SENSORY ANALYSIS OF TENDERNESS EXTREMES OF MEAT FROM NELLORE
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Sensory characteristics such as tenderness determine meat quality as it is highly value-added by consumers. The animal genetic group is one of the ante-mortem factors which affects this attribute and meat from Nellore breed (Bos indicus) is known to be less tender than Bos taurus breeds. This study aimed to evaluate the texture sensory attributes of tenderness extremes of meat from Nellore aiming to use this phenotypic data for identifying candidate genes polymorphisms for tenderness. Animals (n=138) were raised at pasture and feedlot-finished for 90-110 days and slaughtered with average age of 23 months and 498.5 kg. Steaks from the left half carcass on the 12 and 13th rib were removed for analysis. Fourteen tenderness extremes, seven each (less and more tender) were chosen according to their residues values obtained from a statistical model included fixed effect of contemporary group with effects of birth and feedlot place, month birth and slaughtering date and the animal’s age at the time of measurement and the pH as co-variates. A ten-member trained taste panel evaluated the samples, data were electronically collected using nine-point descriptive scales for tenderness (1=extremely tough; 9= extremely tender) and juiciness (1=extremely dry; 9=extremely juicy). Shear force values ranged from 4.08 to 10.82 kg·cm⁻² and sensory tenderness and juiciness ranged from 2.7 to 7.8 and 3.4 to 6.0 respectively. Only sensory juiciness was correlated with shear force values (R²=0.417, P<0.01), showing sensory tenderness not necessarily corresponds to instrumental data but yet can be used as phenotypic data for further studies.