Pest Management in the United States Greenhouse and Nursery Industry: Introduction and Perspective

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We are pleased to present an analysis of pest management practices in the United States greenhouse and nursery industry in the following five papers. This is the first national review of pest management practices. It was funded by the USDA National Agricultural Pesticide Impact Assessment Program (NAPIAP). The purpose of this cooperative USDA and state program is to develop and make available science-based information that evaluates the benefits of pesticides in United States agriculture. The primary audience, for whom assessment documents are developed, is the USEPA, which uses the information for registering

and reregistering agricultural chemicals. In this five-paper compendium, we report on the nature of pesticide use and the status of alternative pest control measures.

Members of the grower divisions of the American Association of Nurserymen and the Society of American Florists were surveyed for this study. The survey probed chemical practices for controlling insects, diseases, weeds, and plant growth, as well as nonchemical practices. Despite the lengthy survey, we had a response rate slightly greater than 50%. This suggests that pest management is an important issue for the greenhouse and nursery industry. We also found that growers are concerned about future availability of pesticides and the level of constraints associated with their use.

Since EPA is a primary audience for this report, pesticide use generally is reported in quantity of active ingredient. For each category of pest control, we gathered information on either the type of pest targeted or the location used in the nursery or greenhouse as a way to understand better how pesticides are used in the greenhouse and nursery industry. The papers also cover data describing the industry's status in adopting nonchemical pest control measures. The successful adoption of nonchemical control measures may prove very important to the success of this industry as the availability of pesticides becomes more uncertain, costs continue to increase, regulations impede efficient pesticide use, and environmental restrictions regarding run-off water quality provide impetus for less pesticide use. Also discussed are implications for university research and extension programs. The greenhouse and nursery industry is making greater use of alternative pest management practices and views the cooperative extension service as a valuable resource for information on alternative pest management practices. Hopefully, research and extension service personnel can use the findings, particularly the identified constraints to implementing alternative pest management practices, to guide future pest management projects.

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