

Progress in Developing Coffee Berry Disease (*Colletotrichum kahawae*) Resistant Compact Hybrid Varieties (*Coffea arabica*) in Tanzania

D. J. MTENGA, D. L. KILAMBO, J. M. TERI, L. MASUMBUKO

Tanzania Coffee Research Institute (TaCRI) P.O. Box 3004 Moshi, Tanzania
E-mail: tacriced@kicheko.com – Fax no: +255 27 2756773

SUMMARY

A crossing programme to develop compact-dwarf varieties was initiated in 2003/04 whereby 32 Colombian (dwarf) and 61 tall hybrid lines were involved. Lines involved in the crossing programme are good sources of coffee berry disease (CBD) and coffee leaf rust (CLR) resistance. A total of 67 compact hybrid lines were developed. Out of 67, 15 lines considered as the best crosses were subjected to CBD Pre-selection test at hypocotyls stage to study inheritance of resistance. VC 298, VC 506 and HdT 1593 (CBD resistant candidate), and N 39 and KP 423 (CBD susceptible varieties) were included as check varieties. Results show that Disease Intensity Reaction (DIR) of hybrid compact lines ranged from 0.0 to 3.5. Line with DIR < 25 is considered to be CBD resistant candidate. Resistance inherited appears to be controlled by VC 298, VC 506, HdT 1593 from tall hybrid lines, and Colombian 086, 088, 089 and 090 lines used as female parents. The resistance of these compact lines will be qualified with CBD attached berry test at fruit bearing stage.