

PROCEEDINGS



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A NEW VIEW  
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CHALLENGES AND  
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# A NEW VIEW OF ANIMAL SCIENCE: CHALLENGES AND PERSPECTIVES

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**THEME 9 | RUMINANT NUTRITION AND PRODUCTION**

**Goat grazing behavior supplemented with rations containing *Copernicia prunifera* or *Bactris setosa* palms fruits**

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Protein-energy supplementation in pastures promotes increase in nutrient supply, in addition to improving the use of animal fodder. In this sense, as alternative to classic ingredients which have a high cost, Carnauba (*Copernicia prunifera* (Mill.) H.E. Moore) and Tucum (*Bactris setosa* Mart.) palms fruits are of high availability in Mid North of Brazil. The objective of this research was to evaluate the grazing behavior of goats supplemented with rations containing Carnauba or Tucum palms fruits. An area of 0.330 ha<sup>-1</sup> of *Panicum maximum* cv. Tanzania was divided into nine pickets, in a rotational stocking system, and the pasture was managed at 24 days of regrowth in three grazing cycles, allowing forage supply of 8.25% and stocking rate of 4.53 UA ha<sup>-1</sup>. Twenty one male goats with 21.7 ± 2.4 kgLW were divided into three groups, one being exclusively pasture and two supplemented at 1.5% LW level at 8:00 hours with rations containing 40% of Carnauba or Tucum palms fruits in supplements formulated to meet 40% of the requirements of goats (0.103 kgCP day<sup>-1</sup> and 0.570 kgTDN day<sup>-1</sup>). The grazing behavior was evaluated during three days in each grazing cycle, by visual observation every 10 minutes, recording the grazing, leisure, rumination and displacement activities. Goat supplementation in pasture resulted in reduction (P<0.05) of the grazing time in relation to group only in pasture (5.59 h), due energy of the supplement, with a consequent increase of the leisure time by supplemented animals (2.53 h), in average 1.08 h more than the control group (1.45h). The supplemented animals moved longer in the picket (0.47 h) than the animals kept only on pasture (0.26 h). There was no influence (P>0.05) in rumination time (0.69 h), because this activity occurs preferably at night. There was higher grazing frequency (P<0.05) for animals kept only in pasture, with more than 90% of the animals performing this activity in 9:00 AM to 10:30 AM, and only 45% of supplemented goats during that period, with increase after 10:40 AM (88%). The temperature and humidity index (THI) estimate to morning was 70.2 and to afternoon 72.1, with the highest THI recorded among 12:00 PM to 13:00 PM (74.8) and in 13:00 PM to 14:00 PM (75.2), above the alert interval of thermal stress (74 to 78) to goats, reducing the percentage of animals in grazing activities in this period to less than 45%. Supplementation of goats with rations containing carnauba or tucum palm fruits reduces pasture consumption, relative to level and feed formulation, resulting in possibility of increase stocking rate and optimize animal production by area.

**Keywords:** alternative feed, *Copernicia prunifera*, grazing, pasture supplementation

**Knowledges:** CAPES, CNPq.