The effect of birth types on growth curve parameters of Karayaka lamb
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This study focused on the comparison of the growth characteristics of single and twin birth lambs in Karayaka sheep, which is an indigenous breed of the northern part of Turkey. Gompertz growth function was fitted to body weight–age data of 81 lambs (39 males and 42 females) from birth to 10 months of age. Single birth lamb of both sexes showed lower asymptotic weight than the twin birth ones. There was a noticeable difference in the absolute growth rate between birth types before inflection point, but decline after the inflection point was slower for twins than that for singles. Similarly, the decrease in relative growth rate was higher for singles than that for twins. The Gompertz model parameters showed similar trends for birth types in both sexes. Our results indicated that the type of the birth should be taken into account besides the sex of the individuals while working on biological modelling of sheep growth and subsequent genetic evaluations of the related traits.

Alfalfa grazing increases vitamin E content and improves fatty acid profile in L. dorsi from light lambs
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Feeding strategy affects intramuscular fat quality and meat shelf life. Forage-based diets increase naturally the polyunsaturated fatty acids (PUFA) n-3 and α-tocopherol contents in lamb meat. The aim of this study was to assess the effects of forage inclusion (alfalfa grazing vs. concentrate-fed indoors) in the diet and lactation length (weaning at 13 kg vs. suckling until slaughter at 23 kg) on the fatty acid (FA) profile and vitamin E content in L. dorsi of Rasa Aragonesa lambs. Thirty-two single lambs were assigned to one of four treatments in a 2 x 2 factorial design. ANOVA test was performed. The effect of forage inclusion was significant on FA profile and on α-tocopherol and γ-tocopherol contents while the effect of lactation length was less clear. Alfalfa grazing lambs had greater content of α-tocopherol and lower γ-tocopherol than concentrate-fed lambs (P<0.05). Some concentrate feedstuffs (as soybean and colza) increase the γ-tocopherol content, whereas forage has a negligible content. Alfalfa grazing lambs had greater content of α-tocopherol and lower γ-tocopherol than concentrate-fed lambs (P<0.05). Some concentrate feedstuffs (as soybean and colza) increase the γ-tocopherol content, whereas forage has a negligible content. Alfalfa grazing increased the MUFA and CLA content and decreased the PUFA n-6/n-3 ratio (P<0.05). Lactation length had a less noticeable effect on vitamin E content and on FA profile. Weaned lambs had slightly greater α-tocopherol (P=0.06) because alfalfa grazing lambs had greater content than lactating lambs whereas weaning did not affect the content in concentrate-fed lambs (P<0.001). Weaning did not affect γ-tocopherol content (P>0.05). Weaned lambs presented less SFA, CLA and PUFA n-3 and more PUFA and PUFA n-6/n-3 than the lactating lambs (P<0.05). It can be concluded that alfalfa grazing improved the FA profile and increased the α-tocopherol in light lamb meat, which could contribute to human health. Lactation length had a less clear effect on vitamin E but suckling until slaughter increased CLA content and the PUFA n-6/n-3 ratio.