

ENZYMES PRODUCTION BY MYCOBIOTA AND AFLATOXIN CONTENTS OF DRIED DATES AND APRICOT IN YEMEN

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This study was designed to study the mycobiota of dried dates and apricot in Republic. Thirty four dates and twenty four apricot samples were collected from different shops and markets in Sana'a city. They were analyzed mycologically for the presence of fungi on three types of media. Eight species belonging to seven genera were recovered from analyzed dates samples on the three cultural media. *Aspergillus* was the most dominant genera on the three types of media of which *A. niger* was the most dominant species, while *A. flavus* was isolated in moderate frequency. Eight species belonging to eight genera were recovered from apricot samples. *Aspergillus* was the most dominant genera on the three media. *Aspergillus niger* was the most dominant, but *A. flavus* was in moderate, while other species were in low frequency. Fifty isolates comprising 87.71% of tested fungi were recorded as lipase producers. Fifty six from fifty seven studied isolates were able to produce invertase. Forty one fungal isolates representing 71.93 % of tested isolates were carbon source producers. Sixteen fungal isolates representing 28.07 % of tested isolates showed moderate protease activity. Isolates belonging to *Aspergillus flavus*, *A. niger*, *A. terreus*, *A. tamarii*, *A. versicolor*, *Curvularia lunata*, *Fusarium oxysporum*, *Helioglyphus insolens*, *Penicillium corylophilum*, *P. griseofulvum*, *P. oxalicum*, *P. stekii*, *P. viticola* and *Rhizopus stolonifer* had high or moderate ability of these enzymes. While, isolates belonging to *A. parasiticus*, *P. variable*, *Phoma* sp., and *Ulocladium atrum* had low activity.

Four out of 5 date samples were contaminated with aflatoxins ranged from 30 to 7585.96 ppt (ng Kg⁻¹). Six out of seven of apricot samples contaminated with aflatoxins ranged from 1786.63 to 11766 ppt (ng Kg⁻¹).

INTRODUCTION

Agriculture is the backbone of the economy and export crop production is greatly depended upon as a source of foreign exchange to support productive activities and other essential services. Most of these crops are cereals, fruits, vegetables and oil seeds that are highly susceptible to