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- Document Title** : *Studies on Aflatoxins production in nuts infected by Aspergillus flavus*
دراسات علي انتاج الافلاتوكسينات في المكسرات المصابة بالفطر اسبرجيلس فلافس
- Document Language** : Arabic
- Abstract** : The present study was carried out using six kinds of nuts imported to Saudi Arabia. Unshelled peanuts (Egypt); unshelled peanut (India); cashew nuts (India); pistachio nut (Iran); walnuts (China); almonds (U.S.A); and hazelnuts (Turkey). In this study, fungal flora were determined and identified and the levels of natural Aflatoxin were detected. In addition approximate compositions of protein, fat, carbohydrate, mineral and moisture were determined. The capability of fungal isolates in producing aflatoxins on rice medium was tested. The most efficient isolate was tested on four kinds of nuts and the level of aflatoxins was determined. The results showed high contamination of peanuts from Egypt followed by the peanuts from India while the lowest contamination was found in cashew nut. A wide range of moulds representing eight genera and eighteen species were recorded. The prevalent fungi were *Aspergillus flavus* and *Aspergillus niger* and the genus *Penicillium*. The various nuts contained proteins ranging from 16.45 to 29.86 %; fats ranging from 45.7 to 67.11 %; carbohydrate ranging from 9.4 to 30.2 %. - The moisture content was similar in all kinds of nuts. Five isolates out of thirty were found to produce aflatoxins. These isolates were all belonging to *Aspergillus flavus*. The most efficient isolate of *Aspergillus flavus* -highly produced aflatoxins in cashew nut comparing to pistachio nut, peanut and almond.
- Supervisor** : د. كمال عباس توفيق ، د. صالح محمد القرني
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