



University of Zabol

Faculty of Agriculture
Department of Animal Science

The Thesis Submitted for the Degree of
Master of Science in Poultry Nutrition

Title:

**Effect of different energy and protein levels on growth
performance of Khazak native chickens during growth stage**

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Abstract

Determining the optimal level of energy and protein in diet to achieve the best performance can be effective in nutrition management. Therefore, this study aimed to determine the effect of different levels of energy and protein on performance in the growth stage of Khazak native chickens and selection of the best combination of energy and protein levels at this age. Three levels of energy (2600, 2800 and 3000 kcal / kg) and protein (17, 19 and 21%) were performed as a factorial experiment in a completely randomized design with four replications. The chicks entered the experimental pen at seven days of old and were examined with experimental diets for 13 weeks. Chickens were weighed weekly and the amount of weekly feed intake was calculated, other traits such as average body weight gain, feed conversion ratio, energy and protein intake, energy and protein intake efficiency in different weeks and while period were calculated. The collected data were analyzed using GLM procedure of SAS software version 9.1 and the means were compared with Tukey test at 5% level. The results showed that the effect of different energy and protein levels had a significant effect on weight gain, feed intake, feed conversion ratio, energy and protein intake, and energy and protein intake efficiency in different weeks, so that the high energy and protein levels improved performance in different weeks. Also, the interaction of energy and protein showed a significant effect on the studied parameters and the best performance was obtained at the energy level of 3000 kcal / kg and 21% protein. According to the findings of the present study, it is recommended to use appropriate levels of energy and protein to achieve good growth performance in Khazak chickens in the first three months of growth.

Keywords: Energy, protein, conversion ratio, Khazak chickens, Performance.