



Determination of 86 Pesticide Residues in Leafy Vegetables using gas Chromatography Mass Spectrometry

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Abstract: A multiresidue method is described for detection and determination of 86 compounds of pesticide residues which commonly used in the pest control programs for crop protection. Good sensitivity and selectivity of the method are obtained with limits of quantification 0.01 mg/kg in almost all cases. The method was applied very satisfactorily to routine analysis as a complement to traditional GC-MS method and finally, limit of detection were also 10-20 times lower than maximum residue levels (MRL) established by codex alimentarius commission. More than 500 samples from leafy vegetables have been collected from vegetables market (Riyadh Development Company) in Riyadh. Pesticide residues were detected in 24.69% of the total samples (140 from 567samples) and pesticides concentration were higher than MRL in 104 samples.

Key words: *Leafy vegetables; pesticides; residue analysis; GC-MS.*

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