
Forest Pest Management

A Guide for Commercial Applicators Category 2

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Forest and Right-of-Way Pest Control. 1995. Patrick J. Marer, Mark Grimes, Richard Cromwell. Davis: University of California (Figures 2.3, 3.2, 3.4, 3.5, 3.6, 3.14).

Herbicides and Forest Vegetation Management: Controlling Unwanted Trees, Brush, and Herbaceous Weeds in Pennsylvania. Extension Circular 369. 1994. James Finley, Helene Harvey, and Robert Shipman. University Park: Pennsylvania State University (Figures 3.1, 3.12, 3.15).

Pesticide Properties that Affect Water Quality. Extension Bulletin B-6050. 1997. Douglass E. Stevenson, Paul Baumann, John A. Jackman. College Station: Texas A&M University, Texas Agricultural Extension Service (Figure 2.1).

Prevention and Control of Wildlife Damage. 1994. Hygnstrom, S.E., R.M. Timm, and G.E. Larson (eds.). Lincoln: University of Nebraska Cooperative Extension Service, USDA-APHIS, Great Plains Agricultural Council Wildlife Committee (Figures 9.3, 9.4, 9.5, 9.7, 9.8, 9.9).

Sprayers for Christmas Trees. Donald Daum. University Park: Pennsylvania State University (Figures 3.7, 3.8, 4.1, 4.2).

FRONT COVER PHOTO CREDIT: *Ganoderma applanatum* wood decay fungi (top left), T. Laurent, USDA Forest Service, *Forest Pests of North America, Integrated Pest Management Photo CD Series*, 1999, Bugwood and the University of Georgia, Tifton, Ga.; Gypsy moth larva (top right), J.H. Ghent, USDA Forest Service, *Forest Pests of North America, Integrated Pest Management Photo CD Series*, 1999, Bugwood and the University of Georgia, Tifton, Ga.; Leaffooted pine seed bug (bottom left), L.R. Barber, USDA Forest Service, Parks & Recreation, *Forest Pests of North America, Integrated Pest Management Photo CD Series*, 1999, Bugwood and the University of Georgia, Tifton, Ga.; White-tailed deer (bottom right), C.J. Randall, Michigan State University. These same photographs appear in color on the cover page for Appendix E.

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INTRODUCTION

How to Use This Manual

This manual contains the information needed to become a certified commercial applicator in Category 2, Forest Pest Management. This manual is intended for use in combination with the Pesticide Applicator Core Training Manual (Extension Bulletin E-2195), available through the Michigan State University Bulletin Office. However, this manual would also be useful to anyone interested in learning more about forest pest management.

Category 2, Forest Pest Management, covers the management and control of common forest pests in natural stands, plantations, Christmas tree operations, nurseries, and seed orchards. Basic scientific information is presented on forest ecosystems and pest life cycles. Protecting non-target organisms and preventing the development of resistance in pests are also emphasized.

The Category 2 certification exam will be based on information found in this booklet. Each chapter begins with a set of learning objectives that will help you focus on what you should get out of each chapter. The table of contents will help you identify important topics and

understand how they relate to one another through the organization of headings and subheadings. As you prepare for the exam, read each chapter and answer the review questions located at the end. These questions are not on the certification exam. They are provided to help you prepare for the exam. Questions on the exam will pertain directly to the learning objectives.

The appendices and glossary, including an answer key (Appendix A), at the end of this manual provide supplemental information that will help you understand the topics covered in the chapters. Terms throughout the manual text that are bold and italicized can also be found in the glossary.

This certification manual benefits the applicator and the general public. By learning how to handle pesticides correctly, applicators will be able to protect themselves, others, and the environment from pesticide misuse. For more specific information on how to become a certified applicator in Michigan, refer to the beginning of the core manual (E-2195) or to the Michigan Department of Agriculture's Web site: <<http://www.mda.state.mi.us>>