MORPHOGENESIS OF XARÃES GRASS SUBMITTED TO DIFFERENT FORMATION FERTILIZATION STRATEGIES

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Brazilian soils, in general, are acids and require nutrients, such as phosphorus and potassium, which makes correction and replacement essential nutrients, especially in the formation of pasture areas. Thus, the objective of this work was to evaluate the morphogenic characteristics of Brachiaria brizantha cv. Xarães submitted to different fertilization formation strategies. The experiment was conducted in a greenhouse from 09 December 2017 to 24 February 2018, in an area belonging to the Federal Rural University of Amazonia, Pará. A completely randomized design with three treatments and six replicates was used. The treatments were: CT = control (No fertilization and no liming), LNPK (liming + NPK); and only ARAD (reactive natural phosphate). The sowing of the Xarães grass was carried out in pots, and in the LNPK treatment the liming was carried out before sowing. On the day of sowing, NPK and arad were applied in their respective treatments. The morphogenic evaluations were carried out in three plants per pot for determination of leaf elongation rate (LER), leaf appearance rate (LAR), phyllochron, leaf senescence rate (LSR), stem elongation rate (SER) and leaf life span (LLS). The data were submitted to statistical analysis according to the PROC MIXED procedure of the statistical package SAS. The effect of the treatments (P <0.05) was observed in all analyzed variables. The effects of the LNPK and the arad on the morphogenic variables were similar, being observed for the variables LAR, LER, LSR, SER and LLS, values of 0.11; 6.61; 0.69; 0.66 and 41.9 for the CPNK respectively, 0.10; 5.60; 0.57; 0.55 and 40.42 for the arad respectively. The phyllochron in the control system was statistically higher than CNPK and similar to the arad treatment, with values of 11.63; 8.87 and 9.79 respectively. It is possible to observe the direct effect of phosphorus on pasture formation, even in the form of arad that has low solubilization in the soil, accelerating the formation and development of pastures and consequently the faster use of the area.

Keywords: Arad, Brachiaria brizantha, liming