Biomass Flow of Paiaguas Palisadegrass after Intercropping with Sorghum in Different Forage Systems

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Crop-livestock integration has been shown to be a sustainable and viable alternative for the recovery of degraded areas. The knowledge of morphogenetic parameters can increase the forage produced in intercropped systems. Thus, the present study aimed to evaluate the morphogenetic Paiaguas palisadegrass after sorghum intercropping for pasture recovery in different forage systems with crop-livestock integration. The experiment was conducted in the cattle sector of the Goiano Federal Institute, Rio Verde campus, from July 2015 to August 2016. The experimental design was a randomized complete block design with four replications. The treatments were composed of the following forage systems: Paiaguas palisadegrass in monoculture, sorghum intercropped with Paiaguas palisadegrass in the row, sorghum intercropped with Paiaguas palisadegrass in the interrow, and sorghum intercropped with oversown Paiaguas palisadegrass. The evaluations were carried out in the four climatic seasons of the year in the same plots, during the period of one year. The area of each plot was 1042 m² and was divided into 20 paddocks by an electric fence. The animals used were 32 Nelore breed females, with a mean age of 12 months (heifers) and mean initial weight of 180 kg. The grazing method was the continuous stocking, with a variable stocking rate. For evaluations of the morphogenic characteristics, five tillers per experimental unit were marked throughout the experimental period. In each data collect cycle, a new tiller group was selected for evaluation. Among the morphogenic characteristics, wasn’t observed influence of the forage systems for the variables leaf appearance rate (LApR), leaf life spam (LLS) and leaf elongation rate (LEIR) (p>0,05). For seasons of the year, a significant difference was observed (p<0,05), with a decrease in the values of LApR and LEIR during the seasons. The climatic characteristics had direct correlation with the LApR and LEIR, but without influence of intercropping. For the LLS, the Paiaguas Palisadegrass shown the effect of Winter in his production, with the increase of the life days (p<0,05). The morphogenic results proved that the different forage systems of recovery pastures did not affect the development of the Paiaguas palisadegrass.

Keywords: morphogenesis, recovery pastures, structure

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