

Assessment of Coffee Berry Disease Using Laboratory Berry Inoculation Method

F. PINARD¹ AND C. OMONDI²

¹CIRAD – ICRAF, PO Box 30677, Gigiri, Nairobi Kenya. E-mil: fabrice.pinard@cirad.fr

²CRF (Coffee Research Foundation), PO Box 4, Ruiru 00232, Kenya

E-mail: chr_omondi@yahoo.co.uk

SUMMARY

This study was initiated to characterize the interaction between *Colletotrichum kahawae* and two coffee varieties at fruit level. Detached berries of *Coffea arabica* varieties, SL 28 (susceptible) and Ruiru 11 (resistant) were artificially inoculated and kept under controlled conditions of 100% RH and a temperature of 17 °C to 20 °C. In a first experiment, the berries were inoculated with single spore culture of *C. kahawae* at various concentrations ranging from 2×10^6 sp/ml to 2×10^3 sp/ml. In a second experiment, berries of various sizes were inoculated with a single spore concentration. Statistical analysis ($\bullet^2$, General Linear Model) of binary data (infected/healthy) and quantitative data (% of necrosis) revealed the existence of 2 resistance components operating against pathogen penetration and colonization of the berry tissue. The reaction was found to be controlled by at least 3 parameters: the inoculum concentration, the berry physiological stage and the host genotype.