

Worker Protection Standard for Agricultural Pesticides

EPA's Worker Protection Standard for Agricultural Pesticides (WPS) is a regulation aimed at reducing the risk of pesticide poisonings and injuries among agricultural workers and pesticide handlers. The WPS offers protections to approximately 2.5 million agricultural workers (people involved in the production of agricultural plants) and pesticide handlers (people who mix, load, or apply pesticides) that work at over 600,000 agricultural establishments. The WPS contains requirements for pesticide safety training, notification of pesticide applications, use of personal protective equipment, restricted-entry intervals after pesticide application, decontamination supplies, and emergency medical assistance.

Who and What Are Covered?

The Worker Protection Standard (WPS) protects employees on farms, forests, nurseries, and greenhouses from occupational exposure to agricultural pesticides. The regulation covers two types of employees:

Pesticide handlers -- those who mix, load, or apply agricultural pesticides; clean or repair pesticide application equipment; or assist with the application of pesticides in any way.

Agricultural workers -- those who perform tasks related to the cultivation and harvesting of plants on farms or in greenhouses, nurseries, or forests. Workers include anyone employed for any type of compensation (including self-employed) doing tasks -- such as carrying nursery stock, repotting plants, or watering -- related to the production of agricultural plants on an agricultural establishment. Workers do not include such employees as office employees, truck drivers, mechanics, and any other workers not engaged in worker or handler activities.

In addition, there are some WPS requirements that apply to all persons and some that apply to anyone who handles pesticide application equipment or cleans or launders pesticide-contaminated personal protective equipment.

The WPS *does not apply* when pesticides are applied on an agricultural establishment in the following circumstances:

- For mosquito abatement, Mediterranean fruit fly eradication, or similar wide-area public pest control programs sponsored by governmental entities. The WPS does apply to cooperative programs in which the growers themselves make or arrange for pesticide applications.
- On livestock or other animals, or in or about animal premises.
- On plants grown for other than commercial or research purposes, which may include plants in habitations, home fruit and vegetable gardens, and home greenhouses.

- On plants that are in ornamental gardens, parks, and public or private lawns and grounds that are intended only for aesthetic purposes or climatic modification.
 - By injection directly into agricultural plants. Direct injection does not include "hack and squirt," "frill and spray," chemigation, soil-incorporation, or soil-injection.
 - In a manner not directly related to the production of agricultural plants, such as structural pest control, control of vegetation along rights-of-way and in other non-crop areas, and pasture and rangeland use.
 - For control of vertebrate pests.
 - As attractants or repellents in traps.
 - On the harvested portions of agricultural plants or on harvested timber.
 - For research uses of unregistered pesticides.
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Summary of WPS Requirements

Protection during applications -- Applicators are prohibited from applying a pesticide in a way that will expose workers or other persons. Workers are excluded from areas while pesticides are being applied.

Restricted-entry intervals -- Restricted-entry intervals must be specified on all agricultural plant pesticide product labels. Workers are excluded from entering a pesticide-treated area during the restricted-entry interval, with only narrow exceptions.

Personal protective equipment -- Personal protective equipment must be provided and maintained for handlers and early-entry workers.

Notification to workers -- Workers must be notified about treated areas so they may avoid inadvertent exposures.

Decontamination supplies -- Handlers and workers must have an ample supply of water, soap, and towels for routine washing and emergency decontamination.

Emergency assistance -- Transportation must be made available to a medical care facility if a worker or handler may have been poisoned or injured. Information must be provided about the pesticide to which the person may have been exposed.

Pesticide safety training and safety posters -- Training is required for all workers and handlers, and a pesticide safety poster must be displayed.

Access to labeling and site-specific information -- Handlers and workers must be informed of pesticide label requirements. Central posting of recent pesticide applications is required.

New WPS Glove Requirements for Workers, Handlers, and Pilots

On September 1, 2004, EPA posted the final rule amending the Worker Protection Standard (WPS) for glove requirements. The final rule amended the WPS for agricultural pesticides in the following two ways: (1) All agricultural pesticide handlers and early-entry workers covered by the Worker Protection Standard are now permitted to wear separate glove liners beneath chemical-resistant gloves and (2) 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 chemical-resistant outer glove, remain unacceptable. Regulatory action was taken to reduce the discomfort of unlined chemical resistant gloves, especially during hot or cold periods. Additionally, chemically resistant gloves do not add any appreciable protection against minimal pesticide residues found around the cockpit of an aircraft.

How to Comply with the Worker Protection Standard for Agricultural Pesticides: What Employers Need to Know

The Worker Protection Standard for Agricultural Pesticides How to Comply Manual has been updated to reflect amendments to the Worker Protection Standard (WPS), a regulation designed to protect agricultural workers and pesticide handlers. The new 2005 WPS How to Comply (HTC) Manual supersedes the 1993 version. Changes to the WPS since 1993 have made the earlier version obsolete, and its continued use may lead an employer to be out of compliance. The 2005 HTC Manual revision was coordinated by EPA's National Agricultural Compliance Assistance Center and a workgroup consisting of representatives from EPA Headquarters, EPA Regional Offices, and several state agencies, with input solicited from USDA and other state and tribal pesticide agencies.

Avoiding Heat Stress

The WPS requires employers to take any necessary steps to prevent heat illness (too much heat stress) while personal protective equipment is being worn. Employers can take many precautions against heat stress. Some of them are summarized here:

Training -- Train workers and supervisors how to control heat stress and how to recognize symptoms of heat illness.

Monitoring and adjusting workloads -- Take into account the weather, workload, and condition of the workers, and adjust work practices accordingly. Higher temperatures, high humidity, direct sun, heavy workloads, older workers, and workers unaccustomed to heat are more likely to become ill from heat. Here are things to do:

-- Monitor temperature, humidity, and workers' responses at least hourly in hot environments

- Schedule heavy work and PPE-related tasks for the cooler hours of the day
- Acclimatize workers gradually to hot temperatures
- Shorten the length of work periods and increase the length of rest periods
- Give workers shade or cooling during breaks
- Halt work altogether under extreme conditions.

Drinking -- Make sure employees drink at least the minimum required amounts of water to replace body fluid lost through sweating. Thirst does not give a good indication of how much water a person needs to drink.

More details on all these measures are included in EPA's "[A Guide to Heat Stress in Agriculture](#)," available from farm supply companies and from the U.S. Government Printing Office using document number 055-000-00474-9. Issued jointly by EPA and the Occupational Safety and Health Administration, the guide offers practical, step-by-step guidance for non-technical managers on how to set up and operate a heat stress control program.

Additional WPS Resources

[Ag Center's WPS Fact Sheets](#)

[Worker Protection Standard publications](#)

[EPA Office of Pesticide Programs - Worker Protection and Certification Sheets](#)

[Federal Insecticide, Fungicide, and Rodenticide Act](#)

EPA Pesticide Programs Regulation ([40 CFR Part 156](#))

EPA Pesticide Programs Regulation ([40 CFR Part 170](#))

[Correction to Worker Protection Standard in Federal Register \(June 29, 2007\)](#)

[The Worker Protection Standard and Recent Amendments](#)

[Crop Advisors Final Rule Amendment \(Fact Sheet\)](#)

[Training Requirements Final Rule Amendment](#)

[Decontamination Rule Amendment -- Update](#)

[Warning Sign Size and Language Requirement Amendment](#)

[The Worker Protection Standard - How to Comply Manual, What Employers Need to Know](#)

[North Dakota State University Extension Service and Ag Experiment Station - WPS Video Presentations Online](#) (You will need [Windows Media Player 11](#) [EXIT Disclaimer](#) or higher to view the videos, or you will need to download and install the latest [Windows Media 9.0 codec](#) [EXIT Disclaimer](#) for your current operating system and player.)

More information from EPA

[Worker Safety and Training](#)

[Basic Principles of the Worker Protection Standard](#)

[Norma de Protection para el Trabajador: Principios Basicos](#)

[EPA Chemical Resistance Category Chart](#)

[Interpreting PPE Statements on Pesticide Labels](#) (scroll down page)

[Recognition and Management of Pesticide Poisonings](#)

[Protections for Test Subjects in Human Research](#)

[National Assessment of the Pesticide Worker Safety Program](#)

[FIFRA State and Tribal Assistance Grant Program](#)

[Field Component of the National Pesticide Program](#) - the pesticide field program helps protect agricultural workers and provides certification and training for users of some of the more hazardous pesticides to enhance competence and insure safe use.

[Lo que se debe y no se debe hacer en el control de plagas \(Dos and Don'ts of Pest Control in Spanish\)](#)

[Uso seguro de los pesticidas \(Using Pesticides Safely in Spanish\)](#)