

## Assessment Of Multiresidue Pesticides In Honey By Spe And Gc/ms.

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A fast and simple multiresidue method was developed for the assessment of major pesticide residues (Organochlorines OCCs, Organophosphorus OPPs, Pyrethroids, and Acaricides) in 79 various commercial honeys such as rosemary, eucalyptus, lavender, and orange) samples collected from local markets of Cairo, Egypt were analyzed. The extraction procedure based on the matrix Solid-Phase (SPE) dispersion of C18 and Florisil; and Pesticide residues were subsequently eluted with 10 ml hexane:ethyl acetate (86:14,v/v). The multiresidue pesticides were determined by GC/ECD/FPD and GC/MS. The results indicated that most pesticides found in the honey samples belonged to the OCCs, OPPs and Acarecides groups but lower levels of residues of some Pyretroids. Lindane, Malathion, Dimethoate, Cypermethrin and Fluvalinate residues were detected in 83% of the investigated samples, in a high concentration. DDT and their metabolites residues were detected in less than 2% of the samples under investigating. Recoveries of spiked samples ranged from 89 to 102%, with relative standard deviations from 2 to 8%. All detected pesticides were below the Maximum Residue Limits (MRLs) reported by official organizations. Finally, the developed analytical method has been successfully applied to the determination of multiresidues pesticide in deferent type of honey samples.

