

GENETIC DIVERSITY OF *Mangifera conifera* CULTIVARS IN NORTHERN AND CENTRAL OF VIETNAM ESTIMATED USING ISSR AND SCoT MARKERS

Phi Hong Hai, Le Ngoc Trieu, Tran Van Tien, La Anh Duong

Summary

Two molecular marker systems, SCoT and ISSR were used for identification and comparison analysis of 61 *Mangifera conifera* accessions collected within 7 cultivated populations in northern and central of Vietnam. Results showed higher at the population level ($PPB = 95.89\%$, $H_e = 0.3480$, $I = 0.5154$), but lowers at within populations, which PT lowest genetic diversity ($PPB = 45.21\%$, $H_e = 0.1913$, $I = 0.2761$) and the highest value of TH ($PPB = 79.45\%$, $H_e = 0.3337$, $I = 0.4811$). The gene differentiation coefficient ($G_{ST} = 0.2653$) and occurred gene flow. The G_{ST} value translated into corresponding low level of gene flow ($Nm = 1.3844$). The 7 cultivated populations were clustered into three major groups, which are: BK-NA, TH-PT, and HB-YB-TQ based on the SCoT and ISSR markers combined with UPGMA. These clusters are accordance with their known origins and main genotypic characteristics.

Keywords: *ISSR and SCoT markers, genetic diversity, Mangifera conifera.*