



Worker Protection Standard

The Worker Protection Standard (WPS) is a Federal regulation promulgated by the Environmental Protection Agency (EPA) and enforced by the Minnesota Department of Agriculture (MDA). It is intended to protect employees in agricultural settings from the hazards of pesticides. This fact sheet addresses the WPS in general, as well as a major revision issued in 2015. WPS is a complex regulation. This fact sheet is intended to offer summary information only. Always consult an expert for detailed information.

Introduction

While the Worker Protection Standard (WPS) is several decades old, its current incarnation was created in 1992. It has been amended or revised multiple times since then, most recently in 2015, with changes that took effect in 2017 and 2018. It can be found in CFR title 40, part 170.

Purpose and objectives

The stated purpose of the WPS is to reduce the risks of illness or injury to “workers” and “handlers” resulting from occupational exposures to pesticides used in the production of agricultural plants on agricultural establishments (i.e. farms, forests, nurseries and enclosed space production facilities, such as greenhouses).

WPS has three major objectives:

- To inform workers and handlers through training, posters, application information, safety data sheets, etc.
- To protect workers and handlers by creating requirements pertaining to Application Exclusion Zones (AEZ's), early entry requirements, Reentry Intervals (REIs), Personal Protective Equipment, etc.

- To mitigate the effects of exposures by mandating decontamination supplies, coordination of medical services, etc.

Where/When does WPS apply

WPS applies where/when a pesticide whose pesticide label references the Worker Protection Standard, is used in the production of “agricultural plants” on an “agricultural establishment”.

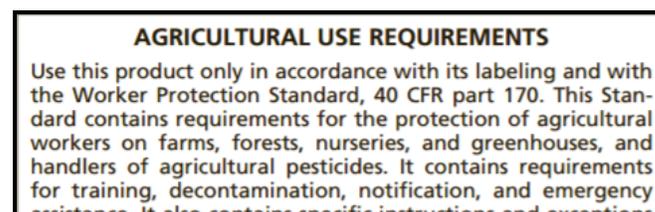


Figure 1. Example of a WPS pesticide label.

An “agricultural plant” is defined as “Any plant, or part thereof, grown, maintained, or otherwise produced for commercial purposes, including growing, maintaining, or otherwise producing plants for sale or trade, for research or experimental purposes, or for use in part or their entirety at another location. Agricultural plants include, but are not limited to grains, fruits, vegetables, wood fiber or timber products, flowering and foliage plants and trees, seedlings and transplants, and turf grass produced for sod.



Agricultural plant does not include pasture or rangeland used for grazing.”

An “agricultural establishment” is defined as “any farm, forest operation, or nursery engaged in the outdoor or enclosed space production of agricultural plants. An establishment that is not primarily agricultural is an agricultural establishment if it produces agricultural plants for transplant or use (in part or their entirety) in another location instead of purchasing the agricultural plants”.

Exceptions to WPS requirements are listed at 40 CFR 170.303(b) and (c).

WPS recognizes two – and only two – types of employees; “workers” and “handlers”.

“Workers”

Workers are defined as “any person, including a self-employed person, who is employed and performs activities directly relating to the production of agricultural plants on an agricultural establishment”.

Workers usually perform activities which have a lower probability of serious exposures to pesticides than do handlers and therefore, have fewer protections under the rule.

“Handlers”

The definition of handler is quite long and complex, but can be summarized as any person who performs any activity such as:

- Mixing, loading or applying pesticides
- Disposing of pesticides

- Handling opened pesticide containers, including emptying, triple rinsing, cleaning, etc.
- Assisting with applications, including acting as a flagger during aerial pesticide applications.
- Cleaning, adjusting, handling, repairing, the parts of mixing, loading, or application equipment that may contain residues
- Entering an enclosed space after an application but before certain criteria have been met
- Entering a treated area outdoors after an application of any soil fumigant during an Restricted Entry Interval (REI).
- Performing tasks as a crop advisor.

“Pesticide safety information” (a.k.a. posters)

Employers covered by WPS are required to display specific pesticide safety information to all workers and handlers. This information is provided in the ‘Protect Yourself from Pesticides’ poster produced by EPA or an equivalent display that includes all of the required elements.

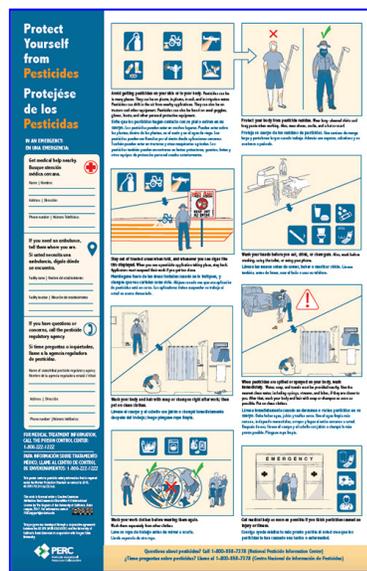


Figure 2. Example of the EPA’s ‘Protect Yourself from Pesticides’ poster (2018).



Pesticide application and hazard information

To ensure that all employees are notified and aware of pesticide applications, employers covered by WPS must make and maintain records of all pesticide applications made on the establishment (except for applications not covered by WPS).

The records must include at least the following:

- Safety Data Sheet for the pesticide(s) applied
- Name, EPA registration number and active ingredients of the pesticide
- Crop or site treated and description of the treated area
- Date(s) and times the application started and ended
- The duration of the Restricted Entry Interval (REI) for the application as stated on the pesticide label.

The information must be displayed no later than 24 hours after the end of application and must be continuously displayed until at least 30 days after the end of the REI, or until workers and handlers are no longer on the establishment, whichever is longer. Records must be retained for two years.

Prohibited actions/anti-retaliation

No employer or person is permitted to harass, coerce, threaten or discriminate against any other person in any way in retaliation for taking any type of action against an employer for concerns related to compliance with WPS.

Worker and handler training

EPA's worker and handler training requirements were revised in 2017. All workers and handlers must receive WPS training annually. This includes initial training before a worker works in an area that has been pesticide treated in the previous 30 days. There are a few exceptions, such as being a certified Restricted Use Pesticide (RUP) applicator or a certified crop advisor, as they have had more extensive training on pesticide safety.

WPS training topics have been expanded, too, with EPA specifying 26 topics for workers and 29 for handlers.¹ All training materials must be EPA-approved and must bear an EPA approval number.

There are also strict requirements for trainer qualifications, such as completing an EPA-approved train-the-trainer program.

All training must be documented, including workers'/handlers' names and signatures, date of training, EPA-approval number of the training materials, the trainer's name and documentation of his/her qualifications, and the employer's name. Records must be maintained for two years.

Entry restrictions/"Application Exclusion Zones (AEZ)" for workers

The 2015 revisions introduce the concept of entry restrictions for enclosed (indoor) and outdoor applications. Entry restrictions are different for outdoor as opposed to enclosed space (indoor) applications.

¹ These expanded content requirements went into effect in January, 2018.



Outdoor applications. When outdoor applications are in progress, an “Application Exclusion Zone” or AEZ may be created. An AEZ is the area that extends a specific number of feet, horizontally in all directions, from the point of application. No person, other than properly equipped and trained handlers may enter this zone during an application. A handler must immediately suspend application if unauthorized persons enter the AEZ. The AEZ will be 100 feet for high-hazard applications such as aerial or air blast applications, and 25 feet for lower risk applications. In some low-hazard scenarios, the AEZ is 0 feet.

Enclosed space applications. Entry restrictions for enclosed space applications are considerably more complicated. They are summarized in the table found in Appendix 1 of this fact sheet.

Oral and posted notification of worker entry restrictions

Employers must notify all workers and handlers of all entry restrictions, by posting signage and/or making oral notifications. Double notification (verbal and signage) is required when and if the label requires it.

	If the REI is...	Type of warning
Outdoor production	>48 hours	Warning signs
	<=48 hours	Warning signs or verbal notification
Enclosed space production	>4 hours	Warning signs
	<=4 hours	Warning signs or verbal notification

Signage must be at least 14x16 inches in most cases, and there are specific requirements for wording, color, content, etc. No variations are permitted.



Figure 2. Example of the WPS mandated signage for worker entry restrictions.

Decontamination supplies for workers and handlers

Workers and handlers must be provided with specific decontamination supplies, to be used in case of exposure.

- Water for emergency flushing of eyes and skin. At least one gallon per worker and three gallons per handler at start of shift.
- Soap and single-use towels.

There are also specific requirements for eye flushing supplies for handlers.

Activity	Eye flushing requirements
Mixing or loading pesticide whose labeling requires protective eyewear	A system capable of delivering gently running water at the rate of 0.4 GPM for 15 min. or at least six G. of water in containers suitable for providing gentle eye flush for 15 min.
Or	Supplies/systems must be at the mix/load site and immediately accessible to employees
Mixing or loading <i>any</i> pesticide using a closed, pressurized system	
Applying pesticides whose labeling requires protective eyewear	At least one pint of water per handler in portable containers that are immediately available to each handler.



Early-entry workers

Workers are permitted to enter treated areas before an REI has expired only under a few sets of circumstances. Employees who do this are called “early entry workers”. The 2015 revision introduces a new requirement that these workers must be at least 18 years of age.

The regulation also outlines the four (and only four) scenarios in which early re-entry is permitted, and the conditions that must be satisfied before, during, and after this work.

Personal Protective Equipment including Respiratory Protection

Personal Protective Equipment (PPE) such as gloves, coveralls, eye protection and respirators must be worn as directed by the pesticide label. All required PPE must be provided to the employee by the employer at no charge to the employee. Shirts, pants, shoes, and socks are not considered PPE and do not need to be provided by the employer.

If respirators are worn, employers must comply with OSHA respiratory protection standard (29 CFR 1910.134). That standard requires employees who are required to wear respirators to be trained, medically evaluated, and fit tested. There are also requirements for employees who are not required to wear respirators, but choose to wear them voluntarily.

Effective dates for the 2015 revisions

Nearly all of the requirements under the 2015 revision took effect on January 2, 2017. However, three requirements were delayed until January 2, 2018.

- Expanded content requirements for workers and handlers.
- Requirement for handlers to immediately suspend application when/if unauthorized persons, such as workers, enter an AEZ or restricted area.
- New content requirements for the “pesticide safety information”

Questions

If you have questions on this topic or if you would like to request assistance, please contact University Health and Safety (UHS) at (612)626-6002.

University Health and Safety Guidance Document



Appendix 1: Entry restrictions for enclosed space applications

(A) When pesticide is applied :	(B) Everyone other than handler is prohibited in:	(C) Until	(D) After the time in column C, the area subject to REI is:
(1) Fumigant	Entire enclosed space plus adjacent structures or areas that can not be sealed off from treatment area	One of the following: <ul style="list-style-type: none"> • 10 air exchanges • 2 hours of ventilation w/ fans, or other mechanical systems • 4 hours of ventilation w/ vents, windows, other passive system • 11 hours of no vent. followed by 1 hr. of mechanical ventilation. • 11 hours of no ventilation followed by 2 hours of passive ventilation • 24 hours of no ventilation. 	No post-application entry restrictions are required after criteria in column C are met
(2) Smoke, fog, mist, or spray (spray quality smaller than “Med.”)	Entire enclosed space		Entire closed space
(3) Not as in (1) or (2), and for which a resp. is required by label	Entire enclosed space		Treated area
(4) Not as in (1), (2), or (3) and from a height of 12” or more or as a spray using spray (spray quality medium or larger)	Treated area plus 25 feet in all directions of the treated space, but not outside the enclosed space	Application is complete	Treated area
Otherwise	Treated area		