

Worker Protection Standard for Agricultural Pesticides

Clyde L. Ogg, Extension Educator; Pierce J. Hansen, Extension Assistant;
Erin Bauer, Extension Associate; and Jan Hygnstrom, Extension Project Manager

This NebGuide describes the Worker Protection Standard, helps you, the owner or operator of an agricultural operation, determine if it applies to your business, and provides information on how to comply with it.

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, both general and restricted use. Similar to OSHA (Occupational Safety and Health Administration), WPS strives to provide employees with a safe workplace, with the obligation for safety falling on the employer. WPS requires employers to protect two types of agricultural employees: *agricultural workers* and *pesticide handlers* (see definitions below). WPS is part of the pesticide label and is enforceable when a pesticide with a label that references 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 is available in paperback or CD format from the Nebraska Department of Agriculture (NDA) at no cost, or can be 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, sod farm, 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 include food, feed, or fiber plants; trees; turfgrass; 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; clean or repair pesticide

application equipment; or 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. Crop advisors include 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 informs users that they must comply with all WPS provisions. If you are using a pesticide product with WPS labeling to produce an agricultural commodity, you must follow WPS requirements. WPS requirements are not in effect if an agricultural pesticide is used as labeled for a nonagricultural use.

Who Are the Affected Employers?

Examples of employers who may be required to follow WPS are listed below.

- 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 Those 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 pesticide 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. Always use the PPE listed 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, and
 - 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)**

WPS has established specific restricted re-entry intervals for all pesticides covered by the Standard. The restricted entry interval (REI) is the amount of time that must pass after a pesticide application before anyone may enter the treated area. 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 REI is based on the active ingredient that has 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 pesticide(s) 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, whether they are handlers or 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, and
 - 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 valid EPA-approved training validation cards, 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 bodies. Accessible decontamination supplies must be located within a quarter mile of all workers and handlers and must include:

- Enough water for routine and emergency whole-body washing and 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 eyewear. 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 also is 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 must not be located in areas being treated or under an REI. Supplies for handler decontamination may be in the treated area in which the handler is working, as long as the materials are stored in sealed 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, the *Worker Protection Standard in Greenhouses* video on the UNL Extension PSEP YouTube channel (<http://bit.ly/NnPQQM>), and the pesticide label for specifics.

Additional Duties for Employers of Workers

Restrictions during application. Employers must prohibit worker entry into treated areas. Only handlers who have had the appropriate training and are wearing the required equipment may enter the area during application. 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's 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 being used. Some pesticide labels may require both oral and posted sign warnings. All notifications regarding 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, and
- 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 indicating that workers must not enter during the REI

Additional Duties for Employers of Handlers

Specific training for handlers. Before handlers perform any handling tasks, employers must inform them of all instructions on the pesticide labeling about 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. Before commercial handlers come to an agricultural establishment, inform them of areas on the establishment where pesticides will be applied or where an REI will be in effect, and the restrictions for 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, as well as for changing into and out of personal protective equipment for each task. Employers 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 help employees prevent heat illness, especially while PPE is being worn. Train handlers to recognize, prevent, and treat heat illness. There are a number of 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.
- Supervisors 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 not reusable or cannot be cleaned is disposed of properly; and
- 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. Cartridges or canisters designed to remove vapors must be replaced when odor, taste, or irritation is noticed; 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.

Disposal of PPE. Discard coveralls and other clothing that are heavily contaminated with an undiluted pesticide having a DANGER or WARNING signal word, according to directions on the pesticide label. Federal, state, and local laws must be followed 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 or her family, a commercial applicator must inform an agricultural owner/operator before a pesticide is applied on the 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 postings at the treated area and/or oral warnings are required
- Entry restrictions and other safety requirements for workers or other people

The owner/operator is responsible to share the above information with members of his/her immediate family.

If owners of agricultural establishments hire people to perform worker or handler activities, such as commercial applicators, or hire a contract employer, such as a detasseling company, the agricultural owner/operator must inform hirees of any treated areas under an REI if they will be at 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. Information about the medical facility must be posted at a central location. In addition, the employer must provide the victim and medical personnel with the following information.

- The product name, EPA registration number, and active ingredients (listed on the label and posted at the 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, rangeland, 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, although sod farms are covered by the WPS;
- On plants intended only for decorative or ornamental use, such as trees and shrubs in lawns;
- For mosquito abatement, or similar wide area public pest control;
- For structural pest control, such as termite control; or
- 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, hired handlers, and hired workers must stay out of a treated area during the restricted entry interval. This restriction has two exceptions:

- Early entry with no pesticide contact; or
- 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, hired handlers, or hired workers may enter a treated area during an REI if no one will touch or be touched by any pesticide residues, and if the required early entry personal protective equipment is worn. There must not be any exposure to pesticides or residue, even if PPE is worn.

Early entry with contact allows you, members of your family, hired handlers, or hired 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, and
- 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 state-certified pesticide applicators or receive approved WPS pesticide handler training.

As pesticide handlers under the WPS, crop advisors or those 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 pesticide has been applied.

Individuals under the direct supervision of a crop advisor are exempt from WPS provisions except for the pesticide safety training requirements (see pesticide safety training). These people must be trained as agricultural workers under WPS provisions. The exemption applies only after the pesticide application is completed and while performing crop advising tasks.

The crop advisor must provide people under their direct supervision with information on the pesticide product and active ingredient(s) applied, method and time of application, and the REI. Also, advisors must provide individuals under their supervision with 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, C.L., Bauer, E.C., Hygnstrom, J.R., Hansen, P.J. (2012) Protective Clothing and Equipment for Pesticide Applicators, NebGuide G758.
- 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.

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