

Screening of *Gossypium hirsutum* germplasm against *Verticillium dahlia* Kleb by natural infection.

B. Chapepa James Chitamba Pepukai Manjeru and Nhamo Mudada

Abstract

An experiment on screening of cotton germplasm against Verticillium wilt caused by *Verticillium dahlia* Kleb was carried out at Cotton Research Institute in 2008, 2009 and 2010 seasons in Zimbabwe. The objective of the study was to identify cotton germplasm with considerable resistance to the disease under natural infection for use in cotton variety development programmes. Twelve varieties were laid in a randomised complete block design replicated three times. Eight were new elite varieties and three were commercial cultivars. Infection percentages were calculated for infected plants in each plot. Percentage infection were Arcsine transformed and varieties with scores of 0-9% rated highly resistant, 10-19% rated resistant, 20-29% rated tolerant and above 29% rated susceptible. Three test varieties LS96-05-1, 937-05-8 and 97-05-1 were identified as resistant to the disease and were recommended for use in cotton breeding programmes