Pesticide Risk Mitigation Engine

Policy on IPM

Goal: To set priorities and guide future enhancements in the incorporation of IPM practices into the tool.

Definition: "Integrated Pest Management, or IPM, is a long-standing, science-based, decision-making process that identifies and reduces risks from pests and pest management related strategies. It coordinates the use of pest biology, environmental information, and available technology to prevent unacceptable levels of pest damage by the most economical means, while posing the least possible risk to people, property, resources, and the environment. IPM provides an effective strategy for managing pests in all arenas from developed residential and public areas to wild lands. IPM serves as an umbrella to provide an effective, all encompassing, low-risk approach to protect resources and people from pests."[1]

General policies:

1. Given current limitations on time and funding, a complete incorporation of IPM practices is beyond our near-term scope. We will, however, address IPM in the following ways:

    a. Evaluating pesticide options for risks, and choosing least-hazardous products, is a key component of IPM. Our tool will promote IPM insofar as it helps growers identify and reduce risks in the product evaluation and selection process.

    b. The tool will include risk assessments to reduce impacts on natural enemies and delay resistance, key elements of any IPM program.

    c. In addition to identifying risk drivers, the tool will suggest mitigation options specific to crops, regions and pathways of exposure. For example, if risks to aquatic ecosystems are high due primarily to runoff, a vegetative buffer may be appropriate; however, if drift is the primary exposure pathway, a change in application method may be more effective. Through the calculation of Use Pattern Adjustment Factors (UPAFs) *(see Work Plan for Use Pattern Adjustment Factors)*, the tool will estimate the effectiveness of various mitigation measures for a given scenario, assisting the user in choosing management practices that most effectively reduce risk. These suggested mitigation measures are likely to

[1] USDA, "National Road Map for Integrated Pest Management." http://www.csrees.usda.gov/nea/pest/pdfs/ipm_roadmap_5-3-04.pdf. May 3, 2004.

include IPM practices, such as using scouting information to limit applications to affected areas and reduce the overall amount applied.

d. For IPM practices currently beyond the scope of the tool, users will be directed to the appropriate resources for IPM practices for their crop and region, e.g. USDA Crop Profiles, USDA Pest Management Strategic Plans, local IPM centers and extension offices, etc.

2. For future iterations of the tool, we will continue to seek additional avenues of funding for the further incorporation of IPM practices. Possibilities for enhancement include:

   a. Continued addition and refinement of UPAFs beyond the current scope of the project

   b. Addition of factsheets, specific to pests or practices, to educate users on the implementation of IPM

   c. Incorporation of economics and efficacy to assist growers in calculating economic thresholds

   d. Incorporation of non-chemical pest control methods, e.g. introduction of natural enemies, mating disruption, etc.

   e. Seamless linkage to other tools that help the user to identify and implement IPM practices, e.g., eco-label programs that require IPM practices for certification; land-grant university-based on-line tools for pest identification, etc.