University of Zabol
Faculty of Agriculture
Department of Animal Science

A Thesis
Submitted in Partial Fulfillment of the Requirements for the Degree of
M.Sc. in Animal Nutrition

Title:

Effect of Ajwain (*Trachyspermum ammi*) seed powder on performance, carcass chracteristics and some blood parameters in Japanese quail

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Abstrac

This study was conducted to investigate the effect of different levels of Ajwain (*Trachyspermum ammi*) seed powder on performance, carcass characteristics and blood parameters of japaneses quails. A total of 288 day old japaneses quails with 6 treatments and 4 replications (12 birds per replicate) were used. Experimental treatments were a diet with no supplement (control), treatment containing antibiotic (positive control) and treatments of 2, 3 4 and 5 containing 0.5, 1,1.5 and 2 percent of levels ajwain seed powder, respectively. Results indicated that treatment of 1% ajwain seed powder singnificantly increased body weight (BW) in 14 and 28, and body weight gain(BWG) in 7-14 and 7-28 periods (P<0.05). There were not significant different between treatments in feed intake and feed conversion ratio (P>0.05). Experimental groups not influence relative weights of carcass, gizzard, heart, liver and spleen (P>0.05), Howere relative weight of bursa of fabricius significantly increased by ajwain treatments(P<0.05). birds received 1% ajwain seed powder had lower glucose and cholesterol concentrations compared with control group (P<0.05). The inclusion of ajwain seed powder in quails diet did not affect triglyceride, albumin, protein and VLDL (P>0.05). Supplementation of diet with 1.5% ajwain seed powder, increased (P<0.05) HDL when compared to that in control group. Addition ajwain seed powder at used levels significantly decreased LDLconcentration (P<0.05). It could be concluded from the results that usage of ajwain seed powder in diet of quails at level of 1%, improved performance and blood parameters of japaneses quails.

Key words: ajwain seed, performance, antibiotic, quail.