

OREGON DEPARTMENT OF AGRICULTURE

PESTICIDE

EXAMINATION OUTLINE

To successfully complete this examination, the applicant will need to be familiar with the topics identified in this outline. The outline is not intended to be used as the sole study material and may not be all inclusive of topics covered in the exam. See the ODA website <http://oregon.gov/ODA/PEST/> or the “Guide to Pesticide-Related Licensing in Oregon” (available on the web or by calling 503-986-4635) for details on recommended study material.

It is advisable to bring a small, hand held calculator to the exam session to assist in performing calculations. This exam has 100 questions. A score of 70% is needed to pass the exam. **Government issued photo identification (such as a driver’s license) will be required when you check in for testing.**

OREGON DEPARTMENT OF AGRICULTURE
PESTICIDE EXAMINATION OUTLINE
ORNAMENTAL AND TURF INSECTICIDE/FUNGICIDE

- 1) Integrated Pest Management
 - a) Definition of IPM
 - b) Advantages of IPM
 - c) Types of control methods
 - d) Scouting and monitoring
 - e) Economic threshold
 - f) Economic injury level
- 2) Insects
 - a) Metamorphosis
 - b) Insect orders
 - c) Insect anatomy and physiology
 - d) Identification
 - i) Billbugs
 - ii) Clover mite
 - iii) Crane fly
 - iv) Cutworms/armyworms
 - v) Leafhoppers
 - vi) Spider mite
 - vii) Sod webworm (lawn moth)
 - viii) Masked chafer (white grub)
- 3) Diseases
 - a) Abiotic vs biotic
 - b) Factors of disease development (disease triangle)
 - c) Disease control
 - d) Diagnosing diseases
 - e) Chemical control
 - f) Identify symptoms and management for specific diseases listed in study manual
 - g) Identification
 - i) Anthracnose
 - ii) Curvularia Blight
 - iii) Dollar Spot
 - iv) Fairy Ring
 - v) Fusarium Blight
 - vi) Leaf Spot
 - vii) Melting Out
 - viii) Microdochium Patch (Fusarium Patch, Pink Snow Mold)
 - ix) Necrotic Ring Spot
 - x) Powdery Mildew
 - xi) Pythium Blight (Grease Spot)
 - xii) Pythium Root Rot
 - xiii) Red Thread

- xiv) Rhizoctonia Blight
- xv) Rust
- xvi) Seed Rot and Damping Off
- xvii) Spring Dead Spot
- xviii) Stripe Smut
- xix) Summer Patch
- xx) Take-All Patch
- 4) Pesticide characteristics
 - a) Insecticides
 - i) Terms
 - (1) Stomach poisons
 - (2) Contact
 - (3) Systemic
 - (4) Narrow spectrum
 - (5) Broad spectrum
 - (6) Non-residual
 - (7) Residual
 - ii) Types
 - (1) Inorganic
 - (2) Botanical
 - (3) Synthetic organic
 - (a) Spray oils
 - (b) Chlorinated hydrocarbons
 - (c) Organophosphates
 - (d) Carbamates
 - (e) Pyrethroids
 - (4) Microbial insecticides
 - (5) IGRs, attractants and pheromones
 - b) Fungicides
 - i) Terms
 - (1) Protectants
 - (2) Eradicants
 - ii) Types
 - (1) Inorganic fungicides
 - (2) Synthetic fungicides
 - (3) Bactericides
 - (4) Nematicides
 - c) Formulation types
 - d) Adjuvants (what are they used for, types)
- 5) Equipment
 - a) Equipment for dry pesticides
 - b) Equipment for liquid pesticides
 - c) Sprayer components
 - d) Sprayer maintenance
- 6) Calibration and calculations

- a) Know how to calculate the following based on word problems that provide relevant variables.
 - i) Application rate
 - ii) Sprayer delivery rate
 - iii) Area of a field
 - iv) How much concentrate to dilute into spray tank
 - v) Miscellaneous problems and combinations of the above.
 - b) Best ways to change sprayer output, application rates, etc.
- 7) Label comprehension
- a) The label is the law
 - b) Parts of the label including:
 - i) Restricted-use vs general-use
 - ii) Precautionary statements
 - iii) First aid
 - iv) Signal words
 - v) Active and other ingredients
 - vi) Directions for use
 - vii) Storage and disposal
 - viii) Be able to answer word problems and calculations based on a sample label