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Comparison performance of Zandi with Zandi × Romanov crossbred sheep in farm production system at Tehran province

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Abstract

This experiment was carried out in two steps. The first step by use of 20 Zandi sheep and 20 Zandi × Romanov sheep in order to evaluate and compare their growth and reproductive performances and the second step was done by use of 10 male lambs of Zandi offspring and 10 male lambs of Zandi × Romanov crossbred offspring after weaning and in the equal conditions of fattening period in Zandi development, husbandry and breeding station. After the pregnancy period in the same condition, the reproductive data of both groups and data of weaning period and fattening period of lambs were collected and analyzed. The results showed, the birth weight of Zandi lambs and Zandi × Romanov crossbred lambs were 4.310 and 3.560 kg respectively and had significant difference with each other ($P < 0.01$). The birth weight per ewe, weaning weight, the weight of lamb weaned per ewe and daily weight gain before weaning in Zandi lambs and Zandi × Romanov crossbred lambs were 4.920 and 4.730 kg, 21.940 and 19.270 kg, 20.890 and 25.350 kg, 162 and 140 g respectively which were not significant statistically. The weight of Zandi ewes after pregnancy was higher than Zandi × Romanov crossbred ewes (50.600 vs. 45.680 kg) and had significant difference with each other ($P < 0.01$). The twinning percentage in Zandi sheep and in Zandi × Romanov crossbred were 14.3 and 31.6 kg respectively. The body weight at the beginning and at the end of fattening period and daily feed intake were affected by genotype and had significant difference ($P < 0.05$). The start weight and the finish weight of fattening period in zandi lambs and Zandi × Romanov crossbred lambs were 26.710 and 21.250 kg and 45.240 and 37.390 kg respectively ($P < 0.05$). The daily feed intake of Zandi × Romanov crossbred lambs was less than Zandi lambs in fattening period

(1.370 vs. 1.610 kg) and had significant difference with each other ($P < 0.01$). Feed conversion ratio in Zandi lambs and Zandi \times Romanov crossbred lambs were 7.920 and 8.050 respectively which were not significant statistically. The daily weight gain in fattening period in Zandi lambs and Zandi \times Romanov crossbred lambs were 204 and 177 g respectively which were not significant statistically. In general, the results showed that the crossbred lambs had more twinning percentage than zandi lambs but in other traits including feed cost for producing one kg of live weight, Zandi lambs were superior than crossbred lambs.

Keywords: crossbreeding, fattening, reproduction, Sheep, Zandi, Zandi \times Romanov