

7.2.1.1 Mwenda, Emelin. (2010). Occurrence and incidence of banana bunchy top disease in major banana (*Musa* spp.) growing regions of Zambia. (Supervisor: Prof. R. G. Kapooria).

This study was conducted to determine the prevalence and incidence of Banana Bunchy Top Disease (BBTD) in major banana growing regions of Zambia. Banana Bunchy Top Disease is caused by Banana Bunchy Top Virus (BBTV) and is considered the most serious disease of banana (*Musa* spp.) worldwide. It can cause total crop loss if it is not diagnosed early. A survey was conducted in Copperbelt, Eastern, Luapula, Lusaka and Southern Provinces of Zambia between May and November, 2009. A total of 15 districts were surveyed and involved 75 farmers. Farmers were interviewed regarding their knowledge on banana production and banana bunchy top disease using a questionnaire. Based on visual symptoms, leaf samples were collected from symptomatic and asymptomatic banana plants in the field using FTA[®] cards. Serological tests were done using Polymerase Chain Reaction technique. Results of work done in the laboratory confirmed the presence of BBTV in all symptomatic plant samples analyzed while only one asymptomatic sample tested positive for BBTV. Of the common banana cultivars grown in Zambia none showed resistance, although the level of susceptibility varied among them. Landraces showed low levels of susceptibility in comparison to the improved cultivars. Disease incidences were significantly different at $P \leq 0.05$ with average means ranging from 1 - 31.8%. The presence of the Banana Bunchy Top Virus vector (*Pentalonia nigronervosa* Coq) was also confirmed in the field.