



and Business Services

Oregon OSHA Worker Protection Standard Pesticide Emphasis

Presented by Oregon OSHA Public Education — Our Mission:

We provide knowledge and tools to advance self-sufficiency in workplace safety and health.



Table of Contents

Welcome!4
Goals4
Quick reference guide6
Introduction to the Worker Protection Standard (WPS)8
Definitions12
Informing employees - required postings and record retention14
Protection for both workers and handlers - a Q&A15
What must training records include?17
Decontamination supplies20
Employer information exchange22
Emergency assistance - protection for workers and handlers23
Reporting requirements for employers24
Application Exclusion Zone (AEZ)27
Care of personal protective equipment (PPE)
Additional agricultural employer duties:
Sample label exercise
Appendix
Oregon OSHA services





Welcome!

This workshop provides an introduction to the Worker Protection Standard (WPS). This course will help you understand how to implement WPS rules in your workplace.

The more you contribute, the more you'll get out of this training. Participate and have fun!

Goals

Given the information and exercises in this workshop, at the end you will be able to:

- Identify the requirements of the WPS.
 Know how field sanitation, heat, and smoke are big issues in Oregon that we cover more than Federal EPA's WPS.
- 2. Differentiate between Oregon OSHA and WPS rules.
- 3. Identify the components of an effective WPS program.
- 4. Identify the eight label elements of the WPS.

Note to Instructor:

We recommend you have "show and tell" items on hand to accompany this workshop.

These items include:

- A current WPS poster: <u>osha.oregon.gov/</u> OSHAPubs/epa-pesticide.pdf
- An EPA-approved WPS video, such as those available on the Pesticide Educational Resources Collaborative (PERC) website: <u>pesticideresources.org/</u>
- An assortment of typical personal protective equipment
- Access to the Oregon OSHA rules that pertain to the WPS in Oregon: osha.oregon.gov/Pages/topics/workerprotection-standard.aspx
- Sample pesticide labels and safety data sheets



Quick reference guide

Notices and warnings



To purchase or print the current approved poster for central posting, go to <u>pesticideresources.org/wps/cp.html</u>.

Provide the following for **both** workers and handlers:

- Information at a central location
- Pesticide safety training
- Decontamination sites
- Notice of applications to handler employers
- Notification of applications within a quarter of a mile of where workers are located

Provide the following for workers:

- Notice of restrictions during applications
- Restricted-entry intervals
- Posted warning signs, if required
- Verbal warnings

Additional requirements for handlers:

- Application restrictions and monitoring
- Specific instructions
- Equipment safety
- Understanding personal protective equipment (PPE):
 - Duties related to PPE
 - Proper care of PPE
 - Replacing respirator purifying elements
 - Proper disposal of PPE
 - Instructions for people who clean PPE

See also: <u>Oregon Administrative</u> <u>Rule Division 4: Agriculture</u> **Note:** Agricultural employers with 10 or fewer employees can earn an exemption* from routine Oregon OSHA inspections if they meet all of the following criteria (Oregon Revised Statute (ORS) 654.172 and Oregon Administrative Rule (OAR 437-001-0057):

- No accidents resulting in death or serious physical injury have occurred within the preceding two-year period.
- The agricultural place of employment is inspected once every four years by an individual acting in a safety consultant capacity, and the employer has corrected the violations noted by the consultant within 90 days of receipt of the consultant's report.

The employer(s) and principal supervisor(s)
have annually attended at least four hours of
instruction on agricultural safety rules and
procedures.

To inquire if the Oregon OSHA workshop or online class meets part of this exemption-related safety training requirement, call Oregon OSHA Public Education (503-947-7443) or the Oregon Department of Agriculture (503-986-4600).

The exemption from inspections was passed by the 1995 Oregon Legislature.

The "10 or fewer" employees part of the requirement only counts permanent employees working for more than 10 months in any calendar year, either full or part time. If the farm hires additional seasonal workers, they are not counted for the purposes of the exemption.

If an Oregon OSHA compliance officer were to arrive at an agricultural place of employment to conduct a scheduled inspection, and the employer could show that they have met all of the conditions, the compliance officer would cease the inspection process and leave.

If the compliance officer were to observe a serious or life-threatening hazard while on site, the compliance officer would address the hazard and cite the employer.

A question often asked is: If the farm is incorporated as a partnership between a husband and wife, do both have to attend the training? Answer: No, only one of them needs to attend the training; it is assumed the couple will communicate with each other.

Note: The instructor is responsible for providing a certificate to those completing the class.

^{*} The exemption does not apply to a field sanitation inspection; an agricultural housing inspection; an investigation of a fatality, catastrophe, or other reportable accident investigation; or a valid complaint inspection.

Introduction to the Worker Protection Standard (WPS)

In Oregon, the Occupational Safety and Health Division (Oregon OSHA) administers and enforces occupational safety and health rules.

Oregon OSHA's activities include enforcement of the employee safety and health part of the U.S. Environmental Protection Agency (EPA) pesticide WPS as adopted in Division 4/Agriculture of OARs 437-004-6000, -6001, -6401, -6405, -6406, -6501, -6502, -6508, and -6509.

OARs 437-002-0170 and 437-007-0010 clarify that the WPS requirements also apply to certain Division 2/General Industry and Division 7/Forest Activity employers.

In addition, Oregon OSHA enforces other safety and health rules related to the use of pesticides, such as hazard communication, PPE, respiratory protection, eyewashes, pesticide storage, and fumigation.

To view, download, and print rules and other publications, visit <u>osha.oregon.gov</u>.

For additional resources specific to pesticides and the WPS, visit <u>pesticideresources.org</u> for EPA-approved WPS training materials for workers and handlers.

Note: Heat and wildfire smoke rules went into effect in Oregon in 2022



Summary

What the heat rule does:

- Applies to outdoor and indoor (when there is no mechanical ventilation) work activities, where the heat index equals or exceeds 80 degrees Fahrenheit.
- Requires one or more shade areas immediately and readily available to exposed employees who are outdoors.
- Requires an adequate supply of drinking water for exposed employees with immediate availability, no cost, and the opportunity to drink.

- Requires implementation of an effective rest-break schedule – when the heat index equals or exceeds 90 degrees Fahrenheit – for preventive cool-down periods. Such breaks are work assignments with no cost to employees.
- Requires acclimatization to gradually adapt employees to working in heat and to prevent heat illness.
- Requires a heat illness prevention plan
 providing consistent messages about expectations for all employees and supervisor and employee training.

What the wildfire smoke rule does:

- Applies to employers whose employees are – or will be – exposed to wildfire smoke where the ambient air concentration for fine particulate matter equals or exceeds an Air Quality Index (AQI) 101.
- At AQI 101, the rule requires employers to provide a National Institute for Occupational Safety and Health (NIOSH)-approved filtering facepiece respirator, such as an N95, to all exposed employees for voluntary use.

- Requires employers to ensure employees wear NIOSH-approved respirators at or above AQI 251 and follow Appendix A instead of the full-respiratory program. Appendix A does not require medical evaluations and fit testing.
- Requires employers to ensure employees wear NIOSH-approved respirators at or above AQI 501 and follow medical monitoring, fit testing, and other elements of the Respiratory Protection Standard.
- Requires exposure monitoring and training.
- Requires implementation of communications to relay information before employees are exposed.
- Requires use of engineering and administrative controls, including relocating outdoor workers to enclosed buildings where air can be adequately filtered and relocating work or making work schedule changes to achieve better air quality.

Emphasize that the WPS is an EPA rule that is enforced in Oregon by Oregon OSHA. In other words, farms, forests, nurseries, and greenhouses must comply with all applicable Oregon OSHA rules under OAR 437, Division 2, Division 4, Division 7, **AND** the EPA WPS.

When an Oregon OSHA health and safety rule is more protective (stricter) than the WPS, the more protective rule applies. For example, the WPS requires that pesticide handlers "must be trained," but under the OSHA Hazard Communication Rule, pesticide handlers "must be effectively trained." In other words, in Oregon, handlers must be able to demonstrate their understanding of the training by answering questions or demonstrating that they have actually learned how to handle the chemical safely.

Remind attendees to review the rules in full at osha.oregon.gov.

Do the WPS requirements apply to you?

Yes, if any of the following are true:

- Pesticides (the general term for herbicides, insecticides, fungicides, miticides, etc.) have been applied or a restricted-entry interval (REI) has been in effect within the last 30 days at your establishment.
- 2. The pesticide applied has an "Agricultural Use Requirements" box on the label
- You employ workers to perform hand-labor on an agricultural establishment, including any farm, forest operation, or nursery engaged in the outdoor or enclosed space production of agricultural plants, and/ or pesticide handlers on an agricultural

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

The 2015 WPS rule uses the term "greenhouse space" to refer to production of agricultural plants indoors or in a structure or space that is covered in whole or part by any nonporous covering, and that's large enough to permit a person to enter. This typically includes greenhouses and hoop houses. We will use this term in training materials.

To learn more about WPS regulations, visit pesticideresources.org/wps/just-for-you/agricultural-employers/.

The Worker Protection Standard does not apply to fertilizer applications.

Note: Go through all of the points first.

Return to No. 1 and remind the audience that the requirements of the WPS apply only within this time frame.

Example: A Christmas tree farmer applies fungicides with a 24-hour REI in February or March. Workers don't enter the fields to trim the trees (into the classic cone shapes) until May or June. In this case, the WPS requirements that pertain to workers don't apply because there were no workers in the Christmas tree fields within 30 days of the application or the REI.

However, the requirements for handlers of the pesticide product do apply, and the OSHA Hazard Communication rules apply to everyone because there are no time limits for hazard communication. The workers have a potential for exposure to pesticide residue, so the safety data sheets for the products used on the crop where they are working must be available to them the **entire** growing season.

Do WPS requirements not apply to you?

If you use pesticides in the following circumstances, the requirements **do not** apply:

- For mosquito abatement, or similar wide-area public pest control programs sponsored by government agencies
- On livestock or other animals
- On plants grown for purposes other than for commercial or research purposes, such as in habitations and home fruit and vegetable gardens
- Landscaping plants in ornamental gardens, parks, and public or private lawns and golf courses

- By injection directly into agricultural plants (direct injection does not include "hack and squirt," chemigation, soil incorporation, or soil injection)
- For vegetation control in rights-of-way, and other non-crop areas, pastures, and rangeland
- As attractants or repellents in traps
- On the harvested portions of agricultural plants or on harvested timber

It should be clear from evaluating the areas in which the WPS does not apply that the focus of the WPS is to protect agricultural workers and handlers in crop areas.



Definitions

Workers are anyone who is:

- Employed (including self-employed) in exchange for a salary, wages, or other compensation, and
- Doing tasks directly related to the production of agricultural plants on an agricultural establishment, such as cultivating, weeding, pruning, watering, or harvesting.

Handlers are anyone who is:

- Employed (including self-employment)
 in exchange for a salary, wages, or
 other compensation by an agricultural
 establishment or a commercial pesticide
 handling establishment that uses
 pesticides in the production of agricultural
 plants, and
- 2. Doing any of the following tasks:
 - Mixing, loading, transferring, applying, or disposing of pesticides
 - Handling opened containers of pesticides; emptying, triple-rinsing, or cleaning pesticide containers according to labeling instructions; or disposing of pesticide containers that have not been cleaned
 - Acting as a flagger during an application
 - Cleaning, adjusting, handling, or repairing the parts of applicationrelated equipment that may contain pesticide residues

- Assisting with the application of pesticides, including incorporating the pesticide into the soil after the application has occurred, or dipping plant cuttings in rooting hormones if they are registered pesticides
- Entering a treated area outdoors after an application or during a soil fumigant
- Entering a greenhouse or other enclosed space after application and before the inhalation exposure level or any ventilation criteria established by WPS has been met to:
 - Operate ventilation equipment
 - Adjust or remove coverings, such as tarps used in fumigation, or
 - Check pesticide concentration levels in the air
- Performing tasks as a crop adviser:
 - During a covered pesticide application
 - During any restricted-entry interval, or
 - Before any inhalation exposure level or any ventilation criteria on the pesticide product labeling has been met

Examples:

You **are** a handler if you are loading unopened water-soluble packets into a mixing tank (because you are mixing and loading the pesticide.)

You are not a handler if you:

- Purchase pesticides and transport them unopened to an establishment
- Carry containers that have never been opened into a pesticide storage facility
- Transport containers that have never been opened to the site where they are to be mixed, loaded, or applied

Note: Safe practices must still be exercised during these nonhandling activities.

Handlers who are currently certified as applicators of restricted-use pesticide must be given all WPS handler protections, but are not required to receive the full WPS handler training; however, they must be aware of their rights and responsibilities under the WPS.

If you ask the class what crops they grow and the kind of application methods they use to apply chemicals, you will get a better idea of your audience. You may find structural pest applicators in your workshop. This workshop is endorsed by the Oregon Department of Agriculture and provides four core credit hours toward the recertification of applicator's licenses.

If people have questions about their applicator's license, refer them to the Oregon Department of Agriculture Pesticides Division:

oregon.gov/oda/programs/Pesticides/Pages/default.aspx

Informing employees – required postings and record retention

An agricultural employer must display or ensure that certain information specific to pesticide safety, application, and hazards is available in a central location on their establishment.

This information includes:

- The updated EPA WPS safety poster, or equivalent information, with current emergency contact information
- 2. Application records which include:
 - Product name, EPA registration number, and active ingredient(s)
 - Crop or site treated location and description of the treated area
 - Date, start/end times of the application, and duration of restrictedentry interval (REI)
 - A copy of the safety data sheet (SDS) for the formulated product for each WPS-labeled pesticide applied during the current crop cycle

- Also display the EPA WPS safety poster (or equivalent) where decontamination supplies are located at permanent sites, and where decontamination supplies are provided for 11 or more workers.
- 4. Allow workers and handlers unrestricted access to all of the information, which must be current and legible.
- Display the EPA WPS safety poster or equivalent information before an application takes place and for a minimum of 30 days after the REI expires.
- 6. Provide the SDS and application information within 24 hours of the application and before workers enter treated areas. This information must be provided for a minimum of 30 days after the REI expires (Oregon OSHA considers SDSs to be exposure records and has additional requirements for the retention of these records refer to OARs 437-004-0005 and 1910.1020 for more information).
- Provide the SDS and application information upon request by a worker, handler, designated representative, or medical personnel within 15 days.

While not required, you may consider using a WPS poster, a large "911" sign, and the application list (found in the appendix of this workbook) as props and post these three items on your classroom wall.

Mention that the application list requires the actual active ingredient chemical name be listed (not just the brand name of the product). People may ask why. The answer is that the active ingredient chemical name is what medical providers will need to know in an emergency.

Mention that the application list shows that the chemical application takes three hours. Three hours is only an example; the time of application will vary. Explain that the restricted-entry interval (REI) starts **after** the application of the chemical is completed — not when it begins.

Protection for both workers and handlers - a Q&A

Pesticide safety training

Employers must ensure workers are trained before performing tasks in a pesticide treated area (REI in effect within the last 30 days). Employers must also ensure handlers are trained before performing any handler activity. There is no grace period for worker or handler training.

Q: When must workers and handlers be trained?	A: Before engaging in any pesticide-related tasks.
Q: How often must workers and handlers be trained?	A: Workers and handlers must be trained annually.
Q: How do I train my workers and handlers?	A: Present training using EPA-approved materials either orally from written materials or with a video. Check the EPA website to ensure your training materials are current: epa.gov/pesticide-worker-safety
Q: Who can provide the training?	A: Trainers must be certified applicators or have completed an EPA-approved train-the-trainer program, or be designated by the state's tribal pesticide enforcement agency.
Q: What about employees who speak a different language?	A: The training must be delivered in a manner the employees can understand, and the trainer must be present and respond to questions. There are resources available in different languages at epa.gov/pesticide-worker-safety
Q: How long do I need to keep the training documentation?	A: Records must be maintained on the establishment for two years from the training date for each worker and handler required to be trained on the agricultural establishment.
Q: Where should I train my employees?	A: The training must be in a location where workers and handlers can focus on the information being presented. This means somewhere they can hear the information being presented, without noise from traffic or loud machinery. This also means the environment must be conducive to learning without environmental distractions such as extreme heat, cold or exposure to the elements.
	Separate from the pesticide safety training, employers must tell workers and handlers where to find the required safety postings (see required postings section).





Remember, handlers and certified applicators must also be given the full Hazard Communication training required in OAR 437-004-9800. Workers and handlers must complete training **before** they begin working.

If employees receive training on WPS every year, they will be in compliance with the WPS training rule.

The Hazard Communication Standard requires employees or handlers who work with chemicals be trained effectively.

Therefore, Oregon OSHA recommends that at a minimum, employers verify that employees know the potential health and physical effects of the chemicals, the PPE requirements, and what to do in the event of an emergency.

It enhances the workshop if you can show the audience an example of an EPA-approved audiovisual WPS training material for workers and/or handlers.

The two primary training requirements for workers and handlers are Hazard Communication training and WPS training. Hazard Communication training for workers must occur BEFORE any potential exposure to a hazardous chemical.

Under Hazard Communication, the timing of the pesticide application doesn't matter; as long as pesticides have been applied to the field during the current growing season, the workers must receive—at a minimum—the information in the Oregon OSHA Safe Practices Brochure, and have access to the SDSs for any chemical product to which they may be exposed, including pesticide residues.

WPS training must occur BEFORE workers step foot onto a treated field. Unlike Hazard Communication, WPS requirements apply to workers only if pesticides have been applied or an REI has been in effect within the last 30 days.

Many farms in Oregon conduct both Hazard Communication and WPS training simultaneously, usually on a day soon after they are hired and before anyone begins work in the fields.

What must training records include?

WPS training records for each worker and handler must be kept on the establishment for two years from the date of training, and must include:

- The worker's or handler's printed name and signature
- Date of the training
- Trainer's name
- Evidence of the trainer's qualifications
- Employer's name
- Information to identify which EPA-approved training materials were used for the training; EPA document number or EPA approval number
- An attendance roster of the WPS training with all of the training record information

If a worker or handler was trained at another establishment, you may use a copy of the training record. If no record is provided, you must provide WPS training and maintain the training record.

Note: WPS trainers are not required to provide each person trained with a copy. However, if the trained employee requests it, they must provide a copy. Individual training record forms or other methods of maintaining the required training information may be developed and used to meet this requirement.

Training Resources and Materials

Materials used for WPS training must be EPA approved.

For safety and health training materials specific to WPS, hazard communication, and safety & health, visit:

- osha.oregon.gov
- epa.gov
- pesticideresources.org



Training Exercise: Limited English-Speaking Workers

When formal job training takes place for those whose first language is not English, it's important to bring together a team. This is best accomplished by bringing together 3 key people: The Language Leader, the Social Leader, and the Technical Leader. Sometimes one person can fulfill two of these roles.

The Language Leader can be a worker, a foreman, a supervisor, or a professional interpreter. If the job is complex and requires multiple safety measures, it may be important to obtain the services of a professional interpreter.

Without the Language Leader as a member of the training team, communication will likely be limited to pictures and hand signs.

The Social Leader is usually one of the workers. This person is often recognized as the one who makes the important group decisions or who influences others.

Without the Social Leader as a member of the training team, the group may not trust what is being communicated. If the Social Leader is excluded from the training team and he or she and the Language Leader don't trust each other, the training session could be undermined.

The Technical Leader can be the owner, the foreman, the supervisor, or the person with the most experience. The Technical Leader must know how to do the job well and be able to do it safely. Without the Technical Leader as a member of the training team, the best and safest way to do the job will not be communicated.

First, decide on three volunteers for these roles:

- Language Leader Bilingual person with good speaking skills.
- **Social Leader** A person who is viewed as a leader by the group.
- Technical Leader The person with the best job and safety-related knowledge (usually the most experienced).

These 3 leaders must:

- Demonstrate what the workers are expected to do—and how to do it safely
- Use props to illustrate what to do
- Ask for volunteers to reenact the training to show comprehension

Use this space to brainstorm sketches.

Note: These three people must demonstrate what workers are expected to do and how they should accomplish the task safely.

Trainers of workers and handlers should use props, demonstrate, and then ask for volunteers to show and repeat the training.

Trainers should be certain that all the workers know how to do the job safely.



Decontamination supplies

Employers must establish accessible decontamination supplies located together within 1/4 mile of all workers when required (see ORS 170-411) and for handlers (see ORS 170.411 and 170.509) at the mix site. Supplies must include:

- 1 gallon of water per worker and 3 gallons of water per handler for full body wash at the beginning of each work period for routine and emergency decontamination
- Soap and single-use towels (Note: hand sanitizers and wet towelettes do not meet this requirement)
- A clean coverall (or other clean change of clothes) for handlers

Handlers must be provided with decontamination supplies where PPE is removed at the end of a task.

Do not put worker decontamination sites in areas being treated or currently under an REI. If the decontamination supplies must be in the treated area for handlers because of travel distance, place the supplies in a closed container that is washable.

Provide handlers with decontamination supplies at each mixing and loading site.

When pesticides carry a "DANGER" or "DANGER POISON" signal word, employers must also provide emergency eyewash where pesticides are mixed, loaded, and applied. Eyewash must be capable of providing a 15-minute continuous flow, with handsfree operation, and able to flush both eyes at the same time.

One quarter mile can be described by a person walking at a leisurely pace for 5 minutes in a farming field. There must be decontamination supplies available within this radius. Because this is also the distance within which the required Field Sanitation are required Rule (unisex toilet for every 20 employees, handwashing water, soap, disposable towels, drinking water with disposable cups, and a trash can) some employers also use these sites for decontamination supplies.

For water to be "safe" it must be able to meet the Oregon Health Division potability standards.

Ice is not generally recommend to keep water cool because it introduces a potential contaminant. Fill insulated coolers with cool water and, if possible, keep them in the shade.

How much water should be on hand? Employers must determine the day's water needs for drinking, routine washing, and decontamination depending on number of workers, the day's temperature, and the type of work being done.

Division 4 requires employers to provide employees with an emergency eyewash, shower, or both to decontaminate themselves when:

- A) Employees use a chemical substance that can cause corrosion or permanent tissue damage to the eyes or when areas of the body may be exposed to quantities of materials that are either corrosive or toxic by skin absorption.
- (B) Employees handle pesticide products labeled Danger or Danger/Poison, and with a first-aid section on the label that requires rinsing for 15-20 minutes for eye or skin exposure.

The Worker Protection Standard also requires handlers to have a one pint of eye flush bottle available during applications for splashes of dilute pesticides into their eyes.



Employer information exchange

Before any application, commercial pesticide handler employers must make sure the owner/ operator of an agricultural establishment where a pesticide will be applied is aware of:

- The location and description of the area to be treated
- The date, estimated start time, and estimated end time of the application
- The product name, EPA registration number, active ingredients, and REI
- Whether the product label requires both oral warnings and treated area posting
- All other safety requirements on labeling for workers or other people

Employers (owners/operators of an agricultural establishment) must pass this information along to their employees and also make sure any commercial pesticide handler employer they hire is aware of:

- Specific location and description of any treated areas at their workplace where an REI is in effect within a 1/4 mile walk
- Any restrictions on entering those designated areas

The commercial pesticide employer must pass this information along to the handler they employ to do the work.

When the commercial handler is the one who has possession of the label and the Safety Data Sheets (SDS), that person must provide the information required at the host employer's central posting location.

The commercial handler should have all the SDS, which the employer also needs to have available to workers.

The grower should have possession of the label and the SDS if the grower is supplying the pesticide being used.

Emergency assistance – protection for workers and handlers

What do you do if you suspect an employee has been exposed to pesticides?

If there is reason to believe a worker or handler has been exposed to pesticides, during or within the previous 72 hours of their employment at your worksite, and may need emergency medical treatment, employers must do the following:

- 1. Promptly make transportation available to an appropriate emergency treatment facility.
- 2. Promptly provide information related to each pesticide product to which the person may

have been exposed to the treating medical personnel.

This information includes:

- Safety Data Sheets
- Product name
- EPA registration number
- Active ingredients
- All first-aid and medical information from the label
- Description of how the pesticide was used
- The circumstances that could have resulted in exposure to the pesticide

Resources for labels and Safety Data Sheets:

- Crop Data Management Label Database
- Oregon Dept of Agriculture Pesticide Product Search
- WSU Pesticide Information Center
 Database

In remote areas, it may be necessary for the employer to provide transportation to a point where the sick/injured employee can meet the ambulance.

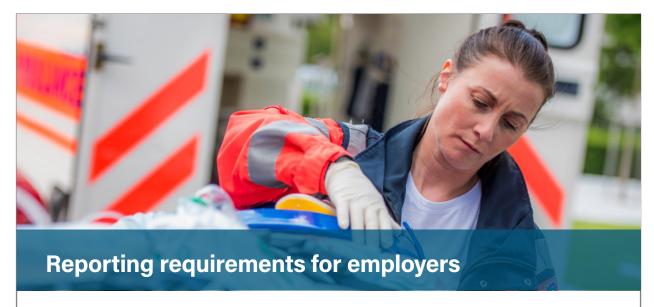
Employers should contact their local emergency services provider to discuss these types of plans based on the emergencies they are likely to encounter.

Point out that the "product name, EPA registration number, active ingredient(s)" can be readily obtained from the Central Posting Location.

THIS IS THE END OF THE SECTION OF THE RULE THAT COVERS BOTH WORKERS AND HANDLERS.

THE NEXT SECTION COVERS ADDITIONAL PROTECTION FOR WORKERS.

Reporting safety and health issues to Oregon OSHA



All employers are required to report:

Within 8 hours:

 All work-related fatalities and catastrophes

Within 24 hours:

Any work-related:

- Inpatient hospitalization
- Amputation or avulsion
- Loss of an eye

How to report an incident:

Call 800-922-2689 (toll-free)

or call your nearest Oregon OSHA office:

Bend 541-388-6066

Pendleton 541-276-9175

Eugene 541-686-7562

Portland 503-229-5910

Medford 541-776-6030

Salem 503-378-3274

A catastrophe is defined as two or more fatalities or three or more employees hospitalized from the same event. Fatalities and certain injuries are investigated by Oregon OSHA.

Take our <u>online class</u> to better understand reporting rules in Oregon.

Agricultural employers: Restrictions during application

During pesticide applications, keep workers and everyone other than correctly trained and equipped handlers out of the treated area (for all types of applications) and out of:

- The application exclusion zone (AEZ) for outdoor production, or
- 2. A specific area that varies by the type of application until the ventilation criteria are met for enclosed space production.

Restricted Entry Intervals (REIs)

Do not direct or allow any worker to enter or remain in the treated area until the REI has expired and all posted warning signs are removed or covered.

- Always verbally warn workers and post notices at treated areas
- Post all enclosed space (greenhouse) applications on the entrance of the space if the REI is greater than four hours
- Tell workers which method is in effect
- If it becomes necessary for employees to enter prior to the REI expiring, you must follow all instructions regarding Early Entry on the pesticide label.



FUINIGE	<u>ANT IN USE</u>
APPLICATION START DATE:	APPLICATION START TIME:
APPLICATION END DATE:	APPLICATION END TIME:
DO NOT ENTER UNTIL (DATE/TIME):	
ACTIVE INGREDIENT IN PRODUCT:	
APPLICATOR NAME:	
ADDRESS AND PHONE:	



Assigned Protection Factors

Federal OSHA has developed assigned protection factors (APF) to assist you in deciding which respirator is appropriate for the airborne hazards to which employees are exposed. Multiply the APF numbers in the table below by the PELs of the chemicals of concern, and that will tell you the maximum exposure levels the respirators can protect against.

The half-mask category includes filtering facepieces.

For helmets and hoods, you can only use the factor of 1,000 when the manufacturer certifies that it performs at that level. Otherwise, you can only use the factor of 25. None of these fit factors apply to escape respirators.

Type of respirator	Quarter mask	Half mask	Full facepiece	Helmet/ hood	Loose-fitting facepiece
1. Air-purifying respirator	5	10	50	_	_
Powered air-purifying respirator (PAPR)	_	50	1,000	25/1,000	25
Supplied-air respirator (SAR) or airline respirator					
Demand mode	_	10	50	_	_
Continuous flow mode	_	50	1,000	25	25
 Pressure-demand or other positive pressure modes 	_	50	1,000	_	_
Self-contained breathing apparatus (SCBA)					
Demand mode	_	10	50	50	_
 Pressure-demand or other positive pressure modes (e.g., open/ closed circuit) 	_	_	10,000	10,000	_



Application Exclusion Zone (AEZ)

What is the AEZ?

The AEZ means the area surrounding the application equipment that must be free of all persons other than appropriately trained and equipped handlers during pesticide applications. Workers are required to be informed of all pesticide applications that will be made within 1/4 mile of where they will be working or passing by on foot.

The handler performing the application must immediately suspend a pesticide application

if any worker or other person, other than an appropriately trained and equipped handler involved in the application, is in the AEZ.

Does the AEZ effect how I train my workers and handlers?

Yes, you must train your workers to be aware of restricted-entry interval and AEZs.

Does the AEZ change how I communicate with workers?

You must plan where you will have your workers in relation to where you need to spray to avoid having workers within the AEZ.

Does this apply to you?

Do you have agricultural labor housing (ALH) or work-related structures within the AEZ? If YES, then it applies. If no, it doesn't. Some items only apply to ALH.

The agricultural employer must ensure that prior to pesticide application, any enclosed agriculture structures (labor housing or work-related structures) located within the AEZ and that are used at any time by employees and other occupants must have all of the following:

- A) All doors and windows closed
- B) Any air intake devices or mechanisms turned off
- Provisions to protect or store personal or household items that are not located in an enclosed agricultural structure
- A closeable storage for shoes/boots to prevent tracking of pesticides into the structures where people live or reside

Employers must provide the following information in a manner that is easy to understand and effectively conveys the information needed prior to the pesticide

application, to occupants of an enclosed agricultural structure in the AEZ:

- Instructions on closing windows and doors to minimize exposure to outside air regardless of whether they are staying inside the enclosed agricultural structure or evacuating during nearby pesticide applications
- Instructions on how to close potential airintakes and any other measures to minimize exposure to outside air during nearby pesticide applications
- The start and stop times for remaining inside the enclosed agricultural structures and how to determine when the application equipment is in range
- Instructions as to whether people can, as appropriate, evacuate or stay in an enclosed agricultural structure, how to maintain protective measures, and how long they must remain outside the AEZ
- Instructions on how to protect personal or household items in the AEZ from potential contamination
- Instructions on how to report pesticide residue or deposit on enclosed agricultural structures, personal, or household items in AEZ

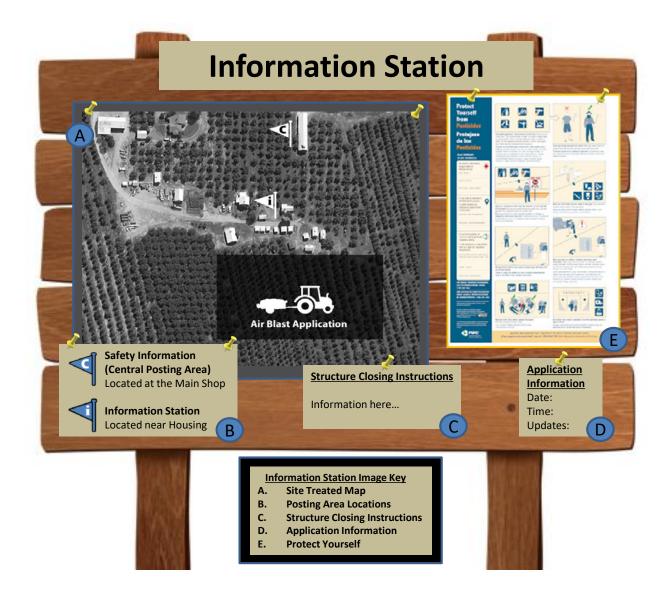
Agricultural employer requirements

Employer requirements — Oregon-specific Worker Protection Standard: ALH only

Employers must provide information and ensure that all adult occupants of agriculture labor housing within the AEZ have access to all of the following:

 An information station located in close proximity to agriculture labor housing that contains information on pending

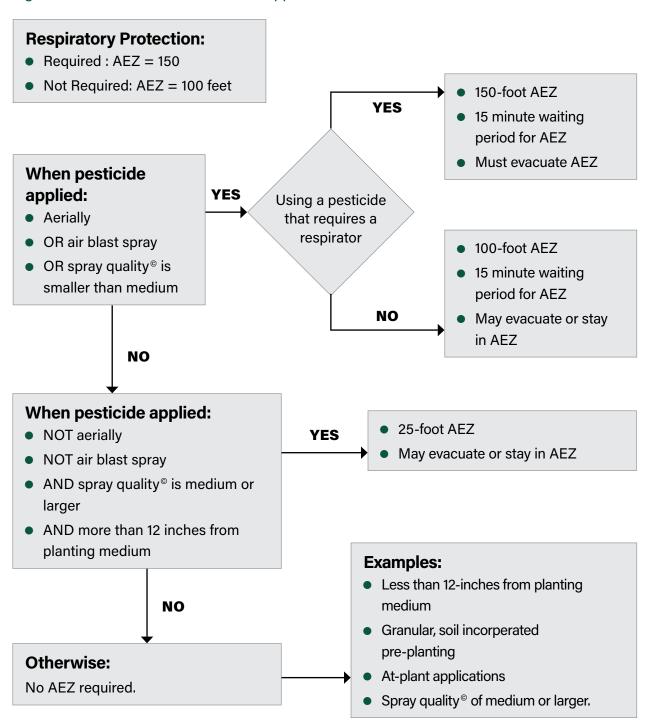
- applications, with a means of alerting occupants to changing information
- Information on how to prevent and reduce pesticide exposure
- Information about the location of the pesticide safety information required by section 170.311(a). If anyone other than a trained and protected handler exits an enclosed agricultural structure and enters the AEZ, the handler must suspend the pesticide application per section 170.505(b).



Distance requirements

The AEZ is the zone around the application equipment when applied aerially or through an air blast sprayer and varies depending on if the handler is required to wear a respirator during the application. The AEZ is designed to offer an extra margin of safety and lasts 15 minutes after the equipment moves past.

Figure 1 - Worker Protection Standard, Application Exclusion Zone Decision Matrix



What are the AEZ Requirements for the following examples?

1.	Scenario: The applicator is using an air blast sprayer, with a small spray
	quality, and a respirator.

AEZ = 150 feet

2. Scenario: The label does not require a respirator, and is being applied with an air blast sprayer.

AEZ = 100 feet

3. Scenario: Using a boom sprayer greater than 12 inches above the planting medium.

AEZ = 25 feet

4. Scenario: Spot spraying with a backpack sprayer.

AEZ = 25 feet, or AEZ = 0 feet

5. Scenario: Dipping cuttings in rooting hormone.

AEZ = 0 feet

Application Notification

Additional Protection for Workers

What do I need to do to notify my workers about a pesticide application?

You must verbally tell workers and post in the treated areas if required by the pesticide labelling.

Unless the pesticide label specifies otherwise, post warning signs if the REI is greater than:

- 48 hours for outdoor production or
- Four hours for enclosed space production (greenhouses)

For all other applications, either verbally warn workers or post warning signs.

When two or more pesticides are applied to a treated area at the same time, the REI posted is the longest one of all used pesticides.



What does a verbal warning mean?

Before each application, tell workers who are on the establishment (in a manner they can understand):

- The location and description of the treated area and the AEZ
- The date and times entry is restricted
- AEZ, REI, and not to enter during the REI

Once the REI is over, you must remove or cover all no-entry warning signs before allowing workers into the impacted area.

Workers who enter the establishment after the application starts must receive the same warning at the start of their work period.

What about warning the public about restricted entry?

The agricultural employers' responsibilities with respect to the REI focus on keeping workers out of the treated area. Handlers must follow the pesticide label: Do not allow entry into the treated area until sprays have dried and do not apply the product in a way that will contact workers or other persons, either directly or through drift. The label is the law.

Additional protection for handlers

Application restrictions and monitoring

- Do not allow handlers to apply a pesticide so as to contact, directly or through drift, anyone other than properly trained and PPE-equipped handlers.
- Handlers must suspend applications when anyone other than appropriately trained and equipped handlers enter the AEZ.
- Make sight or voice contact at least every 2 hours with anyone handling pesticides labeled with a skull and crossbones.
- Make sure a trained handler equipped with labeling-specific PPE maintains constant voice or visual contact with any handler in an enclosed space who is doing fumigant related tasks, such as application or monitoring air levels.

Specific instructions for handlers:

- Before handlers do any handling tasks (mix, load, apply, etc.), inform them in a manner they can understand, of all pesticide labeling instructions for safe use.
- Keep pesticide labeling accessible to each handler during entire handling task.

Equipment

Equipment Safety for handlers:

- Inspect pesticide handling equipment before each use, and repair or replace as needed.
- Allow only appropriately trained and equipped handlers to repair, clean, or adjust pesticide equipment that contains pesticides or pesticide residues.

Personal Protective Equipment (PPE):

Appropriate PPE must be provided to the worker, and be:

- Clean and in operating condition
- Worn and used correctly
- Inspected before each day of use
- Repaired or replaced as needed

When a respirator is required by the product labeling, provide handlers with:

- A medical evaluation to ensure the handler is physically able to wear the respirator
- Annual training in respirator use
- Annual fit test to ensure the respirator fits correctly

At minimum, keep records of the most recent medical evaluation, fit test, and training at the establishment.

Remember to take steps to avoid heat-related illness when labeling requires the use of PPE for a handler activity.

Definitions for the Application Exclusion Zone (AEZ)

Application Exclusion Zone (AEZ)

The AEZ means the area surrounding the application equipment that must be free of all persons other than appropriately trained and equipped handlers during pesticide applications.

The handler performing the application must immediately suspend a pesticide application if any worker or other person, other than an appropriately trained and equipped handler involved in the application, is in the AEZ.

Treated area

The area where a pesticide is being directed and/or deposited during an application. After the application is complete, the treated area is subject to the labeling-specified restricted-entry interval (REI) and the post-application entry restrictions specified in Sec. 170.407 of the Worker Protection Standard (WPS).

Enclosed agricultural structure

A fully enclosed space (with walls, ceilings, and floors that minimize the entry of outside air when doors, windows, and mechanical air intakes are closed) with an interior area that shelters occupants from dermal exposure to pesticide spray drift.

Spray quality

Considers several factors including the nozzle design, system pressure, and speed of the application equipment. The eight spray quality categories are referenced in nozzle charts:

Category: Spray quality	Symbol	Color code
Extremely fine	XF	Purple
Very fine	VF	Red
Fine	F	Orange
Medium	М	Yellow
Coarse	С	Blue
Very coarse	VC	Green
Extremely coarse	хс	White
Ultra coarse	UC	Black

Where it says the respirators must fit correctly, this means fit testing as described in Division 4.

OAR 437-004-1041: "Instruction of supervisors and workers* must be by competent persons. Include an opportunity to handle the respirator, have it fitted properly, test its face-piece-to-face seal, wear it in normal air for a long familiarity period and finally, to wear it in a test environment."

Note: Although this rule says "workers" it is referring to the respirator user, who is typically a "handler."

OAR 437-004-1041(5)(a): "You must provide medical evaluations to determine each worker's ability to use a respirator without causing adverse health effects. Do this before the worker's fit test and before they perform any work requiring respirator use. The employer may discontinue an employee's medical evaluations when the employee no longer uses a respirator."

Note: If the employee refuses the examination, that person is not permitted to work in jobs that require the use of a respirator.



For more information on the Application Exclusion Zone (AEZ) refer to "The Air You Breathe"

WPS glove requirements for workers, handlers, and pilots

- All agricultural pesticide handlers and early entry workers covered by the Worker Protection Standard are permitted to wear separate glove liners beneath chemicalresistant gloves.
- Agricultural pilots do not have to wear chemical-resistant gloves when entering or exiting aircraft.
- Handlers and early entry workers may choose whether to wear the liners.
- The liners may not be longer than the chemical-resistant glove, and they may not extend outside the glove.
- The liners must be disposed of after 10 hours of use, or whenever the liners become contaminated.
- Lined or flocked gloves, where the lining is attached to the inside of the chemicalresistant outer glove, remain unacceptable.
- Regulatory action was taken to reduce the discomfort of unlined chemical resistant gloves, especially during hot or cold periods.

Additional protection for handlers

You must provide handlers a clean area for:

- Storing personal clothing not in use
- Putting on PPE at the start of a task
- Taking off PPE at the end of a task

Do not allow used PPE to be worn home or taken home.

Personal protective equipment (PPE)

protects you from hazards in your workplace such as chemicals, electricity, fumes, sharp objects, and noise.

PPE can protect different parts of your body.

Care of personal protective equipment (PPE)

You must ensure PPE is properly cared for by doing the following:

- Store and wash used PPE separately from other clothing and laundry
- If PPE will be reused, clean it before each day of reuse, according to the instructions from the PPE manufacturerunless the pesticide labeling specifies other requirements. If there are no other instructions, wash in detergent and hot water.
- Dry the clean PPE before storing, or hang to dry.
- Store clean PPE away from other clothing and away from pesticide areas.
- Store respirators in clean, sealable plastic bags or plastic totes.
- Store used respirator cartridges in a sealed plastic bag separate from the respirator.
- Do not hang respirators from their straps during storage.

Replace respirator particulate filters when:

- Breathing becomes difficult
- Filter is damaged or torn

Replace vapor-removing cartridges/canisters when any of the following conditions are met:

- Odor, taste, and/or irritation is noticed
- The respirator label or pesticide label requires it (whichever is shorter)
- Breathing resistance becomes excessive
- After eight total hours of use, in the absence of any other instructions or indications of service life

Many workers wear baseball caps and other types of hats. It's rare that these items ever get washed. Let students know that baseball caps and hats are not considered PPE because they provide no protection from chemicals unless they are specifically designed and used for that purpose.

Encourage students to wash caps and hats regularly, and to use waterproof head gear when exposed to overhead sprays.

Disposal of PPE

- Discard, do not clean, coveralls and other absorbent materials that are heavily contaminated with pesticide having a signal word "DANGER" or "WARNING." When discarding PPE, ensure that it is rendered unusable as apparel or burned or otherwise made unavailable for further use.
- Follow federal, state, and local laws when disposing of PPE that cannot be cleaned correctly.

Inform people who clean or launder your PPE:

- Materials may be contaminated with pesticides
- There are potentially harmful effects of exposure to pesticides
- How to clean PPE correctly and protect themselves
- Decontamination procedures to follow after handling contaminated PPE

Additional agricultural employer duties:

Before allowing persons not directly employed by the establishment--such as an offsite mechanic--to clean, repair, or adjust pesticide application equipment, provide the following information:

- The equipment may be contaminated with pesticides.
- The potentially harmful effects of pesticide exposure.
- How to handle equipment to limit exposure to pesticides.
- How to wash themselves and/or their clothes to remove and prevent exposure to pesticide residues. Reference ORS 170.313(1)

Eight items to notice on labels covered by WPS:

1. Application restriction statement

"Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application."

Label section location: DIRECTIONS FOR USE

2. 40 CFR part 170 reference statement

"Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170."

Label location: AGRICULTURAL USE REQUIREMENTS

3. Product-type identification statement

"N-methyl carbamates, organophosphates, and fumigants must be identified as such."

Label location: Either near the product name, product type identification, or in the STATEMENT OF PRACTICAL TREATMENT or FIRST AID TREATMENT. Fumigants must be identified as part of, or close to, the product name.

4. State restrictions

"For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation."

Label location: DIRECTIONS FOR USE

5. Spanish warning statement

If the product is classified as Tox I (Danger) or Tox II (Warning), the signal word shall appear in Spanish and English followed by the statement, "Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle." (If you don't understand the label, find someone to explain it to you in detail).

DANGER = PELIGRO WARNING = AVISO Label location: Close to the product name

6. Restricted entry statement

"Do not enter or allow worker entry into treated areas during the restricted entry interval (REI)." If only one REI, it must be listed after the above statement in the Agriculture use box. If more than one REI for different crops, the REI will be associated with the directions for use for each crop and identified as such (example, 24 hour REI). Most ranges are four to 72 hours.

Label location: AGRICULTURAL USE REQUIREMENTS

7. Notification-to-workers statement

Toxicity I, for acute dermal toxicity or skin irritation, shall state: "Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas."

For any pesticide other than those for which the labeling requires both posting and verbal notification of applications and the label does not specify notification, the agricultural employer shall give notice of the application to the worker either by the posting of warning signs or verbally. The workers shall be informed which method of notification is in effect.

Label location: AGRICULTURAL USE REQUIREMENTS

8. PPE statement

These requirements are for all handlers of the product for all uses, unless the exceptions are clearly identified and are located in two locations on the label.

Label Location:

- PPE for handlers will be in HAZARDS TO HUMANS AND DOMESTIC ANIMALS.
- PPE for early entry workers will be in the AGRICULTURAL USE REQUIREMENTS, and immediately after the REI statement.

Remember: Eye protection is based on the signal word.

Take a few minutes and identify and review each of the eight key elements of the WPS on a pesticide label of your choosing.

Ask the class to find several of the elements.

Emphasize the element of PPE; Identify the two locations on the label where PPE can be found.

The first is for the applicator/ handler, and the second is in the Agriculture Use Box for early entry workers.

You should emphasize that the label is the law! If Oregon OSHA does an inspection and finds that handlers and early entry workers are not using PPE required by the label, they will be cited.

Sample label exercise

RESTRICTED USE PESTICIDE

Due to acute oral, dermal and inhalation toxicity and avian hazards.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Phorate® 20G



STOP--READ LABEL BEFORE USING KEEP OUT OF REACH OF CHILDREN



DANGER



POISON

PELIGRO

VENENO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand this label, find someone to explain it to you in detail.)

3

STATEMENT OF PRACTICAL TREATMENT ORGANOPHOSPHATE

FIRST AID TREATMENT: Call a doctor (physician), clinic, or hospital immediately. Explain that the victim has been exposed to Phorate and describe his condition.

IF BREATHING HAS STOPPED, start artificial respiration immediately and maintain until doctor sees victim.

IF SWALLOWED, call a physician or poison control center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or if available, by administering syrup of ipecac. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IN CASE OF CONTACT, immediately flush eyes or skin with plenty of water for at least 15 minutes. See doctor immediately.

Read Additional PRECAUTIONARY STATEMENTS.

EPA Reg. No. 9779-293
Manufactured For
Terra International, Inc.
P.O. Box 6000, Sioux City, Iowa 51102-6000
Riverside® Serves Agriculture. Agriculture Serves Everyone.

EPA Est. No. 34704-NE-1 NET CONTENTS LBS. 9/A07/8

Phorate® 20G

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

CAN KILL IF SWALLOWED

This product can kill you if swallowed, even in small amounts: spray mist may be fatal if swallowed

CAN KILL BY SKIN CONTACT

This product can kill you if touched by hands or spilled or splashed on skin, in eyes or on clothing (liquid goes through clothes).

CAN KILL IF BREATHED

This product can kill you if vapors or spray mist are breathed.

DO NOT SWALLOW





WORK SAFETY RULES

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Persons working with this product should have frequent blood tests of their cholinesterase levels. If the cholinesterase level falls below a critical point, no further exposure should be allowed until it has been determined by means of blood tests that the cholinesterase level has returned to normal. Before using this product, consult the National Pesticide Telecommunications Network for recommendations regarding such blood tests, poisoning management, emergency treatment, and other information regarding the toxicity of Phorate. The toll free number for the National Pesticide Telecommunications Network is 1-800-858-7378. If handled indoors provide mechanical exhaust ventilation.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See First Aid (Practical Treatment) section.

POISON SIGNS (Symptoms) Phorate is a very dangerous poison. It rapidly enters the body on contact with all skin surfaces and eyes. Exposed persons must receive prompt medical treatment or they may die. Some of the signs and symptoms of poisoning are headache, nausea, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, labored breathing, nervousness, sweating, watering, of eyes, drooling or frothing of mouth and nose, muscle spasms and coma.

Phorate® 20G

NOTE TO PHYSICIAN: Antidote - administer atropine sulfate in large doses. TWO to FOUR mg. intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is also antidotal and may be administered in conjunction with atropine. DO NOT GIVE MORPHINE OR TRANQUILIZERS. Phorate is a strong cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of the poison may occur and fatal relapses have been reported after initial improvement. VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.

Engineering Controls Statement:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

DURING AERIAL APPLICATION, HUMAN FLAGGERS ARE PROHIBITED UNLESS IN A TOTALLY ENCLOSED VEHICLE.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Phorate® 20G

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and wildlife. Birds feeding in treated areas may be killed. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Collect or incorporate granules that are spilled during loading or are visible on soil surface in turn areas. Do not contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not use this product through any type of irrigation system.

NOT FOR USE OR STORAGE IN OR AROUND THE HOME.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

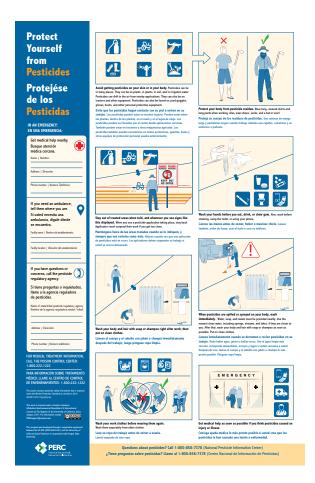
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval.

The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours. Each 48-hr. REI is increased to 72 hours in outdoor areas where average rainfall is less than 25 inches per year.

Exception: If the product is soil-injected, or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: chemical-resistant protective suit, waterproof gloves, chemical resistant footwear plus socks, protective eyewear, and chemical-resistant headgear for overhead exposure.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

Post these at a central location — either at the main farm or a field location, depending on where workers report to:



EMERGENCY INFORMATION

Ambulance	_
Hospital	_
Sheriff/Police	_
Fire Dept	_
our location	_
-irst-aid person(s)	_
Oregon OSHA Office	_

Fatalities and catastrophes must be reported to the Oregon Occupational Safety and Health Division (Oregon OSHA) within 8 hours

503-378-3272

Accidents resulting in hospitalization must be reported to your local Oregon OSHA office within 24 hours.



350 Winter St. NE, Third floor Salem, OR 97301-3882 osha.oregon.gov

440-0973 (08/24/COM)

List the pesticides that have been applied within the last 30 days or have had a restricted-entry interval in effect within the last 30 days. Provide the following information for each:

- Location of application
- Product name

- EPA registration number
- Active ingredients
- Time and date of the application
- Restricted entry interval

Example Pesticide Application Record

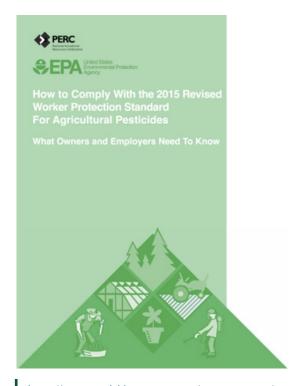
Area treated	Product name	EPA Reg. number	Common name Active ingredient	Application Month/Day/ Time	Restricted entry interval	Do not enter until: Month/Day/ Time
Pears Home Place	Dimethoate 2.67EC	34704- 489	Dimethoate	May 5th 11 a.m.	10 days	May 15th 11 a.m.
Blueberries Abilene Block	Captan 4L	19713- 644	Captan	April 11th 10:30 a.m.	48 hours	April 14th 10:30 a.m.
Grass Seed Field/ Howell Prairie	Roundup Ultra	524-475	Glyphosate	March 25th 2 p.m.	4 hours	March 25th 6 p.m.

Review the two standards with the class. Everyone should be able to name these correctly by this point.

Appendix

Throughout this course, we've referenced the <u>PERC EPA How to Comply Manual</u>, which can be found here:

All Oregon OSHA's pesticides and WPS resources can be found here: osha.oregon.gov/Pages/topics/pesticides.aspx

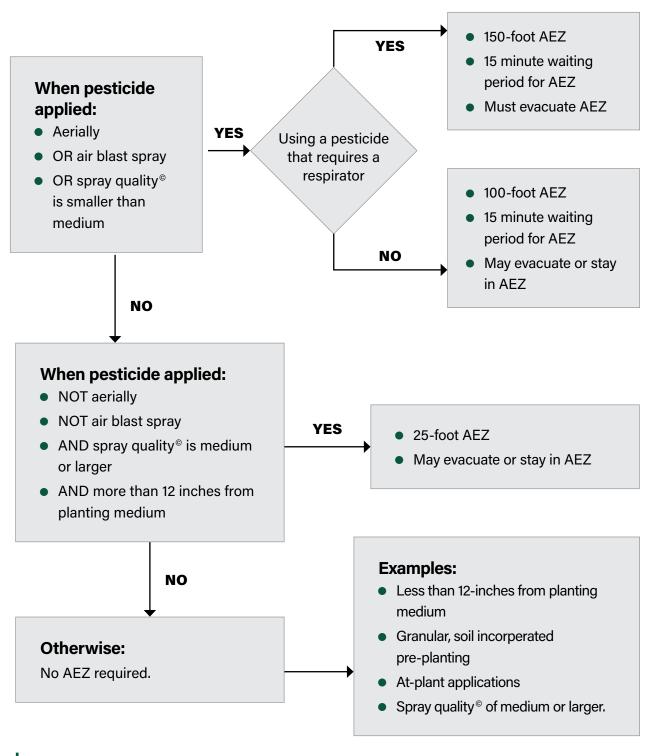


https://www.pesticideresources.org/wps-resources/ how-to-comply-with-the-2015-revised-workerprotection-standard-for-agricultural-pesticides-whatowners-and-employers-need-to-know/

Pesticide Application Record (Example)

Area treated	Product name	EPA Reg. number	Common name Active ingredient	Application Month/ Day/Time	Restricted entry interval	Do not enter until: Month/Day/ Time

Worker Protection Standard, Application Exclusion Zone Decision Matrix



https://osha.oregon.gov/OSHARules/adopted/2018/ao2-2018-ltr-WPS-AEZ.pdf

ASABE S572.1 Droplet Size Classification

The American Society of Agricultural and Biological Engineers (ASABE) developed the ASABE S572.1 standard to measure and interpret spray quality from tips.

Spray Quality*	Size of Droplets	VMD Range (Microns**)	Color Code	Retention on Difficult to Wet Leaves	Used for	Drift Potentia
Extremely Fine	Small	<60	Purple	Excellent	Exceptions	High
Very Fine		61-105	Red	Excellent	Exceptions	
Fine		106-235	Orange	Very Good	Good Cover	
Medium		236-340	Yellow	Good	Most Products	
Coarse	1	341-403	Blue	Moderate	Systemic Herbicides	1
Very Coarse		404-502	Green	Poor	Soil Herbicides	
Extremely Coarse		503-665	White	Very Poor	Liquid Fertilizer	
Ultra Coarse	Large	>665	Black	Very Poor	Liquid Fertilizer	Low

[&]quot;Always read the pesticide label to determine which spray quality is required.

ASABE S572.1 standard uses eight droplet classification categories, six of which are common for agriculture and

Very Fine Coarse Medium Very Coarse **Extremely Coarse**

Most agrochemical applications recommend a fine, medium, or coarse spray:

prays provide enhanced retention for directed spraying on the target including:

Medium

sprays are the most widely used

Coarse

sprays are used with systemic, residual, and soil-applied herbicides.

Т h

> В Е

5 2

- · Foliar-acting weed control · Contact-acting fungicides and
- insecticides

spray type.

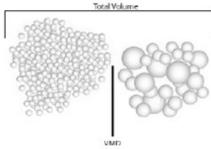
 Used by default by most applicators when spray quality is not defined by the label

Dronlet

Relative Siz

Systemic-acting fungicides, insecticides and herbicides.

A. Understanding Droplet VMD



VMD is the droplet size at which 50% of the spray volume is in droplets larger than the VMD and 50% of the volume is in droplets smaller than the VMD (adapted from Matthews 1992).

Atomization	Size (Microns)	Related to Common Objects
Fog	Up to 25	Point of a Needle (25 Microns)
Fine Mist	20-100	Human Hair (100 Microns)
Fine Drizzle	100-250	Sewing Thread (150 Microns)
Heavy Drizzle	250-500	Toothbrush Bristle (300 Microns)
Light Rain	500-800	Staple (550 Microns)
Heavy Rain	800-1000	Paper Clip (850 Microns)
Thunderstorm Rain	1000- 4000	#2 Pencil Lead (2000 Microns)

Droplet sizes are usually expressed in microns (micrometers). One micron equals one thousandth of a millimeter. Other than the effects of the specific material being sprayed, the four major factors effecting droplet size are: tip style, capacity, spraying pressure and spray pattern type. Lower spraying pressures provide larger droplet sizes, while higher spraying pressures yield smaller droplet sizes. The smallest droplet sizes are achieved by air atomizing tips. Generally speaking, the largest spray droplets are produced by wide-angle, flat hydraulic spray tips. In the hydraulic spray tip series, the smallest droplet sizes are produced by hollowcone spray tips.

https://info.sprayerdepot.com/hs-fs/hub/95784/file-32015844-pdf/docs/asabe_s572.1_droplet_size_classification.pdf

^{**}Estimated from sample reference graph in ASABE/ANSI/ASAE Standard S572.1

Notes

Oregon OSHA services

Oregon OSHA offers a wide variety of safety and health services to employers and employees:

Appeals

- **503-378-3272**
- Discusses Oregon OSHA's requirements and clarifies workplace safety or health violations.
- Discusses abatement dates and negotiates settlement agreements to resolve disputed citations.

Conferences

- ► 503-378-3272; oregon.conferences@dcbs.oregon.gov
- Hosts, co-hosts, and coordinates conferences throughout Oregon that enable employees and employers to learn and share ideas with local and nationally recognized safety and health professionals.

Consultations and Evaluations

- 503-378-3272; 800-922-2689; consult.web@dcbs.oregon.gov
- Offers no-cost, on-site safety and health assistance to help Oregon employers recognize and correct workplace safety and health problems.
- Provides consultations in the areas of safety, industrial hygiene, ergonomics, occupational safety and health programs, assistance to new businesses, the Safety and Health Achievement Recognition Program (SHARP), and the Voluntary Protection Program (VPP).

Enforcement Information

- **▶** 503-378-3272; 800-922-2689; enforce.web@dcbs.oregon.gov
- Offers pre-job conferences for mobile employers in industries such as logging and construction.
- Inspects places of employment for occupational safety and health hazards and investigates workplace complaints and accidents.
- Provides abatement assistance to employers.

Public Education and Training

- 503-947-7443; 888-292-5247, Option 2; ed.web@dcbs.oregon.gov
- Provides workshops and materials covering management of basic safety and health programs, safety committees, accident investigation, technical topics, and job safety analysis.

Standards and Technical Resources

- 503-378-3272; 800-922-2689; tech.web@dcbs.oregon.gov
- Develops, interprets, and gives technical advice on Oregon OSHA's safety and health rules.
- Publishes safe-practices guides, pamphlets, and other materials for employers and employees.
- Manages the Oregon OSHA Resource Center, which offers safety videos, books, periodicals, and research assistance for employers and employees.

Need more information? Call your nearest Oregon OSHA office.

Salem Central Office

350 Winter St. NE Salem, OR 97301-3882

Phone: 503-378-3272 Toll-free: 800-922-2689 Fax: 503-947-7461

en Español: 800-843-8086 Website: osha.oregon.gov

Bend

Red Oaks Square 1230 NE Third St., Suite A-115 Bend, OR 97701-4374 541-388-6066 Consultation: 541-388-6068

Eugene

1500 Valley River Drive, Suite 150 Eugene, OR 97401-4643 541-686-7562

Consultation: 541-686-7913

Medford

1840 Barnett Road, Suite D Medford, OR 97504-8293 541-776-6030 Consultation: 541-776-6016

Pendleton

750 SE Emigrant Ave., Suite 131 Pendleton, OR 97801 541-276-9175 Consultation: 541-276-2353

Portland

Durham Plaza 16760 SW Upper Boones Ferry Road, Suite 200 Tigard, OR 97224-7696 503-229-5910

Consultation: 503-229-6193

Salem

1340 Tandem Ave. NE, Suite 160 Salem, OR 97301-8080 503-378-3274

Consultation: 503-373-7819

Salem Central Office

350 Winter St. NE Salem, OR 97301-3882

Phone: 503-378-3272 **Toll-free**: 800-922-2689

Fax: 503-947-7461 **en Español**: 800-843-8086



