I-INTERNATIONAL MEETING OF ANIMAL SCIENCE IN SEMI-ARID REGIONS
Universidade Federal do Agreste de Pernambuco – UFAPE
July 03rd to 05th, 2024, Garanhuns-PE

Área do trabalho: Pastagens e Forragicultura.

Sensory characterization and fermentative profile of mixed silages of *Leucaena leucocephala* (Lam.) de Wit. and *Opuntia stricta* [Haw.] Haw.

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The production of high-quality silage is essential to guarantee animal nutrition, especially in semi-arid regions, where the combination of different forage species can optimize the nutritional value and sustainability of production systems. The objective of this study was to characterize the sensorial properties and fermentative profile of mixed silages composed of leucaena (*Leucaena leucocephala* (Lam.) de Wit.) and forage cactus (*Opuntia stricta* Haw.), Mexican elephant ear variety, aiming to evaluate the viability of these combinations. for use in animal feed. The research was carried out at the Department of Agrarian and Exact Sciences of the State University of Paraiba, located in the municipality of Catolé do Rocha, PB. A completely randomized design was used, with five treatments (100% palm; 100% leucena; 50% leucena and 50% palm; 70% leucena and 30% palm; and 85% leucena and 15% palm) and four replications, totaling 20 experimental silos. The silos were opened after 35 days and the silages were sensorially evaluated by eight pre-trained evaluators, considering odor, color, texture and the presence of mold. Dry matter (DM) content, pH in water, temperature and losses due to effluents and mold were determined. The data were subjected to analysis of variance and the means were compared using the Tukey test at a 5% significance level. When characterizing the odor, a score of 1 was assigned, indicating that it was pleasant and acidic, typical of good quality silages. This result suggests the adequate presence of desirable acids, essential for efficient and quality fermentation. As for color, the scores assigned ranged from 1 to 2, representing light green and dark green respectively. When evaluating texture, scores ranged from 2 to 4, indicating fine (finely chopped), medium (moderately coarse) and coarse (pieces) texture. A significant effect ($P<0.05$) on DM was observed between the experimental treatments, with the highest levels in silages containing higher proportions of leucaena and lower in those made up of 100% palm. There was no significant difference in silage temperature ($P>0.05$). Analyzing the pH of the silages, the treatment with 100% palm had a lower pH (4.08) compared to the other treatments that contained leucaena. As for losses, a significant effect ($P<0.05$) was observed between treatments. The addition of palm, especially in proportions of 30% and 50%, proved to be effective in reducing mold losses. Furthermore, the inclusion of 15% of cactus in leucaena silages did not result in major effluent losses. Mixed silages containing cactus demonstrated adequate sensorial and fermentative characteristics, standing out as a viable option for animal feed.
Keywords: forage cactus; leucena; silage production.

Agradecimentos: CCHA, UEPB, EAC.