



A REVIEW

Trends and techniques for thiamethoxam residue estimation in different vegetables and fruits

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Abstract : At this present day, the use of pesticides has become an important part of farming practices for our farmer as well as for public health. Pesticides are being used globally in such an inflated rate that many of them are on the way of becoming a serious threat to the biosphere. Besides providing a very good coverage over various pest infestations, they bring additional hazard to non-targeted organisms, application surfaces and harm to the applicator. All-round use of pesticides had resulted in tainting of all the basic necessities of life, *i.e.* air, water and food. The incessant use of pesticides has caused the deleterious effects to ecosystem as well. In response to this, numerous methods have been developed by several regulatory agencies and private laboratories which are being applied perpetually for the qualitative and quantitative quantification and monitoring of multi pesticide residues in different vegetables and crops. The main intent of the review is to document access and analyze the results of the former data on levels of different pesticides in various fruits and vegetables in India and abroad. The findings of the previous studies clearly indicated that approximately more than 50 % of the samples were contaminated with organophosphate, pyrethroids and organochlorine pesticides. Many studies reported that among fresh fruits and vegetables tomato, apple, melon, mango, grapes, and plum crossed the FAO/WHO permissible limits for these contaminants residual levels.

Key Words : Pesticides, residues, environment, QuEChERS, half-lives, Gas chromatography

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