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Losses of BRS Capiaçú grass silage: a study based on different storage times

Cleiton Francisco da Silva*¹, Luan Monteiro dos Anjos¹, Maria Josilaine Matos dos Santos Silva¹, Vitor Visintin Silva de Almeida¹, Aline Cardoso de Oliveira¹, Kedes Paulo Pereira²

¹Universidade Federal de Alagoas, Arapiraca/Alagoas, Brasil; ²Universidade Federal de Alagoas, Rio Largo /Alagoas, Brasil. *Cleiton.silva@arapiraca.ufal.br

BRS Capiaçú Elephant Grass is widely used in animal feeding during the dry season whether in natural or ensiled form; however, in the semiarid regions, there is very little amount of rain. There is a time of year when a high volume of food is normally produced, while at other times of the year there is almost no food production. Therefore, producers began to store excess food produced during the rainy season, in the form of silage to guarantee food for the animals during the dry season. We aimed with the present study evaluate the losses of dry matter, gases and effluent from BRS Capiaçú Elephant Grass silage, depending on storage time, with the experimental silos opened at 18, 28 and 38 days after being closed. A Completely Randomized Design was used. The data were subjected to analysis of variance at 5% probability, using the Tukey test to compare treatment means. The silage was made at the Federal University of Alagoas - Campus Arapiraca and grass was purchased from Agropecuária Exuberante do Agreste, located in the countryside of the municipality of Arapiraca, in the Agreste Region of Alagoas, Brazil. BRS Capiaçú was manually, chopped (2 to 3 cm) and stored in buckets. After the ensiled material was assembled, well compacted, each bucket was sealed and identified with the opening projection of each one. The experimental silos were made up of buckets with lids (lids adapted with a Bunsen valve), with a capacity of 15 L, where 4.055 kg of sand was added. The chopped material was separated from the sand by two layers of screen, preventing contact between the grass and the sand and allowing the passage of effluent. At the opening of each bucket, sand and screen were weighed to obtain the effluent, that is, the final weights of the bucket, sand and screen were added and compared to the added initial weights of the bucket, sand and screen, in addition, weighing was carried out in the closing and opening the buckets to quantify gas losses and dry matter recovery index. The variables dry matter recovery index, total dry matter loss, gas losses during storage (% of initial dry matter) did not show a significant difference, while effluent losses showed a significant difference on the different opening days, respectively. The dry matter recovery index presented an average of 80.91%, the total dry matter losses presented an average percentage of 19.09%, the average gas losses during storage were 7.90%. Effluent losses presented percentages of 37.00%, 41.83% 3 43.76%, for the respective openings of 18, 20 and 38 days, increasing as the storage time increases. BRS Capiaçú grass silage increases effluent loss with openings from 18 days onwards.

Keywords: compaction, forage conservation, effluent, ruminants.

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