

e-VALUATE PESTICIDE ECOLOGICAL RISK ASSESSMENT AND TRAINING MODULE

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e-VALUATE is an internet-based, pesticide ecological risk assessment and training module. The first version of the *Pesticide Ecological Risk Assessment and Training Module* was funded by USEPA Office of Pesticide Programs with support from FAO/AGPP, the FAO-IAEA Joint Division for Agriculture, and IUPAC. This first version used a relative risk exposure assessment paradigm in order to minimize the need to develop country-specific, crop-specific aquatic modeling scenarios. The current version of *e-VALUATE* is designed to follow the USEPA Office of Pesticide Programs methodology for ecological risk assessment, but also includes reference to other methods and tools that may be useful for evaluating potential risk posed by pesticide use. In the latest version, the relative risk methodology has been replaced with the user-friendly EXPRESS (EXAMS-PRZM Exposure Simulation Shell) modeling platform. The Pesticide Root Zone Model (PRZM) and Exposure Analysis Modeling System (EXAMS) are pesticide fate and transport models developed by USEPA. EXPRESS is designed to make complex pesticide fate and transport models much easier to use and will bring more sophisticated levels of risk assessment within reach of many countries.

e-VALUATE is a module providing instruction about the risk assessment process and how it is used to evaluate the potential impacts of pesticides in agricultural environments. It is a streamlined, all-in-one collection of methods, tools, data, definitions, and process descriptions that can be used to evaluate the potential ecological risk of using a pesticide. It is also a medium to learn how to use an ecological risk assessment to provide ways to help manage hazards and risks for pesticides. It provides a collection of valuable information, training materials, reference sources and instruction on the safe use and disposal of pesticides

Version 1.0.0 of the *e-VALUATE* module is based largely on risk assessment methods used by the Environmental Fate and Effects Division (EFED) of the US Environmental Protection Agency, Office of Pesticide Programs (OPP) in order to provide a complete system within the module. Other methods and tools are also recognized as equally valid risk assessment approaches and references to these are also included as potential alternatives to the OPP/EFED system. For cases in which other sources are used, an attempt has been made to identify the source.

The module is intended for pesticide risk assessors and risk managers in all levels of government, business and nonprofit organizations; decision-makers, such as scientists, public health officials and environmental managers on an international scale; and all who share interest in proper use of pesticides to reduce risks and to prevent pollution.

***e-VALUATE* should be useful to environmental scientists and managers in several ways: (1)** the training module and tools give information about pesticides and risk assessment methods that should be used by decision-makers to help protect the environment, **(2)** the training module and tools help decision-makers to assess the specific hazards, exposures and risks from pesticides in order to manage pesticides wisely to prevent pollution and protect the environment, **(3)** the information and methods are adaptable to a broad range of cultures and ecosystems so that it is applicable to most geographic areas, **(4)** the items included are pesticide risk assessment tools intended for initial evaluations of pesticides; additional resources are cited for further information and guidance and, **(5)** the pesticide data-handling and reporting format is harmonized with OECD Monograph Guidance Appendix 6 for consistency among countries.

e-VALUATE includes descriptions of methods for ecological risk assessment and risk characterization, models and tools for simulation of pesticide exposure, methods of risk management, information on safe usage and disposal of pesticides, risk assessment training materials and presentations,

a pesticide glossary and a library of pesticide websites. English and Spanish versions have been developed. The second phase of this project is to provide support for development of PRZM cropping scenarios in conjunction with regulatory officials and others from developing countries. These new scenarios will be designed to incorporate soils, weather and agricultural practices in developing countries.