MULTIVARIATE ANALYSIS IN THE CHARACTERIZATION OF BANANA GERMPLASM

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✓ Estimate the genetic diversity between 19 banana genotypes using, simultaneously, quantitative and SSR marker data;

✓ Select variables which most contribute to the characterization of the genotypes through multivariate analysis.
MATERIALS AND METHODS

- Blocks with 19 genotypes
- Distributed in 3 blocks with four plants per plot.
- Thirty-six quantitative characteristics were measured

- 31 SSR primers used

✓ The canonic variables analysis reduced in 31% the number of variables evaluated.

✓ Allowed to identify 23 relevant agronomic characteristics for the characterization of the banana germplasm.

✓ The quantitative characteristics selected and the SSR markers were analyzed simultaneously by the Ward-MLM procedure.

✓ Cluster of the genotypes are in agreement with the genealogy and/or with their subgroups.

Fig. 3. Clusters of the genotypes in the dendrogram
αι The most representative variables (Spearman and Kruskal Wallis) -> verify any correlation with bands from the primers used.

αι CNPMF 37, AGMI 129/130, Ma 1/24 and CNPMF 32 presented positive correlation with the variables:

Bands - sequenced and validated, in combination, may be used in marker assisted selection

Identification of potentially associated alleles to these characteristics for fruit quality.