

IN VITRO FUNGICIDAL ACTIVITY OF TWO PLANT EXTRACTS AGAINST FIVE PHYTOPATHOGENIC FUNGI OF CUCUMBER (*CUCUMIS SATIVUS* L.) FRUIT

CHIEJINA, NNEKA V & ONAEBI, CHIEMEKA N

Department of Botany, University of Nigeria, Nsukka, Enugu State, Nigeria

ABSTRACT

The ethanolic extracts of *Chromolaena odorata* L and *Moringa oleifera* Lam were tested at concentrations of 20, 40, 60, 80 and 100 mg/ml for their *in vitro* fungicidal activities against five phytopathogenic fungi isolated from diseased Cucumber fruits. The pathogens were *Fusarium oxysporum* Schlecht, *Aspergillus niger* Van Tiegh, *Rhizopus stolonifer* Ehrenb. ex. Fr, *Geotrichum candidum* Link and *Mucor micheli* ex Staint – Amans as confirmed by pathogenicity tests. The inhibitory effects of the extracts increased with increase in concentrations. Some of the concentrations reduced the mycelial growth of the pathogens to a significant ($P > 0.05$) level. Very strong fungicidal activity was produced by extracts of *M. oleifera* at 100 mg/ml against all the fungi. The inhibitory effects of *C. odorata* extracts at 20, 40 and 60 mg/ml were greater than those of *M. oleifera* on *A. niger*, *F. oxysporum* and *M. micheli*. The results of the investigation indicated that plant extracts possess antifungal activity that can be exploited as an ideal treatment for future plant disease management.

KEYWORDS: Phytopathogenic Fungi, Fungicidal Activity, Cucumber Fruit, Plant Extracts