It is known that the incidence of solar radiation is the main element of the processes of thermal changes in facilities and may compromise the behavior and welfare of animals. The objective of this study was to evaluate the behavior of climatic variables in two types of stables used for equines in the semi-arid region of Minas Gerais. The design was completely randomized, with two treatments (ceramic covered bays and zinc covered bays) and 07 days of evaluation. The climatic variables collected in the external environment and the internal environment of each type of coverage were air temperature, relative humidity, dew point temperature and black globe temperature. The data of the climatic variables were calculated the wet and wetland temperature index (ITGU). Throughout the day, the air temperature was elevated, and only after 19:00 hours, with the decrease of the air temperature combined with the increase of the relative humidity, the ITGU values decreased. There was a significant difference in the air temperature between the ceramic and zinc cover stables only for the air temperature. The air temperature in the ceramic cover stables was similar to the external environment temperatures, despite the lower right foot. On the other hand, the relative air humidity, although similar in both types of coverage, was superior to the external environment (P<0.05). The air temperature in the internal environment of the installation was higher in the zinc covered bays (28.2°C). It can then be inferred that ceramic tiles (27.0°C) dissipate heat more easily than zinc coated bays (28.2°C). The most suitable type of bin cover for equine animals in the semi-arid region of Minas Gerais is ceramics because it provides better dissipation of the heat, probably giving greater thermal comfort to the animals, without prejudice to their performance. More studies are needed at different times of the year to verify the effect of the types of coverage on the performance of the animals.

**Keywords:** Welfare, horses, stables

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