

## ABSTRACT

Cashew (*Anacardium occidentale* L.) is the present leading currency earning crop in Tanzania, generating income to over 2.5 million farmers. Despite of its importance, cashew is threatened by a new serious destructive disease called Cashew Fusarium Wilt (CFWD), which is caused by *Fusarium oxysporum*. The impact of the disease has reduced income at both household and national levels. The current study was conducted to characterize CFWD and investigate chemical management options for the disease. The study was conducted during the rainy and offrainy season(s) at Tuungane-Liwale and Kitangari-Newala in Lindi and Mtwara regions respectively. Disease characterization involved field observation of the infected cashew trees, laboratory isolation and characterization of the causative agent. Chemical management involved application of azoxystrobin, carbendazim and thiophanate methyl each at a concentration of 5, 10 and 15 g of formulated product/L. Laboratory findings revealed that the causative agent of the cashew wilting symptoms is *Fusarium oxysporum* characterized by whitish mycelia growth, chlamydospores, macroconidia and microconidia. The tested chemical fungicides revealed significant effects on the suppression of *Fusarium* wilt disease and thus enhancing cashew recovery after 120 days of application. Azoxystrobin and carbendazim reduced severity and enhanced recovery. Application of azoxystrobin (15 g/L) promoted 65.2 percent recovery of cashew from 50.0 percent of disease severity and 10 g/L of carbendazim enhanced 49.4 percent of cashew recovery from 50.0 percent severity. Thiophanate methyl exhibited significant effect ( $P \leq 0.05$ ) on reducing the severity of the disease and enhancing cashew recovery whereby 15 g/L of thiophanate methyl enhanced 21.6 percent recovery from 45.0 percent severity. These findings advocate the administration of these chemicals, especially carbendazim and azoxystrobin in proper concentration for timely disease management in the affected areas. Studies to establish the effect of the applied chemicals to other biota for betterment and continued applications to combat the disease are underway.