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Residue Analysis of the Fungicide Benthiavalicarb-isopropyl and Its Degradation Products in Upland Field Soil

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Abstract:

A method for residue analysis of benthiavalicarb-isopropyl, its diastereomer, and its four degradation products in soil by HPLC was established. The method of extraction under reflux with a mixture of acetone and ammonium chloride solution was optimal for most of the compounds. The limit of quantification in two soils was 0.01 to 0.02 mg/kg for the compounds, and the recovery rates of the compounds from the soils were 74 to 113%. But for the degradation product having an amino group, the rate of recovery from one soil only was good. The level of benthiavalicarb-isopropyl in two upland field soils decreased rapidly.

Keywords:

benthiavalicarb-isopropyl, degradation products, analytical method in soil, HPLC, residue analysis in field soil

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