

Effect of supplementing spirulina on live performance, carcass composition and meat quality of Japanese quail

ABSTRACT

This study was conducted to evaluate the effects of different levels of Spirulina (*Arthrospira platensis*) inclusion in feed on live performance, carcass composition and meat quality of Japanese quails during growing stage to identify the best inclusion range for Japanese quails without affecting the growth and carcass parameters. Three hundred Japanese quails of 15 days of age were used in this experiment, randomly divided into 5 groups with 3 replication comprised of 30 males and 30 females. The quails were fed with a basal diet as a control and 4 levels of Spirulina inclusion diet 1, 2, 4 and 8 %. Diets were fed to birds from 15 days to 35 days of age. Body weight gain (BWG), Feed intake (FI), Feed conversion ratio (FCR) and Mortality rate (MR) were recorded weekly during the experiment. Carcass composition and meat quality tests were done after slaughtering. BWG, FI, FCR and MR were significantly different ($p < 0.05$) in the experiment. Carcass composition was found to be significantly different in the leg percentage ($p < 0.05$). Meat color and meat shear force value were also found to differ significantly ($p < 0.05$) with the Spirulina inclusion diet showing a better result than the control. Therefore, the result of this experiment suggests that diets up to 4 % of Spirulina achieve the best live performance, carcass composition and meat quality.

Keyword: Feed conversion ratio; Japanese quails; Meat color; Shear force value; Spirulina