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Pesticide information system and its relationship with the Czech soil information system

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The information system was created primarily for purpose of sharing information among the team members of the research project “Occurrence and transport of pesticides in the hydrosphere of the Czech Republic”. The data are stored in RDBMS, the team members have access to the information for viewing and editing via WWW interface. The database contains information for each pesticide such as basic identification data, physical and chemical properties, eco-toxicological properties, methods of sampling and analysis, behavior in soil and water, application in the Czech Republic, occurrence in the hydrosphere of the Czech Republic, existing monitoring programs and so on. Data were obtained from the available literature, pesticide monitoring in the Czech Republic, field and laboratory experiments performed for selected soil types by the project team. Soil adsorption experiment results including soil sampling site characterization and soil sample properties stored in the information system have close link to the Czech soil information system PUGIS (Kozak et al., 1996) and digital soil map 1:250 000 (Nemecek et al., 2001). The information system allows not just for data querying and retrieval, but also for statistical processing of stored information. The system has also built-in functionality to calculate the GUS index (Gustafson, 1989) representing leachability of a substance, to rank pesticides from various points of view and to predict soil sorption properties based on pedotransfer rules (Kozak and Vacek, 2000). Connection of pesticide database and the soil information system provides complex information background for assessment of pesticide behavior in soils

of the Czech Republic.

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