

Developing functional tools for pesticide risk assessment and management in Europe

FOOTPRINT aims at developing 3 pesticide risk prediction and management tools, for use by 3 different user communities: farmers and extension advisors at the farm scale, water managers at the catchment scale and policy makers/registration authorities at the national/EU scale.

3 TOOLS

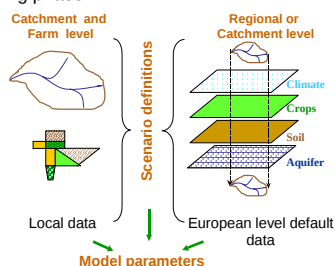
The Foot tools will share the same overall philosophy and underlying science and will allow users to:

- identify the dominant pathways and sources of pesticide contamination in the agricultural landscape;
- estimate pesticide concentrations in local groundwater resources and surface water abstraction sources; and,
- make scientifically-based assessments of how the implementation of mitigation strategies will reduce pesticide contamination of adjacent water resources.

	FOOT-FS	FOOT-CRS	FOOT-NES
Scale of application	Farm scale	Catchment/Regional scale	National/EU scale
Target users	Farmers / Extension advisers	Water managers / Local authorities / Stewardship managers	Policy- and decision-makers / Registration authorities
Form	Stand-alone application, web portal	GIS add-on	GIS add-on
Validation	Piloting in farms in Poland, the UK, France, Sweden Evaluation in Denmark	Evaluation in catchments in Poland, Sweden, France, Italy	Evaluation for France, the UK, Denmark

EU scenarios

A large number of scenarios representative of pesticide transfer pathways in Europe will be compiled by combining information on soils, crops, soil and subsoil. Each scenario will be parameterised and used in the modelling phase.



Modelling

The environmental transfer of pesticides will be simulated for all agro-environmental scenarios using the leaching model MACRO and the run-off model PRZM. Both models have benefited from evaluation exercises in the past and are routinely used in pesticide registration in Europe.

Parameterisation of the models will be based on new transfer functions specifically developed to allow full parameterisation from readily-available climatic, soil and cropping data.

A specific IT infrastructure will be developed to run MACRO and PRZM on corporate PCs which are not being used at night or during holidays.

The millions of model runs undertaken will allow the derivation of a direct relationship between model inputs (pesticide properties for the various scenarios) and model outputs (predicted pesticide concentrations).



Project partners



Policy relevance

The close relevance of the FOOTPRINT project to EU policy support requirements is ensured through an Advisory Committee and through the presence in the consortium of partners with a strong involvement in EU and member states policy development.

The project is expected to contribute to a number of existing and future EU policy instruments and directives:

- the Directive 2000/60/EC ('Water Framework Directive'),
- the future Thematic Strategy on the Sustainable Use of Pesticides,
- the proposed Groundwater Daughter Directive,
- the Common Agricultural Policy.



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