

Post-harvest mycoflora of some fruits from Ad Darb Market, Jizan, Saudi Arabia

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This is the first study of post-harvest mycoflora of fruits from Ad Darb region of Jizan province. A total number of 14 samples of fruits from the local markets of the place with post-harvest spoilage fungi were collected and screened for mycoflora during March 2015 to February 2017. The mycoflora was cultured on potato dextrose agar plates and Czapek Dox agar plates. A qualitative and quantitative assessment of mycoflora was carried out by the fungal cultures on the petri plates and the slides were identified by microscopic and macroscopic characteristics. A total of 64 fungal isolates represented by 9 fungal genera were isolated from the samples belonging to the three classes of fungi i.e. Oomycetes, Zygomycetes and Ascomycetes. The post-harvest mycoflora was represented by *Aspergillus*, *Penicillium*, *Fusarium*, *Trichoderma*, *Claviceps*, *Botrytis*, *Alternaria*, *Chaetomium*, and *Trichothecium*. The most predominant genera were *Aspergillus* followed by *Penicillium* and *Fusarium*. Percentage Disease Incidence ranged from 20-30%. The information on the diverse groups of post-harvest mycoflora can help in effective management and minimization of post-harvest economic losses. Apart from the economic losses the post-harvest mycoflora are pathogenic. *Aspergillus*, *Penicillium* and *Fusarium* isolated are highly mycotoxigenic and are a potential risk to human health. They produce mycotoxins which are responsible for several diseases.

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