

Abstract:

Use of feed additives especially natural additives such as medicinal plants could improve poultry performance. The aim of current study was to evaluate the effect of Isabgol seeds on performance, immune response, intestinal microbial population and meat quality of Japanese quails. For this reason, 160 Japanese quails were used from d 15 to d 45 in four treatments including basal diet (control) and basal diet supplemented with 1, 2 and 3% of Isabgol seeds with 4 replications and 10 quails in each replication in a completely randomized design. Results showed that effects of Isabgol seeds on performance (daily weight gain, feed intake and FCR), carcass characteristics and intestine (weight of different organs), immunity response (anti SRBC and Anti Newcastle virus titer), intestinal microbial population and meat quality (water holding capacity, drip loss, cooking loss, pH, meat oxidation) were not significant ($P > 0.05$). Treatment containing one percent Isabgol seeds had the highest albumin and the lowest cholesterol levels. Glucose and triglyceride concentrations had incremental trend with using Isabgol seeds ($P < 0.05$). Based on the results of current research, using Isabgol seeds at the levels of 1 to 3 percent in diet have not a considerable effects on production parameters of Japanese quails.

Key words: Japanese quail, Isabgol, Humoral immunity, Feed conversion ratio, Malondialdehyde



University of Zabol
Graduate school
Faculty of Agriculture
Department of Animal Science

**The Thesis Submitted for the Degree of M.Sc
In the Field of Puoltry Production and Management**

**Effect of Isabgol seed on performance,
immune response, intestinal microbial
population and meat quality of
Japanese quail**

Supervisors:

Dr. F. Bagherzadeh kasmani
Dr. M. Mehri

Advisors:

E. M. Asghari Moghaddam

By:

M. R. Moradi Avval

November 2016