

Dissipation and decontamination of imidacloprid and lambda - cyhalothrin residues in brinjal

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ABSTRACT

Residues of imidacloprid at 20 g a.i. ha⁻¹ and lambda - cyhalothrin at 15 g a.i. ha⁻¹ were estimated quantitatively by HPLC/GLC in/on brinjal fruits. Initial deposits of insecticides were higher in imidacloprid than lambda - cyhalothrin. Initial deposits of 0.652 mg kg⁻¹ of imidacloprid dissipated to 93.17 per cent on 10th day. In lambda - cyhalothrin the initial deposits were 0.138 mg kg⁻¹ which dissipated to 92.75 per cent on 10th day. The degradation of imidacloprid was relatively higher as compared to lambda - cyhalothrin. Both imidacloprid and lambda - cyhalothrin had half - life values of 1.92 and 2.65 days, respectively on brinjal fruits. The safe waiting period for imidacloprid was found 4.70 days. In lambda - cyhalothrin, no waiting period is required after its application as the initial deposits were less than its MRL (0.3 mg kg⁻¹).

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