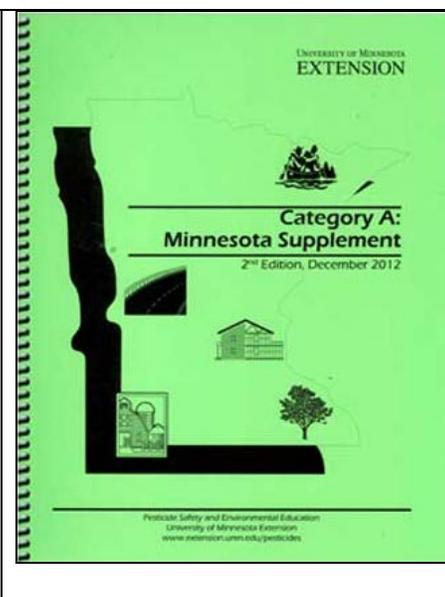
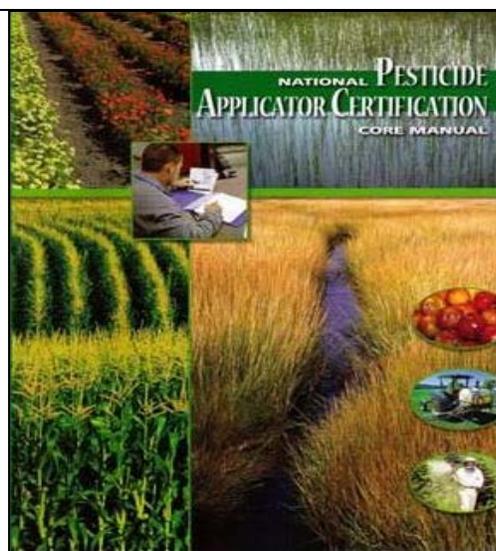
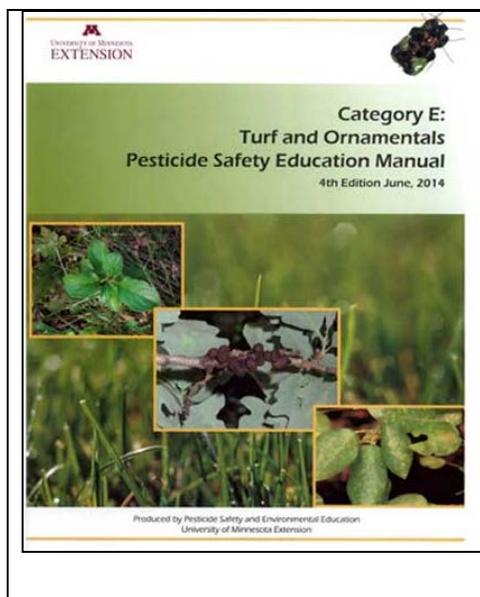




Pesticide Applicator Education and Training Materials Report



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Executive Summary

The Minnesota Department of Agriculture (MDA) is authorized by federal and state laws to regulate pesticide use and distribution in the state. The MDA regulates pesticide use by requiring licensure of persons who commercially apply pesticides, or apply Restricted Use Pesticide (RUP) on a not-for-hire basis.

An applicator must pass certification examinations to show competency and qualify for an MDA-issued pesticide applicator license. The MDA consults with the University of Minnesota Extension (U of M-Extension) and other entities to develop pesticide use categories and correlating study manuals designed to help applicators prepare for certification exams.

In 2013, the Minnesota Legislature directed the MDA to fund a study to evaluate a manual/certification improvement process with funds from the Pesticide Regulatory Account (PRA). The MDA consulted with the U of M-Extension to formulate a plan to meet this directive.

Progress has been achieved; older manuals have been replaced and several new manuals are in development. License category adjustments now ensure up-to-date certification and training. The MDA is developing an exam scheduling and delivery system that will substantially change and improve the user experience, and reduce cycle time from manual processes.

Introduction

In 2013 the Minnesota Legislature directed the Commissioner of Agriculture to use PRA funds to update and modify training materials in order to enhance the educational rigor of the applicator certification process. The MDA Commissioner was directed to report progress to the legislative committees with jurisdiction over agriculture finance by January 15, 2015, along with a schedule of activities for additional updates to training materials by December 31, 2017.

2013 Minnesota Session Laws: Ch. 114, Art. 1, Sec. 3, Subd. 2.

\$100,000 the first year and \$100,000 the second year is from the Pesticide Regulatory Account in the agricultural fund to update and modify applicator education and training materials. No later than January 15, 2015, the commissioner must report to the legislative committees with jurisdiction over agriculture finance regarding the agency's progress and a schedule of activities the commissioner will accomplish to update and modify additional materials by December 31, 2017.

Background

The Minnesota Department of Agriculture (MDA) administers the Minnesota Pesticide Control Law (MCPL) and is the lead state agency to oversee provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The U.S. Environmental Protection Agency (EPA) assigns authority to the MDA to license and certify Commercial and Private Pesticide applicators based on annual reviews and approvals of the MDA certification plan. More restrictive than federal law, the Minnesota Pesticide Control Law ([MN Stat § 18B.01](#)) authorizes the MDA to enforce pesticide licensing, certification and recertification requirements.

The MPCL requires that any person who commercially applies a pesticide, or applies Restricted Use Pesticide (RUP) on a not-for-hire basis, must obtain a license or certification from the MDA. A person must complete an application form, provide required information, and pass certification examinations to demonstrate their knowledge in order for the MDA to issue an applicator license.

In 2013, Minnesota legislation directed the MDA Commissioner to use PRA dollars to fund a process for updating and modifying applicator training materials. Pesticide category study manuals and examinations are written to meet or exceed federal and MPCL certification standards.

The MPCL is a basis for formulating specific category study manuals and corollary certification exams. Exams and manuals are developed based on job analyses by subject matter experts who define the core knowledge, skills and the ability to perform required category tasks. The MDA collaborates with a variety of subject matter experts to develop manuals and training objectives that incorporate industry standards. Through an open and competitive bid process, technical contracts are issued so that study exams, materials and manuals are developed by academic and industry experts.

Applicator Certification

The MDA certifies applicators in twenty-one (21) pesticide use categories. Some category manuals are used to certify both Commercial and Private Applicators. The MDA consults with U of M-Extension, and other public and private entities, to develop pesticide applicator study manuals and examinations that meet state and federal certification standards.

To become licensed or certified, applicators must pass a Core certification examination with basic applicator principals, and at least one other category certification. It is critical to the certification process that category descriptions and scope is valid and up-to-date. At the time of this report, most study manuals are 10 years old or older, although nearly two-thirds of all licensed applicators are served by category study manuals that are less than 8 years old. All Private Pesticide Applicators are served by a study manual that is less than 5 years old. Table 1 shows a list of manuals, their date of publication and the total number of persons certified in the category.

Category Name	Manual Publication Date	Number of Applicators
Core	2007	10,200
Core Supplement	2012	
General Aerial	2012	250
Field Crop Pest Management	2001	3,000
Turf and Ornamental	2014	4,200
Aquatic Spraying	2002	350
Forest Spraying	2001	250
Seed Treatment	2011	500
Antimicrobial	2010	20
Rights-of-way	2003	1,625
Agricultural Pest Control - Animal	1996	15
Mosquito and Black Fly Control	2000	450
Food Processing	1994	40

Stored Grain and Fumigation	2012	80
Soil Fumigation	2012	25
Vertebrate Pest Control	2013	400
Wood Preservatives	2002	20
Sewer Root Control	1996	10
Noncommercial Structural	1998	2
Structural Pest Control - Master	2002	350
Structural Pest Control - Journeyman	1998	800
Structural Pest Control - Fumigator	2012	250
Private Pesticide Applicator	2012	17,100
Private Pesticide Applicator - Fumigator	2012	30
Private Pesticide Applicator – Soil Fumigation	2012	10

The MDA also has reciprocal agreements with states where certification is deemed equivalent. Reciprocity allows Minnesota applicators to receive an applicator credential in another state and non-resident applicators to receive a Minnesota applicator credential based on their home state certification.

Applicators must regularly attend recertification training in order to renew their license. Recertification provides information on changing technology, helps to assure a continuing level of competence, and provides the ability to use pesticides safely and properly. Applicators can recertify by attending an MDA-approved training workshop. The MDA partnered with the U of M-Extension to create a multi-phase certification improvement plan to meet the 2013 Minnesota legislative directive. Provisions include:

1. Revise study manuals more frequently to reduce shelf life and keep applicator training and certification exam timely and relevant;
2. Maintain up-to-date categories that are organized to serve applicator training needs;
3. Deliver educational materials in alternative formats to improve convenience, accessibility and learning outcomes;
4. Use technology transfer to improve delivery of certification and training methods.

Summary

Study manuals and exams are the foundation of the MDA Pesticide Applicator certification program. It is important to maintain and update training materials and review categories so they have quality and remain relevant. During the past two (2) years, applicator education and training improvements have been made on several fronts. New material is circulating and revisions in several categories are underway. Manual and category improvements include:

- Creation and launch of new Turf and Ornamentals Category study manual and exam in 2014.
- Implementation of a Vertebrate Pest Control Category to replace Gopher Control Category with an expanded scope.
- Release of an interim Vertebrate Pest Control Category study manual and exam in 2014; new, revamped materials will be released in 2015.
- Creation of a new Aquatic Category with corresponding manual outline completed in 2014; launch of new study manual and exam is expected in 2015.

- Development of a combined Natural Area, Rights-of-Way and Forestry Category (NRF) replacing separate Rights-of-Way and Forestry Categories while adding restoration of natural areas into the category scope.
- Drafting of a new NRF Category manual and exam outline in 2014; launch of new study manual and exam is planned for 2016.
- Adoption of a new Core Category study manual and supplemental materials; creation of a new exam and revision of supplemental materials is anticipated in 2015.

Conclusion

The MDA and U of M-Extension will proceed with the aforementioned certification improvement plan. Progress has been achieved to update and modify applicator training materials and improve applicator certification. Older manuals are being replaced and several new manuals are in development. The MDA will continue to bring knowledgeable experts into the process and seek new training platforms for improved certification delivery. With each improvement, the MDA will ensure that pesticide applicators are qualified and competent to use pesticides safely and properly. Additionally, the new MDA scheduling and exam delivery system aims to increase learning outcomes, improve the user experience and reduce cycle time for manual completion of tasks and processes.