



MINISTRY OF JIHAD-E-AGRICULTURE
Agricultural Research, Education and Extension Organization
Agriculture and Natural Resources Research and Education Center of Qom

The comparison of milk production capacity and growth performance of two Kalkouhi and Turkmen camel ecotypes were compared in closed livestock conditions in Qom province

Research worker: Majid Kalantar

Abstract

For the purpose of comparing milk production capacity and growth performance, two Kalkouhi and Turkmen camel ecotypes were compared in closed livestock conditions in Qom province. This comparison was important in terms of creating a culture and promoting the consumption of camel products for the nutrition and health of the community. The project was carried out in two experiments (phase). In the first experiment, milk production and milk composition of 12 adult female camels with an average age of 7.66 ± 1.16 years and an average weight of 590 ± 57.91 kg were examined. In the second experiment, the growth and developmental characteristics of 16 young male camels with an average age of 151 ± 31 days and an average weight of 141.77 ± 29.55 kg from two ecotypes of Kalkouhi and Turkmen were studied and compared for 9 months. Milk production records were recorded daily and measurement of milk quality characteristics and weight of animals on a monthly basis. Measurement of food intake was recorded as a group and per week and measurement of weight gain was recorded individually and monthly. The results showed that the effect of ecotype and age on milk production and composition was significant ($p < 0.01$). The daily, monthly raw production of the total period of the course as well as the production of the total corrected period between the ecotypes and the categories showed a significant difference ($p < 0.01$). The average daily milk production, the total raw period and the total corrected period of the two mentioned ecotypes with values of 4.37 and 3.99, respectively; 1188.83 and 1085.39; 1433.20 and 1386.77 kg showed a significant difference ($p < 0.05$). The means of producing raw and corrected milk of different sections were also significant for the two ecotypes ($p < 0.01$), and between the categories ($p < 0.05$). The mean levels in the Kalkouhi ecotype were higher than in Turkmen ($p < 0.05$). All milk composition characteristics between ecotypes were significant ($p < 0.01$), but not significantly between categories within each ecotype. With the exception of the percentage of fat and protein, the other characteristics were higher in the Kalkouhi ecotype than in

Turkmen ($p < 0.05$). The effect of ecotype ($p < 0.01$), initial weight and weight categories on feed intake, growth performance and feed conversion ratio of camels tested was significant ($p < 0.05$). The average daily feed intake, daily weight gain and feed conversion ratio for Kalkouhi ecotype were 3.83, 0.379 kg and 9.94, respectively, and for Turkmen ecotype, it was 4.31, 0.430 kg and 9.83, respectively. Thus, the Turkmen ecotype had better growth performance than Kalkouhi ($p < 0.05$). In general, according to the obtained results, it can be stated that Kalkouhi ecotype is better for milk production and Turkmen ecotype is better for growth performance to one another.

Key Words: Camel ecotype, Growth performance, Milk production, Milk component, Kalkouhi, Turkmen.