

Agricultural Owners, Family Labor and the Worker Protection Standard

This specialized Worker Protection Standard (WPS) guide is written for owners of family-owned agricultural establishments. It explains which agricultural establishments are and are not included under the owner and immediate family exemption of certain WPS requirements. For those establishments that qualify for an exemption, this publication describes the responsibilities that the owner and immediate family member must implement to comply with WPS and from which requirements they are exempt.

WPS overview

The WPS applies to all agricultural owners/employers when using a WPS-labeled pesticide product on an “agricultural establishment” directly related to the production of an agricultural plant. The WPS is intended to protect agriculture workers, handlers and family members from exposure to pesticides involved in plant production and to prevent adverse health effects resulting from pesticide exposure. Generally, the WPS requires owners and employers to (a) provide agricultural workers and pesticide handlers with information and protection to minimize occupational pesticide exposure; and (b) protect family members from pesticide exposure while working, living and playing on their farm, ranch or nursery.

The WPS regulations apply to all agricultural establishments including family-owned farms, forest operations and nurseries engaged in outdoor or enclosed space production of agricultural plants. This includes, but is not limited to, grains, fruits and vegetables, wood fiber or timber products, turf, and flowering and foliage plants and trees for commercial purposes.

WPS revisions

Effective Jan. 2, 2017, the U.S. Environmental Protection Agency (EPA) enacted key revisions to the WPS that impact the requirements for **family-owned agricultural establishments**. EPA defines a family-owned agricultural establishment as an operation where the majority (more than 50%) of the equity is owned by one or more members of the same immediate family.

The WPS defines “immediate family” to include spouse, parents, stepparents, foster parents, father-in-law, mother-in-law, children, stepchildren, foster children, sons-in-law, daughters-in-law, grandparents, grandchildren, brothers, sisters, brothers-in-law, sisters-in-law, aunts, uncles, nieces, nephews and first cousins. “First cousin” means the child of a parent’s sibling.

No agricultural establishment using WPS-labeled pesticide products is completely exempt from WPS requirements. The WPS exempts owners of agricultural establishments and members of their immediate family from certain requirements.

Note: The WPS does not apply to the use of pesticides (a) on livestock and other animals; (b) in and around the home and farm buildings; (c) on home (non-commercial) gardens; (d) for control of vertebrate pests, unless directly related to production of an agricultural plant; (e) as an attractant or repellent in traps; (f) on pasture or rangeland where the forage will not be harvested for any use. Also, the WPS does not apply to certified or licensed crop advisors; or research involving non-registered pesticides.

Owners need to be aware of exceptions to the immediate family member exemptions. Examples of the exceptions and how they may impact agricultural establishments can be found in the Resource section (under Chapter 6 of the “How to Comply” manual). Other approved exemptions can be found on the [EPA’s Pesticide Worker Safety webpage](https://epa.gov/pesticide-worker-safety/exemptions-worker-protection-standard) (<https://epa.gov/pesticide-worker-safety/exemptions-worker-protection-standard>).

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WPS compliance and exemptions

While owners of family-owned agricultural establishments must comply with many WPS requirements, owners and immediate family members are also exempt from some WPS requirements pertaining to WPS-labeled pesticide products. That said, because pesticide exposure can lead to serious injury or death, it remains critical for owners to protect family members from exposure to pesticides and pesticide residue.

WPS requirements for family-owned agricultural establishments

As the owner, you are required to provide family members with information, protection and mitigation related to pesticide safety.

- **Information** through pesticide safety training and label education builds knowledge that helps your family members protect themselves and the environment from pesticides and pesticide residues. You are responsible to ensure that your family members are aware of what pesticides are being used, where the pesticides are being used and what must be done to protect everyone from pesticide exposure.
- **Protection** is achieved through personal protective equipment (PPE), signage and clear safety procedures. Protection measures will help keep family members from exposure to pesticides and pesticide residues.
- **Mitigation** means (a) providing family members with supplies for washing and emergency decontamination; and (b) being prepared to provide emergency transportation to a medical facility, should a pesticide incident occur.

Under the current WPS, owners and immediate family members must comply with some specific requirements intended to protect themselves. Enforcement action may be taken by the Missouri Department of Agriculture should violations of WPS requirements be found. It is the owner's responsibility to assure that their operation is in compliance.

Respirator requirement

If the product label requires respirators, the owner must obtain a medical evaluation on each user, provide a fit test, provide training and maintain user records.

The PPE section of a product label will identify if any respiratory equipment is required, when it must be used and what specific type of respirator must be used. In this

case, owners and immediate family member handlers must comply with the following WPS requirements:

- **Medical evaluation:** A medical evaluation by a physician or other licensed healthcare professional must be performed on handlers to assess if they can use a respirator without putting their health at risk. The medical evaluation must be done before the handler is fitted with a respirator or uses the respirator.
- **Fit testing:** Annual respirator fit testing must be conducted to assure that the required respirator(s) fits properly.
- **Respirator use and maintenance training:** Annual training must be provided to all respirator users. The training must cover how to properly use, care for and store respirator equipment. Owners should establish a recordkeeping system that includes training dates and times, training content, list of instructor(s) and participants involved in the training.
- **Record retention:** All records related to medical evaluations, fit testing and training of respirator users must be maintained for at least two years.

Personal protective equipment requirement

Handlers must wear appropriate personal protective equipment (PPE) and other work attire.

The WPS requires that handlers must wear the appropriate PPE and other work attire as defined on the product label. For additional information related to the selection and use of PPE identified on the label, owners and trainers may want to review MU Extension publication G1917, [Personal Protective Equipment for Working With Pesticides](https://extension.missouri.edu/publications/g1917) (<https://extension.missouri.edu/publications/g1917>). That publication provides additional information to assist in identifying and selecting the appropriate PPE. Owners should also review MU Extension publication G1914, [Laundering Pesticide-Contaminated Clothing](https://extension.missouri.edu/publications/g1914) (<https://extension.missouri.edu/publications/g1914>), to learn the proper way to handle and care for clothing worn during the application of pesticides. The goal of the publication is to protect you and your family from exposure to pesticide residues.

The WPS does address the omission of certain labeled PPE during the mixing and loading of the pesticides. If you are using a closed system or working in an enclosed cab, PPE exceptions are allowed unless expressly prohibited by the product labeling. If in doubt, use the PPE recommended on the label.

Restricted-entry interval requirement

Keep immediate family members out of the pesticide treated area until the restricted-entry interval (REI) expires.

An REI, specified on the label, is the time immediately after a pesticide application that it is safe to enter the treated area without wearing PPE and having additional training. The amount of time required is based on the toxicity of the compound that was used. The REI for a compound can typically be found in the Agricultural Use Requirements section of the product label.

During the REI, do not enter or allow any members of your family to enter a treated area or come into contact with anything treated with the pesticides to which the REI applies. During the REI, only appropriately-trained and equipped handlers and early-entry workers are allowed into the area.

When two or more pesticides with different REIs are applied at the same time, make sure that you and your family members follow the longest REI of all the pesticides applied.

Exceptions to REI

Generally, you and your family members must stay out of a treated area during the REI. This restriction has two exceptions:

- Early entry with no contact.
- Early entry with limited contact for short-term, emergency or specially exempted tasks.

No contact early entry means that you or your family members may enter a treated area during an REI if you do NOT touch or are NOT TOUCHED BY any pesticide residues, including residues found:

- On agricultural plants and weeds.
- On or in soil or the planting medium.
- In irrigation water or water standing in drainage ditches or puddles.
- In air, if the pesticide remains suspended after application, such as after fumigation or after a smoke, mist, fog or aerosol application.

Avoiding contact by using PPE does NOT qualify as no-contact early entry.

Early entry with limited contact allows you or members of your family to enter a treated area during a REI in only three work situations:

1. Short-term tasks that last less than one hour per 24-hour period and do not involve hand labor.
2. During an agricultural emergency. The EPA definition of the term “agricultural emergency” and

procedures that must be followed are found on page 50 of the manual referenced in the Resource section.

3. Specific tasks approved by EPA through a formal exception process.

For early entry with limited contact, you must:

- Apply pesticides so they do not come in contact with anyone, including members of the immediate family.
- Wait at least 4 hours after the pesticide application is completed before entering.
- Wear the PPE specified on the pesticide label for early entry tasks.
- Enter and work on a short-term task for up to eight hours per day.
- Follow any other restrictions specified on the pesticide label or in any special exception under which the early entry takes place.

Additional early entry with limited contact requirements and specifics related to other WPS provisions — no contact, short-term, irrigation and agricultural emergency — can be found in Table 4: Summary of Early-Entry Requirements on page 55 of the manual referenced in the Resource section.

Restrictions during application

During pesticide application, owners must make sure that:

- Each pesticide is applied so that it does not contact any person either directly or through drift.
- Only appropriately trained and equipped handlers can enter and work in areas during the pesticide application and until the application re-entry period expires. Everyone else, including family members, must keep away from the treated area during application and until the application re-entry period expires.
- During certain pesticide applications in nurseries and greenhouses, everyone including owners and family members must keep out of specified areas immediately in and around the area being treated. The size of this “keep-out zone” depends on the pesticide used and the application method. In some greenhouse situations, the greenhouse must be adequately ventilated before anyone is allowed to enter. Follow the label requirements for each pesticide.

In all situations, handlers who have been appropriately trained and are equipped with the appropriate PPE are allowed to enter these areas. Handlers who are currently certified applicators of restricted-use pesticides and those who have completed a WPS training course or equivalent are considered by EPA as an “appropriately trained” handler.

Application exclusion zone requirement

Keep everyone away from the application exclusion zone (AEZ).

AEZ is a term first used in the revised WPS rule. The AEZ requirements were revised again on December 29, 2020. The AEZ, which refers to the area surrounding the pesticide application equipment “points of discharge,” is applicable and enforceable only on the agricultural employer’s property. During pesticide applications, owners must make sure that the AEZ is free of all persons other than appropriately trained and equipped handlers. Owners must assure handlers suspend the pesticide application process if someone else enters the AEZ.

The WPS establishes the AEZ based on the application method. Table 1 identifies AEZ distance requirements.

Table 1. AEZ distances defined by the WPS.

Category	Application type	Spray height	Distance requirement
1	<ul style="list-style-type: none">• Aerial• Fumigant, smoke, mist or fog• Air blast• Spray with extra fine, very fine or fine droplets	Any	At least 100 feet in all directions
2	Applications not listed in category 1 and spray with medium droplets (or larger)	Greater than 12 inches	At least 25 feet in all directions
3	Any other application type not described in category 1 or 2		No AEZ required

WPS establishes that owners, when they are performing handler activities, are exempt from the AEZ requirements if immediate family members stay in an enclosed building within the AEZ. The WPS also establishes that third party handlers may continue pesticide application if the owner’s immediate family are within a closed building. The owner must notify the handler that his or her family has been notified and plans to stay inside. Remember: AEZs are established to protect your immediate family and other bystanders from potential exposure to pesticides and pesticide drift from nearby applications.

Product label requirement

Ensure that any pesticide applied is used in a manner consistent with the product label.

The safe use of pesticides and compliance with the WPS begins with reading, understanding and following all instructions found on a label. Read the label when you buy the pesticide and make sure all questions are answered. Consult the label again when you take pesticides out of storage, mix pesticides, apply pesticides and when you store or dispose of pesticides and pesticide containers.

All pesticide products affected by the WPS carry a statement under the Agricultural Use Directions section of the label. This statement informs users that they must comply with all WPS provisions. If you use a pesticide product with labeling that refers to the WPS, you must comply with the owner requirements described in this guide.

Be sure to read and follow the label directions precisely to keep yourself, your co-workers and your family members safe and healthy. Following label directions also protects the environment and the agriculture industry, ensuring access to important production resources in the future.

WPS exemptions for family-owned agricultural establishments

The current WPS establishes a number of regulatory exemptions for owners of agricultural establishments and their immediate family members. In other words, if you meet the criteria of the family-owned agricultural establishment, you do not have to comply with select WPS provisions. For example, there is no longer a minimum age for family members who are handlers and early entry workers.

Further, for your family members **you will NOT need to:**

- Provide WPS training for workers and handlers.
- Display, maintain or provide access to pesticide safety, pesticide application procedures or hazard information.
- Maintain records of pesticide application and hazard information as required by the WPS.
- Provide instruction in the safe operation of equipment and supplies used for mixing, loading, transferring and applying pesticides.
- Inspect pesticide mixing, loading, transfer and application equipment for leaks and clogs or worn and damaged parts or make repairs as needed prior to use.

- Ensure knowledge of labeling, application-specific and establishment-specific information.
- Provide visual or voice monitoring of an applicator when using a pesticide product that has the skull-and-crossbones on the front panel, unless required by the product label directions.
- Provide continuous visual and voice contact during fumigation.
- Provide oral and posted notification of worker entry restrictions.
- Provide instructions on selection, use, care and maintenance of PPE and the prevention and recognition of heat-related illnesses and first aid procedures.
- Maintain decontamination sites and supplies.
- Provide emergency assistance.
- Provide required information before allowing a person not directly employed by the agricultural establishment to clean, repair or adjust equipment that has been used to mix, load, transfer or apply pesticides.
- Comply with early-entry provisions including minimum age; providing information; maintaining PPE and instructing on its use; instructing on how to prevent, recognize and treat heat-related illness; and providing decontamination supplies.

Best advice for protecting your employees and family members

Exposure to pesticides can lead to short- and long-term health risks including non-Hodgkin's lymphoma and Parkinson's disease. Following the WPS owner requirements is a good start toward protecting yourself and family members from pesticides and pesticide residue. The concern of safety professionals is that some WPS exemptions have the potential to undermine your intentions to fully protect your workers and family members from pesticide exposure.

While the aim of this publication is to help you stay in compliance with applicable WPS requirements, the best advice for protecting your family members from pesticide exposure is to:

- Understand all WPS requirements, including those for non-family employees.
- Develop and implement a comprehensive pesticide safety and health program that specifically addresses your agricultural establishment.

Your effort will result in a plan that takes every precaution to protect you and your family members from pesticide exposure. By implementing and updating your plan annually, you may also reduce or eliminate your liability exposure should an accident occur. A complete set of WPS requirements is discussed in MU Extension publication G857, [Worker Protection: An Employer's Guide to Worker Protection Standard Compliance](https://extension.missouri.edu/publications/g857) (<https://extension.missouri.edu/publications/g857>).

Resource

The EPA and the Pesticide Educational Resources Collaborative have developed a [How to Comply manual](https://epa.gov/pesticide-worker-safety/pesticide-worker-protection-standard-how-comply-manual) (<https://epa.gov/pesticide-worker-safety/pesticide-worker-protection-standard-how-comply-manual>). The manual is recommended for owners, employers and managers engaged in the production of agricultural plants as well as crop advisors and commercial (for-hire) pesticide handlers. The manual includes:

- Details to help determine if the WPS requirements apply to you.
- Information on how to comply with the WPS requirements, including exceptions, restrictions, exemptions, options and examples.
- A Quick Reference Guide of the basic requirements.
- New and revised definitions that may affect your WPS responsibilities.
- Explanations to help you better understand the WPS requirements and how they may apply to you.

Contacts

For more information about WPS, contact

- Missouri Department of Agriculture
[Bureau of Pesticide Control](http://agriculture.mo.gov/plants/pesticides/)
(<http://agriculture.mo.gov/plants/pesticides/>)
Phone: 573-751-5504
- [Your local MU Extension Center](https://extension.missouri.edu/locations)
(<https://extension.missouri.edu/locations>)

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Glossary of key WPS terms

agricultural establishment Any farm, forest operation or nursery engaged in the outdoor or enclosed space production of agricultural plants.

agricultural owner Any person who has a present possessory interest (e.g., fee, leasehold, rental, or other) in an agricultural establishment. A person who has (a) leased such agricultural establishment to another person and (b) granted that same person the right and authority to manage and govern the use of such agricultural establishment is not classified as an “owner” for this exemption.

agricultural workers Includes all agricultural workers employed for any type of compensation, including self-employed, to perform tasks related to growing and harvesting agricultural plants. Task examples include field preparation, operating harvesting and storage equipment, caring for nursery stock, repotting plants and any other task directly related to the production of agricultural plant.

agricultural exclusion zone Application exclusion zone (AEZ) refers to the area surrounding the pesticide application equipment’s “points of discharge.” This area must be free of all persons other than handlers who are appropriately trained and equipped with protective gear.

family-owned agricultural establishment EPA defines a family-owned agricultural establishment as

an operation where the majority (more than 50%) of the equity is owned by one or more members of the same immediate family.

handler A pesticide handler is employed or receives compensation from an owner or can be an immediate family member hired by the family-farm ownership to perform tasks of pesticides, handle opened containers of pesticides — including emptying and triple-rinsing. It also includes serving as a flagger during aerial pesticide application and others.

immediate family The term immediate family is defined by EPA to include spouses, parents, step-parents, foster parents, fathers-in-law, mothers-in-law, children, step-children, foster children, sons-in-law, daughters-in-law, grandparents, grandchildren, brothers, sisters, brothers-in-law, sisters-in-law, aunts, uncles, nieces, nephews and first cousins. “First cousin” means the child of an aunt or uncle.

pesticide The term pesticide includes any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, bacteria, weeds or any form of life declared to be a pest; and any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant.

restricted-entry interval Restricted-entry interval (REI) pertains to the time immediately after pesticide application during which entry into the treated area is restricted.