

Modelling and monitoring of pesticides fate and exposure in a regulatory context

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Modelling and monitoring of fate and exposure of pesticides (incl. biocides) in the regulatory context is under continuous development in Europe as well as other regions of the world. Development of new models or the adjustment of existing models like changes in parameterization or scenarios are necessary due to new scientific knowledge and aim to a more reliable risk assessment for regulatory decision making regarding the protection of the environment whilst significant uncertainties remain. Monitoring campaigns of chemicals and metabolites are initiated to evaluate chemical status in different environmental compartments, whereas the questions on the regulatory context and implications of findings remain. The session will a) focus on the outcomes of recent developments on fate modelling under different regulations like new guidance documents, requirements and model developments. For example new guidance documents and scientific opinions on exposure assessment in soil, groundwater and surface water of pesticides have being developed by the European Food Safety Authority (EFSA). These shall be presented to and discussed by stakeholders from academia, regulatory authorities, industry and consultancy. For biocides, the European Chemicals Agency (ECHA) have the role of coordinating the European peer review process and have an increasingly important role in the associated development of risk assessments and emission scenarios documents in this area. New model or scenario developments shall be presented considering the spatial and temporal variability of the exposure and fate of pesticides in different environmental compartments. b) look at other regions of the world environmental risk assessment schemes, including modelling and their current developments and/or revisions (for pesticides e.g. in China, Latin America). A global exchange on exposure assessment principles (including modelling and scenario development) is warranted and it is the intention to bring together the latest developments in the regions of the world for different use classes of chemicals. c) provide a platform to discuss and exchange monitoring programs and results in the light of regulatory use. Modelling results shall be compared to monitoring data in order to allow an evaluation of their conceptual basis in relation to protection goals, which quite often may only be implicit in the underlying legislation. The regulatory use of fate models and scenarios for pesticides shall be discussed in the light of targeted experiments or representativeness analysis as well as survey monitoring results. The suitability of generic regulatory exposure scenarios and the development of tailor made scenarios shall be discussed alongside rules for their evaluation in a regulatory framework. As the scope of this session covers various chemical use classes, it is intended to focus the contributions in subsections, which are specific enough to attract the specialists but are linked and associated to foster the exchange between different scientific and regulatory communities.