2012). In conclusion, addition of Active-MOS at the level of 2 g per kilogram of diet improved growth performance of Japanese quails.

Keywords: Prebiotic, Japanese Quail, Growth Performance

Study on prevalence and species diversity of ectoparasites and fecal parasites of ornament birds in Kashan

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Regarding the maintenance of ornamental birds by human, adjacency of these birds with human during the day, and the presence of a friendly relationship between them, it can be concluded that paying attention to health status of ornamental birds is of great importance. In the present study, infecting by external (dermal) and fecal parasites were examined in ornamental birds in Kashan. To meet this end, a total of 200 ornamental birds, including (50 lovebirds, 50 finches, 50 canaries, and 50 pigeons) at different ages and races were studied randomly from different parts of Kashan. After sampling, they were put in containers of alcohol glycerin 10% and formalin 5%, and in order to identify and observe, they were sent to the laboratory and then, stained and examined by microscope and loop. The results of external parasites showed that 21 lovebirds (42%), 28 finches (56%), and 21 canaries (42%) were infected by *Dermanyssusgallinaemite* (red mite). 12 lovebirds (24%) and 9 pigeons (18%) were infected by *lyprus*. 19 pigeons (38%) were infected by *argas*. 12 lovebirds (24%) were infected simultaneously by *lyprus* and *Dermanyssusgallinae* mite. And finally, 9 pigeons (18%) were infected simultaneously by *lyprus* and *argas*. The results of the fecal parasites showed that 7 canaries (14%) and 6 pigeons (12%) were infected by *hetrakisgallinarum* and 8 finches (16%) and 10 pigeons (20%) were infected by *oocyte eimeria*. In addition, no positive sample due to infecting by *cryptosporidium* and *giardia* were found.

Keywords: ornamental birds, external parasites, fecal parasites, Kashan