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Physicochemical Studies and Screening of Aflatoxins and Pesticide Residues in Some 'Honey Pastes' Marketed in Jeddah, Saudi Arabia

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Abstract : The study aimed at investigating and screening of some contaminants in some honey-based products. Sixty-nine 'honey paste' samples marketed in Jeddah, Saudi Arabia, were subjected to physicochemical studies and screening of aflatoxins and pesticide residues. The physicochemical parameters studied were mainly: moisture content, total sugars, total ash, total nitrogen, fibres, total acidity as citric acid and pH. These parameters were investigated using standard methods of analysis. Mycotoxins (aflatoxins) and pesticide residues were by an enzyme-linked immunosorbent assay (ELISA) according to official methods. Results revealed that mean values of the examined criteria were: 15.44±0.36%; 74±4.30%; 0.40±0.062%; 0.22±0.05%; 6.93±1.30%; 2.53±0.161 mmol/kg; 4.10±0.158, respectively. Overall results proved that all tested honey pastes samples were free from mycotoxins (aflatoxins) and pesticide residues. Therefore, we conclude that 'honey pastes' marketed in Jeddah city, Saudi Arabia were safe for human consumption.

Keywords : aflatoxins, honey mixtures, pesticide residues, physicochemical
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