**CORRELATIONS BETWEEN METEOROLOGICAL VARIABLES AND THE PHYSIOLOGICAL VARIABLES OF SHEEP F1 (SANTA INÊS X DORPER)**

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Sheep breeding is of great importance for national livestock breeding and the improvement of productive indexes has been based on complementary crosses such as the Santa Inês breed with the Dorper breed. However, in hot environment the expression of the F1 superiority can be compromised. Thus, the objective was to verify the correlation between the environmental variables and the physiological variables of F1 sheep (Dorper x Santa Inês). Were measured from June to December in 25 crossbred ewes (Santa Inês x Dorper) The physiological variables: rectal temperature (RT), respiratory rate (RR), heart rate (HR), fleece temperature (FT), and epiderm temperature (ET); and recorded the meteorological variables: air humidity (AH), air temperature (AT) and mean radiant temperature (MRT) measured by black globe temperature and wind speed. Pearson correlations were made between the physiological and the meteorological variables. The AT had a positive correlation with all the physiological variables with the exception of HR, which was negative of -0.22. The AT showed a correlation of 0.59 and 0.53 for FT and ET, respectively. AH had a correlation with ET of only 0.06. And the MRT had a positive correlation with all variables except the HR. The physiological variables of F1 sheep have low to moderate correlations with the meteorological variables.

**Keywords:** environmental, heart rate, rectal temperature, respiratory rate, surface temperature

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