LECTURE 6
METHODOLOGIES FOR THE CHARACTERIZATION OF BANANA GERMAPLASM COLLECTION ORIGINATED FROM RWANDA

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Banana and Plantain (Musa spp.) are important staple and income generating fruit crops for millions of people in the tropical and subtropical regions of the world. They are classified into genomic groups such AA, AAA, AAB etc. Exact knowledge of the genomic group and the ploidy of a variety are important to breeders for manipulation of a multi-ploidy crop such as banana.

The Highland bananas from Rwanda were classified using heritability characters of fruit, into five clone sets. Using flow cytometry, the ploidy level of a banana germplasm collection was investigated and revealed that all highland bananas investigated were triploids. While investigating the genomic groups of some highland bananas using RAPDs as molecular markers using a primer OPA 18 which is a marker for B. genome, all highland bananas from Rwanda examined did not show the presence of the B genome. Based on these results, all highland bananas examined were triploid and belong to the genomic group AAA.

Key words: Musa spp, Ploidy, genomic groups.

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