

**ENZYME AND ANTIMICROBIAL PRODUCING ACTINOMYCETES FROM TERMITE MOUNDS AT THE
UNIVERSITY OF EMBU FARM**

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Abstract

This study explores for enzyme and antimicrobial producing Actinomycetes from termite mounds at the University of Embu farm. Actinomycetes from soil samples were isolated by spread plate technique on Actinomycete Isolation Agar and Oat meal Agar. Twenty Actinomycetes isolates were isolated. Morphological characteristics of the isolates were studied based on microscopic appearance. Actinomycetes isolates were screened for production of different extracellular enzymes such lipase, cellulase, protease, ligninase, amylase and chitinase. Actinomycete isolates showed activity of two or more enzymes. Actinomycetes produce a wide variety of valuable extracellular enzymes which has been the cause for their wide application and use in various industries all over the world. Screening for antimicrobial activity of Actinomycetes isolates was performed. Active form of 12 isolated strains showed activity against test organisms. The current problem of resistance to antibiotics demands discovery of new antibacterial agents that will be effective against pathogenic bacteria resistance to current antibiotics. Enzyme and antimicrobial producing Actinomycetes from termite mounds at the University of Embu farm were isolated.