

## **THEME 9 | RUMINANT NUTRITION AND PRODUCTION**

### **Meat quality of Nellore cattle finished in feedlot fed with diets containing agroindustrial co-products or not**

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The objective of this study was to evaluate the effect of the use of co-products of the vegetal production on the quality of meat of Nellore cattle finished in feedlot. Two experimental treatments were used: 1 - conventional diet (corn silage, soybean meal, mineral nucleus and urea) and 2 - diet with co-products (corn silage, corn germ, citrus pulp, peanut meal, urea). The diets were adjusted to the gain requirements of the animals according to the phases (adaptation, growth and termination) and balanced to be isoprotein and isoenergetic (16% CP (crude protein) and 72% TDN (total digestible nutrients) in the adaptation, 15% CP and 74% TDN in growth and 14% CP and 76% TDN at termination, respectively). Fifty-two non-castrated Nellore males weighing  $316.4 \pm 7.0$  kg were fed for 148 days and slaughtered in commercial abattoir with a final weight of  $477.8 \pm 7.6$  kg. For the evaluation of pH, water-holding capacity (WHC), cooking losses (CL), and shear force (SF) at zero, seven and 14 days, three samples were collected 2.5 cm thick longissimus thoracis muscle between the 12<sup>th</sup> and 13<sup>th</sup> ribs of the cooled half carcass. The data were submitted to an analysis of variance by the SAS proc mixed, considering in the model the block effect, treatment, day and the respective interactions. For the multiple comparison of means the Tukey's test was adopted with significance level of 5%. The pH, WHC and CL were not influenced ( $P>0.05$ ) by the experimental diets, nor by the different periods of maturation. The meat tenderness also did not undergo alterations by the different diets used. Treatments 1 and 2 did not present significant differences ( $P>0.05$ ) for FC and presented values (6.02 and 6.83 kgf, respectively) greater than 4.5 kgf, a tenderness value considered acceptable. The use of co-products proved to be a viable alternative from the point of view of quality to replace the conventional ingredients of diets used in confinement of beef cattle, since it did not promote qualitative changes in the meat.

**Keywords:** citrus pulp, corn germ, longissimus thoracis, nutrition, peanut meal

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