MORPHO-AGRONOMIC EVALUATION OF REGROWTH OF SILAGE SORGHUM GENOTYPES FOR RECOMMENDATION IN THE SOUTHERN CAPIXABA REGION

AVALIAÇÕES MORFOAGRONÔMICAS DA REBROTA DE GENÓTIPOS DE SORGO SILAGEIRO PARA RECOMENDAÇÃO NA REGIÃO SUL CAPIXABA

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Abstract

Silage sorghum has proved to be a formidable alternative for use as animal feed since the Brazilian production of grains and silage depends almost exclusively on rainfall in the growing regions. This crop shows potential for cultivation in adverse climate and soil conditions, thus being able to reduce the impact of this factor on the supply of animal feed in times of drought. For Brazil agriculture and livestock breeding, it is strategically important to have an area occupied with sorghum, since it facilitates obtaining raw material for silage production and generates yet another source of income to sustain family farmers, because the crop does not have high water demand and is easy to handle. The objective of this work was to evaluate 25 sorghum genotypes to recommend cultivars adapted to the soil and climate conditions of the Caparaó Capixaba region. The different genetic materials from the Embrapa sorghum breeding program were evaluated in a randomized block design with three replications. The plots were divided into two rows five meters long and 0.70 meters apart. The experiment was conducted under rainfed conditions. The following morpho-agronomic and production traits were evaluated: days to flowering, number of days elapsed from planting to the point where 50% of the plants in the plot are flowering; initial stand (number of plants per usable area of the plot); plant height; number of sick plants; total plant weight; stem weight, leaf weight, and panicle weight. For the selection of genotypes, analysis of variance and the F test were performed at 5% probability. Subsequently, the Scott-Knott test of the means was used at 5% probability. Considering the importance of the interaction of the genotype with the environment, this work proved to be relevant, because for all the morpho-agronomic and production traits of silage sorghum, there was a significant difference, indicating that each genotype behaved differently in the region studied. These results showed that the cultivation of forage sorghum under the soil and climate conditions in the Caparaó Capixaba region is possible and indicated that the genotypes T5, T6, T7, T9, T11, T17, T18, T19, T20, and T21 stood out due to their high production, earlier flowering, and reduced number of sick plants.

Keywords:

Animal nutrition, environmental interaction, genotype, plant genetic improvement.