

EDITORIAL

Dissipation of pesticide from agricultural soil has long been considered as a potential environmental problem. Applied pesticide may migrate slowly through the soil and reach the groundwater systems or move to the surface water bodies by runoff or erosion, or volatilise from the soil surface and reach no target organisms by fallout.

Environmental fate models have been used for many years to describe the fate and behaviour of pesticides in the environment. The use of mathematical modelling has increased in the last few decades and its usefulness has been recognised at regulatory level.

Key topics are:

- Better knowledge of basic processes;
- Validation status of models;
- Uncertainty related to the simulations;
- Upscaling from field to region scale.

In this issue some papers which contribute to solving these subjects are reported. Soil volatilisation of pesticides, pesticide sorption spatial variability, pesticide drainage in surface water bodies and pesticide behaviour in paddy fields are discussed, providing new experimental data. Pesticide behaviour modelling and model validation strategy are discussed and some remarks are outlined.

This issue represents an interesting overview for the scientist involved in pesticide modelling research, and a starting point for future model improvement.

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