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Pineapple fruit rot caused by *Ceratocystis paradoxa* and growth studies on two isolates

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Pineapple (*Ananas comosus* L.) is a good source of minerals and vitamins. Fruit rot of pineapple caused by *Ceratocystis paradoxa* leads to huge crop losses. The aim of this study was to determine the prevalence of fruit rot caused by *C. paradoxa* in pineapples found in major markets in Benin City and evaluate the effect of the disease on nutritive value of the fruit as well as study the growth of the pathogen under various environmental conditions with a view to suggesting ways of controlling the disease. 50 pineapple fruits with symptoms of rot were purchased and 5 mm portions of each fruit were cultured on Potato Dextrose Agar at 28 ± 2 °C for 7 days, using standard mycological procedures with healthy pineapples as control. Pathogenicity of isolated fungi was tested while proximate analysis of rotted fruits and control was determined. *Ceratocystis paradoxa* was implicated as cause of rot which occurred in 54% of the pineapples. Two isolates (1 and 2) of this fungus were distinguished morphologically. Isolate 1 produced more severe symptoms. Fungal growth under different temperature, relative humidity, pH and light conditions was studied. Most mineral and vitamin content of infected fruits decreased significantly ($p=0.05$). The optimum growth temperature was 30 °C for both isolates. All light regimes supported growth but 24 hours darkness and 100% relative humidity were the best. The physiological responses of the two isolates to environmental factors need further study and the isolates differing in their ability to incite symptoms, provide useful information for planning disease control.

Biography

Francisca Iziegbe Okungbowa has completed her PhD in 2001 at the University of Benin, Nigeria and Postdoctoral studies from Indian Institute of Chemical Biology, Kolkata, India and University of Manchester, UK. She has published more than 30 papers in reputed journals. She is currently working as a Lecturer at the University of Benin, Nigeria.

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