



**OCCURANCE OF TETRACYCLINE AND OXYTETRACYCLINE
RESIDUE IN HONEY SAMPLES: DEVELOPMENT OF ANALYTICAL HPLC
METHOD**

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ABSTRACT

Detection of tetracyclines (TCs) in honey samples is a worldwide concern for controlling of bacterial diseases in honeybees lead to drug resistance in pathogenic organisms and exerts to allergic or toxic reaction in humans. Therefore, it decided to develop of an efficient clean-up procedure for determining of tetracycline (TC) and oxytetracycline (OTC) residue in consuming honey samples using HPLC-UV methods with SPE cartridge as the clean-up procedure. Therefore, it decided to develop of an efficient method for determining of tetracycline (TC) and oxytetracycline (OTC) residue in consuming honey samples using HPLC-UV methods with SPE cartridge as the clean-up procedure. Mobile phase composed of phosphoric acid / acetonitrile (78/22, v/v) with flow rate of 1.7 ml/min and separation was done by C18 column at 25°C. Overall, TC and OTC were detected in 100% of analyzed samples with a mean level of 0.43±0.47 and 0.7 ±0.53 ppm, respectively. Unfortunately, no maximum residues limit (MRL) has been fixed by some countries and international Committee especially EU in bee products which confirms the higher incidence of contamination and worried in honey products. Our data supposed that the current validated method is suitable for determining of TCs in honey in control laboratories and import-export inspection sites.