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Chemical-bromatological composition of Elephant grass silage cv. BRS Capiaçu on different opening days

Andressa Karoline dos Santos*[1], Felipe Jackson de Farias Silva[2], Luan Monteiro dos Anjos[3], Airles Fontes Melo[3], Vitor Visintin Silva de Almeida[3], Maria Josilaine Matos dos Santos Silva[3]
[1]Universidade Federal Rural de Pernambuco-UAG, PE, Brasil; [2]Universidade Federal do Ceará, Fortaleza, CE, Brasil; [3]Universidade Federal de Alagoas – Campus Arapiraca, AL, Brasil *andressa2043@gmail.com

Elephant grass cv. BRS Capiaçu is a variety of grass developed by the Brazilian Agricultural Research Company (Empresa Brasileira de Pesquisa Agropecuária – EMBRAPA), it has high production potential, good nutritional value and adaptability to hot climate regions. Due to these features, the production of silage from this cultivar has been studied as an alternative for forage supplementation in the diet of ruminants in the Semiarid region of Alagoas, Brazil. We aimed to evaluate the chemical-bromatological composition of elephant grass silage cv. BRS Capiaçu on different opening days. The study was carried out at the Federal University of Alagoas – Campus Arapiraca. For the production of silage, elephant grass cv BRS Capiaçu (*Pennisetum purpureum* Schum) was used. The grass was chopped, keeping the particles between two and three centimeters, ensiled and divided into the respective treatments: AB 1- 18 days of storage, AB 2- 28 days of storage and AB 3- 38 days of storage, with 9 replications each, 27 experimental silos in total. The experimental silos were made up of buckets with lids (lids adapted with a Bunsen valve), with a capacity of 15 liters, 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. We applied a Completely Randomized Design. The variables studied were: density, pH, dry matter, mineral matter, organic matter, crude protein, neutral detergent fiber, acid detergent fiber and total carbohydrates. There was no significant difference (P>0.05) for the variables studied between the different opening days. Despite not presenting a significant value, the density was considered high, with values of 666.11 kg/m3, 665.76 kg/m3 and 666.23 kg/m3, for 18, 28 and 38 days of opening respectively, indicating a silage with less free oxygen, resulting from high compaction. The pH presented an average of 3.68, corresponding to the ideal for silage of good fermentative quality. The other variables presented the following average values: dry matter 20.61%, mineral matter 8.32%, organic matter 91.68%, crude protein 8.32%, neutral detergent fiber 62.99%, acid detergent fiber 36 .49% and total carbohydrates 72.86%. The different opening days, 18, 28 and 38 days, do not influence the pH or the chemical-bromatological composition of the elephant grass silage cv. BRS Capiaçu.

Keywords: preserved forage, ruminants, supplementation,

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