

Surveys to Establish the Spread of Coffee Wilt Disease, *Fusarium (Gibberella) Xylarioides*, in Africa

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SUMMARY

Coffee wilt disease (CWD), also called Tracheomycosis, is caused by the fungus *Fusarium (Gibberella) xylarioides*. It was first observed in 1927 on Excelsa coffee (*Coffea excelsa*) in Central Africa Republic and subsequently spread to Robusta coffee (*C. canephora*) in Democratic Republic of Congo (DRC) and Cote d'Ivoire in the 1950s. This disease is a major threat to the coffee industry in Africa as infected trees wilt and inevitably die.

As an essential prerequisite in the effective management of coffee wilt disease, there was a need to ascertain the current incidence and spread of this disease in East, Central and West Africa. To this end, extensive biological surveys were carried out between March 2002 and January 2003 in the coffee growing regions of Uganda, DRC, Rwanda, Tanzania, Ethiopia, Cameroon and Cote d'Ivoire. These surveys, done partly under the auspices of Coffee Research Network (CORNET) of the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA), were carried out by scientists from the respective National Programmes and coordinated by CAB International – Africa Regional Centre.

Over 7,000 coffee farms were visited during the surveys. The highest incidence was in Uganda, where 90.3% of farms had CWD, with an average severity (% trees infected) of 44.5%. The disease was observed in all of the coffee growing districts surveyed. In Tanzania, the disease was only found in Kagera Region, which borders Uganda, so the overall incidence and severity was much lower, 2.2% and 0.7%, respectively. The disease was observed only in North Kivu and Oriental Provinces and occurred at a National average incidence of 26.5% and severity of 17.8% in DRC. Incidence and severity of CWD in Ethiopia were 27.9% and 3.0%, respectively, and again the disease was found in all regions surveyed. CWD was not observed in Rwanda, Cameroon or Cote d'Ivoire. This disease was observed only on *C. canephora* in Uganda, Tanzania and DRC, and only on Arabica coffee (*C. arabica*) in Ethiopia. This finding suggests that the diseases found in the two coffee types, which are also separated geographically, are genetically distinct.