



Performance, carcass characteristics and meat quality of the autochthonous Crioula sheep breed

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This study aims to evaluate the performance, and meat quality of lambs from the autochthonous Crioula sheep breed. Thirty-one castrated and weaned male lambs of Crioula, Crioula x Dorper (CXD) and Texel breeds were compared, of initial weight of 27.2 ± 6.00 kg (3 - 4 months of age). The animals were confined in individual pens, receiving water and concentrated feed ad libitum. Performance were assessed every 14 days. The lambs were slaughtered with an average final live weight of 36.8 ± 8.12 kg. Their carcass attributes, and meat physical, chemical and sensory characteristics were evaluated. Meat fatty acid composition analysis were also carried out. The experiment was set up in a completely randomized design. Initial weight was used as a covariate for the comparison of the final weight, average daily gain and total gain. There was interaction ($p < 0.05$) between breed and period for body morphometric measurements. The Crioula and CXD breeds did not show a constant increase in body length over time as Texel breed showed. Texel lambs were heavier ($p < .0001$) and showed greater body condition score ($p < .0001$), consequently, had greater cold carcass weight ($p < .0001$), and tended to have a more convex carcass conformation score ($p = 0.0852$). Texel lambs showed greater average daily gain. However, feed conversion was not different among the breeds. The Crioula breed lambs had the highest subcutaneous fat thickness ($p = 0.0025$) and also have the highest percentage of meat fat ($p = 0.0120$). There was no effect of breed ($p > 0.05$) on meat FA type concentrations. Regarding the meat sensory parameters, the cross CXD stood out with greater tenderness ($p = 0.0129$), juiciness ($p = 0.0242$) and flavor ($p = 0.0173$). The Crioula breed and its cross CXD showed to have an earlier fat deposition, having smaller carcass when ready for slaughter. Although Texel breed have greater average daily gain, these animals eat more and have similar feed conversion than Crioula and CXD. Therefore, Crioula and CXD can be more suitable breeds than a specialized meat breed, as Texel, for a small carcass market, as verified in Southern part of Brazil. Observed sensory analysis results warrant further research.

Keywords: Texel. Dorper. fatty acids. sensory analysis. lamb.

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