

A SIMPLE PESTICIDE ASSESSMENT GUIDE FOR 595 PEST MANAGEMENT PLANS. Richard T. Proost, Chris M. Boerboom and Patrick A. Murphy, Senior Outreach Specialist, Nutrient and Pest Management Program, Professor, Department of Agronomy, University of Wisconsin, Madison, WI 53706 and State Resource Conservationist, Natural Resources Conservation Service, 8030 Excelsior Drive, Suite 200 Madison, WI 53717-2906.

The United States Department of Agriculture-Natural Resources Conservation Service (NRCS) has a long history of providing cost-share dollars to farmers for the implementation of soil conservation practices. The NRCS has expanded cost-sharing into the crop production areas of nutrient (NRCS 590 standard) and pest management (NRCS 595 standard). Cost-sharable plans must be written by an NRCS Technical Service Provider (TSP), an accreditation many agricultural consultants currently hold. A required component of the NRCS 595 pest management standard is an environmental risk analysis of the pesticides incorporated into the pest management plan. The pesticide risk analysis is completed by the TSP writing the plan and requires the use of the NRCS Windows Pesticide Screening Tool (WIN-PST) or other NRCS-approved risk analysis tools. The current WIN-PST model is a complex computer program that requires user training in order to run and interpret program output. Because of this, an effort was made to develop a quicker, alternative method of providing the required risk analysis based on WIN-PST output that could be used in the field or in the office.

A WIN-PST pesticide risk analysis takes user supplied data and calculates eight hazard ratings on the potential for pesticide loss and risks to human and fish health. Hazard ratings have risk categories of very low, low, intermediate, high and extra high. Hazard categories of intermediate, high or extra high are of particular importance as they require mitigation techniques incorporated into the pest management plan that reduce the risk potential. The first step of the development project simplified hazard ratings by grouping them into two easily understood ratings; pesticide risk to groundwater and pesticide risk to surface water. As individual hazard ratings were grouped, the highest risk category within a group of ratings was used as that group's rating. This was done to preserve the meaning of the WIN-PST output.

The second step of the development project was to conduct a sensitivity analysis of WIN-PST output using 10 pesticides with dissimilar chemical properties on 30 Wisconsin soil types with dissimilar physical properties. Sensitivity analysis indicated that soils could be grouped into five categories based on soil formation characteristics while maintaining the integrity of WIN-PST hazard ratings. Information from the first and second steps was presented to NRCS and Wisconsin Department of Agriculture, Trade and Consumer Protection specialists who approved its use for pest management planning in Wisconsin.

The result of this project was the creation of the Wisconsin WIN-PST Risk Assessment Quick Guide, a five page document containing hazard ratings for 107 pesticides (54 herbicides, 31 insecticides and 22 fungicides) that represent 90% of all pesticides applied to Wisconsin farmland. While the Wisconsin WIN-PST Risk Assessment Quick Guide is only valid in Wisconsin, this process could be repeated in other states for developing a simplified pesticide assessment tool.