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ANTIFUNGAL ACTIVITY OF THE PLANT *COSTUS AFER* EXTRACT ON YAM (DIOSCOREA SPECIES) ROT PATHOGEN IN OWERRI. SOUTH-EAST NIGERIA

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ABSTRACT

The study was carried out to determine the effect of costus afer on pathogens causing yam rot in Owerri. Infected yams were sampled from two markets within Owerri. Two fungi pathogen isolated and identified were: Aspergillus niger and Aspergillus flavus. Three different concentrations of costus afer were obtained. 10, 20 and 30%phytochemical constituents of costus afer extracts was also evaluate. It contains phenols, flavonoids, quinones, alkaloids and tainnins. Extracts of costus afer was efficient in inhibiting the growth of Aspergillus niger and Aspergillus flavus. The extracts showed significant difference at 5% probability level.The highest antifungal activity was observed with 30% costus afer extract and ethanol had the highest inhibition 89% and 90%, when compared to aquae's 81 and 82% and crude 85 and 87% respectively.

The result of this study shows the possible use of plant extracts in the manangement and control of yam rot.

KEYWORDS: Costus afer, Pathogens, Extracts, Aspergillus sp, Phytochemical

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