

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## PHYSIOLOGICAL PARAMETERS OF BOVINE IN TWO PERIODS OF THE TIME FEEDING WITH REHYDRATED CORN GRAIN SILAGE

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The objective was to evaluate physiological parameters for crossbred calves in two periods of the time (PT) feeding with rehydrated corn grain silage in substitution of milled corn (0, 25, 50, 75 e 100%) na UFG/Regional Jataí (Ethics Committee n°057/17). Five crossbred calves (177.2±18.2 kg), kept in individual stalls (1.2x3.0 m) with cemented floor, equipped with drinking fountain and trough, and covered with ceramic tile. The rehydrated corn grain silage was made in polyethylene drums (200 L) with bacterial inoculant. Diets were composed of 60% roughage (tifton hay) and 40% concentrate (soybean meal, urea, mineral salt, milled corn grain and/or rehydrated corn grain silage) feeding at 8:00 a.m. and 4:00 p.m. The experiment was performed in 5x5 Latin square (5 periods of 17 days), the first 12 to adapt the animals to the diet and on the 16th day the data were collected. The haircoat surface temperature (HST) was measured with the infrared digital thermometer and visually counted the respiratory rate (RR) at each hour in the morning (AM; 8:00 a.m. at 12:00 noon) and in the afternoon (PM; 1:00 to 5:00 p.m.). In these moments, were also analyzed climatic variables (relative humidity–RH; ambient temperature-AT; the wet bulb globe temperature index-WBGT and the temperature and humidity index-THI). Physiological variables were analyzed in subdivided plot (plot= diet and subplot= PT). Climatic variables were analyzed considering the PT and the collection period. Sperm correlation was analyzed (physiological and climatic variables). The interaction was not of diet and PT and also the diet effect (P>0.05). The RR was higher (P<0.05) in the afternoon (31.73 vs 29.65 mov./min.). Only the WBGT was not influenced (P>0.5) by the PT (AM=75.23 and PM=77.14) and only the RH presented lower values for the afternoon (74.68 vs 81.72%), while the others presented the highest values in this period (AT=28.14 vs 25.03°C, THI=77.58 vs 74.77). For HST, a positive correlation was verified (P<0.05) with RR, AT, WBGT and THI and a negative correlation for RH. However, the RR there was only a correlation (P<0.05) with AT and WBGT. These results were due the highest afternoon temperature because these animals are less adapted to the tropical climate and need to lose more heat to maintain thermal equilibrium. Diets did not increase the production of body heat, not resulting in thermal stress and, consequently, increase of the values of the physiological variables.

**Keywords:** bioclimatology, ensilage, feed management, tropical climate

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