OREGON DEPARTMENT OF AGRICULTURE

ORNAMENTAL AND TURF HERBICIDE

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 "Pesticide Licensing Guide for Oregon" (available online 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.
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
   g) Herbicide resistance management

2) Weed biology and identification
   a) Broadleaf weeds
   b) Grasses
   c) Life cycles
      i) Annual
      ii) Biennial
      iii) Perennial
   d) Identification
      i) Grasses
         (1) barnyardgrass
         (2) bluegrass, annual
         (3) crabgrass, large
         (4) crabgrass, smooth
         (5) foxtail, yellow
         (6) ryegrass, Italian
      ii) Broadleaves
         (1) catsear, common
         (2) chickweed, common
         (3) chickweed, mouseear
         (4) clover, white
         (5) daisy, English
         (6) dandelion
         (7) filarees
         (8) geranium, cutleaf
         (9) healall (selfheal)
         (10) henbit
         (11) knotweed, prostrate
         (12) mallow, little (cheeseweed)
         (13) medic, black
         (14) pimpernel, scarlet
         (15) plantain, broadleaf
         (16) plantain, buckhorn
         (17) purslane, common
(18) sorrel, red
(19) spurge, spotted
(20) wood sorrel, creeping
(21) yarrow, common

iii) Sedges
(1) nutsedge, purple
(2) nutsedge, yellow

3) Herbicides
a) Selectivity
b) Classification
c) Modes of action
i) Growth regulator
(1) Phenoxy acetic acids
   (a) 2,4-D
   (b) MCPA
   (c) MCPP
(2) Benzoic acids
   (a) Banvel
(3) Picolinic acids
   (a) Transline
   (b) Tordon
ii) Amino acid synthesis inhibitors
(1) Amino acid derivatives
   (a) Roundup
iii) Lipid inhibitors
(1) Cyclohexanediones
   (a) Poast
(2) Aryloxyphenoxypropionates
   (a) Acclaim
   (b) Fusillade 2000
iv) Seedling growth inhibitors
(1) Dinitroanilines
   (a) Treflan
   (b) PreM
   (c) Balan
   (d) Surflan
(2) Acetanilides
   (a) Pennant
(3) Thio carbamates
   (a) Eptam
(4) Benzamides
   (a) Gallery
(5) Nitriles
   (a) Casoron, Norosac
v) Photosynthesis inhibitors
(1) Triazines
(a) Prometon
(2) Phenylureas
  (a) Tupersan
(3) Benzothiadiazoles
  (a) Basagran
vi) Cell membrane disruptors
  (1) Bipyridiilums
    (a) Diquat
d) Formulation types
e) Adjuvants (what are they used for, types)

4) Application methods
a) Equipment
   i) Equipment for dry pesticides
   ii) Equipment for liquid pesticides
   iii) Sprayer components
   iv) Sprayer maintenance
b) Application timing

5) 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.

6) 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