



Agricultural Research, Education and Extension Organization

Agriculture and Natural Resources Research  
Center of Lorestan

## **Effects of different dietary levels of acidifier supplementation on growth performance and blood biochemical parameters in Japanese quail**

**Research worker: Mohsen Mohamadi Saei**

### **Abstract**

the present study was conducted to investigate the effects of dietary acidification supplement on performance and biochemical parameters of quail chicks. 400 one-day old Japanese quail chicks (mixed sexes) were randomly assigned in a completely randomized design with 4 treatments. Each treatment group consisted of 5 replicates of 20 birds. Treatments included 1- basal diet (control group), 2- basal diet+300 mg / kg virginiamycin, 3- basal diet+ 0.2% Bio acid ultra, 4- basal diet+ 0.4% Bio acid ultra. The results showed that the highest and lowest feed intake was observed in control treatment and antibiotic treatment, respectively. There was a significant difference between treatments ( $P < 0.05$ ). The highest gain was observed in the group containing 0.4% of acid, which did not show any significant difference with other treatments except control group ( $P > 0.05$ ). There was no significant difference between the birds receiving the acid and the birds receiving the antibiotic in terms of feed conversion ratio, and the worst feed conversion ratio was observed in the control treatment. The highest amount of triglyceride and LDL was found in control treatment, which had a significant difference with other treatments ( $P < 0.05$ ). Birds fed with acid or antibiotics had the lowest values for these two parameters. There was a significant difference between treatments for liver enzymes, so that the highest amount was observed in control treatment and the lowest in acid and antibiotic treatments. Overall, the results showed that bioacid ultra could be used as an alternative to antibiotics in quail diet, and, of course, 0.4% had better results.

Key words: Acidifier, Quail, performance, Antibiotic.