

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## EFFECT OF NITROGEN FERTILIZATION IN THE PRODUCTION OF BIOMASS OF INTERSPECIFIC HYBRIDS OF *PASPALUM*.

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Grasses of the genus *Paspalum* are widely distributed in the subtropical and tropical regions of the Americas. Most of these species are perennial and provide excellent fodder in native pastures of these regions, presenting potential for genetic improvement, aiming the establishment of cultivated pastures. Thus, the objective of this work was to evaluate the total dry mass production of interspecific hybrids of *Paspalum plicatum* (4c-4x) and *Paspalum guenoarum* submitted to different levels of nitrogen fertilization. The study was conducted at the Agronomic Experimental Station (EEA) belonging to the Faculty of Agronomy of the Federal University of Rio Grande do Sul (UFRGS), located in the municipality of Eldorado do Sul / RS. The experimental design was of subdivided plots with three replicates. The experimental units consisted of 60 plants per plot measuring 2.4 m<sup>2</sup>. The experiment was composed of five levels of nitrogen: 0, 60, 120, 240 and 480 kg.ha<sup>-1</sup> of N. Four interspecific hybrids were evaluated, two hybrids (10-20133 and 10-2069), obtained from the crossing *P. plicatum* (4c-4x) x *P. guenoarum* (Azulão ecotype) and the other two (10-3061 and 10-3084), from the *P. plicatum* (4c-4x) x *P. guenoarum* (Baio ecotype), a native *P. guenoarum* (Azulão) ecotype and cv. Aruana (*Megathyrsus maximus*) as a witness. The total dry matter yield (MST) presented great variability among the genotypes in response to the nitrogen doses, proving the presence of genetic variability and nitrogen influence in the biomass production. The hybrid 10-20133 was superior to the other hybrids and similar to the Azulão ecotype and, like the hybrid 10-2069, superior to cv. Aruana. In view of the data, it is observed that the genetic improvement, through interspecific hybridization, provided the progenies with forage potential. The productive performance of the hybrid 10-20133, relative to the control, makes it promising as a new cultivar alternative.

**Keywords:** forage, nitrogen, *Paspalum*

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