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A fast, inexpensive & safe method for residue analysis of flubendiamide in different vegetables by LC/UV detector

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A fast, inexpensive and safe method to determine insecticide residues of flubendiamide in different vegetable matrixes was developed by liquid chromatography with UV detector that involves extraction with acetonitrile, clean up residues with primary secondary amine (PSA) and MgSo4 and determination by LC with UV detector. The mobile phase used was acetonitrile:water at a proportion of 70:30. The method involves extraction of 15 g sample with 30 mL acetonitrile; dispersive solid phase clean up with PSA and anhy.MgSO4; evaporation of the acetonitrile to dryness using Turbovap evaporator and subsequent reconstitute with 1 ml acetonitrile for LC analysis. The cleaned up residues were estimated by HPLC equipped with a UV detector at a wavelength of 254 nm. The analytes were separated on a reversed-phase C18 LC column. The limit of quantification (LOQ) was 0.01 mg kg-1 for cabbage and brinjal, 0.05 mg kg-1for chilli. The recoveries of the compound at the LOQ level were in the range of 92.72%-96.76% from cabbage, 93.25%-98.46% for brinjal and 94.82%-97.92% from chilli.

Biography

Shaon Kumar Das is working as a Scientist in ICAR, under ministry of agriculture, Govt. of India. He got gold medal for his outstanding contribution in MSc. He has more than ten international papers in reputed journals.

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