



Pesticide Safety Program

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Table of Contents

1.0	<u>Introduction</u>	3
2.0	<u>Scope</u>	3
3.0	<u>Definitions</u>	3
4.0	<u>Training</u>	4
5.0	<u>Training for Untrained Workers</u>	5
6.0	<u>Labeling Information</u>	6
7.0	<u>Information at Central Location</u>	7
8.0	<u>Restrictions</u>	8
9.0	<u>Early-entry Work Situations</u>	9
10.0	<u>Notice About Applications and Pesticide-Treated Areas</u>	11
11.0	<u>Monitoring Pesticide Handlers</u>	13
12.0	<u>Personal Protective Equipment</u>	14
13.0	<u>Decontamination Supplies</u>	16
14.0	<u>Emergency Assistance</u>	17
15.0	<u>Appendix A – EPA WPS Pesticide Safety Poster Example</u>	18

1.0 Introduction

- 1.1 The Ohio State University Pesticide Safety Program has been created in order to reduce the risk of pesticide poisoning and injury among OSU employees that work with pesticides.

2.0 Scope

- 2.1 This program requires that all managers/supervisors to provide protections to employees from potential pesticide exposures, train them about pesticide safety, and provide mitigations in case exposures occur.

3.0 Definitions

3.1 Early-entry Worker – Any employee who will enter a pesticide-treated area that remains under a restricted-entry interval (REI).

3.2 Handler – anyone who uses pesticides in the production of agricultural plants on a farm, forest, nursery, or greenhouse, and is doing any of the following tasks:

3.2.1 Mixing, loading, transferring, or applying pesticides

3.2.2 Handling opened containers of pesticides

3.2.3 Acting as a flagger

3.2.4 Cleaning, handling, adjusting, or repairing the parts of mixing, loading, or application equipment that may contain pesticide residues

3.2.5 Assisting with the application of pesticides, including incorporating the pesticide into the soil after the application has occurred

3.2.6 Entering a greenhouse or other enclosed area after application and before the inhalation exposure level listed on the product labeling has been reached

3.2.7 Entering a treated area outdoors after application of any soil fumigant to adjust or remove soil coverings

3.2.8 Disposing of pesticides or pesticide containers

3.3 Restricted-entry Interval – the time immediately after a pesticide application when entry into the treated area is restricted.

3.4 Worker Protection Standard – (WPS) The Worker Protection Standard is intended to protect employees on farms, forests, nurseries, and greenhouses that

are occupational exposure to agricultural pesticides. This is managed by the United States Environmental Protection Agency (EPA).

4.0 Training

4.1 Handlers and employees must be trained in pesticide safety once every 5 years.

4.1.1 Handlers must be trained before doing any handling task.

4.1.2 Early-entry workers who will contact anything that has been treated with the pesticide while the restricted-entry interval (REI) is in effect must be trained before they do any early-entry task.

4.2 The Ohio State University Pesticide Training program will comply with the EPA's WPS pesticide safety training requirements.

4.3 This program requires that pesticide safety training for **non-handler employees** must include:

4.3.1 Where and in what form pesticides may be encountered during work activities.

4.3.2 Hazards of pesticides resulting from toxicity and exposure, including acute and chronic effects, delayed effects, and sensitization.

4.3.3 Routes through which pesticides can enter the body.

4.3.4 Signs and symptoms of common types of pesticide poisoning.

4.3.5 Emergency first aid for pesticide injuries or poisonings.

4.3.6 How to obtain emergency medical care.

4.3.7 Routine and emergency decontamination procedures including emergency eye flushing techniques.

4.3.8 Hazards from chemigation and drift.

4.3.9 Warnings about taking pesticides or pesticide containers home.

4.3.10 Requirements of the WPS designed to reduce the risks of illness or injury resulting from occupational exposure to pesticides.

4.4 This program requires that pesticide safety training for **handlers** must include:

- 4.4.1 Format and meaning of information on the product label, including safety information.
- 4.4.2 Hazards of pesticides resulting from toxicity and exposure, including acute and chronic effects, delayed effects, and sensitization.
- 4.4.3 Signs and symptoms of common types of pesticide poisoning.
- 4.4.4 Emergency first aid for pesticide injuries or poisonings.
- 4.4.5 How to obtain emergency medical care.
- 4.4.6 Routine and emergency decontamination procedures including emergency eye flushing techniques.
- 4.4.7 Need for and appropriate use of personal protective equipment (PPE).
- 4.4.8 Prevention, recognition, and first aid treatment of heat-related illness.
- 4.4.9 Safety requirements for handling, transporting, storing, and disposing of pesticides, including general procedures for spill cleanup.
- 4.4.10 Environmental concerns such as drift, runoff, and wildlife hazards.
- 4.4.11 Warnings about taking pesticides or pesticide containers home.
- 4.4.12 An explanation of WPS requirements that handler employees must follow for the protection of handlers and others, including the prohibition against applying pesticides in a manner that will cause contact with workers or other persons, the requirement to use PPE, the provisions for training and decontamination, and the protection against retaliatory acts.

5.0 Training for Untrained Workers

- 5.1 The employer must provide basic pesticide safety information to untrained workers before they enter a pesticide-treated area.
- 5.2 The employer must provide the basic pesticide safety information in a manner that the untrained worker can understand and must be able to verify that this training was provided.
- 5.3 The basic pesticide safety information must include:
 - 5.3.1 Pesticides may be on or in plants, soil, irrigation, or drifting from nearby applications.

5.3.2 Prevent pesticides from entering your body by:

5.3.2.1 Following directions and/or signs about keeping out of treated or restricted areas.

5.3.2.2 Washing before eating, drinking, using chewing gum, or using the toilet.

5.3.2.3 Wearing work clothing that protects the body from pesticide residues.

5.3.2.4 Washing with soap and water, shampooing hair and putting on clean clothes after work

5.3.2.5 Washing work clothes separately from other clothes before wearing them again

5.3.2.6 Washing immediately in the nearest clean water if pesticides are spilled or sprayed on the body and, as soon as possible, showering, shampooing, and changing into clean clothes.

6.0 Labeling Information

6.1 Handlers

6.1.1 Handler employers must make sure that handlers are given information from the pesticide labeling and have access to the labeling itself, before the handlers do any handling task. A handler employer must:

6.1.1.1 Inform handlers, in a manner they can understand, about all labeling requirements related to safe use of the pesticide, including at least:

6.1.1.1.1 The signal word

6.1.1.1.2 Human hazard statements and precautions

6.1.1.1.3 PPE requirements

6.1.1.1.4 First aid instructions

6.1.1.1.5 Environmental precautions

6.1.1.1.6 Any additional precautions about the handling task to be performed

6.1.1.2 A handler employer may allow handlers to read the labeling themselves, if they are able to read and understand it.

6.1.1.3 Provide handlers access to the pesticide labeling information during handling tasks.

6.2 Early-entry Workers

6.2.1 Worker employers must make sure that each of their early-entry workers is currently trained as a WPS worker and receives specific information and instructions about PPE and labeling.

6.2.2 Regarding labeling, worker employers must inform early-entry workers, in a manner they can understand, about the safety information and instructions on the labeling of the pesticide(s) to which the restricted-entry interval applies, including:

6.2.2.1 Human hazard statements and precautions

6.2.2.2 First aid instructions

6.2.2.3 Signs and symptoms of poisoning

6.2.2.4 PPE required for early entry

6.2.2.5 Any other precautions or instructions related to safe use or early entry

7.0 Information at Central Location

7.1 Worker employers must make sure that certain information is displayed at a central location whenever any worker they employ is on their establishment and a pesticide is about to be applied or, within the past 30 days, a pesticide has been applied or a restricted-entry interval has been in effect.

7.2 The following three types of information must be displayed at a central location before a pesticide is applied:

7.2.1 Pesticide-specific application information, which must include:

7.2.1.1 The location and description of the area to be treated

7.2.1.2 Product name, EPA registration number, and active ingredient(s) of the pesticide

7.2.1.3 Time and date the pesticide is scheduled to be applied

7.2.1.4 Restricted-entry interval for the pesticide

7.2.2 Emergency information, which must include the name, telephone number and address of the nearest emergency medical facility.

7.2.3 A pesticide safety poster, which must be the EPA WPS safety poster or an equivalent poster that includes all of the required elements

7.2.3.1 See Appendix A for example

7.3 The employer must also:

7.3.1 Inform workers and handlers where the information is located

7.3.2 Allow workers and handlers free, unhampered access to the information

7.3.3 Ensure that the poster, emergency information, and application information remain legible during the time they are posted

7.3.4 Promptly inform workers if there is any change in the information on emergency, and medical facilities and update the emergency information listed with the poster

8.0 Restrictions

8.1 During Pesticide Applications

8.1.1 Employers must keep everyone except appropriately trained handlers out of areas being treated with pesticides.

8.1.2 In nurseries and greenhouses, employers must also keep workers and other persons out of the area immediately around the area being treated during some applications. This is known as the entry-restricted area.

8.2 After Pesticide Applications

8.2.1 Employers must keep workers out of a pesticide-treated area during the REI with only two exceptions:

8.2.1.1 Early entry with no contact

8.2.1.2 Early entry with contact for short-term, emergency, or specially excepted tasks, which must comply with additional restrictions

- 8.2.2** Entry into treated areas during a REI is allowed to perform handling tasks as long as the persons entering such areas are trained and equipped as pesticide handlers and receive all other applicable WPS handler protections.
- 8.2.3** After any inhalation exposure level listed on the product labeling has been reached, the employer may permit workers into a treated area during a REI if they will not touch or be touched by any pesticide residues, including:
 - 8.2.3.1** On plants
 - 8.2.3.2** In soil or other planting medium
 - 8.2.3.3** In water, such as irrigation water or standing water in drainage ditches
 - 8.2.3.4** In air, such as fumigation or after a smoke, mist, fog, or aerosol application
- 8.2.4** Avoiding contact by using PPE does not qualify as no-contact early entry

9.0 Early-Entry Work Situations

- 9.1** Early entry involving contact with pesticide-treated surfaces is permitted in only the following work situations:
 - 9.1.1** Short term tasks that last less than one hour and do not involve *hand labor*
 - 9.1.1.1** Hand labor is any activity performed by hand, or with hand tools, that might cause a worker to have substantial contact with surfaces that may contain pesticide residues.
 - 9.1.2** Emergency tasks
 - 9.1.3** Specific tasks approved by EPA through a formal exception process
- 9.2** There are two EPA approved tasks for early entry:
 - 9.2.1** Limited-contact tasks
 - 9.2.1.1** These tasks are where early-entry workers' only contact with treated surfaces is minimal and is limited to their feet, lower

legs, hands, and forearms. Hand labor tasks are not limited-contact tasks.

9.2.2 Irrigation tasks

9.2.2.1 These tasks are related to operating, moving, or repairing irrigation or watering equipment and where early-entry workers' only contact with treated surfaces is minimal and is limited to their feet, lower legs, hands, and forearms.

9.3 Special Protection for Early-entry Workers

9.3.1 Worker employers must provide the following additional protections to early-entry workers who contact anything that has been treated with a pesticide:

9.3.1.1 Complete pesticide safety training, instructions, and information

9.3.1.2 Decontamination supplies

9.3.1.3 PPE

9.4 Training

9.4.1 Worker employers must make sure each early-entry worker is trained as a WPS worker before entering a pesticide-treated area during a REI.

9.4.2 Worker employers must instruct early-entry workers, in a manner they can understand:

9.4.2.1 How to put on, use, and take off early-entry PPE correctly

9.4.2.2 About the importance of washing thoroughly after removing PPE

9.4.2.3 How to prevent, recognize, and give correct first aid for heat illness

9.4.3 Worker employers must inform early-entry workers, in a manner they can understand, about the safety information and instructions on the labeling of pesticides to which the REI applies, including:

9.4.3.1 Human hazard statements and precautions

9.4.3.2 First aid

9.4.3.3 Signs and symptoms of poisoning

9.4.3.4 PPE required for early entry

9.4.3.5 Any other precautions or instructions related to safe use or early entry

9.5 Decontamination Supplies

9.5.1 Worker employers must provide early-entry workers with:

9.5.1.1 Water – enough for routine washing and emergency eyeflushing

9.5.1.2 Soap and single use towels – enough for the needs of early-entry workers

9.5.2 Worker employers must make sure that the decontamination supplies:

9.5.2.1 Are not in an area being treated with pesticides

9.5.2.2 Are not in an area under a REI unless that location is necessary for the supplies to be reasonably accessible to early-entry workers

9.5.2.3 Are reasonably accessible to and not more than ¼ mile from early-entry workers

9.5.3 A worker employer must provide each early-entry worker with a least 1 pint of emergency of emergency eyewash water when the pesticide labeling requires eye protection. The emergency eyeflush water must be immediately accessible.

9.5.4 At the site where early-entry workers take off their PPE, the worker employee must provide soap, clean towels, and enough water to allow workers to eash thoroughly after removing their PPE.

9.6 PPE for Early-entry Workers

9.6.1 Worker employers must provide early-entry PPE required by the pesticide labeling, making sure they wear the PPE, and making sure they use the PPE correctly.

10.0 Notice About Applications and Pesticide-Treated Areas

10.1 Oral Warnings and Posted Signs

10.1.1 Some pesticide labels require the employer to notify workers both orally and with signs posted at entrances to the treated area.

10.2 Notification Requirement

10.2.1 Employers must notify workers either orally or by the posting of warning signs at entrances to treated areas unless the pesticide labeling requires both types of notification.

10.2.2 The employer must inform workers which method of notification is being used.

10.3 Exceptions to Worker Notification

10.3.1 Oral warnings do not need to be given to any worker and posting a pesticide-treated area is not required if:

10.3.1.1 No workers will be in the treated area, or will walk-in within $\frac{1}{4}$ mile of the treated area, during the pesticide application or while the REI is in effect

10.3.1.2 No workers will be in the greenhouse during the pesticide application or while the REI is in effect

10.3.1.3 The only workers for whom notification would be required applied the pesticide and are aware of all of the application and REI

10.4 Oral Warnings

10.4.1 Oral warnings must be provided to workers and must include:

10.4.1.1 The location and description of the treated area

10.4.1.2 The time during which entry is restricted

10.4.1.3 Instructions not to enter the treated area until the REI has expired

10.4.2 Workers who are on the establishment at the start of an application must be orally warned before the application takes place

10.4.3 Workers who are not on the establishment at the start of the application must be orally warned at the beginning of their first work period if the application is still taking place or the REI is in effect

10.5 Posted Warning Signs

10.5.1 A worker employer must post the signs so they can be seen from all points where workers usually enter the pesticide-treated area, including at least:

10.5.1.1 Each access road

10.5.1.2 Each border with any labor camp adjacent to the pesticide-treated area

10.5.1.3 Each established walking route that enters the pesticide-treated area

10.5.2 In greenhouses, post the signs so they can be seen from all points where workers usually enter the pesticide-treated area, including doorways, aisles, and other walking routes

10.5.3 Regarding the timing and visibility of warning signs, the employer must:

10.5.3.1 Post signs 24 hours or less before the scheduled pesticide application

10.5.3.2 Keep signs posted during application and throughout the REI

10.5.3.3 Remove signs within 3 days after the end of the REI

10.5.3.4 Keep workers out during the entire time the signs are posted, except for trained and equipped early-entry workers entering as permitted under WPS

10.5.3.5 Keep signs visible and legible while they are posted

11.0 Monitoring Pesticide Handlers

11.1 Pesticides with Skull and Crossbones

11.1.1 At least once every 2 hours, someone must check on – by sight or voice communication – any handler that is handling a pesticide that has a skull and crossbones symbol on its label.

11.2 Fumigants in Greenhouses

11.2.1 Someone must maintain constant visual or voice contact with any handler who is applying or otherwise handling a fumigant in a greenhouse.

11.2.2 The person monitoring the fumigant handler must be trained as a pesticide handler and have immediate access to the PPE required for applicators by the fumigant labeling

12.0 Personal Protective Equipment

12.1 Duties Related to PPE

12.1.1 Handler employers must do all of the following:

12.1.1.1 Provide handlers with the appropriate PPE in clean and operation condition

12.1.1.2 Make sure the handlers wear the PPE correctly and use it accordingly to the manufacturer's instructions

12.1.1.3 Make sure that any respirator used fits the handler correctly

12.1.1.4 Inspect all PPE before each day of use for leaks, holes, tears, or worn places, and repair or discard any damaged equipment

12.1.1.5 Provide handlers with clean places away from pesticide storage and use areas to:

12.1.1.5.1 Store personal clothing not in use

12.1.1.5.2 Put on PPE at the start of any exposure period

12.1.1.5.3 Take off PPE at the end of any exposure period

12.1.1.6 Take any necessary steps to prevent heat illness while PPE is being worn

12.1.1.7 Do not allow handler to wear home or take home PPE contaminated with pesticides

12.2 Cleaning and Maintaining PPE

12.2.1 Handler employers must do all of the following:

- 12.2.1.1** Keep pesticide-contaminated PPE away from other clothing or laundry and wash it separately
- 12.2.1.2** If PPE will be reused, clean it before each day of reuse according to the instructions from the PPE manufacturer unless the pesticide labeling specifies other requirements
- 12.2.1.3** Thoroughly dry the clean PPE before it is stored or put it in a well-ventilated place to dry
- 12.2.1.4** Store clean PPE separately from personal clothing and away from pesticide-contaminated areas

12.3 Replacing Respirator Filters, Cartridges, or Canisters

12.3.1 Handler employers must replace dust/mist respirators filters:

- 12.3.1.1** When breathing resistance becomes excessive
- 12.3.1.2** If the filter is damaged or torn
- 12.3.1.3** When the respirator manufacturer or pesticide labeling says to replace them
- 12.3.1.4** At the end of each day's work period, if no other instructions are available

12.3.2 Handler employers must replace gas and vapor-removing respirator cartridges or canisters:

- 12.3.2.1** At the first indication of odor, taste, or irritation
- 12.3.2.2** When the respirator manufacturer or pesticide labeling says to replace them
- 12.3.2.3** At the end of each day's work period, if no other instructions are available

12.4 Disposal of PPE

12.4.1 Handler employers must discard coveralls or other absorbent materials that have been drenched or heavily contaminated with an undiluted pesticide that has the signal word "DANGER" or "WARNING" on the labeling. They must not be reused.

12.4.2 Handler employers must inform people who clean or launder PPE:

- 12.4.2.1 That the PPE may be contaminated with pesticides
- 12.4.2.2 Of the potentially harmful effects of exposure to pesticides
- 12.4.2.3 How to protect themselves when handling contaminated PPE
- 12.4.2.4 How to clean PPE properly

13.0 Decontamination Supplies

13.1 Worker employers must provide workers and handlers with:

13.1.1 Water – enough for routine washing and emergency eyeflushing

13.1.2 Soap and single use towels – enough for the needs of early-entry workers

13.2 Employers must also provide handlers with:

13.2.1 Enough water for washing the entire body in case of emergency

13.2.2 Clean change of clothes to put on if the handlers' garments are contaminated and need to be removed immediately

13.3 Duration

13.3.1 Handlers must be provided decontamination supplies during the duration of the handling tasks

13.3.2 Workers must be provided decontamination supplies for:

13.3.2.1 7 days after the end of the REI if the REI of the pesticide is 4 hours or less

13.3.2.2 30 days after the end of the REI if the REI of the pesticide is greater than 4 hours

13.3.2.3 30 days after the end of the REI if there is no REI

13.4 Location

13.4.1 All decontamination supplies for workers must be located together, reasonably accessible to workers, and not more than ¼ mile from each worker

13.4.2 Handlers mixing pesticides must have decontamination supplies at the mixing area

13.4.3 Worker decontamination supplies must not be in an area being treated with pesticides or in an area under a REI unless provided in conjunction with approved early-entry work

13.4.4 A worker employer must provide each early-entry worker with a least 1 pint of emergency of emergency eyewash water when the pesticide labeling requires eye protection. The emergency eyeflush water must be immediately accessible.

13.5 Decontamination After Handling Tasks

13.5.1 At the site where handlers remove their PPE, the handler employer must provide soap, clean towels, and enough water to allow handlers to wash thoroughly after removing their PPE

14.0 Emergency Assistance

14.1 Employers must provide emergency assistance to anyone if there is reason to believe that they have been poisoned or injured by a pesticide.

14.2 Employers must provide to the worker or handler or to the treating medical personnel, promptly upon request, any obtainable information on:

14.2.1 Product name, EPA registration number, and active ingredients for any product(s) to which the person may have been exposed

14.2.2 Antidote, first aid, statement of practical treatment and other medical or emergency information from the product labeling

14.2.3 Description of the way the pesticide was being used

14.2.4 Circumstances of the worker's or handler's exposure to the pesticide

Appendix A – EPA WPS Pesticide Safety Poster Example

PROTECT YOURSELF FROM PESTICIDES
PROTEJASE DE LOS PESTICIDAS

IN AN EMERGENCY
EN UNA EMERGENCIA

EPA
Environmental Protection Agency
Washington, DC 20460
1-800-634-7046
www.epa.gov

For more information on pesticides and their safe use, visit the EPA website at www.epa.gov/wps.

Skull and crossbones symbol