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The evaluation of meat quality and fatty acids profile of Romanov×Lori-Bakhtiari and Lori-Bakhtiari lambs carcass

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Abstract:
In order of quantitative and quality meat improve national programme in Iran had done crossbreeding between Romanov with Lori Bakhtiari sheep breeds. This study was conducted to compare the growth, carcass characteristics, meat quality and fatty acids profile of Lori-Bakhtiari (n=44) and Romanov × Lori-Bakhtiari (n=44) F1 lambs during two consecutive years. At the end of fattening periods (6 months) lambs randomly slaughtered in two years and then measured carcass pH in 0, 3, 6 and 24h. After 24 hours were sampled of longissimus dorsi (LD), infraspinatus (IS) and biceps femoris (BF) muscles. The muscles were vacuum-packaged and conditioned for 0, 4 and 7 days in a chiller at 4^{o}C for measuring drip loss, cooking loss, tenderness and color of meat. For Sensory panel evaluation and fatty acids profile used of LD muscle. The results showed that crossbreeding between Romanov with Lori Bakhtiari breed significantly effects on weaining weight and daily weight gain befor weaning ($P<0.05$). Weaining 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 ($P<0.05$). Meat pH were not significant between crossbreed lambs with Lori Bakhtiari, but post-mortem aging times significant effect ($P<0.05$). Dripp loss and cooking loss between crossbreed Romanov*Lori Bakhtiari with Lori Bakhtiari breed were not significant, but post-mortem aging times significant effect ($P<0.05$). One of the important factor in sheep meat quality were tenderness, that Lori Bakhtiari muscles meat was thender than cross breed Romanov*Lori Bakhtiari meat ($P<0.05$) and post-mortem aging times significantly improved tenderness of muscles (LD, IF and BF) meat($P<0.05$). The color (L*) of cross breed 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 n-3 percent and PUFA of Lori Bakhtiari lambs meat were higher than cross breed Romanov*Lori Bakhtiari meat ($P<0.05$). The aroma and tenderness of sensory panel characteristics in Lori Bakhtiari lambs meat were higher than cross breed Romanov*Lori Bakhtiari meat ($P<0.05$). In conclusion, the cross breed Romanov*Lori Bakhtiari lambs point of view growth and performance before weaning were

beter than Lori Bakhtiari lambs, but fattening period performance (3-6 monthly) were similar. so, Lori Bakhtiari lambs meat were tender and delicious and higher of n-3 fatty acids percent than cross breed Romanov*Lori Bakhtiari lambs meat.
Keywords: Romanov, Lori-Bakhtiari, crossbreeding, fattening lambs, meat quality, fatty acids profile