## 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 <a href="http://oregon.gov/ODA/PEST/">http://oregon.gov/ODA/PEST/</a> 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 FOREST CATEGORY

- 1) Environment
  - a) Drift
    - i) Particle drift
    - ii) Vapor drift
  - b) Groundwater contamination
    - i) Pesticide transport in the environment
    - ii) Soil types
  - c) Wildlife
  - d) Pesticide persistence
    - i) Factors influencing persistence
    - ii) Processes for degradation
- 2) Calibration, calculations and equipment
  - a) Equipment used in forest applications
    - i) Helicopters
    - ii) Fixed wing aircraft
    - iii) Ground sprayers
    - iv) Basal bark applications
    - v) Hack and squirt applications
    - vi) Thinline and streamline applications
    - vii) Backpack sprayers
- 3) 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
- 4) Pest characteristics
  - a) Forest weeds
    - i) Broadleaf, woody and grass
    - ii) Annuals, perennials, biennials
    - iii) What chemicals are effective on what weeds
  - b) Insect pests
    - i) Metamorphosis
    - ii) Insect orders
    - iii) Selected forest insects
      - (1) Insects of the forest/urban interface
      - (2) Important forest insects
        - (a) Bark beetles
        - (b) Defoliators
      - (3) Cone and seed insects

- c) Diseases
  - i) Abiotic vs biotic
  - ii) Factors of disease development (disease triangle)
  - iii) Disease control
  - iv) Diagnosing diseases
  - v) Chemical control
  - vi) Identify symptoms and management for specific diseases listed in study manual
- d) Vertebrate pests
  - i) Pocket gophers
  - ii) Mountain beaver
  - iii) Deer and elk
- 5) Safety and handling
  - a) Pesticide transportation, storage and disposal
  - b) Protective clothing and equipment
    - i) General clothing requirements
    - ii) Respirator types and uses
    - iii) Decontamination and cleanup
  - c) First aid
    - i) Signs and symptoms
    - ii) First aid and the label
    - iii) What to do in an emergency
- 6) Pesticide characteristics
  - a) Types of pesticides (insecticides, fungicides, herbicides, etc)
  - b) Formulation types
  - c) Adjuvants (what are they used for, types)
- 7) Terminology
  - a) See glossary of terms in study manual
- 8) Laws and regulations
  - a) Federal and State laws and regulations
    - i) Agency responsibilities
      - (1) Oregon Forest Practices Act
      - (2) FIFRA
      - (3) FFDCA
      - (4) ORS 634 & OAR 603
      - (5) WPS
      - (6) OSHA
      - (7) HCS
      - (8) ESA
    - ii) License types and requirements
    - iii) Certification periods
    - iv) Prohibited acts and civil penalties
  - b) State recordkeeping requirements
    - i) ORS 634
      - (1) Recordkeeping elements
      - (2) Retention time
    - ii) Forest practices act

- (1) Recordkeeping elements
- (2) Retention time
- 9) 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