



What Farmers Need to Know about the Worker Protection Standard

Farmers who use pesticide products must apply the product in accordance with the label. They also are responsible for taking certain steps to prevent pesticide exposure and mitigate any pesticide-related health consequences for themselves and their employees, co-owners, and family members who work on the farm.

The purpose of this factsheet is to provide a broad overview of the basic responsibilities that all farmers have when using pesticides labeled with the Worker Protection Standard (WPS). To fully comply with the WPS, farmers will need to refer to the [“How to Comply”](#) Manual and other training materials from the Pesticide Educational Resources Collaborative available at pesticideresources.org.¹

This factsheet is not meant to be legal advice. For legal advice on this subject, please consult your individual attorney.

The WPS is a Federal Regulation Administered by the Environmental Protection Agency

The Worker Protection Standard (WPS) was passed in 1992 under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).² The purpose of the WPS is to protect workers on farms, forests, nurseries, and greenhouse operations from potential adverse effects of exposure to pesticides used in the production of agricultural plants on agricultural establishments.³ The WPS requires farmers using a pesticide with a WPS-label to take certain protective measures to reduce the risk of illness or injury associated with exposure of their employees to pesticides and/or their residues.⁴

The WPS label will have an “Agricultural Use Requirements” box under “Directions for use.”

AGRICULTURAL USE REQUIREMENTS
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, in forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment. In nurseries and greenhouses workers are prohibited in the treated area and 25 feet in all directions of the nursery or the enclosed treated area until application is complete. The restricted-entry interval (REI) is 4 hours from the time of application. DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours unless wearing appropriate PPE. Personal protection equipment required for early entry workers are long-sleeved shirts, long pants, and shoes plus socks.

Example: Agricultural Use Requirements box from the label of kaolin clay, a pesticide approved for organic use. Note the requirement to comply with the Worker Protection Standard.

Under the WPS, employers have different responsibilities for workers and handlers. “Workers are generally those who perform hand-labor tasks in pesticide-treated crops, such as harvesting, thinning, and pruning. Handlers are usually those that are in direct contact with pesticides such as mixing, loading or applying pesticides.”⁵ There is a partial exemption from the WPS for a farm employer and members of the employer’s immediate family if one or more members of the same immediate family own the farm.⁶



Photo: Edwin Remsberg, © University of Maryland-AGNR Image Library

Even if workers do not spray the pesticides, their work may bring them in contact with pesticide-treated crops

The most recent revision of the WPS in 2015 resulted in new standards, most of which became effective on January 2, 2017. All of the provisions are in effect as of January 2, 2018.⁷ The Environmental Protection Agency (EPA) has a comparison chart of the previous and current WPS.⁸ The Maryland Department of Agriculture (MDA) enforces the WPS in Maryland and the MDA Pesticide Regulation Section offers technical assistance in implementing the WPS.⁹

Complying with the WPS Helps Protect the Health of Everyone on the Farm

Research has shown that the practices required by the WPS benefit the health of farmers, farmworkers, and their families.¹⁰ The Agricultural Health Study (AHS) is an on-going, long-term study conducted with a group of farmers and their families in North Carolina and Iowa for over two decades.¹¹ Some of the studies conducted by the AHS researchers have shown a correlation between long-term exposure to specific pesticides and certain negative health outcomes for farmers and their families.¹² However, AHS results also have demonstrated that implementing protective practices, such as using personal protective equipment (PPE) and washing after using pesticides, can reduce the potential risk of negative health impacts associated with pesticides.¹³ Thus, research indicates that farmers and farmworkers can expect to reduce potential pesticide-related risks if they comply with the protective practices required under WPS.

Organic Farmers Must Comply with WPS

Organic farmers manage pests using a holistic system of prevention, avoidance, management, and suppression, and approved organic pesticides may be part of that system.¹⁴ Certain pesticides that are approved for use by organic farmers are included on the National List of Allowed and Prohibited Substances by the National Organic Standards Board, a federal advisory committee that makes formal recommendations to USDA.¹⁵

Farmers may be confused about the differences between approved organic pesticides, general use pesticides, and/or restricted use pesticides (RUPs). Most of the pesticides approved for organic use fall into the EPA’s “unclassified pesticides” category (commonly called general use pesticides). This means that the user does not need to be a certified applicator to purchase and use unclassified pesticides, as opposed to RUPs.¹⁶ However, organic growers are still subject to all of the rules and regulations

concerning the pesticides they use, and must comply with all label directions. Thus, if an organic grower uses pesticides that bear the Agricultural Use Requirements box on the label, he/she must comply with WPS. Certified pesticide applicator training and recertification programs are required for users of RUPs. These trainings often include WPS information for farmers. Thus, if organic farmers do not become certified pesticide applicators, they may miss important information about the WPS.



Photo credit: Neith Little, UMD Extension. Even organic pesticides, such as the kaolin clay pictured on cucumbers, require safety precautions and compliance with the Worker Protection Standards. Additionally, using pesticides in an enclosed space, such as a high tunnel, often comes with additional safety restrictions. Always read and follow all label directions.

Potential Health Risks from Pesticide use is a Function of Toxicity and Exposure

In general, the pesticides labeled for organic use are likely to have lower acute and chronic toxicity than RUPs. However, there are risks involved with exposure to all pesticides. If exposure is high, which happens when an individual fails to use appropriate PPE, even a pesticide with low acute toxicity can negatively affect his or her health.

To comply with federal law and reduce pesticide-related risks, all farmers should follow pesticide label instructions and implement the recommended practices. Table 1 provides an example of organic pesticide risks and recommended practices to reduce risks (Table 1 is for illustrative purposes only and users must always refer to product labels for a complete listing of PPE).

Use	Pesticide	Risk	Personal Protective Equipment	Restricted Entry Interval
Fungicide	Copper	DANGER: Causes irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through skin.	Gloves and eye protection	48 hrs.
Herbicide	Concentrated vinegar	DANGER: Causes irreversible eye damage. Harmful if swallowed or absorbed through skin.	Gloves and eye protection	none listed
Insect repellent	Kaolin clay	CAUTION: Can irritate eyes, excessive dust inhalation is discouraged	Dust/mist respirator	4 hrs.

Table 1: Examples of organic pesticide label instructions. Pesticide users must always refer to product labels for a complete listing of PPE

What Do Farm Employers Need to do to Comply with WPS?

The WPS responsibilities fall into three categories: inform, protect, and mitigate. The following is an introductory summary of the main WPS provisions.

INFORM:

- Farm workers¹⁷ and pesticide handlers¹⁸ must receive annual pesticide safety training (in a language they can understand) conducted by a qualified trainer or certified pesticide applicator. Employers must keep records for at least two years from the date of the trainings.¹⁹
- Farm employers must keep information about pesticide safety and records of recent (within the past 30 days) pesticide applications, including pesticide safety data sheets, in a central location that is accessible to both employees and emergency responders.²⁰
- Farm employers must let workers know when and where pesticides are applied, and inform them (either in writing or orally, unless both are required) of the Restricted Entry Interval (REI). When the REI is greater than 48 hours outdoors or 4 hours in an enclosed space, the treated area must be marked with a sign warning people not to enter.²¹

An oral warning must include a description of the restricted area, the dates and times of restricted entry, instructions not to enter the treated area or an application exclusion zone during application. The warning must also state that entry to the treated area is not allowed until the REI has expired and all warning signs have been removed or covered, except in certain circumstances.²²



The Restricted Entry Interval (REI) is how much time must pass between applying a pesticide and allowing unprotected workers back into the area. Image credit: EPA.

PROTECT:

- A farm employer must ensure the label requirements on all pesticides are followed and employees are given the protections required by the WPS.²³
- All pesticide handlers and any “early entry” workers must be 18 or older.²⁴
- Farm employers should ensure that workers do not clean, repair, or adjust pesticide application equipment unless they have been trained as a pesticide handler.²⁵
- Farm employers should instruct all trained handlers how to safely use equipment for mixing, loading, transferring, or applying of pesticides.²⁶
- Farm employers must provide and maintain any required personal protective equipment.²⁷

MITIGATE:

- If a worker or handler has experienced a potential pesticide exposure, the employer is required to make sure the worker/handler receives proper medical care.²⁸
- A farm employer must keep routine decontamination supplies on hand, such as water, soap, and single use towels.²⁹

To comply with these provisions, farmers will need to refer to the specifics detailed in the EPA's [quick reference guide](#) and [comprehensive compliance manual](#) and [PERC's training resources](#).³⁰

Farm Employers who Fail to Comply with the WPS may be Subject to Civil and Criminal Penalties

It is a violation of the WPS for a farm employer to intimidate, threaten, or discriminate against any worker or handler for complying with the WPS and/or reporting violations of the WPS to state or federal regulatory agencies.³¹ Any person found to have knowingly or purposefully violated the WPS is also subject to criminal penalties.³² Given the legal consequences for noncompliance with the WPS and the potential health risks to themselves and their employees, farm employers will be well served to understand and comply with the WPS.

References

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- ³ *Id.* § 170.1.
- ⁴ See Gripp, Sharon, *EPA Worker Protection Standard for Agricultural Pesticides*, available at <https://extension.psu.edu/epa-worker-protection-standard-for-agricultural-pesticides>.
- ⁵ See 40 C.F.R § 170.3.
- ⁶ 40 C.F.R. § 170.601(a)(1).
- ⁷ U.S. Environmental Protection Agency, *Agricultural Worker Protection Standard (WPS)*, available at <https://www.epa.gov/pesticide-worker-safety/agricultural-worker-protection-standard-wps>.
- ⁸ U.S. Environmental Protection Agency, *Agricultural Worker Protection Standard (WPS) Comparison Of The Revised Protections To The Previous Protections* (January 2017), available at https://www.epa.gov/sites/production/files/2017-01/documents/comparison_chart_wps_011117_cwbp.pdf.
- ⁹ For more information on the Maryland Department of Agriculture's Pesticide Regulation Section, see https://mda.maryland.gov/plants-pests/Pages/pesticide_regulation.aspx.
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- ¹² Furlong M, et al., *Protective Glove Use and Hygiene Habits Modify the Associations of Specific Pesticides with Parkinson's Disease*, 74 *Env. Int.*, 144–150 (2015); See Lerro CC, et al., *Organophosphate Insecticide Use and Cancer Incidence Among Spouses of Pesticide Applicators in the Agricultural Health Study*, 72 *Occup. Env. Med.* 736–744 (2016); See also Lebov JF, et al., *Pesticide Use and Risk of End-Stage Renal Disease Among Licensed Pesticide Applicators in the Agricultural Health Study*, 73 *Occup. Env. Med.* 3–12 (2016); Lerro CC, et al., *Alachlor Use and Cancer Incidence in the Agricultural Health Study: An Updated Analysis*, 110 *J. Nat. Cancer Inst.* 1–8 (2018); Tanner CM, et al., *Rotenone, Paraquat, and Parkinson's Disease*, 119 *Environ. Health Perspect.* 866–872 (2011).
- ¹³ Furlong M, *supra* note 11, at 144–150.
- ¹⁴ U.S. Department of Agriculture- Agricultural Marketing Service, *Introduction to Organic Practices* (September 2015), available at <https://www.ams.usda.gov/sites/default/files/media/Organic%20Practices%20Factsheet.pdf>.
- ¹⁵ For more information on the National List of Allowed and Prohibited Substances, see <https://www.ams.usda.gov/rules-regulations/organic/national-list>.
- ¹⁶ Brown, Amy and Ingiani, Elizabeth, *Maryland Pesticide Applicator Core Manual for Commercial Applicators*, 1-250 (XanEdu 2014).
- ¹⁷ 40 C.F.R. § 170.401(a).
- ¹⁸ *Id.* § 170.501(a).
- ¹⁹ *Id.* §§ 170.401(d), 170.501(d).
- ²⁰ *Id.* § 170.309(h).
- ²¹ *Id.* § 170.409.
- ²² *Id.* § 170.409(c).
- ²³ *Id.* § 170.309(a) and (b).
- ²⁴ *Id.* § 170.309(c).
- ²⁵ *Id.* § 170.309(g).
- ²⁶ *Id.* § 170.309(i).
- ²⁷ *Id.* § 170.507.
- ²⁸ *Id.* § 170.309(f).
- ²⁹ *Id.* § 170.411 (a) and (b).
- ³⁰ U.S. Environmental Protection Agency, *Quick Reference Guide To The Worker Protection Standard (WPS) As Revised In 2015*, EPA-305-B-16-001, available at <http://pesticideresources.org/wps/hosted/quickrefguide.pdf>; Fults, Janet, *supra* note 1.
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- ³² *Id.* § 170.317(b).

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