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Household Processing - Reduces Insecticide Residues Level in/on Onion

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Abstract—*Field experiment was conducted at CCS Haryana Agricultural University, Hisar during rabi season of the year 2011 to estimate the residues on the onion crop and 1st spray was done with cypermethrin and fenvalerate @ 37.5 g a.i. ha^{-1} in first week of April, 2011-12 after 72 days of transplanting and 2nd spray was done at an interval of 10 days. The residues of cypermethrin and fenvalerate were estimated in / on onion bulbs using multi - residue analysis method by Gas Liquid Chromatography (GLC). The residues were determined on/ in bulbs and leaves 0, 3, 7, 10 days after spray (DAS) and at harvest at different time intervals. The average residues of cypermethrin @ 37.5 g a.i. ha^{-1} in the onion leaves was 0.19 on 0th DAS which was above MRL of 0.1 mg kg^{-1} and washing reduced the residues to 0.09 mg Kg^{-1} thereby showing 52.63 % reduction. Whereas in case of onion bulbs, initial residues were 0.03 mg Kg^{-1} which reduced to 0.007 and 0.005 mg Kg^{-1} on peeling and peeling+ washing respectively thereby showing 76.66 and 82.75 per cent dissipation respectively. Total fenvalerate residue after one hour of washing was 0.07 mg Kg^{-1}, showing 53.33 per cent decrease as compared to the initial deposit of 0.15 mg Kg^{-1} on 0th DAS and in case of onion bulbs, residues reached to a level of 0.008 mg Kg^{-1} and below detectable level due to peeling and peeling+ washing respectively.*

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