

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

THE COLOUR OF THE MEAT OF BOVINE ANIMALS CONFINED WITH HIGH GRAIN DIET IS INFLUENCED BY FREEZING, MATURATION AND GENETIC

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This study's goal is to evaluate the confined cattle's meat color under a high grain diet, subjected to different freezing times, maturation and coming from different Zebu genetic constitutions. The used animals were Nelore (N), ½ Aberdeen Angus x ½ Nelore (AN), and ½ Canchim ½ Nelore (CN), in the proportions, nine, nine and eight, respectively, with an average age of 18 months old and initial live weight average of 240 kg. The Commission of ethics in the use of Animals (CEUA)-UEMS certified the use of the animals in accordance with the Protocol 028/2017. The slaughter was carried out by concussion, being removed samples or steaks of the *Longissimus dorsi* muscle with 2.54 cm thick toward the skull of the carcass under 24 hours of cooling. The steaks were destined to treatments as follows: conventional maturity (without prior freezing) and prior freezing of -20° C for 30 and 60 days before the maturation. The meats were evaluated after 0 (24 hours post mortem), 7 and 14 days of ripening, with the aid of a Spectrophotometric colorimeter, being used the index scale of lightness (L*), red intensity (a*) and yellow intensity (b*) of CIELab. The data was subjected to statistical program R 2.11.0 and analyzed at the 5% level of significance by Scott Knott's test. The L* was higher for the AN animals (P<0.05) compared to CN and N, 39.61 vs 36.57 and 36.62, respectively. The not matured steaks presented lower values of L* (P<0.05), than the matured for 7 and 14 days, 36.38 vs 37.91 and 38.76, respectively. The intensity of red (a*) was higher (P<0.05) for the AN genetic constitution (17.60), in relation to CN and N, which obtained 16.51 and 16.50, respectively. The 30 days frozen specimens differed from the others by a*, 16.20 vs. 17.23 and 17.28 from non-frozen and 60 days frozen samples. Steaks matured for 14 days presented 15.78 as average value for a*, the ones of 0 and 7 days, 18.16 and 16.74, respectively, differed statistically (P<0.05). For b*, animals N, AN and CN, differed significantly (P<0.05), 8.05, 8.68 vs 7.40, respectively. Samples that were not frozen showed averages of 7.76 and the frozen for 30 and 60 days 8.18 and 8.31, respectively. The maturation time showed no significant difference (P>0.05). The color of the steaks was influenced by freezing, genetic constitution and maturation time.

Keywords: angus, canchim, CIELAB, nelore, top grain

Promoção e Realização:



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