

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## QUANTIFICATION OF LOSSES AND RECOVERY OF DRY MATTER IN ARACHIS PINTOI CV. BRS MANDOBI AND ELEPHANT GRASS

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The legume *Arachis pintoi* cv. BRS Mandobi is adapted to the climatic conditions of the North region, has good productivity and nutritional quality being used in grazing intercropped with other species or conserved in the form of silage or hay. The objective of this study was to evaluate the gas and effluent losses and to quantify the dry matter recovery of silages produced with different proportions of BRS Mandobi and elephantgrass (*Penisetum purpureum* cv. Cameroon). Elephant grass and forage peanut showed 50 and 110 days of regrowth, respectively. Five elephant grass replacement levels (0, 25, 50, 75 and 100%, based on the natural material) were used for the forage peanut, and four replications were used in a completely randomized design. The data were submitted to analysis of variance and regression using the SAS and  $\alpha$  5% program. The losses by gases and effluents reduced linearly with increasing the proportions of forage peanuts in the silages, estimating reductions of 0.0114 and 0.6829 units per unit of added peanut ( $P < 0.05$ ). Gas losses reduced linearly from 4.22 to 3.20% based on the dry matter of the ensiled mass, from the exclusive silages of elephantgrass to the exclusive silages of forage peanut, respectively. The effluent losses increased from 67.1 to 4.25 g kg<sup>-1</sup> of the ensiled biomass as the elephant grass was replaced by the forage peanut. Such reductions in gas and effluent losses may be associated to the increase in the dry matter content of the silages, with the addition of the legume, directly influencing the reduction of undesirable fermentations in the silo and favoring a greater recovery of dry matter of the ensiled mass, which increased linearly from 89.0% to 96.3%. Silage with higher proportions of forage peanut provide lower losses by gases and effluents and greater recovery of the dry matter of the ensiled mass.

**Keywords:** bulky, grass, legume, silage

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