INSTRUMENTAL EVALUATION OF MEAT LAMBS OF DIFFERENT BIOTYPES IN RELATION TO QUANTITATIVE AND QUALITATIVE MORPHOLOGICAL MEASURES

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Pantaneiros sheep were recently identified as a locally adapted breed of origin from South-Mato Grosso, originated from natural selection in the Pantanal/Cerrado biome and presented great production animal potential. In the initial process of formation of this breed different biotypes have been identified and explore the potential of these is crucial to subsidize breed characterization. The objective of this study was to evaluate the carcass characteristics of Pantanal lambs from different biotypes based on quantitative and qualitative morphological information. Thirty - four Pantaneiros lambs with mean age of 82 ± 8.7 days were used, uncastrated, weaned, identified with earrings, desverminated and with average body weight of 12.8 ± 3.7 kg and confined in individual stalls. The criterion used for slaughter was weight 28-32 kg and body condition score (BCC) 2.75 - 3.25. When they reached the appropriate weight and BCC, they were slaughtered according to RIISPOA standards. For the determination of the biotypes A (n = 8); B (n = 9); C (n = 5); D (n = 7); E (n = 5) a cluster study was performed using qualitative morphological measures (Head profile, Chamfer, Muzzle, Horns, Presence of wool, Color wool, Hair, Skin, Spots, Glasses, Helmets and Testicles) and quantitative (Length of head, skull, Length of face, Head width, Ear size, Neck length, Neck perimeter, Depth of body, Width of shoulders, Thoracic perimeter, Width of croup between ileus; Height of atrium, of croup, distance from belly to soil, perimeter of tarsus, metatarsus, carpus, metacarpus, length of anterior and posterior, tail, perimeter of base of tail and circumference of scrotum). After the slaughter and cooling of the carcass, the Triceps brachii muscle was removed for the instrumental analyzes of pH, color, cooking loss (CL), water retention capacity (WRC) and hear force (HF). For the qualitative analysis, among the analyzed parameters the results for HF presented mean values between 1.60 - 2.19 kgf, with differences between treatments (p = 0.032). In this way the meat of the analyzed muscle of the lambs present differences between the biotypes in relation to their softness. In relation to the quantitative analysis, a similarity was observed between the biotypes evaluated for all the instrumental characteristics studied. It is concluded that the different biotypes grouped by initial quantitative and qualitative characteristics in feedlot not influence the instrumental characteristics, keeping all parameters evaluated within the range considered normal for quality sheep meat.

Keywords: carcass, muscle, phenotype, physical analysis, quality