Fungitoxic Potential of Different Plant Extracts on the in vitro Development of the Fungus that Causes Anthracnose in Banana Fruits, Phase IV

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Anthracnose is a disease caused by fungi of the genus Colletotrichum and that attacks all organs of the aerial part of the plant, rotting the leaves, fruits and reproductive organs. To control this disease, rural producers end up using chemical pesticides in excessive doses, which brings a lot of damage to the environment. Thus, the objective was to evaluate the efficiency of different plant extracts prepared separately with leaves of Euphorbia milii, Ruta graveolens, Cupressus sempervirens, Cupressus macrocarpa, Campomanesia xanthocarpa, Eugenia uniflora, Cymbopogon, Persea americana, Aristolochia triangularis, Cyperus rotundus, and Cedrelaissis fissilis. The plant materials were diluted in distilled water at concentrations of 5.10; 15; and 20 gL-1. Alternative controls were diluted in BDA culture medium. The fungus C. musae was spiked on the plates, which were allocated in BOD. Colony mycelial growth analyzes were performed every 48 hours. The data obtained from the mycelial diameter after six days of incubation were subjected to the Scott-Knott means test at 5% significance. The results obtained were that Cupressus sempervirens and Cupressus macrocarpa were effective in all tested concentrations (5, 10, 15 and 20 gL-1) controlling over 50%, while the aqueous extract of Ruta graveolens 20gL-1 controlled 70.54%, and the vegetable extracts of Cyperus rotundus 20 gL-1, Persea americana leaf 20 gL-1, and Aristolochia triangularis 5 gL-1 controlled the growth of C. musae in 69% and 66% respectively. It was concluded that the most effective extracts were Cupressus sempervirens and Cupressus macrocarpa.

Awards Won:
Fourth Award of $500