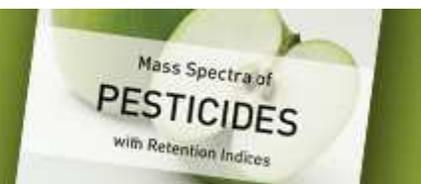


Mass Spectra of Pesticides with Retention Indices

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Article

Dislodgeable residues and persistence of diazinon, chlorpyrifos and isofenphos following their application to turfgrass

1. Mark K. Sears¹,
2. Cindy Bowhey¹,
3. Heinz Braun²,
4. Gerald R. Stephenson¹

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Author Information

¹ Department of Environmental Biology, University of Guelph, Guelph, Ontario N1G 2W1, Canada

² Provincial Pesticide Residue Testing Laboratory, Ontario Ministry of Agriculture and Food, Guelph, Ontario

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Abstract

In laboratory experiments, residues of diazinon applied to turfgrass, *Poa pratensis* L., that could be dislodged by rubbing with cheese-cloth, declined from c. 10% of the total applied when the grass was vigorously rubbed immediately after application to 0.3% after 1 day. Sunlight did not influence the rate of decline in dislodgeable residues or residues remaining on or within the leaf blades. In field experiments where 4.5 kg ha⁻¹ of diazinon was applied in liquid or granular form, about 20 times more diazinon was dislodged from the liquid formulation immediately after application than from the granular. By 1 day after application the percentage of the total applied diazinon that could be dislodged was equal for both formulations. Rainfall had a significant effect on the amount dislodged from grass blades, but mowing did not. Similar rates of decline in the dislodgeable fraction of diazinon, chlorpyrifos and isofenphos were observed in field experiments. Recovery of the dislodgeable fraction declined to 0.25% or less of the total amount of any of these insecticides by 1 day after application. However, residues in the thatch remained sufficiently high for control of insects for up to 7 days after application for diazinon and 14 days for chlorpyrifos and isofenphos.

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