

Worker Protection Standard for Agricultural Pesticides

Clyde L. Ogg, Extension Educator
Larry D. Schulze, Pesticide Education Specialist

This NebGuide describes the Worker Protection Standard, helps you determine if you are covered or exempt from it, and provides information on how to comply.

The U.S. Environmental Protection Agency (EPA) issued the Worker Protection Standard (WPS) to protect employees working on agricultural establishments from exposure to agricultural pesticides (general and restricted use). Similar to OSHA, the standard strives to provide employees a safe workplace, with the obligation for safety falling on the employer. The standard requires employers to protect two types of agricultural employees: *agricultural workers* and *pesticide handlers* (see definitions below). The standard is considered to be part of the pesticide label and is enforceable when a pesticide with a label reference to WPS is used to produce an agricultural crop or commodity.

An EPA manual, *How to Comply With the Worker Protection Standard for Agricultural Pesticides—What Employers Need to Know* provides detailed information about WPS. Employers will find this manual to be a valuable resource for compliance. The manual can be acquired in paperback or CD format from the Nebraska Department of Agriculture (NDA) at no cost, or viewed online at www.epa.gov/agriculture/htc.html.

Understanding key terms used in the WPS is important for compliance. Here are definitions for some key terms:

- **Agricultural establishment** – any farm (including vineyard), forest, nursery, sodfarm, or greenhouse.
- **Agricultural owner** – any person who possesses or has interest (fee, leasehold, rental, or other) in an agricultural establishment.
- **Agricultural plants** – crops or plants grown or maintained for commercial or research purposes. Examples: food, feed, or fiber plants, trees, turf grass, flowers, shrubs, ornamentals, and seedlings. Horticultural plants grown for future transplant are included.
- **Agricultural workers** – those who perform tasks related to the cultivation (pruning, rouging, detasseling, etc.) and harvesting of plants or crops on agricultural establishments who may work in areas where pesticide residues are present.

- **Pesticide handlers** – those who mix, load, and apply agricultural pesticides or clean or repair pesticide application equipment, etc., who may have direct contact with concentrated pesticides or tank mixes.
- **Crop advisors** – those who assess pest numbers or damage, pesticide distribution, or the status, condition, or requirements of agricultural plants. Includes crop consultants, crop scouts, and integrated pest management (IPM) monitors.
- **Immediate family** – includes spouse, children, step children, foster children, parents, stepparents, foster parents, brothers, and sisters. It does not include nieces and nephews.

WPS labeling

All pesticide products affected by the WPS carry a statement in the *Agricultural Use Requirements* section on the label. This statement will inform users that they must comply with all WPS provisions. If you are using a pesticide product with WPS labeling to produce an agricultural commodity, the WPS requirements must be followed. WPS requirements are not in effect if an agricultural pesticide is used as labeled for a nonagricultural use.

Who are the Affected Employers?

- Managers or owners of an agricultural establishment
- Labor contractors for an agricultural establishment
- Custom pesticide applicators
- Crop consultants hired by the owner of an agricultural establishment

Most provisions of the Worker Protection Standard are protections that employers must provide to their employees and, in some instances, to themselves. The task being performed will determine whether or not an employee is a worker or handler, and will determine the amount of protection the employer must provide. Owners of agricultural establishments and their immediate families are exempt from many, but not all, of the WPS requirements (refer to the *How to Comply With the Worker Protection Standard for Agricultural Pesticides - What Employers Need to Know* manual, listed in the Resources section, for details).

Requirements of Agricultural Owners, Their Families and Persons Hired to Work on the Agricultural Establishment

1. Wear appropriate personal protective equipment (PPE)

The personal protective equipment and other work attire required for each pesticide are listed on the pesticide label for the tasks being performed. The required equipment for a specific compound is listed under the *Hazards to Humans* section on the label. These requirements may be different for applicators and mixer/handlers. If an applicator is using a closed system or working in an enclosed cab, some protective equipment exceptions are allowed unless expressly prohibited by the product labeling. Required equipment must be within the cab, however, to protect the person if the rig were to break down. If in doubt, use the PPE recommended on the label. Refer to the *How to Comply* manual for additional details.

2. Restrictions during pesticide applications

During the application of pesticides, handlers and/or their employers must make sure that:

- All label requirements are followed.
- Pesticides are applied so that they do not contact anyone either directly or through drift.
- Everyone is kept out of treated areas during the treatment.

In most cases, handlers who have been trained and wear the appropriate personal protective equipment are allowed to be in treated areas.

3. Restrictions during restricted entry intervals (REIs)

The standard has established specific restricted re-entry intervals for all pesticides covered by the standard. The restricted entry interval (REI) is the time immediately following a pesticide application when entry into a treated area is restricted. The amount of time required is based on the toxicity of the compound and the tasks involved during the product's use. In most cases, REIs are in 4, 12, 24, 48 and 72 hour intervals. When the pesticide formulation or application is a mixture of active ingredients, the REIs are based on the active ingredient that requires the longest restricted re-entry period. During the REI, do not enter or allow any members of your family or hired handlers or workers to enter a treated area or contact anything treated with the pesticides to which the interval applies.

Basic Duties of Employers of Pesticide Handlers and Agricultural Workers

Some of the WPS requirements for employers are the same whether the employees are workers or handlers. The following are descriptions of some requirements:

Information at a central location. Employers must provide current and specific information about the pesticides being applied for the benefit of their employees (handlers and workers). The following information must be displayed and made accessible at a central location on the agricultural establishment where it can be seen and read easily:

- WPS Safety Poster
- Name, address, and telephone number of the nearest emergency medical facility.
- Facts about each pesticide application, including:
 - 1) Product name
 - 2) EPA registration number and active ingredients
 - 3) Location and description of the treated areas

- 4) Time and date of the application
- 5) Restricted-entry interval (REI) for the pesticide

Employers must tell workers and handlers where the information is posted and allow them access. Posted information must be kept legible and current.

Pesticide safety training. Unless handlers and workers are state-certified pesticide applicators or possess a valid EPA-approved training validation card, the employer must provide safety training before employees begin work. Training may be conducted by a certified pesticide applicator or by someone who has completed a train-the-trainer program. The training must be conducted in a manner and language that the employees can understand using EPA-approved training materials or the equivalent. The trainer also must be on hand and able to answer questions after the training. The NDA stocks a variety of WPS training materials for both workers and handlers that are offered at no cost to agricultural employers.

Decontamination supplies. Employers must provide supplies so that workers and handlers can wash pesticides or their residues from their hands and body. Accessible decontamination supplies are to be located within one-fourth mile of all workers and handlers and must include:

- enough water for routine and emergency whole-body washing and for eye flushing (about 1 gallon for each worker and 3 gallons for each handler);
- plenty of soap and single-use towels; and
- a clean change of coveralls for use by each handler (this is not required for workers).

Water for emergency eye flushes must be immediately available if the pesticide label calls for protective eye wear. Employers also must provide water that is safe and cool enough for washing, eye flushing, and drinking. Employers may not use tank-stored water that is also used for mixing or diluting pesticides.

Employers must provide handlers with the previously mentioned supplies at each mixing site and at the place where protective equipment is removed at the end of a task. Worker decontamination supplies may not be in areas being treated or under an REI. Handler decontamination supplies may be in the treated area in which the handler is working, as long as the materials are stored in enclosed containers.

Nurseries and greenhouses. There are many special requirements for greenhouse and nursery owners or operators. These include special application restrictions, ventilation criteria, early entry restrictions, and additional handler protection. Consult the EPA *How to Comply* manual and the pesticide label for specifics.

Additional Duties for Worker Employers

Restrictions during application. Employers must prohibit worker entry into treated areas and only allow entry by appropriately trained and equipped handlers. See the EPA *How to Comply* manual for special restrictions for employees who work in nurseries or greenhouses.

Restrictions after applications. Employers must notify workers about pesticide applications on the establishment and the product REI if workers will be on or within a quarter mile of the treated area. In most cases, employers may choose between oral warnings or posted warning signs concerning the REI. In either case, employers must tell workers which warning method is in effect. Some pesticide labels may require both oral and posted sign warnings. All greenhouse applications must be posted.

Posted warning signs. Warning signs must be:

- Posted 24 hours or less before application and removed within three days after the end of the REI.
- Posted so they can be seen at all normal entrances to treated areas, including borders adjacent to labor camps.
- If no employees come within a quarter mile of the treated site, *no posting is required*.

Oral Warnings. Oral warnings must be delivered in a manner understood by workers, using an interpreter if necessary. Oral warnings must contain the following information:

- Location and description of the treated area.
- The length of the REI.
- Specific directions to not enter during the REI.

Additional Duties for Employers of Handlers

Specific training for handlers. Before they perform any handling tasks, employers must inform handlers of all pesticide labeling instructions for safe use. In addition, employers must keep pesticide labels accessible to each handler during the entire handling task and inform handlers of how to use any assigned handling equipment safely before they use it.

Safeguarding handlers. When commercial handlers will be on an agricultural establishment, inform them beforehand of areas on the establishment where pesticides will be applied or where an REI will be in effect and restrictions on entering those areas.

Equipment safety. Employers of handlers must make sure that equipment used for mixing, loading, transferring or applying pesticides is inspected and repaired or replaced as needed. Only appropriately trained and equipped handlers may repair, clean or adjust pesticide handling equipment that contains pesticides or pesticide residues.

Personal protective equipment. Employers must provide handlers with the personal protective equipment required by the pesticide labeling for each task. They also must provide handlers with a pesticide-free work area for storing personal clothing, and changing into and out of personal protective equipment for each task. They must not allow any handler to wear or take home any used personal protective equipment. They must make sure PPE is worn and used correctly, and make sure respirators fit correctly.

Employers must take steps to avoid heat illness. Employers must take necessary steps to prevent heat illness while PPE is being worn. Train handlers to recognize, prevent, and treat heat illness. The key elements to keep in mind:

- Drink enough water to replace body fluid lost through sweating.
- Gradually adjust to working in the heat.
- Take periodic breaks in a shaded or air conditioned area whenever possible.
- Supervisor should monitor environmental conditions and workers.

More details about heat illness are available from the EPA publication, *A Guide to Heat Stress in Agriculture* (EPA 750-B-92-001).

PPE cleaning and maintenance. The employer must make sure that:

- PPE to be reused is cleaned, inspected, and repaired before each use or replaced as needed.
- PPE that is non-reusable or cannot be cleaned is disposed of properly.
- PPE should be washed, hung to dry, and stored separately from personal clothing and away from pesticide areas.

Replacing Respirator Purifying Elements. Dust/mist filters must be replaced when breathing becomes difficult, if the filter is damaged or torn, when the respirator label or pesticide label requires it, or at the end of each day's work period in the absence of any other instructions. Vapor-removing cartridges or canisters must be replaced when odor, taste, or irritation is noticed; when respirator label or pesticide label requires it; or at the end of each day's work period in the absence of any other instructions.

Disposal of PPE. Discard coveralls and other clothing that are heavily contaminated with an undiluted pesticide having a DANGER or WARNING signal word. Federal, state, and local laws must be adhered to when disposing of PPE that cannot be cleaned correctly.

Instructions for people who clean personal protective equipment. Employers must inform people who clean or launder personal protective equipment that it may be contaminated with pesticides. They must inform them of the potentially harmful effects of exposure to pesticides and show them how to protect themselves and how to clean the equipment correctly. Further information is available in the EPA *How to Comply* manual.

Employer/Commercial Applicator Information Exchange

To protect the agricultural owner/operator and his family, a commercial applicator must inform an agricultural owner/operator before a pesticide is applied on his or her agricultural establishment. The commercial applicator must provide the owner/operator with the following information:

- Location and description of area to be treated
- Time and date of application
- Product name, EPA registration number, active ingredients and REI
- Whether oral warnings and/or treated area posting are required
- Entry restrictions and other safety requirements for workers or other people

The owner/operator is responsible to pass the above information on to members of his immediate family.

If owners of agricultural establishments hire persons to perform worker or handler activities (like a commercial applicator) or hire contract employers (like a detasseling company), the agricultural owner/operator must inform those he hires of any treated areas under an REI if they will be present or walk within a quarter mile of that area. The agricultural owner/operator is responsible for providing all WPS protections for his/her employees. If the operator of an agricultural establishment hires a contract employer, that contract employer is responsible for providing all WPS protections to his/her employees.

Emergency medical assistance. When there is a possibility that a handler or worker has been poisoned or injured by a pesticide, an employer must promptly provide transportation to an appropriate medical facility (posted at a central location). Additionally, the employer must provide to the victim and medical personnel the following information:

- The product name, EPA number and active ingredients (on label and central location)
- All first aid and medical information from the label
- A description of how the pesticide was used
- Information about the victim's exposure

Exemptions

The WPS does not cover pesticides applied:

- on pastures, range land, or livestock
- on the harvested portions of plants or on harvested timber
- for control of vertebrate pests, such as rodents
- on plants grown in home gardens and home greenhouses
- on plants that are in golf courses (except those areas set aside for plant production) or right-of-way areas
- on public or private lawns (sod farms are covered by the WPS)
- on plants intended only for decorative or ornamental use (trees and shrubs in lawns)
- for mosquito abatement, or similar wide area public pest control
- for structural pest control, such as termite control
- for research uses of unregistered pesticides

Agricultural Owner Exemptions

Owners of agricultural establishments and members of their immediate family are exempt from some of the WPS requirements while performing tasks related to the production of agricultural plants on their own establishment. The following WPS requirements do not need to be met by owners or members of their immediate family but must be provided to any worker or handler they may hire:

- Pesticide information at a central location
- Pesticide safety training
- Decontamination sites
- Emergency assistance
- Notice about pesticide applications
- Monitoring of handler's actions and health
- Specific handling instructions
- Duties related to early entry: training and instructions and decontamination sites
- All the specific duties related to the need, use, management, and inspection of personal protective equipment

Exceptions to REIs

In general you, your family members or hired handlers or workers must stay out of a treated area during the restricted entry interval. This restriction has two exceptions:

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

No contact early entry means just that: no contact! You, your family members, or hired handlers or workers may enter a treated area during an REI, if you do not touch or are not touched by any pesticide residues, and if you are wearing the early entry personal protective equipment. Wearing PPE does not mean contact can be resumed.

Early entry with contact allows you, members of your family, or hired handlers or workers to enter a treated area during a restricted entry interval 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. Emergency tasks that take place because of an agricultural emergency recognized by the Nebraska Department of Agriculture.
3. Specific tasks approved by EPA through a formal exception process.

For early entry short term tasks with no hand labor, one must:

- Wait at least four hours after the pesticide application is completed before entering.
- Enter and work for only one hour during a 24-hour period.
- Wear the personal protective equipment specified on the pesticide label for early entry tasks.
- Follow any other restrictions specified on the pesticide label or in any special exception under which the early entry takes place.

Crop Advisor Exemptions

Crop advisors are exempt from many WPS provisions in Nebraska if they have met the pesticide safety training requirements. To meet the training requirement, they must either be a state-certified pesticide applicator or receive approved WPS pesticide handler training.

As pesticide handlers under the WPS, crop advisors or persons under their direct supervision may enter treated areas during pesticide application and the REI, if they follow the product labeling PPE requirements. Crop advisors with approved safety training can determine the appropriate protection to be used while performing crop advising tasks in treated areas after the end of pesticide application.

Persons under their direct supervision are exempt from WPS provisions except for the pesticide safety training requirements (see pesticide safety training). These persons must be trained as agricultural workers, under WPS provisions. The exemption applies only after the pesticide application ends and while performing crop advising tasks.

The crop advisor must provide persons under their direct supervision with information on the pesticide product and active ingredient(s) applied, method and time of application, and the REI. Advisors must also provide the person under their supervision information regarding the tasks to undertake and how to contact the crop advisor.

Resources

Nebraska Department of Agriculture. For WPS regulatory interpretation and compliance guidance, call (402)471-2394.

Ogg, Clyde L. and Larry D. Schulze. 2006. Protective Clothing and Equipment for Pesticide Applicators, NebGuide 758.

U.S. Environmental Protection Agency. 2005. How to Comply With the Worker Protection Standard for Agricultural Pesticides—What Employers Need to Know, EPA/735-B-05-002.

UNL Extension publications are available online at <http://extension.unl.edu/publications>.

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