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عنوان البحث

ABSTRACT

The present study has been concerned with the possibility of economic production of the extra-cellular enzymes from the agricultural wastes using the solid state fermentation methods. The agricultural wastes used in this study were rice straw, bagasse and water hyacinth. It is well known that the above mentioned wastes are readily available in large quantities in Egypt causing environmental hazards and could be easily obtained, The extra cellular enzymes investigated in the present study were, α -amylase, gelatinase, lipase, pectinase and cellulase(s). The treatment 4 namely rice straw + bagasse and water hyacinth was found to be the best one for having the highest content of the investigated exo-enzymes after 30days from incubation at ambient temperature under natural conditions. Then it was used for the isolation of prevailing fungi. Isolation and purification of fungal isolates was performed and the identification was achieved according to the text references used in this field, they were belonged to 4 genera and 7 species. The identified fungal strains were singly inoculated in different two treatments 1 and 4 and incubated for 7 days, then the tested exo-enzymes were measured. Also, results showed that the treatment was found to be superior in its exo-enzymes content.