Animals made on extensive pasture systems may undergo from caloric stress, especially the less heat-adapted breeds and knowledge of animal behavior patterns is of paramount importance in establishing pasture management techniques. The objective of this study was to verify the behavior of sheep created to pasture during the light period in Barra do Garças – MT. Twelve sheep were used, six of the Santa Inês breed and the other of the Dorper breed, all females with a mean age of two years and a mean weight of 58 kg. To record behavioral parameters were used to record the route time, instantaneously through the scan sampling route sampling interval every 15 minutes during the period from 06 a.m. to 7 p.m. for three non-consecutive days. The behavioral parameters were evaluated according to posture (standing or lying down); position (in the sun or in the shade) and activities (grazing, supplementation, rumination, in idleness and Others). The meteorological parameters were monitored dry bulb temperature, relative humidity, black globe temperature in the sun and in the shade. For statistical analysis the frequencies of behavioral parameters were calculated and there after the arc sine root transformed and the occurrence percentages of these parameters. The meteorological variables recorded during the behavioral study were above the comfort zone by subjecting the animals to a situation of thermal stress during the majority of the observation period with a mean dry bulb temperature of 33.38°C e and black globe temperatures in the sun and in the shade of 48.23°C and 37.70°C, respectively. During the period of observation the Dorper animals remained in longer grazing time during the hottest times of the day compared to the Santa Inês breed. Santa Inês sheep remained longer in the shade than the Dorpers and spent less time grazing during daylight hours due to their lower nutritional requirement. The Dorpers spent less time ruminating and idleness than the Santa Ines, who spent most of their time ruminating and idle. The Dorper can be created in our region providing have shade available and good quality food.

Keywords: grazing, idleness, ruminating