

SEED TREATMENT

A National Pesticide Applicator Study Manual



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Resources Collaborative

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- Seed Treatment Category 4: Iowa Commercial Pesticide Applicator Manual, Iowa State University, CS16, 2010
- Seed Treatment, Virginia Tech University, Pub. 456-218, 2003
- Seed Treatment: A Study Guide for Seed Treaters, Washington State University, EM002, November 2009
- Training Manual for the Commercial Pesticide Applicator: Seed Treatment, University of Wisconsin, 2000

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INTRODUCTION

PURPOSE OF THIS MANUAL

The purpose of this training manual is to provide study material for people interested in becoming a certified pesticide applicator in the seed treatment category in their respective states, Indian tribes, or U.S. territories. It covers the basic knowledge and skills required to safely, effectively and correctly apply pesticides to seeds. Seed treatment is the process of applying pesticides to seeds or plant parts intended to be planted for a new crop (e.g., as food, nursery or greenhouse products, or grass). It does not include pesticides applied to control insects, plant pathogens, or vertebrate pests that attack seed, grain, or commodities while in storage (i.e., a stored commodity). Check with the regulatory agency in your state, Indian tribe, or U.S. territory for pesticide applicator certification requirements for stored commodities.

Information in this manual supplements the basic pesticide law and safety information provided in the Core Manual (also called the State Core Manual or Pesticide Applicator Certification Core Manual Study Guide). It is recommended that you use both resources, the Core Manual and this manual, to prepare for a certification exam in the seed treatment category.

This manual is an entry-level text focusing on important terms, concepts, and labeling language. It is not to be used as a step-by-step guide to application. The methods and chemical references described here are not a substitute for pesticide label directions. Simply reading this manual does not qualify you as a fully trained seed treatment pesticide applicator. A competently trained applicator must also learn through on-the-job experience and continuing education.

Also, since pesticide products, equipment and technologies are constantly changing, certified applicators must keep up to date. Pesticide applicator recertification (i.e., continuing education) sessions and professional organization meetings offer these opportunities.

The American Seed Trade Association (ASTA) (<http://www.amseed.org>) has a wealth of information, including links to safety and environmental issues, state and regional seed associations and organizations related to seeds and seed treatment, and details on state and federal legal requirements for seed treatment applicators. The website is home to "The Guide to Seed Treatment Stewardship" (<http://seedtreatment-guide.com>), an all-in-one guide for handling and managing treated seed effectively.

PREPARING FOR THE CERTIFICATION EXAM

To become a certified seed treatment pesticide applicator, you must first pass the state core exam plus the exam for this specific category. The exam questions on seed treatment are based on information from this manual and your state Core manual. Here are some tips on how to use this manual to prepare for the exam.

The Core Manual is referenced throughout this study manual.

Test questions in a seed treatment pesticide applicator certification exam may come from both the Core and Seed treatment manuals.

READ THE MANUAL

First, carefully read the manual. State pesticide applicator certification exam questions are developed from – and supported by – this manual. Even if you have extensive on-the-job experience or have taken a certification exam prep course, you should study the manual. Studying increases your chances of passing the pesticide applicator certification exam.

LEARNING OBJECTIVES AND GLOSSARY

Each chapter begins with a section called “Learning Objectives.” The learning objectives state what you should know after studying the chapter. If you can answer all of the questions listed in the learning objectives, you are probably ready for the exam. For example, one learning objective listed in Chapter 1, Overview of Seed Treatment, is to define seed treatment. It is likely that at least one certification exam question will test your understanding of this topic. Keep the learning objectives in mind while reading each chapter. Afterwards, try to respond to each objective in writing. If you have trouble, reread the area of the chapter on that topic. Do this for all learning objectives.

The glossary provides supplemental information that helps you understand the topics covered in the chapters. Terms in bold type throughout the manual are defined in the glossary at the end of the manual.

PRACTICE QUESTIONS

Practice questions at the end of each chapter are multiple-choice to familiarize you with the style of exam questions commonly used in pesticide applicator certification exams. The practice questions are not to be used as review questions to prepare for the exam. To study for the exam use the learning objectives as noted above.

Before you answer a practice question and an actual certification exam question, read the question and options provided, then select your answer carefully. Do not simply search for the right answer – make sure the other options are wrong.

STUDY TIPS

- Break the manual up into sections. Study a chapter or two each day for several weeks before the exam. Review any material that you find difficult.
- Using a highlighter, mark sections in the text that relate to the learning objectives.
- Make flash cards with questions from the text on one side and answers on the other side. Review them yourself or with another person.
- Look at the headings and subheadings in each chapter. They will help you understand how sections in the text relate to each other. For example, in Chapter 4, the main heading is titled “Protecting the Public and the Environment” And the first subheading is “Coloring Treated Seed.” This tells you that the information about coloring seed is part of a larger discussion of public and environmental safety.

EXAM TIPS

- Contact the certifying agency within your state, Indian tribe, or U.S. territory for testing locations and times. Some locations offer both computerized and paper testing; others are limited to one or the other.
- After choosing a testing site, find out what you need to bring. Some testing centers provide calculators, scratch paper, and/or pencils; others prohibit any outside materials. Be prepared.
- Many places require you to bring a photo identification and Notice of Authorization letter with you to take an exam at any location.
- When taking the exam, read each question carefully. Make sure to read all of the words and understand their meanings. Misreading questions is a common cause of exam errors.
- Certification exams include two general types of questions. The first tests your ability to recall facts. The second assesses your ability to apply what you know. For example, the second type of question might ask you to evaluate a set of conditions and make a decision.

This image shows a full page of blank, lined paper. It features approximately 28 horizontal blue or grey lines spaced evenly apart, typical of standard notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines, text, or other markings present.