



Tailgate Safety Training for Landscaping and Horticultural Services

Agricultural Safety Program, 590 Woody Hayes Drive, Columbus, OH 43210

Mixing and Spraying Pesticides

Objective: To identify the proper way to mix and spray pesticides.

How to Use This Module

Pesticides contain hazardous chemicals; they must be mixed and sprayed safely. For this module:

- Read the information below on safe practices with pesticides.
- Discuss any questions you have with your supervisor.
- Review the important points.
- Take the True/False quiz to check your learning.

For related topics, see the Tailgate Safety Training modules *Laundering Pesticide-Contaminated Clothing*, *Pesticide Exposure*, *Personal Protection Equipment (PPE) for Pesticides*, and *Reading Pesticide Labels*.

Background

All workers who mix and spray pesticides must be properly trained to ensure their safety. This training must be conducted within the first five days of employment. The U.S. Environmental Protection Agency (EPA) offers Worker Protection Standard (WPS) training. (Details are available at www.epa.gov/oppfead1/safety/workers/training.htm.) Training is usually conducted by state agencies. (Details are available at www.epa.gov/oppfod01/safety/applicators/statepro.htm.)

Employers who have received WPS training can provide this training or hire someone who has been WPS trained. During the training session, you should always ask questions if you do not understand a point of instruction.

WPS training contains requirements for:

- Pesticide safety training
- Notification of pesticide applications
- Use of personal protection equipment (PPE)
 - ◆ Gloves
 - ◆ Footwear

- ◆ Eye protection
 - ◆ Head Protection
 - ◆ Clothing
 - ◆ Respirators
- Restricted entry intervals following pesticide application
 - Decontamination supplies
 - Emergency medical assistance

Proper Mixing of Pesticides

- Before mixing, test the sprayer with water to see if it leaks and is working properly.
- Read the label to determine the proper mixture.
- Wear PPE while mixing pesticides.
- Mix in a grassy area. Do not mix on concrete or hard surfaces.
- Only use water unless directed by the label to use another liquid.
- Fill the sprayer with two-thirds of the water needed. Then add the proper amount of pesticide. Then add the remaining one-third of water.
- Mix only the amount necessary to do the job.

Proper Spraying of Pesticides

- Spray so that other workers or persons are not exposed. For more details, refer to the Tailgate Safety Training module *Pesticide Exposure*.
- Other workers and persons must not enter the area where a pesticide is being sprayed.
- Be aware of wind direction. Wind can cause the pesticide to drift to areas not chosen for spraying.
- If possible, spray early in the morning or in late afternoon. High humidity will lessen the chance of drifting.
- Wear PPE while spraying. Also, PPE must be worn during the restricted, early-entry period. For more details, see the Tailgate Safety Training module *Personal Protection Equipment (PPE) for Pesticides*.
- All workers must be notified in advance of where spraying is to occur.
- All workers must have immediate access to water, soap, and towels for routine washing and emergency decontamination.
- Anyone exposed to a pesticide must be taken to a medical facility. Tell medical personnel the type of pesticide being used.
- All workers must be informed of pesticide label requirements. Central posting of recent applications is required. For more details, see the Tailgate Safety Training module *Reading Pesticide Labels*.

Clean Up and Proper Disposal of Pesticide Containers

- Rinse all equipment with water in a grassy area. Never clean up on a hard surface.
- Never flush pesticide residue into a storm drain or any type of drain.
- Always wash with soap and water before you eat, drink, smoke, or go the bathroom.
- Clothing worn during spraying should be washed separately. For more details, see the Tailgate Safety Training module *Laundering Pesticide-Contaminated Clothing*.

- Before discarding an empty container, fill it half full of water. Shake it to rinse. Empty the rinse water into the sprayer. Spray in a grassy area. Do this three times. This process will also clean the sprayer bottle and hose.
- Once the container has been completely rinsed, punch a hole in the bottom. Wrap the container in newspaper and place in the trash.
 - ◆ Do not burn empty containers.
 - ◆ Do not recycle containers.

Review These Important Points

- All workers must be properly trained in the mixing and spraying process.
- The EPA offers WPS training.
- Read the label to determine the proper mixture.
- PPE must be worn while mixing and spraying.
- Rinse all equipment with water in a grassy area. Never clean up on a hard surface.

About These Modules

The author team for the training modules in the landscape and horticultural tailgate training series includes Dee Jepsen, Program Director, Agricultural Safety and Health, Ohio State University Extension; Michael Wonacott, Research Specialist, Vocational Education; Peter Ling, Greenhouse Specialist; and Thomas Bean, Agricultural Safety Specialist. Modules were developed with funding from the Occupational Safety and Health Administration, U.S. Department of Labor, Grant Number 46E3-HT09.

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Answer Key: 1 = F, 2 = T, 3 = T, 4 = F, 5 = F.

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Name _____

True or False?

- | | | |
|---|---|---|
| 1. Training is not necessary before mixing and applying pesticides. | T | F |
| 2. Always read the pesticide container label for proper mixing and spraying directions. | T | F |
| 3. Mix pesticides in grassy areas, not on concrete or hard surfaces. | T | F |
| 4. It is not necessary to tell other workers where you will be spraying. | T | F |
| 5. After spraying pesticides, you do not need to wash up before eating or drinking. | T | F |