

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

FORAGE PRODUCTION AND LUMINOSITY ASPECTS IN A SILVIPASTORIL SYSTEM IN THE FOREST ZONE OF PERNAMBUCO, BRAZIL

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The study was carried out in the city of Itambé - PE, at the Experimental Station of Agronomic Institute of Pernambuco (IPA). The aim of this study was to measure foliar area index (LAI), light interception (LI), to evaluate *Brachiaria decumbens* Steud. performance in monoculture, and at different distances (0.0, 2.5, 5.0, 7.5 m) when in it is cultivated in consortium with Sabiá trees (*Mimosa caesalpiniiifolia* Benth). The Braquiária was implanted in the area in the late 1980's and Sabiá trees in 2011. Three randomized blocks were formed measuring 1 ha each. Half of the block was formed by a double row (15 m spacing between row pairs, 1, 0 m between rows and 0.5 m between plants in the same row) and the other half per single row (spacing 16 m between rows and 0.5 m between plants from the same row). The samples of Braquiária were collected three times in each block using a 0.5 x 0.5 m (0.25 m²) PVC frame. The LAI and LI data were collected by a ceptometer device (Decagon model AccuPAR LP-80). The evaluations occurred every 60 days from June 2016 to December 2017. The precipitation mean in the experimental period was 61 mm during the dry season and 176 mm in the rainy season. The data were analyzed by SAS Proc Mixed using a model that included time of year, crop conditions and different distances starting from the row of Sabiá. As a result, the statistic shows that the production of *Brachiaria* differed from other treatments in relation to the time of the year (280 and 330 kg DM/ha.m⁻¹ - dry and rainy, respectively), besides presenting greater production as much as farther it is from the row (5.0 and 7.5 m). The LAI values were higher in monoculture area and 7.5 m from distance from Sabia trees (LAI - 1.5 and 2.4). According to data obtained from LI, the finding was 43% and in the rainy season 34%. Braquiária production was affected mainly by shading at distances of 0 and 2.5 m, which presented an LI mean of 5 and 23%, respectively, when compared to the distances of 5.0 and 7.5 m (50 and 55% in sequence) and monoculture with 73%. In conclusion, the production of Braquiária on consortium management with Sabiá in both conditions of rows (distances of 0 and 2.5 m) was affected.

Keywords: *Brachiaria decumbens*, LAI, *Mimosa caesalpiniiifolia*

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