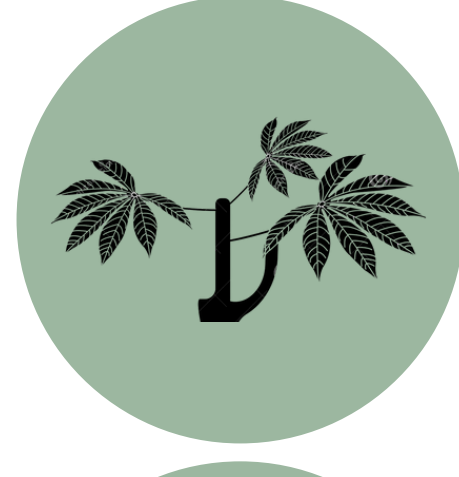


DRY MATTER CONCENTRATION AFFECTS THE RELATIONSHIPS WITH VARIABLES LINKED TO CASSAVA HAYLAGE CHARACTERISTICS

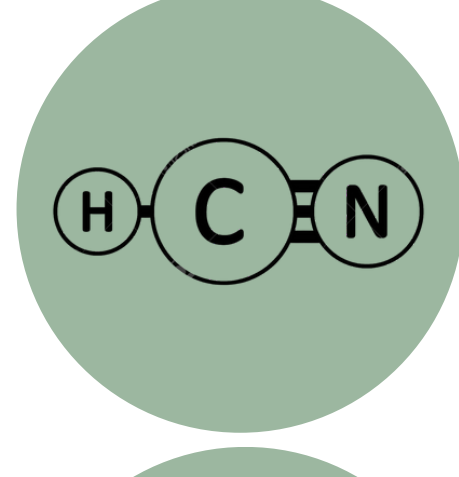
INTRODUCTION



Haylage: Forage preserved through partial dehydration and anaerobic fermentation.



APC (aerial part of cassava): Alternative feed source for tropical ruminants.



Problem: Fresh APC contains antinutritional compounds (e.g., hydrocyanic acid).



Solution: Silage reduces toxic compounds and improves preservation.



Importance of DM: Dry matter content directly influences fermentation quality.

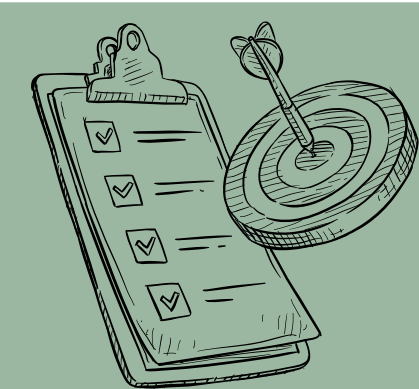
MATERIALS AND METHODS

Cassava
(Pretinha genotype)



The densities (DENS), gas losses (GL) and dry matter recovery (DMR) were determined.

At the opening: DM, MM, CP, NDF and ADF. The counts of LAB, ASFB, YEA and Molds were performed using the spread-plate method



This study aimed to investigate, using a multivariate approach, variations in the DM content of APC haylage and to identify their relationship with variables linked to the characteristics of the feed.

RESULTS

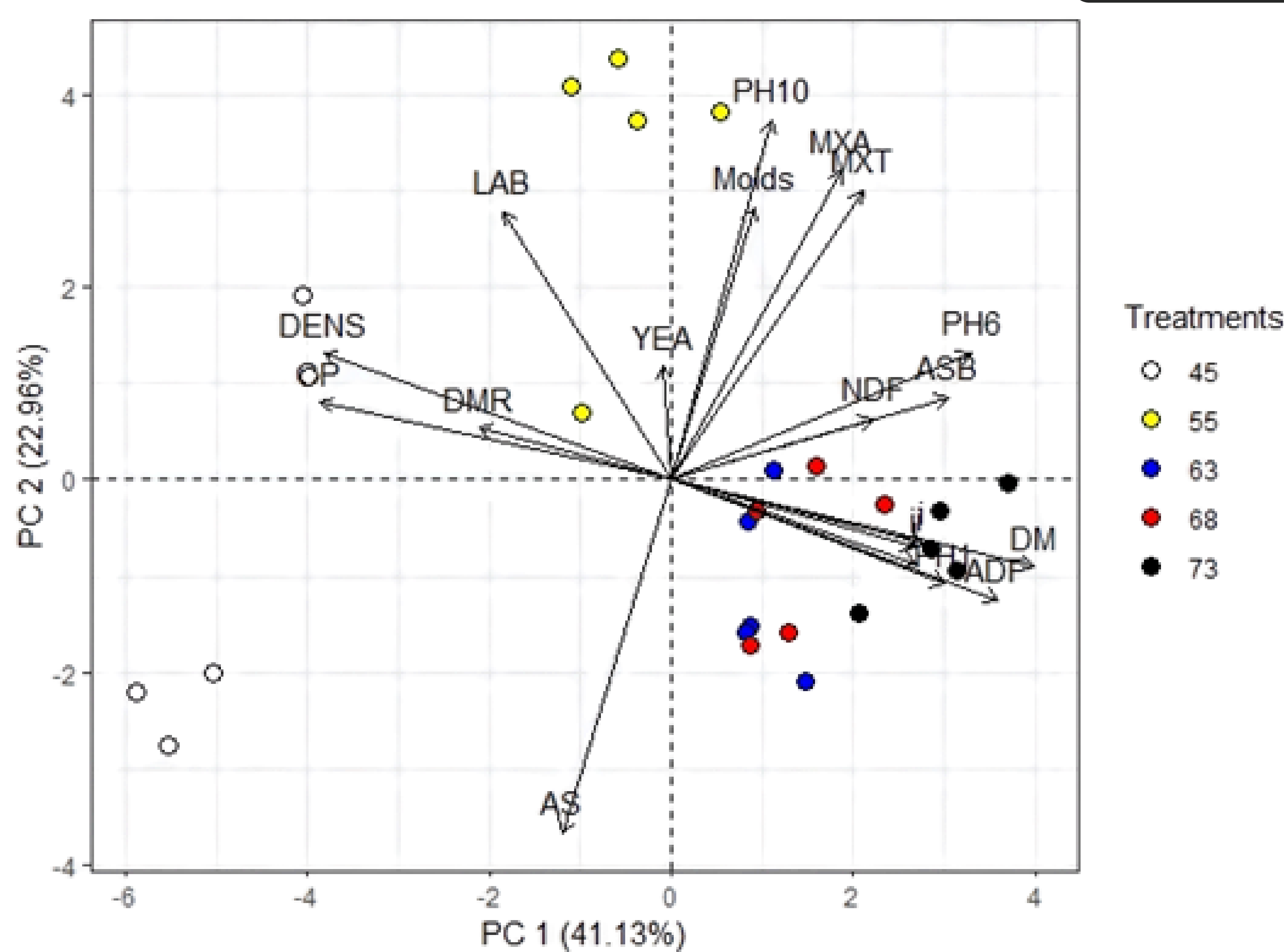


Figure 1 - Principal component analysis results highlighting the variables and treatments (45, 55, 63, 68, and 73% DM) of haylage of APC.

The DM, CP, DENS, and ADF data were the ones that contributed the most to PC1. This component represents the effect of compaction on silage characteristics, in which higher DM and fiber (NDF and ADF) contents were positively correlated with GL, pH 1 and pH 10 contrast to higher DENS, DMR, CP, and LAB.

It was also observed that a higher DM content resulted in higher GL and ASFB counts. This probably occurred because of the lower density, which resulted in a more favorable environment for the proliferation of aerobic microorganisms, contributing to the decrease in DMR.

CONCLUSION

Higher DM content was positively correlated with NDF, ADF, GL, and pH, and negatively correlated with DENS, CP, and LAB. Higher DM reduces density, favors aerobic microorganisms (ASFB, Molds, and YEA), and increases GL and deterioration.

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