

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

### **Volumetric density of the digit grass submitted to frequency and severity of defoliation**

Pryanka Thuyra Nascimento FONTES\*<sup>1</sup>, Luiz Paulo de Souza SANTOS<sup>1</sup>, Gilmartins Alves NASCIMENTO<sup>1</sup>, José Ricardo dos SANTOS FILHO<sup>1</sup>, Rafaela Stefanny Rodrigues FLORENCIO<sup>1</sup>, Anna Luiza Hora DOS SANTOS<sup>1</sup>, Jailson Lara FAGUNDES<sup>1</sup>, Alfredo Acosta BACKES<sup>1</sup>

\*corresponding author: [pryankafontes@yahoo.com.br](mailto:pryankafontes@yahoo.com.br)

<sup>1</sup>Universidade Federal de Sergipe, São Cristóvão, Sergipe, Brasil

The present study has as objective to evaluate the volumetric density of forage, leaf blades, stalks and dead material of digit grass submitted to two defoliation heights and two heights of post-cut residue. The experiment was conducted at the Federal University of Sergipe Field of Forage Practices from July 2017 to March 2018, in an area of 80 m<sup>2</sup> cultivated with digit grass (*Digitaria eriantha* Steud cv. Suvernola). The treatments consisted of a combination of two frequencies (40 and 50 cm) and two post-cut residues (10 and 20 cm). A randomized complete block design with five replications was used. The volumetric density of the forage (kg ha<sup>-1</sup> cm<sup>-1</sup>) and the morphological components were calculated from the division of the accumulated forage mass and the morphological components in DM by forage removal heights. The value of the volumetric density of the forage and of the components corresponded to the averages of each of these variables for each of the growth cycle. The results were submitted to analysis of variance (ANOVA) and presenting a significant result was realized the Tukey test at 5% of significance, using the SAS statistical program. There was a significant difference in the forage volume density (P <0.05), where the treatments with a frequency of 40 and 50 cm and a 10 cm residue had higher mean values, 49.82 and 47.59 kg ha<sup>-1</sup> cm<sup>-1</sup>, respectively. There was no significant difference between the treatments for volumetric density of the leaf blade component, with a mean of 27.02 kg ha<sup>-1</sup> cm<sup>-1</sup>. The volumetric density of the stalks was influenced (P <0.05) by the combination between the frequency and the post-cut residue, where the plants submitted to the 40 cm frequency and 20 cm post-cut residue had lower volumetric density of stalks, presenting an average of 11.51 kg ha<sup>-1</sup> cm<sup>-1</sup>. The volumetric density of the dead material was not influenced by the frequencies and post-cut residues, with a mean of 1.47 kg ha<sup>-1</sup> cm<sup>-1</sup>. The plants submitted to the 10 cm residue presented higher volumetric density of the total dry matter.

**Keywords:** *Digitaria eriantha*; Northeast; plant growth

Promoção e Realização:



Apoio Institucional:



Organização:

