

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

CHARACTERIZATION OF BIOCLIMA FOR MILK COWS IN THE SOUTHEAST OF PARÁ

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The objective of this study was to evaluate the bioclimate for dairy cows submitted to milking in southeastern Pará. The work was carried out at the MJF Agropecuária, located in the municipality of Redenção, state of Pará. The environmental variables were collected during the months of October to November 2017 corresponding to the hot period of the year. Maximum and minimum temperature, air temperature, air humidity and black globe temperature were recorded, as well as the black globe temperature index and humidity. The data were collected throughout the day from 4 to 18 hours during the whole experimental period. The data were analyzed using the SISVAR (2010) program, version: 5.3 submitted to analysis of variance and compared by the Tukey test at 5% probability. Based on air temperature throughout the day, it was within the thermal comfort zone for ½ Holstein-Gir cows from 4 to 9 am with values ranging from 25 to 29.79 °C, according to Miranda and Freitas (2009), who quotes mestizo breeds values from 5 °C to 31 °C and outside the comfort zone from 10am to 6pm, while for Jersey cows all the analyzed schedules were above the comfort zone. According to the same author C at 21 °C). With respect to the minimum temperature (24.8 °C), the mestizo genotype remained within the comfort range when compared to Jersey, however, at maximum temperature (37.47 °C) the two genotypes were outside the zone of thermal comfort. The humidity of the air remained above 70% from 4 to 8 o'clock in the morning, and the times of 04, 05, 07 hours were characterized as not ideal for the animals, because according to Kadzere et al. (2002), relative humidity between 75% and 78% is considered as stressful. The temperature index of the globe and humidity presented averages varying from 73.60 to 84.63, and it was verified that the animals were always subjected to moderate to severe heat stress. Cows of the ½ Holstein-Gir breed compared to the Jersey breed had a better fit, remaining within the thermal comfort zone most of the day for some environmental variables analyzed.

Keywords: air temperature, environmental variables, comfort zone

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