

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
REFERENCE BOOKS AND MATERIALS
ILLINOIS STRUCTURAL PEST CONTROL
TECHNICIAN CERTIFICATION EXAMINATIONS

Laws, Rules and Regulations

1. Structural Pest Control Act and Code. Administered by the Illinois Department of Public Health (IDPH) and available through any of its six regional offices or through the central office in Springfield. Also available on-line under Structural Pest Control at: <http://www.idph.state.il.us/rulesregs/lawsrules.htm#Environmental%20Occupations%20and%20Programs>.
2. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (as amended). May be available through the U.S. Environmental Protection Agency Region 5 office in Chicago (telephone 312-353-2192). Also available on-line at: <http://www.epa.gov/pesticides/regulating/laws.htm> and select this Act.
3. Federal Food, Drug and Cosmetic Act (as amended). May be available on-line at: <http://www.epa.gov/pesticides/regulating/laws.htm> and select this Act.

General References

1. Scientific Guide to Pest Control Operations (5th Edition) by Gary W. Bennett, John M. Owens and Robert M. Corrigan. A general text covering many areas of structural pest control. May be available through: SDLP, Purdue University, 1586 Stewart Center, Rm. 116, West Lafayette, IN 47907; 800-359-2968. Also available online at: http://extension.entm.purdue.edu/urban/Urban_Info/courses.html.
2. Handbook of Pest Control by Arnold Mallis. A comprehensive reference text on the behavior, history and control of pests. May be available through local libraries or from Pest Control Technology/ Book Department, P.O. Box 5817, Cleveland, OH 44101-9599. 9th Edition out of print. 10th Edition out fourth quarter of 2010. PCT Store Rep: 800-456-0707.
3. Entomology Fact Sheets. Published by the University of Illinois Extension office. Contact your county Extension office.

Special References

1. Insect Pests of the Food Industry by Lauhoff Grain Company. Available through Faulstich Printing Co., 2001 E. Voorhees St., Danville, IL 61832; 217-442-4994.

2. Vertebrate Pest Handbook by Austin Frishman, Ph.D. A question - and - answer book about rats, squirrels, etc. Available through Advanstar Marketing Service, Customer Service Dept., 131 W. First St. Duluth, MN 55802; 800-598-6008.
3. NPMA Approved Reference Procedures for Subterranean Termite Control. Available through the National Pest Management Association (NPMA), 10460 North Street, Fairfax, VA 22030.
4. NPMA Bird Management Manual. Available through NPMA (see item 4 for address).
5. Introduction to Arthropods of Public Health Importance by Harry D. Pratt and Kent S. Littig. May be available through the U.S. Public Health Service, Department of Health and Human Services, Centers for Disease Control and Prevention, Atlanta, GA 30333.
6. Bird Problems What You Can Do About Them! Available through bioLOGIC Consultants,
3919 Alta Monte Ave., N.E., Albuquerque, NM 87110.
7. Pesticide Applicator Training Manuel Category 7 (April 1993 edition) - Subcategory Fumigation. Available from Cornell University, Pesticide Manuals, Resource Center, 7-8 Business and Technology Park, Ithaca, NY 14850; 607-255-7660.
8. Pesticide Labels.

This list has been compiled for informational purposes only and should not be interpreted as an endorsement for any of the references listed above.

Reference List (Rev. 06-10)

Category: General Standards

The exam is divided into five areas: pests, pest management, pesticides, laws and labels. The following are *some* of the items you should be familiar with before taking the exam:

Pests - Pest anatomy, metamorphosis, life stages, habits and identification

Pest Management - Components of integrated pest management, advantages and disadvantages of various control methods

Pesticides - Pesticide use, storage and disposal, types of pesticides and formulations, pesticide hazard and toxicity, pesticide safety, exposure and personal protection equipment

Laws -The Structural Pest Control Act & Code requirements pertaining to licensing and certification, integrated pest management, certified technician roles/responsibilities, safe pesticide storage, handling, recordkeeping and notification requirements and violations of the act; agencies with regulatory enforcement responsibilities

Labels - Interpreting a pesticide label, calculating volume and area, using label directions to mix and apply pesticides, application sites and methods

Suggested References - Please refer to the attached listing of reference books compiled by the Department for appropriate study materials in this area. They are as follows:

1. Laws, Rules and Regulations: 1, 2
2. General Reference: 1

Sub-category: Insects and Rodents

The following are some of the topics that should be reviewed by individuals who are preparing for the Insects and Rodents pest control exam:

1. The biology, life cycles and control of insects, insect relatives, and rats and mice.
2. The major groups of pesticides and how they behave in the environment and in living organisms. Know the advantages and disadvantages of each group and their formulations when they are used for the control of insects and rodents.
3. The chemical and non-chemical methods used to identify and control insects and rodents, including application equipment and application techniques.
4. The labels of pesticides that are commonly used for the control of insects and rodents.

Suggested references Please refer to the attached listing of reference books compiled by the Department for appropriate study materials in this sub-category.

1. General References: 1

Sub-category: Termites and Other Wood Destroying Organisms

The following areas are offered as suggestions in order to help you prepare for the Termites and Other Wood Destroying Organisms examination. An individual should be familiar with —

1. The biology and control of termites, carpenter ants, carpenter bees, wood destroying fungi, powder post beetles and other wood destroying/infesting beetles.
2. The various types of construction encountered in performing termite control in Illinois and the various ways that these elements of construction may be treated.
3. The various types of termiticides, baits and wood treatment products on the market; the various chemical classifications of termiticides; the label directions for the products; non-chemical control measures, etc.
4. The mathematics involved in calculating pre- and post-treatment termiticide jobs (i.e., what needs to be treated, what needs to be avoided, how many gallons are needed to treat according to label directions, calibration of equipment). Several problems will be addressed requiring mathematical calculations. A calculator may be used.
5. The various types of application techniques utilized in termite control that enable termiticides to be safely applied according to label directions; alternate treatment procedures to prevent well contamination; role that different types of soils play in termiticide treatments.
6. The various termiticide decontamination procedures for spills, water supplies, odor control, etc.
7. The various types of equipment and protective devices utilized in termite control.

Suggested References Please refer to the attached listing of reference books compiled by the Department for appropriate study materials in this subcategory.

1. General Reference: 1

Sub-category: Bird Control

The following areas are offered as suggestions in order to help you prepare for the Bird Control examination. An individual should be familiar with —

1. The identification, biology and behavior of common pest birds found around industrial and urban environments. Which of these bird groups are protected by law? Which are not?
2. The various types of control measures (i.e., chemical and non-chemical) that are utilized in controlling pest bird population.
3. The various types of diseases associated with pigeons, starlings and English sparrows.
4. Label directions for pesticides used in bird control.

Suggested References Please refer to the attached listing of reference books compiled by the Department for appropriate study materials in this sub-category.

General References: Any of the following: 1, 2

Special References: Any of the following: 4, 6

Sub-Category: Fumigation

The following areas are offered as suggestions in order to help you prepare for the Fumigation examination. An individual should be familiar with --

1. Physical and chemical properties of commonly used fumigants (methyl bromide, Vikane[®], phosphine fumigants, carbon dioxide, chloropicrin).
2. Identification of stored product pests and pests of wooden structures controlled by fumigations.
3. Manufacturers' labels and product labeling for methyl bromide, Vikane[®] and phosphine fumigants.
4. Characteristics and effects of fumigants (toxicity and hazards, advantages/disadvantages of fumigants, factors affecting fumigants, etc).
5. Different fumigation methods (vault, tarp, railcar, structure, etc).
6. Precautions, protective equipment and detection devices used with fumigants identified in number 1 above.
7. The mathematics involved in calculating fumigation jobs.

Suggested References

7. Pesticide Applicator Training Manual Category 7 (April 1993 edition) – Subcategory Fumigation. Available from Cornell University, Pesticide Manuals, Resource Center, 7-8 Business and Technology Park, Ithaca, NY 14850 (607-255-7660).

Fumigant labels and labeling information available through distributors or the following specific manufacturers:

<u>Methyl Bromide</u>	Great Lakes Chemical, P.O. Box 2200, West Lafayette, IN 47906
<u>Phosphine</u>	Degesch America, Weyers Cave, VA 24486 (703-234-9281)
<u>Vikane[®]</u>	DowElanco, 9330 Zionsville Road, Indianapolis, IN 46268-1054 (800-352-6776)

Sub-Category: Food Processing, Manufacturing and Storage Pest Control

The following are some of the topics that should be reviewed by individuals who are preparing for the Food Processing, Manufacturing and Storage Pest Control examination. Individuals writing this sub-category should be employees of food plants who perform pest control activities for their employer (i.e., plant).

1. The biology, life cycles and control of stored product insects, insect relatives, and rats and mice.
2. Laws, rules and regulations affecting the food industry.
3. Definitions of terms or phrases that may be pertinent to pesticide applications in food environments (e.g., tolerance, residue, etc.).
4. The chemical and non-chemical methods utilized to identify and control insects and rodent problems in food industry environments, including application equipment and techniques.
5. The different classification of insecticides and rodenticides utilized to control stored product pests, rats, mice, etc. Be familiar with several examples of each classification.

Suggested References Please refer to the attached listing of reference books compiled by the Department for appropriate study materials in this sub-category.

1. Laws, Rules and Regulations: 1, 2, 3
2. General References: 1, 2
3. Special References: 1

Sub-Category: Institutional and Multi-Unit Residential Housing Pest Control

The following are some of the topics that should be reviewed by individuals who are preparing to write the Institutional and Multi-Unit Residential Housing Pest Control examination. Individuals writing this sub-category should be employees of institutions (e.g., housing authorities, housing projects, hospitals, etc.) who perform pest control activities on behalf of their employer (i.e., facility).

1. The biology, life cycles and control of insects, insect relatives, and rats and mice.
2. The different classification of insecticides and rodenticides available to control insects and rodent pests in institutional environments. Be familiar with several examples of each.
3. The different types of equipment, devices and techniques utilized to identify and/or control insect and rodent problems in the institutional environment.
4. The labels of pesticides that are commonly used for control of insects and rodents.

Suggested References Please refer to the attached listing of reference books compiled by the Department for appropriate study materials in this sub-category.

1. General References: 1, 2, 3
2. Pesticide Labels Insecticides including of organophosphates (Dursban[®] and diazinon formulations, ortheen, Safrothin[®], etc.), carbamates (Baygon[®], bendiocarb, sevin, etc.), synthetic pyrethroids and insect growth regulators. Rodenticides consisting of multiple dose (warfarin, diphacinone, etc.) and acute (Talon[®], Maki[®], etc.) toxicants, zinc phosphide formulations as well as those comprising a of new generation of active ingredients (Quintox[®], etc.)

Sub-category: Public Health Pest Control

The following are some of the topics that should be reviewed by individuals interested in taking the Public Health pest control exam. Individuals writing this sub-category should be employees of state, federal or municipal government involved in carrying out public health programs.

1. The biology, life cycles, and control of insects, insect relatives and vertebrate pests (such as rats, mice, birds and bats) that may carry human disease or injure humans.
2. The major groups of pesticides and how they behave in the environment and in living organisms. Know the advantages and disadvantages of each group when they are used for the control of pests of public health importance.
3. Important diseases carried by pests of public health importance.
4. Identification of common pests that are of public health importance.
5. The chemical and non-chemical methods used to identify and control insect and rodent pests including application equipment and application techniques.
6. The labels of pesticides that are often used to control pests of public health importance.

Suggested References Please refer to the attached listing of reference books compiled by the Department for appropriate study materials in this subcategory.

1. General Reference: Any of the following: 1, 2, 3
2. Special References: Any of the following: 2, 4, 5, 6
3. Pesticide Labels Chlorpyrifos, malathion, Ficam[®], Talon[®] G, methoprene and other important pesticides used for the control of pests of public health importance.

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