

# Summary

The trial was carried out at the National Dairy Cattle Research Centre, in Coronel Pacheco, MG, Brazil. The objective was to compare two sampling methods to estimate chemical composition and in vitro dry matter digestibility (IVDMD) of elephant grass (*Pennisetum purpureum* Schum.) paddocks. Forage was collected by the following methods:

(1) esophageal fistula; and (2) handplucking. The samples were collected in 1993, during the wet season. The average values for the esophageal fistula and handplucking methods were, respectively: 14.7%  $\pm$  3.8% and 17.6%  $\pm$  2.4%, for dry matter (DM); 12.2%  $\pm$  1.5% and 13.8%  $\pm$  2.1%, for crude protein (CP); 73.7%  $\pm$  4.4% and 68.8%  $\pm$  2.3% for neutral detergent fiber (NDF); 42.1%  $\pm$  2.3% and 38.6%  $\pm$  1.4%, for acid detergent fiber (ADF); 58.9%  $\pm$  5.3% and 64.7%  $\pm$  4.1% for IVDMD. The statistical analyses showed significant differences ( $P < 0.05$ ) between the two methods for all the studied parameters (DM, CP, NDF, ADF, IVDMD). There were positive interactions only for DM and CP. These results suggest that the handplucking method superestimated the qualitative aspects of the forages. The morpho-physiological characteristics of elephant grass and the tall management used in this trial may have affected the results. Despite its limitations, the use of esophageal fistulated animals is probably the best sampling methodology for evaluating the quality of grazed forage in elephant grass paddocks.