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IPM Accreditation Examination Study Guide

This study guide will direct you to areas in your study material emphasized on the exam, but is in no way meant to replace the materials themselves. To ensure you understand the material in these sections, we recommend you read through each of the publications for the background and details required to fully grasp all concepts.

Section 1: IPM Definition and Elements

The focus of this section is the fundamentals of integrated pest management, including the definition of IPM and concepts integral to all IPM programs. Make sure you understand each of the following thoroughly.

Describe or define IPM	Pub. 816, p. 1
List elements of IPM	Pub. 816, p. 1
The importance of monitoring and recording	Pub. 816, p. 4
Monitoring techniques and tools	Pub. 816, p. 6-9; Pub. 162, p. 20, Appendix A
Concept of thresholds	Pub. 816, p. 9
Turfgrass species selection	Pub. 816, p. 2
Importance of evaluation and how to properly evaluate a program	Pub. 816, p. 11
Reasons for IPM programs	Pub. 816, p. 11-12
Steps for developing an IPM program	Pub. 816, p. 13-16
IPM for turf insects	Pub. 816, p. 43-51
Monitoring techniques for turf insects	Pub. 162, p. 22

Section 2: Pest ID and Biology

This section briefly describes the importance of pest identification in an IPM program. Proper diagnosis, understanding pest life cycles, and knowing the biology of potential predators and antagonists are all required to practise IPM properly. Make sure you understand why each of the following is so important to IPM.

Reasons why correct pest identification is important	Pub. 816, p. 3-4
Importance of correct grass species identification	Pub. 816, p. 5, 14
Importance of understanding pest life cycles and behavior	Pub. 162, p. 2,17-19; Pub. 816, p.4
The disease triangle, disease causing organisms and symptoms	Pub. 162, p. 4-5
Identifying beneficial species and their susceptibility to pesticides	Pub. 816, p. 4

Section 3: Pest Management Methods

This section deals with available controls or management methods. Thorough knowledge of pest management options is required for an effective IPM decision-making process. Make sure you understand the different options, how they are defined, and when they should be used.

Different management and control methods	Pub. 816, p. 9
Selection of control methods	Pub. 816, p. 10; Pub. 162, pp. 3, 20-21
Cultural controls	Pub. 384, pp. 19-20, 53,54,59; Pub. 816, pp. 2, 4, 10, 27, 53
Describe how cultural treatments are used to manage pests	
Examples of cultural treatments	
Physical controls	Pub. 816, pp. 10, 29, 41
Examples of mechanical and physical treatments	
Biological controls	Pub. 816, pp. 10, 29-34, 46, 59
Definition of biological control	
Examples of biological treatment methods	
Chemical controls	Pub. 384, pp. 25,32; Pub. 816, pp. 11, 34-35, 41, 46-47
Sprayer calibration	Pub. 384, pp. 16-17
Pesticide selection process	Pub. 816, p. 11
Environmental conditions affecting pest treatment	Pub. 816, p. 70-71; Pub. 162, p. 20-21
Pesticide spills	Pub. 816, p. 74
Colinesterase blood tests	Pub. 816, p. 65
Pesticide resistance	Pub. 384, pp. 17-18; Pub. 816, p. 12
Define pest resistance	
Describe how pest resistance can develop	
Management of specific pests:	
Annual bluegrass weevil	Pub. 162, p. 26
Hairy chinch bug	Pub. 162, p. 27
Bluegrass billbug	Pub. 162, p. 26
Turfgrass scale	Pub. 162, p. 27
Black cutworm	Pub. 162, p. 29; Pub. 816, pp. 50-51
Sod webworm	Pub. 162, p. 28; Pub. 816, p. 50
White grubs	Pub. 162, pp. 23-25; Pub. 816, p. 49
European cranefly	Pub. 816, p. 47-48
Dollar spot	Pub. 162, p. 9; Pub. 816, p. 59
Take-all patch	Pub. 162, p. 9; Pub. 816, p. 58

Section 3: Pest Management Methods (continued)

Anthracnose	Pub. 162, p. 10; Pub. 816, p. 58
Red thread	Pub. 162, p. 7-8
Pythium blight	Pub. 162, p. 10-11
Brown patch	Pub. 162, p. 10
Necrotic ring spot	Pub. 162, p. 8-9
Rust	Pub. 162, p. 11
Fairy ring	Pub. 162, p. 12
Snow mould	Pub. 162, p. 6-7; Pub. 816, p. 59

Section 4: Government Regulations and IPM Accreditation Program

This section covers Ontario Regulation 63/09 related to the Ontario Cosmetic Pesticides Ban Act for golf courses and the IPM accreditation program. Be sure you understand the regulation as well as what is expected of you to become and remain IPM accredited. The Ontario Regulation 63/09 can be found at http://www.ene.gov.on.ca/en/land/pesticides/.

Information on the IPM Golf Accreditation Program Policies and Procedures can be found at: http://www.ontarioipm.com/

IPM Agent requirements and qualifications	Golf Accreditation Program Policies & Procedures, Section 1.0&2.1
Requirements for continued use of Class 9 pesticides	Ontario Regulation 63/09 Sections 18-21
Certification and Training Requirements for IPM Agents	Golf Accreditation Program Policies & Procedures
New pesticide classifications	Ontario Regulation 63/09 Section 3-8 http://www.ene.gov.on.ca/en/land/pesticides/pestcide-classification.pdf
IPM Accreditation requirements	Golf Accreditation Program Policies & Procedures, Section 2.0
Scope of IPM Agent's responsibilities	Golf Accreditation Program Policies & Procedures, Sections 2.1
Annual CEC requirement	Golf Accreditation Program Policies & Procedures, Section 2.1
Annual desk review audit forms	Golf Accreditation Program Policies & Procedures, Section 2.2
Annual report – contents & availability	Ontario Regulation 63/09 Section19