

Title Changes of pesticide residues in apples during cold storage

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Abstract

The dynamics of incurred pesticide residues in apples, variety Melrose, was monitored during their cold storage at 1–3 °C for 5 months. Of 21 active ingredients contained in pesticide preparations applied within four experimental pre-harvest regimes, only six fungicides (captan, cyprodinyl, dodine, pyrimethanil, tebuconazole, tolyfluanid) and one insecticide (phosalone) were detected at the time of harvest. The other active ingredients – acetamiprid, chlorpyrifos-methyl, difenoconazole, diflubenzuron, dithianon, EBDCs (represented by mancozeb and thiram in this study), fenoxycarb, kresoxim-methyl, teflubenzuron, thiacloprid, triazamate, trifloxystrobin and triflumuron did not exceed detection limit of LC–MS/MS or GC–MS methods used for sample analysis. Successive decrease of residues occurred during storage period, after 5 months only fungicide dodin and insecticide phosalone were detected.