

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## CHEMICAL COMPOSITION OF ANDROPOGON GRASS DEFERRED AT TWO CLOSURE TIMES

Raphael Ramos SILVA<sup>1</sup>; Rosane Claudia RODRIGUES<sup>1</sup>; Clésio dos Santos COSTA<sup>2</sup>; Giovanne Oliveira Costa SOUSA\*<sup>1</sup>, Leonardo Santana FERNANDES<sup>1</sup>; Bianca Sarges de ARAÚJO<sup>1</sup>; Clene dos Santos REIS<sup>1</sup>; Jaynara dos Santos MORAES<sup>1</sup>

\*corresponding author: giovannezootecnista@gmail.com

<sup>1</sup>Universidade Federal do Maranhão, Chapadinha, Maranhão, Brasil

<sup>2</sup>Universidade Federal do Ceará, Fortaleza, Ceará, Brasil

Pasture deferment is a strategy that consists of storing an ideal amount of herbage of the best possible quality to overcome the herbage-shortage problem occurring in the dry period of the year. This study proposes to evaluate the chemical composition of andropogon grass (*Andropogon gayanus* Kunth cv. Planaltina) subjected to three harvest heights and two closure times. The experiment was set up as a 3 × 2 factorial arrangement represented by three harvest heights (15, 25, and 35 cm) in the rainy period and two times for the start of the pasture closure period (May and June), with three replicates. To determine the chemical composition, two samples were collected per plot by using a 0.25-m<sup>2</sup> square frame. Samples were weighed before and after drying in a forced-air oven at 55 °C for 72 h. Subsequently, they were ground through a Wiley mill to 1-mm particles and packed in plastic bags. Dry matter (DM), mineral matter (MM), crude protein (CP), neutral detergent fiber (NDF), acid detergent fiber (ADF), and lignin contents were determined. The andropogon grass deferred in June had higher DM and MM contents as compared with the pasture closed in May. The harvest height of 35 cm provided the highest DM content, which can be explained by the greater participation of stem in comparison with the other treatments. There was an interaction effect (harvest height × closure time) for CP, NDF, ADF, and lignin. Harvest height did not affect the CP of the pasture closed in May but influenced the pasture closed in June, whose CP content was 4.7% when managed at the harvest height of 25 cm. The lowest NDF, ADF, and lignin contents were obtained in the pasture closed in June (70.1, 43.0, and 6.2%, respectively), which was likely a consequence of the grass height, which reached 59.75 cm in June and 230.72 cm in May. Greater grass heights promote larger proportions of structural fiber. The highest NDF and ADF contents were observed in pastures managed at a 35-cm harvest height. Andropogon grass should be managed in the rainy period at a height of 25 cm, and deferment should begin in June.

**Keywords:** intake, herbage, nutritional value

Promoção e Realização:



Apoio Institucional:



Organização:

