

Study Guidelines for Permit

exam:

AGW (Agricultural weed control)

Some information you should have knowledge of before taking a permit examination for Agricultural weed control.

This outline may be used as a study guide for the permit examination. The Mississippi Bureau of Plant Industry is providing a list of subject areas you need to study for the permit exam.

A copy of the Regulations Governing Commercial Insect, Rodent, Plant Disease and Weed Control Work can be found at The Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry website, <http://www.mdac.ms.gov/wp-content/uploads/11-Regulation-of-Professional-Services.pdf>. **Please note that you should be familiar with the topics and suggested weed identification (photos will be provided on exams), for the exam in this outline.**

1. You should be thoroughly familiar with Bureau of Plant Industry Regulations Governing Commercial Insect, Rodent, Plant Disease and Weed Control Work. Topics include, but are not limited to:

- Permit requirements
- Permit renewal requirements
- Registered technician standards
- Violations
- Record keeping requirements
- Bond requirements
- Insurance requirements
- Changing a mailing or physical address

2. Herbicides/Insecticides:

- Know how to interpret the label
- Be able to perform calculations involving:
 - ounces to gallons
 - percent wettable powder to pounds per acre.
- LD₅₀ interpretation
- Signal word interpretation:
 - Danger
 - Warning
 - Caution
- Formulations effectiveness on specific weeds
 - WP
 - SP
 - EC
 - G
- Glyphosate
- 2,4-D vs. Dicamba
- Systemic herbicides
- Common volume conversions
- Modes of action
- Weeds resistant to
- Turfgrass tolerance to
- Characteristics of soils high in clay
- How long can weed seed remain viable in the soil?
- What is FIFRA?
- What does a Section 18 label allow?
- What does a Section 24C label allow?
- Be familiar with flood jet tips and percentage of overlap.
- Be familiar with flat fan tips and percentage of overlap.
- Be familiar with various pumps and which one are suitable for various formulations.
 - Centrifugal pump
 - Roller pump
 - Diaphragm pump

3. Pesticide mixing; Pesticide application; Pesticide cleanup; Pesticide transport; Pesticide spills; Pesticide disposal; Pesticide safety; Pesticide storage

4. Proficiency in botany and principals of weed science, as is applicable to each category of weed control, is recommended before attempting these exams.

5. Definitions:

- Rhizome
- Bulb
- Tuber
- Stolon
- Surfactant
- Drift
- Allelopathic
- Annual
- Biennial
- perennial

6. Be familiar with some examples of annual broadleaf weeds.

7. Be able to ID the following (seedling stage and/or mature plant identification may be on exam):

Barnyardgrass; goosegrass; horseweed; hemp sesbania; jimsonweed; lambsquarters (common); morningglory (entireleaf); morningglory (smallflower); morningglory (tall); northern joint vetch; purple moonflower; ragweed (common); ragweed (giant); redvine; velvetleaf; woolly croton

8. Be familiar with Worker Protection Standards (WPS).

9. Be thoroughly familiar with commonly used herbicides and their preferred uses such as but not limited to: MSMA; Glyphosate; Simazine; Gramoxone.

10. Be familiar with the characteristics between grassy weeds and broadleaf weeds.

11. Be familiar with ester vs. amine formulations.