

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

CHEMICAL COMPOSITION OF SIGNAL GRASS AND FORAGE PEANUT INTERCROPPING USING TWO HARVESTING METHODS

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The grass and legume intercropping is a sustainable alternative to the use of chemical inputs, combined with gains in animal production. The objective was to evaluate the chemical composition of signal grass (*Urochloa decumbens* cv. Basilisk) and forage peanut (*Arachis pintoii* cv. Belomonte) intercropping, managed under rotational stocking by crossbred dairy cows. The combination of two post-grazing sward heights (5 and 15 cm) and three row spacings of forage peanut (40, 50, and 60cm) was studied. The factorial 2x3 scheme in randomized blocks, with four replicates, was used. The samples were collected by cutting and plucking, on first (March to April 2015) and second (March to April 2016) grazing cycles, and analyzed as repeated time measures. Using cut harvesting, the forages were cut by a cleaver, at 5 cm from the soil, inside a 0,25 m² circle, and separated in legume and grass. Using “hand-plucking” method, the forages (grass+legume) were harvested following the local, height, and parts of canopy grazed by cows. The dry matter (DM), crude protein (CP) and neutral detergent fiber corrected for ash and protein (NDFap) contents were analyzed. The data was submitted to analysis of variance and the means were compared using Tukey test at 5% probability. Using cutting, the dry matter contents of grass and legume were 27.3% and 31.9%, and 23.3% and 21.2%, at first and second grazing cycle, respectively. The CP content in signal grass was affected by interaction cyclexresidue; in the first cycle, the values with post-grazing of 5 cm were higher than 15 cm (8.22% vs 5.85%). The NDFap content was affected by triple interaction; the lowest values were observed with post-grazing of 5 cm (60.72%) and in the second cycle. The CP content in legume was affected by interaction cyclexspacing and cyclexresidue, varying from 12 to 15.6%, and the NDFap content was affected by triple interaction, varying from 39.1 to 55.9%. In samples harvested by “hand-plucking”, the DM content was affected by post-grazing sward heights, observing 27.3 and 29.8%, respectively, with 5 cm and 15 cm. The CP content was affected by interaction residuexspacing; the highest value was verified with post-grazing height of 5 cm (8.79), with row spacing of 50 cm. The NDFap content was not affected by treatments, observing a mean of 68.8%. In general, the forages intercropped managed with post-grazing sward height of 5 cm showed better chemical composition.

Keywords: crude protein, dry matter, NDFap

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