

Heat tolerance of Nelore, Senepol x Nelore and Angus x Nelore heifers in the southeast region of Brazil

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The Brazilian beef production chain has experienced an increase in the utilization of adapted and non-adapted taurine breeds in crossbreeding systems. In spite of this, little is known about the adaptability of these groups and of their crossbred products when raised in tropical climate. The aim of this study is to evaluate the physiological responses related to adaptability of Nelore (NE) and crossbred Angus x Nelore (TA) and Senepol x Nelore (SN) cattle submitted to a heat tolerance trial. The study was conducted in the Southeast – Embrapa Cattle (CPPSE), São Carlos, Brazil. A total of 45 heifers, 15 of each genetic group, were evaluated in three days, at 7:00 a.m. (resting measure), at 1:00 p.m. (after 6 h under the sun with no access to water and shade) and at 4:00 p.m. (after 2 h under the sun with access to shade), during the summer 2008. Rectal temperature and sweating rate were measured and the data were analyzed by the least squares method. The effect of genetic group for the rectal temperature was significant ($P < 0.05$) only at 4:00 p.m. and for the sweating rate in all three measurements ($P < 0.01$). The SN group had the lowest values.