Progress on Breeding for Resistance of Arabica Coffee to Leaf Rust (*Hemileia vastatrix* B. et Br.) in Indonesia

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SUMMARY

Breeding for resistance of Arabica coffee to leaf rust (*H. vastatrix*) has been intensified in Indonesia since the end of 1970's. The activities consist of selecting mother trees and introducing resistant varieties as well as creating new genotypes by crossings.

Concerning the population of physiological races of *H. vastatrix* found in the Java island and outside Java in the decade of 1970's, the SH_3 had been considered the main gene to improve the resistance on traditional varieties. At the moment, however, the varieties containing SH_3 gene and their progenies were attacked by the fungus, some of which showed a severe symptom.

In order to find Arabica coffee varieties with durable resistance, some crosses to combine SH_3 gene with other genes of Hibrido de Timor or their progenies had already been made. The progenies containing SH_3 gene with the genes derived from Hibrido de Timor showed dwarf type, resistance to *Hemileia vastatrix* and high yielding capacity.