

# **EVALUATION OF GENETIC DIVERSITY OF SOME IMPORTED AVOCADO LINES (*Persea americana* Mill.) FOR BREEDING IN PHU THO**

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## **Summary**

Evaluating not only phenotype but also genotype is essential in order to increase the efficiency of new breeding program. A number of collected avocado varieties which have good characteristics have been cultivated in some places of Vietnam. The survey results on agronomic characteristics of five avocado varieties in Phu Tho show that Booth 7 has the highest yield (85.1 kg/tree), B5 has the lowest quality (the lipid content is only 12.15g). Jolio variety has both high yield (71.8 kg/tree) and good quality (lipid content of 14.87g). Genetic relationships at the molecular level of these five varieties was analyzed by using 12 SSR markers. Data analysis revealed a significant diversity of the germplasms, with coefficient from 0.42 to 0.81. Notably, Jolio has a low genetic similarity with all four remaining varieties. These results provide the necessary information for new genus breeding program by sexual hybridization.

**Keywords:** Genetic diversity, *Persea americana* Mill., molecular markers, SSR.