

EPA Worker Protection Standard for Agricultural Pesticides

he Worker Protection Standard (WPS) regulation was issued by the U.S. Environmental Protection Agency (EPA). This regulation covers pesticides that are used in the production of agricultural plants on farms, forests, nurseries, and enclosedspace productions. The WPS requires employers and workers to take steps to reduce the risk of pesticide-related illness and injury if these individuals may potentially be exposed to pesticides. The primary purpose of the WPS is to protect not only those who apply pesticides but also employees and family members who will work in areas that have been treated with pesticides within the past 30 days. The WPS requires employers to provide handlers and workers with (1) information about potential exposure to pesticides, (2) protection to prevent exposure to pesticides, and (3) ways to respond and manage exposures to pesticides if they occur.

For private applicators, the one major difference that is important to understand between the WPS and the Pennsylvania Pesticide Control Act of 1973 is that when pesticides are being used in the production of an agricultural crop, the Pennsylvania Pesticide Control Act only applies to the application of restricted-use pesticides. However, the WPS applies when any type of pesticide, including growth regulators, is being used in the production of an agricultural crop or on another application site listed in the WPS definitions. In Pennsylvania, the Pennsylvania Department of Agriculture (PDA) is responsible for the enforcement of the WPS. PDA works with the Penn State Pesticide Education Program, the Pennsylvania Rural Health Farm Worker Protection Safety Program, and numerous agricultural associations to provide outreach services and educational materials to agricultural employers and workers.

WPS Definitions

The following definitions will help determine if and when there is a need for compliance with the WPS:

Agricultural establishment: any farm, forest operation, nursery, or orchard involved in the outdoor or enclosed-space production of agricultural plants; any establishment that produces for transplant or uses agricultural plants (in part or their entirety) in another location instead of purchasing the agricultural plants.

Agricultural plants: plants grown or maintained for commercial or research purposes. Examples are food, feed, and fiber plants; trees; turfgrass; flowers, shrubs, ornamentals; and seedlings.

Application exclusion zone (AEZ): the zone or area surrounding pesticide application equipment during outdoor production pesticide applications. When applications of WPS-labeled pesticide products are in progress, agricultural employers must not allow or direct any worker or other person



to enter or remain in the treated area or the AEZ that is within the boundaries of the establishment. The AEZ is 100 feet for high-drift applications and 25 feet for low-drift applications. After the application is complete, the AEZ no longer exists, but the area is under a restricted-entry interval (REI; see below).

Crop adviser: any person who assesses pest populations, damage, distribution, status, condition, or requirements of agricultural plants. Examples are crop/IPM (integrated pest management) consultants and field scouts.

Enclosed-space production: operations that produce agricultural plants indoors in an area that is enclosed, in whole or part, with a nonporous covering and large enough to allow a person to enter. Examples are plastic houses, mushroom houses and caves, rhubarb houses, and traditional greenhouses. Malls, atriums, conservatories, arboreta, and office buildings that grow or maintain plants

primarily for decorative or environmental benefits are not included; however, growing areas in arboreta, conservatories, botanical gardens, and other similar facilities where plants are produced for sale or intended for use in display areas are covered under the WPS.

Farms: operations other than nurseries or forests that produce agricultural plants outdoors.

Forests: operations, including Christmas tree plantations, that produce agricultural plants outdoors for wood, fiber, or timber products.

Hand labor: any agricultural activity performed by hand or with hand tools that might cause a worker to have substantial contact with surfaces (such as plants, plant parts, or soil) that may contain pesticide residues. Examples of hand-labor tasks include harvesting, detasseling, thinning, weeding, topping, planting, sucker removal, pruning, disbudding, roguing, and packing produce into containers in the field.

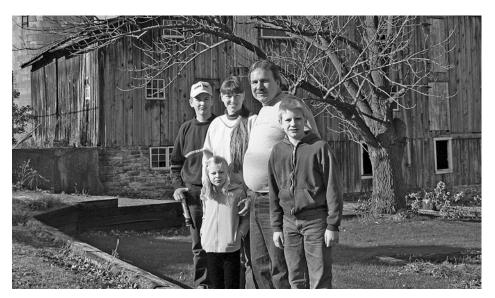
Handlers: anyone who (1) is employed for financial compensation and (2) performs tasks such as mixing, loading, or applying pesticides; assists in pesticide applications; cleans, repairs, or adjusts spray equipment; or acts as a flagger.

Immediate family: includes a spouse, brothers, sisters, children (including stepchildren and foster children), and parents (including stepparents and foster parents). As of the 2015 revision, the family exemption has been expanded to also include first cousins, nephews, nieces, uncles, aunts, grandparents, grandchildren, and in-laws.

Nurseries: operations that produce agricultural plants outdoors for (1) transplanting to another location or (2) flower or fern cuttings. Examples of agricultural plants include flowering and foliage plantings or trees; tree seedlings; live Christmas trees; vegetable, fruit, and ornamental transplants; and turfgrass produced for sod.

Restricted-entry interval (REI): the time immediately after a pesticide application when entry into the treated area is limited. Some pesticides have one REI, such as 12 hours, for all crops and uses. Other products have different REIs depending on the crop or method of application. When two or more pesticides with different REIs are applied at the same time, the longer interval must be followed.

Workers: anyone who (1) is employed for financial compensation and (2) performs tasks such as harvesting, pruning, weeding, or watering in the production of agricultural plants on an agricultural establishment.



Owners and immediate family are exempt from many WPS requirements but must still comply with all label requirements. Immediate family includes spouse, brothers, sisters, children, stepchildren, foster children, parents, stepparents, foster parents, first cousins, nephews, nieces, uncles, aunts, grandparents, grandchildren, and in-laws.



Here is an example of WPS pesticide safety information (poster) with required information. It must be on display at a location that is accessible to workers at all times. The name, address, and telephone number of the nearest emergency medical facility should be included.

WPS trainers: in Pennsylvania, an approved handler or worker trainer must have current Pennsylvania Pesticide Applicator Certification.

Centrally Located Information about Pesticide Application

Basic Responsibilities

Agricultural establishments that employ their own handlers or have worker employees that will be working in treated areas must make sure that certain information, as described below, is displayed at a central location whenever (1) any handler they employ is on their agricultural establishment and (2) a pesticide is about to be applied or has recently been applied. This information must be readily available in an area where workers have unrestricted access.

What Information Must Be Displayed?

The following four types of information must be displayed:

- 1. Pesticide safety information (poster), which must be the WPS safety information poster developed by EPA, or information containing the concepts displayed on the EPA's WPS safety poster.
- Emergency information, which
 must include the name, telephone
 number, and address of the nearest
 emergency medical facility. In addition, the Pennsylvania Department
 of Agriculture regional office numbers must be displayed (see page 5).
- 3. An application list (pesticide records) from the last 30 days that includes the following information:
 - a. The location and description of the area to be treated
 - b. The product's name, EPA registration number, and active ingredient(s) of the pesticide
 - c. The time and date the pesticide is scheduled to be applied
 - d. The REI of the pesticide
- 4. Safety Data Sheets (SDS) for every pesticide product used in the previous 30 days must be displayed at the central location. The SDS can be kept in a loose leaf notebook at the central location. Do *not* use the outdated Material Safety Data Sheets (MSDS).

Where Must the Information Be Displayed?

Display all required information in one central location on your agricultural establishment where it can be easily seen and read by workers and handlers. Workers must have access to the information without having to ask anyone during normal work hours.

Exception: If the workplace is a forest, the information may be displayed near the forest. However, the location must be in a place where workers and handlers can easily see and read it and where they are likely to gather or pass by. For example, the information might be displayed at a decontamination site or an equipment storage site.

When Must the Information Be Displayed?

Display the information whenever any worker or handler is on your agricultural establishment and if a pesticide has been applied or an REI has been in effect within the past 30 days. The following specific information describes when and how to display information:

- 1. If workers or handlers are on the establishment at the start of an application, record the required pesticide-specific information on the application list and display it before the application takes place.
- 2. If workers or handlers are not on the establishment at the start of an application, display pesticide-specific information no later than at the beginning of their first work period.
- Continue to display pesticidespecific information when workers or handlers are on the establishment until:
 - a. At least 30 days after the REI expires
 - b. At least 30 days after the end of the application if there is no REI for the pesticide

Other Responsibilities

The employer also has the following responsibilities:

- 1. Tell workers and handlers where the information is located
- 2. Give workers and handlers access to the information
- 3. Ensure that the pesticide safety information (poster), emergency information, application list, and Safety Data Sheets (SDS) remain legible and up to date during the time they are posted
- 4. Promptly inform workers if there is any change in the information on emergency medical facilities, and update the emergency information listed along with the poster

PDA Regional Office Map and Contact Information



Region 1

13410 Dunham Road Meadville, PA 16335 Phone: 814-332-6890

Region 2

542 County Farm Road Suite #102 Montoursville, PA 17754 Phone: 570-433-2640

Region 3

113 SR 92 South PO Box C Tunkhannock, PA 18657 Phone: 570-836-2181

Region 4

226 Donohoe Road Greensburg, PA 15601 Phone: 724-832-1073

Region 5

C/O DEP District Office 3001 Fairway Drive Altoona, PA 16602 Phone: 717-783-5500

Region 6

2301 N. Cameron Street Suite G-5 Harrisburg, PA 17110 Phone: 717-346-3223

Region 7

1015 Bridge Road Collegeville, PA 19426 Phone: 610-489-1003

Up-to-date information can be found at www.agriculture.pa.gov/regional -offices.

Employee Training under the WPS

Employers are legally responsible for protecting their workers from potential exposure to pesticides. Their basic responsibilities are to (1) inform workers about the hazards of pesticides, (2) provide them with information regarding the pesticides that are being used, and (3) ensure that workers know how to receive proper treatment in the event of exposure. Training must be provided each year for any worker who may potentially come into contact with pesticide-treated areas and any worker who will be applying or will assist with the application of pesticides. The five-day grace period on training is no longer in effect. The required WPS training must be given before any employee enters an area where it has been less than 30 days since the last REI expired.

Owners of the agricultural establishment, their immediate family members, certified applicators, or registered pesticide application technicians are the only persons exempt from this WPS training requirement. Training requirements differ for workers and handlers, but the basic premise is the same—to protect workers against pesticide exposure. Make sure that all employees are shown where the central location is and where decontamination supplies are kept. Once training is complete, each employee must sign off on that training, and those training records must be kept for two years. If an employee asks for a copy of the training signoff, one must be provided for free to the employee.

Qualifications of WPS Trainers

In Pennsylvania, WPS training can only be provided by a currently certified pesticide applicator. Training must be provided in a language that workers can understand. To meet this requirement, a translator can be used by a WPS trainer to convey the information to the workers. Training must be done at a location that is reasonably free from distractions. The trainer must be present during the entire training.

Handler Training

Those persons who are applying or are in some way assisting with the application of pesticides must be trained as handlers, including employees who may do repair work on pesticide application equipment. Handlers must be trained before they are allowed to complete any handling task. Training for handlers must include at least the following information:

- The layout and meaning of information on pesticide labels, including safety information such as precautionary statements about human health hazards
- The hazards of pesticide toxicity and exposure, including acute effects and sensitization
- 3. The routes of pesticide entry into the body
- 4. Information on the proper application and use of pesticides
- 5. How to recognize the signs and symptoms of pesticide poisoning
- How to provide emergency first aid for pesticide injuries or poisonings
- 7. How to prevent, recognize, and treat heat-related illness

- 8. How to obtain emergency medical care
- 9. Showing workers the location of decontamination supplies
- The need for and appropriate use of personal protection equipment (PPE)
- 11. A medical evaluation and an annual respirator fit test with respirator training are required for pesticide handlers working with pesticides that require a respirator as personal protective equipment
- 12. The safety requirements for handling, transporting, storing, and disposing of pesticides, including general procedures for spill cleanup
- 13. Environmental concerns regarding pesticides, such as drift, runoff, and wildlife hazards
- 14. The WPS requirements designed to protect workers, such as notification of application and entry restrictions, availability of information about applications, and all other necessary precautions
- Handlers must suspend application if anyone is in the application exclusion zone
- The responsibility of employers to post treated areas as required by this rule
- 17. Handlers must be at least 18 years of age except for family members

Due to the similarities in training, employees who have been trained as handlers do not have to be trained as workers. However, employees who have received training that meets the criteria for workers must receive additional training before they perform handler-related tasks.

Worker Training

Workers who will enter treated areas on farms, forests, nurseries, or in enclosed-space productions must receive worker protection training. The agricultural employer must ensure that workers receive their WPS pesticide safety training prior to entering any treated area where it has been less than 30 days since the last REI ended. Early entry workers, or those who will return to the treated area before the REI has expired, must receive special training before they do any early entry task.

The complete WPS safety training for workers includes the following topics:

- Where and how workers may come into contact with pesticides or pesticide residues during workrelated activities
- Hazards of pesticide toxicity and exposure, including chronic and delayed effects
- 3. Routes of pesticide entry into the body
- 4. Used PPE must be cleaned by the employer or thrown out if saturated or in bad repair
- 5. Signs and symptoms of pesticide poisoning and sensitization
- 6. How to provide emergency first aid for pesticide injuries or poisonings
- 7. Hazards to children, pregnant women, and nonworking family members from being around treated areas
- 8. Hazards of chemigation, drift, the application exclusion zone, and pesticides in irrigation water and soil
- 9. Routine emergency decontamination procedures, including

- eye-flushing techniques and where required decontamination supplies are kept
- 10. How to obtain emergency medical care
- How to recognize and follow directions on posted warning signs
- 12. The WPS requirements designed to protect workers, such as notification of application and entry restrictions, availability of information about applications, and all other necessary precautions
- 13. Hazards of pesticide residues on clothing
- 14. Warnings against taking pesticides or pesticide containers home
- 15. The need to remove boots or shoes before entering the home after working in treated areas, plus the need to remove work clothes and then wash and shower before having contact with children and others
- 16. Early entry workers must be at least 18 years of age
- 17. A worker may designate a representative to request pesticide application and hazard information on their behalf
- 18. How to report suspected pesticide violations to the state
- Employers cannot intimidate or retaliate against workers attempting to abide by the WPS

The agricultural employer must ensure that the information is communicated to agricultural workers in a manner or language they can understand. Agricultural employers must be able to verify compliance with this requirement by keeping employee training records. These training records must be kept for two years.

REI Requirements

Under the WPS, each agricultural pesticide label will specify an REI, usually ranging from 4 to 72 hours; however, some labels may specify a longer REI. The REI begins immediately after the pesticide application. When a specific REI is listed, under no circumstances are workers permitted to enter a treated area during the first 4 hours following a pesticide application. Workers must be kept out of a treated area during the REI, except in certain situations listed in the following section.

Exception for Limited-contact Activities

Under specified conditions, the WPS allows workers to enter pesticidetreated areas during an REI to perform tasks that involve limited contact with pesticide-treated surfaces. This exception gives workers the flexibility to perform limitedcontact tasks—irrigation tasks, tasks that could not have been foreseen, and tasks that would cause significant economic loss if delayed—during an REI. At the same time, the exception includes significant provisions to limit the risks associated with pesticide exposure to employees performing limited-contact tasks.

The conditions of exception for limited-contact/irrigation, early entry activities are as follows:

- 1. Before workers enter a treated area under an REI, the agricultural employer must give them oral or written notification about the specifics of the exception to early entry. The notification must be in a language the workers understand.
- 2. Workers do not enter the area during the first 4 hours, until applicable ventilation criteria have been met, and until any label-specified inhalation exposure level has been reached.
- Workers' contact with treated surfaces is minimal and limited to the feet, lower legs, hands, and forearms.
- The pesticide product for which the REI applies does not have a statement in the labeling requiring both oral and posted notification.
- 5. Personal protective equipment for early entry is provided to the worker and must either conform with the label requirements or include at least coveralls, chemical-resistant gloves, socks, chemical-resistant footwear, and eyewear (if eyewear is required by the product labeling).
- No hand-labor activity (e.g., hoeing, picking, pruning) is performed. Moving, operating, or fixing irrigation equipment is not considered hand labor.
- 7. The time in treated areas under an REI for any worker may not exceed a total of 8 hours in a 24-hour period.

Special Application Restrictions

For more complete information, refer to the How to Comply with the 2015 Revised Worker Protection Standard for Agricultural Pesticides: What Owners and Employers Need to Know (the How to Comply manual).

Application Exclusion Zones

The 2015 WPS revision included a new concept called the application exclusion zone (AEZ). The AEZ is a drift measure designed to give handlers a more definite idea of how far away to stay from others to avoid drift situations. Remember, the AEZ does not prevent pesticides from being applied to any part of the agricultural operation.

The AEZ is an "imaginary bubble" that moves along with the application equipment as pesticides are being sprayed. For high-drift applications, such as air blast, aerial applications, or mist, the handler must suspend application if anyone is within 100 feet of the application equipment. For low-drift applications, such as a boom sprayer, the AEZ is 25 feet in any direction.

The AEZ will be enforced on your property and when the AEZ extends onto neighboring property or the road. Application only needs to be suspended until the AEZ does not include any people.

More information about the AEZ can be found in the *How to Comply* manual on pages 37–39 for employer responsibility and pages 60–61 for handler responsibilities.

Nurseries

Employers must ensure that during certain nursery applications, workers

and other persons do not enter treated areas of the nursery, or in some circumstances, do not enter areas that are near the treated areas. In some cases, depending on the pesticide application method, workers and other persons are prohibited from entering the pesticide-treated area plus a buffer area up to 100 feet in all directions.

Enclosed-space Production (Greenhouses)

Employers must make sure that workers and other persons do not enter specific areas within the enclosed-space production (greenhouse) during and, in some instances, after certain enclosed-space production (greenhouse) pesticide applications. After some types of pesticide applications, ventilation restrictions apply. Ventilation criteria must be met before workers may enter the pesticide-treated area.

Tasks during an Agricultural Emergency

Early entry workers may go into treated areas before the REI is over to do tasks that are necessary because of an agricultural emergency if they are provided with the protection and PPE required for an early entry. The following limitations apply:

- Workers may perform only tasks needed to manage the emergency.
- 2. They must wait at least 4 hours after the pesticide application is complete before entering the treated area.
- 3. They must also wait until any inhalation exposure level listed on the product label has been reached or all WPS ventilation criteria have been met.



Employers must supply handlers with personal protective equipment (PPE) as required by the pesticide label. All PPE should be stored in an area separate from pesticides. PPE should be well maintained, frequently cleaned, and checked for wear. Employers are responsible for making sure handlers wear the proper PPE.

Personal Protective Equipment

Each product label should list the specific personal protective equipment (PPE) to be worn when the product is being used or the potential for exposure to the product exists. Most labels now include the protective clothing requirements outside of the "Agricultural Use Requirements" section. As a result, even those who are exempt from the WPS must wear the protective clothing listed.

When the PPE requirement falls under the WPS, the employer has the following responsibilities:

- Provide PPE to each early entry worker or handler
- Provide handler employees who are working with pesticides requiring respirators a medical evaluation first

Minimum PPE and Work Clothing for Pesticide-handling Activities

	Toxicity Category of End-use Product				
Route of Exposure	1	II	Ш	IV	
Dermal toxicity or skin irritation potential	Coveralls worn over long- sleeved shirts and long pants	Coveralls worn over short-sleeved shirts and short pants	Long-sleeved shirt and long pants	Long- sleeved shirt and long pants	
	Socks	Socks	Socks	Socks	
	Chemical- resistant footwear	Chemical-resistant footwear	Shoes	Shoes	
	Chemical- resistant gloves	Chemical-resistant gloves	No minimum	No minimum	
Inhalation toxicity	Respiratory protection device	Respiratory protection device	No minimum	No minimum	
Eye irritation potential	Protective eyewear	Protective eyewear	No minimum	No minimum	

and then annual fit tests and respirator training; use protocols compliant with OSHA (Occupational Safety and Health Administration); and handler employers must maintain documentation on the medical evaluation, fit tests, and respirator training for at least two years

- 3. Clean and maintain PPE
- 4. Ensure that each person wears and uses PPE correctly
- Provide each person with a clean place to put on, take off, and store PPE
- Take action, if necessary, to prevent heat-related illness while PPE is being worn
- 7. Provide soap, single-use towels, and water to each person at the end of any handling activity when PPE is removed
- 8. Prevent any person from wearing or taking home contaminated PPE, unless proper instructions have been given regarding the washing and care of PPE

Powered Air Purifying Respirators

Using a loose-fitting powered air purifying respirator (PAPR) will exempt a handler from the required annual respirator fit test. However, it does not exempt the handler from either the medical evaluation or the respirator training requirements. The PAPR offers good respiratory protection to handlers with facial hair, and the positive air pressure is easier on the heart and lungs.

The type of PPE needed depends on the specific application and the type equipment being used. Although every pesticide is different and the label should be consulted to determine the PPE requirements for each chemical, some general rules apply for choosing PPE according to the different pesticide toxicity levels found in the table above.

Proper cleaning and maintenance of PPE is just as important as making it available to early entry workers and handlers. Employers must instruct persons who clean or launder PPE to keep pesticide-contaminated PPE away from other clothing or laundry and wash it separately. In addition, employers are required to perform the following tasks:

- If PPE will be reused, clean it before each day of reuse according to the PPE manufacturer's instructions. If instructions are unavailable, wash PPE with detergent in hot water.
- 2. Thoroughly wash and dry all PPE before it is reused or stored.
- Store clean PPE separate from personal clothing and away from pesticide-contaminated areas. PPE that has been soaked or otherwise heavily contaminated should be discarded.

In regard to the proper care of respiratory PPE, employers must take the following actions:

- 1. Replace dust/mist respirator filters at the following times:
 - a. When breathing becomes dif-
 - b. If the filter is damaged or torn
 - c. Whenever the respirator manufacturer or pesticide label says to replace them
 - d. At the end of each day's work period if no other instructions regarding service life are available
- 2. Replace gas-and-vapor-removing respirators or canisters at the following times:
 - a. At the first sign of odor, taste, or irritation
 - b. When the respirator manufacturer or pesticide label says to replace them
 - c. At the end of each day's work period if no other instructions regarding service life are available

WPS-required Worker Notices about Pesticide Applications

Under most circumstances, the WPS requires employers to make sure that workers are notified about areas where pesticide applications are taking place or REIs are in effect. Most pesticide labels allow notification to be given either orally or by posting warning signs at the entrances to treated areas. However, some pesticide labels require that workers are notified both orally and with signs posted at entrances to the treated area. If both types of notification are required, the following statement will be in the "Directions for Use" section of the pesticide labeling under the heading "Agricultural Use Requirements": "Notify workers of the application by warning them orally and by posting warning signs." Under the 2015 revision to the WPS, any outdoor application REI greater than 48 hours will require a "Do Not Enter" sign. Any application in an enclosed-space production with an REI greater than 4 hours will require a "Do Not Enter" sign.

Notification on Farms, Forests, and Nurseries

Unless the pesticide label requires both types of notification, notify workers either orally or by posting warning signs at entrances to treated areas. Workers must be made aware in advance of which method of notification will be used by their employer.

Notification in Enclosed-space Production

In enclosed-space production, all treated areas with an REI greater than 4 hours must be posted, except as described below. If the pesticide label requires both types of notification, employers are responsible for ensuring that workers are notified both orally and by posting.

Exemptions to Worker Notification

- 1. Oral warnings need not be given to the following:
 - a. Any worker on a farm, forest, or nursery who will not be in the treated area or walk within a ¼ mile of a treated area during the pesticide application or while the REI is in effect
 - b. Any worker who will not be in the enclosed-space production during a pesticide application or while an REI is in effect
 - c. Any worker who applied (or supervised the application of) the pesticide and is aware of all of the information to be given in the oral warning
- 2. Posting at the treated area is not required in the event of the following:
 - a. No workers on the farm, forest, greenhouse, or nursery will be in the treated area or walk within a ¼ mile of the treated area during the pesticide application or while the REI is in effect
 - b. The only workers for whom posted notification is required applied (or supervised the application of) the pesticide and are aware of all the information to be given in the oral warning



Unless the pesticide label requires both oral and posted notification, either type of notification is allowed. When posting is required, EPA-approved warning signs (such as the one pictured in the inset) must be used. With few exceptions, all enclosed space production applications require posted notification of treated areas.

Posted Warning Signs

WPS-designed signs must be used when warnings are posted at entrances to treated areas as described in the *How to Comply* manual.

Location of Signs

- On farms, forests, and nurseries, signs must be posted so they can be seen from all points where workers usually enter the treated areas. The following are specific examples where signs must be posted:
 - a. Access roads
 - b. Visible from each border with any worker housing within 100 feet of treated area

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KEEP OUT NO ENTRE

- c. Established walking routes that enter the treated area
- 2. When there are no usual points of worker entry, post signs in the corners of the treated area or in places where they will be most easily seen.
- 3. In enclosed-space production, post signs so they can be seen from all points where workers usually enter the treated area, including doorways, aisles, and other walking routes. When there are no usual points of worker entry to the treated area, post signs in the corners of the treated area or in places where they will be easily seen.

Timing and Visibility of Warning Signs

- 1. Post signs no sooner than 24 hours before the scheduled application of the pesticide.
- 2. Keep signs posted during application and throughout the REI (if any exists).
- 3. Remove signs within 3 days after the end of the REI. If there is no REI for that application, remove the signs within 3 days after the end of the application.

- 4. Keep workers out of the treated area during the entire time the signs are posted.
- 5. Keep signs visible and legible while they are posted.

Posting Adjoining Areas

When several adjoining areas are to be treated with pesticides on a rotating or sequential basis, you may post the entire area at the same time. Worker entry, except for early entry permitted by the WPS, is prohibited for the entire area while the signs are posted.

Design and Size

- 1. Each warning sign must look like the one above.
- 2. Additional information can be included on the warning sign, such as the name of the pesticide or the date of application, if it does not lessen the impact of the sign or change the meaning of the required information. If required information is added in other languages, the words must be translated correctly. Employers are also permitted to replace the Spanish language on signs with another language if that language is used more often by workers in a particular location. The English portion of the sign cannot be removed.
- 3. Under most circumstances, signs must be at least 14 inches by 16 inches, and the letters must be at least 1 inch high. EPA does, however, allow the use of smaller warning signs in nurseries and greenhouses. Signs of approximately 4.5 inches by 5 inches can be used if the distance between signs is 25 feet or less; signs of approximately 7 inches by 8 inches can be used if the distance

between signs is 50 feet or less. Growers may use small signs at any time if the treated area is too small to accommodate standard-sized signs. For example, when a single potted plant needs to be posted, a small sign would be appropriate.

Oral Warnings to Workers

- 1. The content of oral warnings must include the following:
 - a. The location and description of the treated area
 - b. The time during which entry is restricted
 - c. Instructions not to enter the treated area until the REI has expired
- 2. Oral warnings must be communicated to workers in a language they understand.
- 3. Workers who are on your establishment at the start of an application must be orally warned before the application takes place.
- 4. Workers who are not on your establishment at the start of an application must be orally warned at the beginning of their first work period if the application is still taking place or the REI for the pesticide is in effect.

Instructions Related to PPE

Early entry workers must receive the following instructions in a language they can understand:

- 1. How to correctly put on, use, and take off early entry PPE
- 2. The importance of washing thoroughly after removing PPE
- 3. How to prevent, recognize, and give correct first aid for heat-related illnesses

If there is a chance that the PPE will be worn home, instructions must be given to make sure the worker knows that the PPE must be kept and washed separately from all other laundry.

Labeling Information and Instructions

In a language they can understand, inform early entry workers about the safety information and instructions on any pesticide label to which an REI applies, including the following:

- 1. Human hazard statements and precautions
- 2. First aid instructions
- The signs and symptoms of poisoning
- 4. The PPE required for early entry
- Any other precautions or instructions related to safe use or early entry

WPS Decontamination and Emergency Assistance Requirements

Decontamination Supply Requirements

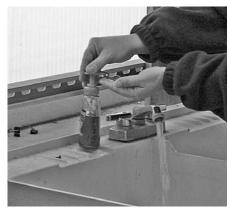
Employers must make sure to provide handlers with decontamination supplies for washing off pesticides and pesticide residues while they are performing handling tasks and to workers who are in a pesticide-treated area and are performing tasks that involve contact with anything that has been treated with pesticides, including soil, water, or plant surfaces.

The WPS requires that decontamination supplies be provided regardless of the number of employees. Whenever provided to workers or handlers, decontamination and emergency eye-flush water must, at all times, be of a quality and temperature that will not cause illness or injury if it comes in contact with the skin or eyes or if it is swallowed.

Worker Decontamination Supplies

Supplies must be located within a 1/4 mile of the work area if a WPS-labeled pesticide has been used within 30 days, except in those cases where lowrisk pesticides (those with REIs of 4 hours or less) are used. When pesticides with an REI of 4 hours or less are used, decontamination supplies only need to be available for 7 days. Supplies must be located in an area free of spray residues. Existing facilities, such as restrooms, will qualify as decontamination sites if they meet the minimum requirements for decontamination supplies, which include the following:

- Water—a minimum of one gallon of water per worker or a source of potable tap water
- 2. Soap—for use in washing prior to eating, drinking, smoking, chewing tobacco or gum, or using the bathroom
- Single-use, disposable towels—for drying hands (multiple-use towels are not acceptable)



Decontamination supplies must be at the mixing and loading site, where personal protective clothing is removed, and within ¼ mile of the application or work site. Decontamination sites must include soap, single-use paper towels, coveralls (for handlers only), and adequate water.

Handler Decontamination Supplies

Supplies must be provided at the mixing and loading site, where personal protective equipment (PPE) is removed, and within a ¼ mile of the application area. Supplies may be in the application area if protected from drift and spray residues. Supplies must include the following:

- Water—a minimum of 3 gallons per handler or a potable source of tap water. Enough water should be available for a whole-body wash in an emergency. Clean natural water can be used in case of an emergency if it is closer than the decontamination supplies, but it is NOT a substitute for having the required decontamination supplies.
- 2. Soap and single-use towels.
- Clean clothes or coveralls and a single-use towel for after a wholebody wash.
- 4. Emergency eyewash if the pesticides used require protective eyewar as stated on the label; potable water may be used as eyewash.

5. The mix and load site must have an eyewash system capable of providing 0.4 gallon of water for 15 minutes or 6 gallons of water capable of flowing gently for 15 minutes. This can be a system as simple as a hose attached to a faucet as long as the hose is clean and not laying in the sun with dangerously hot water in it.

Emergency Assistance Requirements

Employers of workers and/or handlers must provide prompt emergency assistance to anyone who is or has recently been employed as a worker/handler on their agricultural establishment if there is a reason to believe that the person has been injured or poisoned through contact with pesticides or pesticide residues.

Employers are responsible for making prompt emergency transportation available to take a worker/handler from the agricultural establishment or a farm labor camp located on the establishment to an emergency medical facility with the ability to provide proper treatment. Employers can provide this transportation by taking the employee to the emergency medical facility, calling an emergency vehicle such as an ambulance, or making sure the employee has a ride to the medical facility with someone else.

Upon request, employers are also responsible for promptly providing emergency information to any worker, handler, or treating medical personnel concerning pesticides that have been applied. Such information must include the following:

1. The name, EPA registration number, active ingredient(s), and the

- Safety Data Sheet (SDS) for any product(s) to which the person may have been exposed
- 2. The antidotes, first aid, statement of practical treatment, and other medical or emergency information from the label
- 3. A description of the way the pesticide was being used
- 4. The circumstances of the worker's/handler's exposure to the pesticide

Protections for Crop Advisers

Under the 2015 WPS revision, ONLY certified crop advisers are exempt from certain WPS protections. Those exemptions no longer apply to the employees of the certified crop adviser.

Summary of Final-rule Amendment

- 1. Only certified crop advisers are exempt from PPE and WPS requirements on the label as specified in the exemption. Certified crop adviser employees are now not exempt from label-required PPE while working in a field during an REI.
- 2. The exemption applies only after the pesticide application ends and while performing crop-advising tasks.
- 3. Certified crop advisers may substitute pesticide safety training received during certification or licensing if it is equivalent to WPS pesticide handler training.

Commercial Pesticide Applicators

Commercial (custom) pesticide applicators must provide certain information about the pesticide(s) to the owner/operator of a farm, forest, nursery, or enclosed-space production who hires them before their pesticides are applied on the agricultural establishment. This information may be provided electronically.

Information for Agricultural Establishment Operators

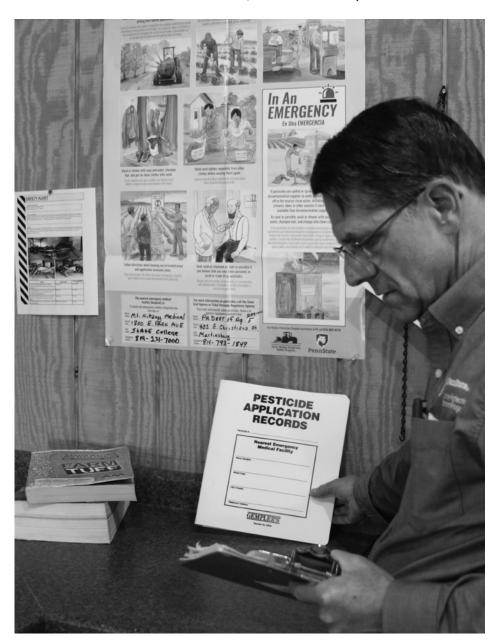
Commercial pesticide applicators must inform the operator of a farm, forest, nursery, or enclosed-space production about the following information:

- 1. The specific location and description of the areas on the agricultural establishment that are to be treated with the pesticide(s)
- The time and date the pesticide is scheduled to be applied
- The product name, EPA registration number, and active ingredient(s) of the pesticide
- 4. The REI for the pesticide
- The product's requirements regarding both treated-area postings and oral notifications
- Any other specific requirements on the pesticide label concerning protection of workers and other persons during or after application

Operators of agricultural establishments must have this information to protect their employees.

Operators of farms, forests, nurseries, and enclosed-space production must also provide commercial pesticide applicators with certain information concerning previously treated areas on the agricultural establishment. This information must include the following:

- The specific location and description of all areas on the agricultural establishment that:
 - a. May be treated with a pesticide or be under a REI while the commercial applicator will be there
 - b. Are within a ¼ mile of the applicator
 - c. Have entry restrictions



Penn State worker protection specialists are available to conduct informational on-site audit evaluations, which, for educational purposes only, are to help growers identify areas where they may be out of compliance. Pennsylvania Department of Agriculture inspectors conduct compliance and enforcement inspections to determine violations.

Operators of commercial pesticide applicator establishments must have this information to inform and protect their employees. This information may be sent electronically.

WPS Information Sources and Compliance Assistance

Compliance assistance is available through the Pennsylvania Rural Health Farm Worker Protection Safety Program. The mission of this Penn State—based program is to promote a better understanding of the EPA's WPS and assist agricultural employers and employees in meeting the requirements of the WPS. The following publications and DVDs are available for WPS compliance assistance from the Pennsylvania Rural Health Farm Worker Protection Safety Program by calling 814-863-8214 or emailing wpsprogram@psu.edu.

- How to Comply with the 2015
 Revised Worker Protection Standard for Agricultural Pesticides: What Owners and Employers Need to Know
- Protect Yourself from Pesticides: A Guide for Agricultural Workers
- Protect Yourself from Pesticides: A Guide for Handlers
- Protect Yourself from Pesticides: Color Safety Poster (English/ Spanish)
- EPA-approved WPS training DVDs



In Pennsylvania, approved trainers must have a current Pennsylvania Pesticide Applicator Certification. Trainers must use nontechnical terms and EPA-approved training materials. Workers must be trained in a language they can understand. Written safety training materials must be available to workers. All training must be documented.

The following websites also contain useful information:

- Protecting Workers: www.epa.gov/pesticide-worker-safety
- Farm Worker Protection Safety
 Program: www.porh.psu.edu/
 worker-protection-standard
 -and-agricultural-safety-and
 -health

Included in this fact sheet is a compliance checklist (see the following page) to help ensure that the operation is meeting the WPS requirements once it is completed. The Pennsylvania Rural Health Farm Worker Protection Safety Program offers on-site assessments of WPS compliance using this checklist free of charge. Voluntary compliance assistance visits are strictly educational and have no enforcement affiliation. They can be scheduled by contacting the office at 814-863-8214 or emailing wpsprogram@psu.edu.

Worker Protection Standard Checklist Check to see if you are in compliance.

This checklist serves only as a brief overview of basic Worker Protection Standard (WPS) requirements. For complete details of your responsibilities, refer to the EPA's *How to Comply with the 2015 Revised Worker Protection Standard for Agricultural Pesticides: What Owners and Employers Need to Know* manual, or contact your nearest Pennsylvania Department of Agriculture (PDA) office.

 Central Location All information is legible, up to date, and accessible to employees. Safety Data Sheets (SDS) for all pesticide products used are available at the central location. The pesticide safety information (poster) is posted and includes emergency medical information and PDA regional office numbers. The following records are displayed and available for at least 30 days following the expiration of the restricted-entry interval (REI): location of treated 	 Worker decontamination sites: Have at least one gallon of water per worker, soap, and single-use towels. Are located within a ¼ mile of the work site. Are provided for 30 days following the end of the REI (7 days with REIs of 4 hours or less). Permanent and temporary (for 11 or more employees) decontamination supply sites are marked with the pesticide safety information (poster).
area, pesticide product name, active ingredient(s), EPA registration number, and the date and time of the application and of the REI.	 Applicator Notification □ Oral and/or posted warnings are given according to label requirements. □ Appropriate warning signs are used and posted at
Pesticide Safety Training	all usual entry points to treated areas.
Complete WPS training is given to both workers and handlers annually and before they work in treated areas or perform any handling duties.	Warning signs are posted not more than 24 hours prior to treatment and removed within 3 days fol- lowing the end of the REI.
Training records for at least the last two years are on file.	 Oral warnings are given in a language workers can understand.
■ EPA-approved training materials are used in train-	
ing. Training is presented in a language the trainees	Personal Protective Equipment (PPE) Label-required PPE is provided for handlers and
can understand.	early entry workers.
□ Trainers are properly qualified.	PPE is kept clean and well maintained.A clean place for PPE storage is provided.
Decontamination Sites	
 Handler decontamination sites: Have at least 3 gallons of water per handler, soap, single-use towels, and coveralls. Are located at the mixing/loading sites, within a ¼ mile of the application site, and where personal protective equipment (PPE) is removed. Are supplied with at least one pint of imme- 	 Information is supplied by the custom applicator for central location posting prior to applications. Information is supplied to custom applicators about REIs in effect on the property to which they are exposed.
diately available clean water for eye flushing when a label specifies the use of protected eyewear. Permanent decontamination sites are marked with pesticide safety information (poster). Mix and load site has an eyewash system.	 Monitoring Handlers Sight or voice contact is made at least every 2 hours with handlers using pesticides with skull and crossbones on label. Constant voice or visual contact is maintained with handlers using fumigants indoors.

Poison Control Centers 1-800-222-1222

Calling the toll-free National Poison Center hotline above will connect you to the nearest poison center. Pennsylvania residents are served by the Pittsburgh Poison Center and the Poison Control Center in Philadelphia.

Pesticide Safety Fact Sheets are produced by the Pesticide Education Program in Penn State's College of Agricultural Sciences. Topics covered in the series include:

- Pesticide laws and regulations
- Handling chemical spills
- Personal protective gear
- Pesticides in the environment
- Equipment care and cleaning
- Pesticide toxicity and health effects

For fact sheets and more information about the Penn State Pesticide Education Program, visit extension.psu.edu/pests-and-diseases.

This document has been significantly updated by Jim Harvey, project associate for the Pennsylvania Rural Health Farm Worker Protection Safety Program. The original fact sheet was prepared by Winand K. Hock, professor emeritus of plant pathology, and then significantly revised by Kerry Richards, former director of the Penn State Pesticide Education Program, and Jim Harvey.

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