

**Behavioral aspects of Caracu and Red Angus cattle breeds in a pasture with shade and water immersion**

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The shade is an important resource in the extensive production systems in tropical regions. The aim of this study is to understand through behavioral analysis, the preferences of animals for resources for environmental protection. The experiment was conducted in the Biometeorology and Ethology Laboratory of FZEA-USP. Six male of Caracu and Red Angus cattle breeds were used. The animals were submitted to 2 different treatments: availability of artificial shade and water for immersion and availability of water for immersion. The observations of the behavioral patterns were recorded using the focal sampling method every 15 minutes (12h/day). The observed positions were: in the sun, under the shade and in the water. The posture observed were: standing, lying down and behavioural activities were grazing, ruminating and rest. The data concerning to the time spent in different behaviors and different positions were analyzed by the multifactorial variance (ANOVA-GLM). The fixed factors used were the breed and treatment. The results had shown that grazing activity was the behavior in which both breeds had spending more time (especially in the cooler periods), followed by ruminating in the Caracu and by resting in the Red Angus. The results also had shown that shade can be used as a shelter against solar radiation as well against rain. The Caracu had presented a clear preference for the shade, particularly in the hottest hours. However this was not always observed in Red Angus, who sometimes chose to remain in the water. In hot climates, resources for defense against heat load, as shade and water for immersion can really improve the welfare of the cattle.