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Economic Comparison of Romanov ×Lori-Bakhtiari performance with Lori-Bakhtiari lambs

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Abstract

This study was conducted to economic compare the growth, carcass characteristics and meat quality of Lori-Bakhtiari (n=30) and Romanov×Lori-Bakhtiari (n=30) F1 lambs during two consecutive years and 120 head totally after weaning ($90\pm 5d$) and fattening period were 90 days. In during of fattening period were measured feed intake and cost of it and recored initial weights and final weight and daily weight gain. At the end of fattening periods 18 head per breed and 72 lambs totally in two years randomly slaughtered and then after 24 hours were sampled of longissimus dorsi (LD) muscle. The LD muscle were vacuum- packaged and conditioned for 1, 4 and 7 days in a chiller at $4^{\circ}C$ for measuring drip loss, cooking loss, tenderness and color of lambs meat. In order to evaluate the economic value, the cost items were calculated for different breeds, years, male and female lambs and the prices of the product produced during the project collected and economic indicators were calculated.

The results showed that crossbreeding between Romanov with Lori Bakhtiari breed significantly effects on weaning weight and daily weight gain before weaning ($P<0.05$). Weaning weight and daily weight gain of crossbreed Romanov with Lori Bakhtiari were higher than Lori Bakhtiari lambs ($P<0.05$). The fattening performance, fattail and total carcass fat of male lambs were higher than female lambs ($P<0.05$). Drip loss and cooking loss between crossbreed Romanov×Lori Bakhtiari with Lori Bakhtiari breed were not significant, but post-mortem aging times significant effects ($P<0.05$). One of the important factor in sheep meat quality were tenderness, that Lori Bakhtiari muscles meat was tender than crossbreed Romanov×Lori Bakhtiari meat ($P<0.05$) and post-mortem aging times significantly improved tenderness of LD muscle ($P<0.05$). The color (L^*) of crossbreed Romanov×Lori Bakhtiari meat were lighter than Lori Bakhtiari lambs meat ($P<0.05$) and instead of this the redness of Lori Bakhtiari lambs meat were higher than cross breed Romanov×Lori Bakhtiari meat ($P<0.05$). The values of economic indexes of feed intake efficiency, feed conversion ratio and feed cost were significantly higher in 1388 than 1399 year ($P<0.05$). The cost of lambs buy in the initial period, drugs and keeping them lambs in 2020 were higher than 2019 years ($P<0.05$). The highest income (after deduction of feed and lambs purchases costs) is related to Lori

Bakhtiari than hybrid lambs, but were not significant. The mean of efficiency rate for cost of feeding, buying and keeping for male lambs (18/51 percent) was significantly higher than female lambs (16/92 percent) ($P < 0.05$). The highest average yield per hundred feed cost unit and profit /cost ratio were for male lambs and the lowest for female lambs ($P < 0.05$). The average return values of 100 unit cost of livestock feed and the cost / benefit ratio for Lori Bakhtiari lambs increased slightly than hybrid lambs, but the order of the benefit ratio for male lambs increased significantly than female lambs ($P < 0.05$).

In conclusion, the crossbreed Romanov×Lori Bakhtiari lambs point of view growth performance before weaning were better than Lori Bakhtiari lambs and carcass fat after fattening period was lower in crossbreed lambs than Lori-Bakhtiari lambs and also meat color of crossbreed lambs preferred, but economic value compare were similar that we can recommended rearing crossbreed Romanov×Lori Bakhtiari lambs.

Keywords: Economic index, Lambs, Meat quality, Romanov×Lori-Bakhtiari crossbreed,

