

Monitoring of Pesticide Residues on Agricultural Products from Markets and Packing Firms in Taiwan

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ABSTRACT

The monitoring program of pesticide residues on agricultural products from markets and packing firms was performed by the Food and Drug Administration in Taiwan. A total of 2,110 samples were collected in 2010 by the local health bureaus from markets and packing firms. The samples were analyzed by multi-residue testing method of pesticides, which were promulgated by the Department of Health (DOH) of Taiwan. This method allows simultaneous determination of 202 items of pesticides by GC/ECD, GC/FPD and LC/MS/MS. One thousand four hundred and fifty-four (88.2%) of 1,649 vegetable samples, 315 (92.9%) of 339 fruit samples and 109 (89.3%) of 122 other samples complied with the maximum residue limits (MRL) set by DOH. The overall rate of compliance was 89.0%. Of the violative samples, 204 samples contained pesticide residues exceed the MRL for the given pesticide to the given crops category, while 42 samples contained pesticide residues which were prohibited for use in those crop category. And there were 14 samples in both situations. The local governments have enforced the penalties to the suppliers or farmers who provided the violative samples based on the Act Governing Food Sanitation and its Enforcement Rules of Taiwan.

Key words: monitor, pesticide residue, LC/MS/MS, Taiwan