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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

MORPHOGENIC EVALUATION OF *BRACHIARIA DECUMBENS* UNDER DOSES OF SWINE BIOFERTILIZERS

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The objective of this study was to evaluate the response of *Brachiaria decumbens* to increasing doses of biofertilizers, using a completely randomized design, with four treatments and four replications, with treatments corresponding to the doses of biofertilizer of pigs (0, 50, 100 and 150 $m^3.ha^{-1}$). The plants were cultivated in plastic pots with a capacity of 20 L and put in an agricultural oven with a thermoreflection screen of 50% shading. A simple superphosphate (18% P_2O_5, 20% CaO, 12% S) per pot, based on soil analysis. Biofertilizer was applied in installments, occurring three days before sowing and 15 days after emergence (DAE). The following variables were evaluated: plant height (AP), leaf length (CLF), leaf blade width (LLF) at 15, 30, 45 and 60 DAE. The variables AP, CLF and LLF were determined using a ruler graduated in centimeters, and the four plants of the experimental unit were measured. The results were submitted to analysis of variance and for those that presented significance the Tukey test was used, with 5% of significance, to compare the means with the aid of the System of Statistical and Genetic Analysis - SAEG (UFV, 2001)). For all analyzed variables, except for leaf blade width at 30 DAE and plant height at 50 DAE, a quadratic effect was verified, where taking the equation for the plant height variable at 30 DAE yields a recommendation, with based on the derivative of the equation, of 148 $m^3.ha^{-1}$. If the producer wants to work with a longer rest period, where the plants will have a higher phenological age, such as 45 DAE, and also taking the height of

the plant as a morphogenic characteristic to measure the mass of forage, the recommendation of use of biofertilizer swine production will be 140 $m^3.ha^{-1}$. Observing the results obtained in this research, it can be concluded that the application of swine biofertilizer is a feasible practice to optimize the production of grass forage *Brachiaria decumbens*, where the recommended dose may vary according to the pasture management practice adopted by the producer.

Keywords: forrage, pasture, plant nutrition