TRAINING TOPICS FOR WORKERS AND HANDLERS

CHAPTER 5

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Agricultural Employee Tasks and Limitations

You may find new employees are uncertain about the expectations at their worksite or the tasks they will perform. Providing employees with a clear definition of workers' and handlers' tasks will help them to identify the type of work they will perform and the areas they can enter.

Workers perform hand labor tasks such as harvesting, pruning, thinning, weeding, and watering. They do not work directly with pesticides but may be exposed to pesticide residues when working in areas where a pesticide has been applied in the previous 30 days.

Photo courtesy of Jennifer Weber, Arizona Department of Agriculture

On occasion, an employer may instruct a worker to enter an area during the restricted-entry interval (REI). In this case, the worker is considered an **"early-entry worker"** and must receive additional training and product-specific information before entering the area.

Employees involved in pesticide handling or early-entry tasks must be at least 18 years old.

Photo courtesy of Jennifer Weber, Arizona Department of Agriculture

Handlers are employees who mix, load and apply pesticides. They might also work as flaggers or spotters during aerial applications or be responsible for cleaning and repairing pesticide application equipment. Irrigators may also be considered handlers if they work with chemigation systems, which are used to apply pesticides with the irrigation water.

Pesticides and Pesticide Residues

Due to their tasks described above, workers and handlers may be exposed to pesticides. In this section, we discuss the types of pesticides and their formulations. It is important to note workers may not see pesticides or their residues on plants or other surfaces, but pesticides can still be present.

Pesticide Types and Formulations

Most people are familiar with insecticidal aerosol sprays they may use in their homes and liquid herbicides they may use to control weeds in their yards.

There are several types of pesticides and formulations used on agricultural establishments. Some of the most commonly-used types of pesticides are

Insecticides – to control insect pests

Herbicides – to control weeds

Rodenticides – to control rats, mice, and other rodents

Fungicides – to control fungi (fungus) and disease organisms

Miticides – to control mites

Nematicides – to control nematodes

Pesticides are formulated in different ways and are applied to agricultural crops and cropland in a variety of forms. Some of the most commonly-used formulations are

- liquids
- dusts
- powders
- granules
- pellets
- gases
- gels
- aerosols

Pesticide Residues

Pesticide residues may be found in or on

- treated surfaces such as plants and soil;
- tractors, sprayers, and other application equipment;
- work clothing, shoes, and PPE (including gloves);

Photo courtesy of Stewart Jacobson, Arizona Department of Agriculture

- pesticide mixing and loading areas;
- air that drifts from a nearby pesticide application;
- irrigation water as a result of pesticide runoff or chemigation; and
- pesticide containers, shelves, and the air inside pesticide storage areas.

Photo courtesy of Jennifer Weber, Arizona Department of Agriculture

Pesticide-Related Health Effects

After workers and handlers understand where they can find pesticides and their residues it is easier to discuss health hazards, routes of entry, and signs and symptoms that may result from pesticides exposure.

Routes of Pesticide Exposure

Pesticides can enter the body through the following four routes of entry:

- Skin (Dermal)
- Eyes (Ocular)
- Nose (Inhalation)
- Mouth (Ingestion)

The majority of the reported cases of agricultural pesticide exposure involved skin contact. However, during WPS training, workers who work in enclosed space production areas may mention they are more concerned about inhaling pesticides, while handlers may state they are worried about splashing pesticides in their eyes during mixing and loading tasks. Certain situations increase the risk of pesticide exposure through the eyes, nose, mouth or skin.

Situations that may Lead to Pesticide Exposure Through the Skin

- Workers who choose to wear a short-sleeve shirt on a warm day leave their forearms exposed to pesticide residues. Warm weather causes people to sweat and this sweat can help pesticides enter into a person's body through their pores.
- Pesticides can also enter through cuts or sores on a person's skin.
- Workers or handlers who carry and use their cell phones while they are working with pesticides or areas where pesticides have been applied, might transfer pesticide residues from their phones to their faces or hands when they answer a call or respond to a text.

Photo courtesy of Jennifer Weber, Arizona Department of Agriculture

- Skin exposure can occur by wearing work clothes that have pesticide residues on them.
- Pesticide residues can transfer from contaminated hands to other parts of the body if workers or handlers do not wash their hands thoroughly before eating, drinking, smoking or using the restroom.
- Skin exposure can also occur when a pesticide drifts onto people who are working near an application.
- Handlers or early-entry workers may absorb pesticides through their skin if they fail to wear the label-required gloves or if they don't wash their gloves with soap and water before removing them.
- Handlers may take off their gloves to adjust, clean or repair pesticide application equipment, which may contain pesticide residues.
- Handlers may accidentally splash a pesticide onto their skin when mixing a pesticide or loading a spray tank.

Situations that may Lead to Pesticide Exposure Through the Eyes

- Workers can transfer pesticide residues to their eyes if they touch their eyes after coming into contact with treated surfaces.
- Sweat could run down a worker's or handler's forehead and carry pesticide residues into their eyes.
- A handler may rub their eye with a contaminated glove.
- A handler may splash or spray pesticides in their eyes when mixing and loading pesticides, adjusting application equipment or applying a product overhead without wearing proper eye protection.

Photo courtesy of Kai Umeda, University of Arizona Cooperative Extension

- If a handler is wearing the required protective eyewear and it slips down his or her face or if the handler removes the eye protection when it fogs up, the handler can get pesticides in their eyes.

Situations that may Lead to Inhalation of Pesticides

- Workers may be at risk of inhaling pesticides if they continue to work while in an application exclusion zone (AEZ) or in enclosed spaces such as greenhouses before the REI has expired.
- A worker or handler may smoke a cigarette near an area where pesticides are stored or applied. Tobacco absorbs pesticides and therefore that person could inhale the pesticide vapors.
- If a pesticide container leaks in a storage area, people who enter the area may inhale the vapors from the spilled product.
- A handler may mix two incompatible pesticides together, which can create toxic fumes when combined.
- Pesticide exposure can occur if a handler fails to wear the label-required respirator, does not change the cartridge, uses the wrong cartridge, or uses a respirator that does not fit correctly.

Situations that may Lead to Ingesting or Swallowing a Pesticide

Photo courtesy of Dr. Kurt D. Nolte, University of Arizona Cooperative Extension

- Workers or handlers who fail to wash their hands before eating or drinking may get pesticide residues in their mouths.
- If an employee takes a snack or lunch break too close to an area where pesticides are stored or used, the food or drink could become contaminated.
- A worker or handler who takes produce home directly from the field may get exposed to pesticide residues that are still on the produce.
- Workers and handlers can swallow pesticides if they drink water from irrigation canals, pipes or sprinklers as irrigation water may contain pesticide residues.
- A person may accidentally swallow a pesticide if they take a sip from a beverage container that someone has illegally used to store or measure pesticides.

Hazards of Pesticides Resulting from Toxicity and Type of Exposure

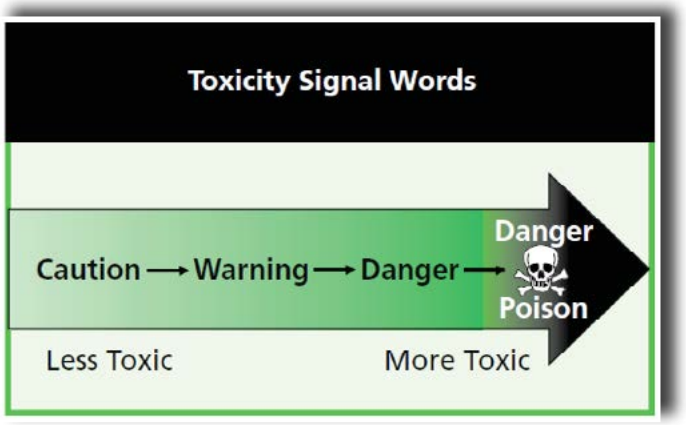
Toxicity is the potential of any pesticide to cause harm. Pesticides are often toxic to the target pests for which they are intended. Some pesticides can also be toxic to humans. Additionally, people differ in their susceptibility to injury from pesticides, which can depend on their health, age or other factors. For these reasons workers and handlers should always take steps to minimize their exposure to pesticides. Even the least toxic pesticides may cause illness.

Toxicity Signal Word

The signal words on the pesticide label reflect the relative degree of the product's acute (immediate) toxicity. Signal words include Danger, Danger-Poison, Warning, and Caution.

Danger or Danger-Poison

The most acutely toxic pesticides have the signal word "Danger" on the label. If the pesticide is highly acutely toxic when inhaled, swallowed or absorbed through the skin, the product will also have the word "Poison" along with a skull and crossbones symbol on the label.



Warning

Pesticides that are moderately acutely toxic to people have the signal word "Warning" on the label.

Caution

Pesticides that are slightly acutely toxic have the signal word "Caution" on the label. Some low acutely toxic pesticides may have no signal word.

Signs and Symptoms of Common Types of Pesticide Poisonings

Symptoms are any abnormal condition or change in health function that a person sees or senses, or that can be detected by medical examination or laboratory tests. These symptoms may indicate the presence of a disease, disorder or an illness or injury.

Poisoning symptoms vary among classes of pesticides and pesticides within a class. For example, pesticides that control weeds (herbicides) can be less toxic to humans than some pesticides used to control insects (insecticides). The severity of symptoms is usually proportional to the amount of pesticide entering the person's body and the person's sensitivity to certain chemical ingredients.

If a worker or handler feels sick while working in a pesticide-treated area or when handling a pesticide, it may be difficult to determine if the symptoms are related to a pesticide exposure. Common pesticide symptoms mimic those of a cold, flu, heat stress, morning sickness, food poisoning or a hangover.

The following is a list of symptoms that may result from pesticide exposure:

- eye irritation
- nose and throat pain
- skin rash
- dizziness
- headache
- muscle aches or cramps
- exhaustion
- nausea
- diarrhea
- chest pain
- breathing difficulties
- blurred vision
- excessive salivation or drooling
- very small, pinpoint pupils
- lack of muscle control
- convulsions or seizures
- unconsciousness
- death

In addition, people exposed to certain fumigants may experience

- irrational behavior, or
- elevated body temperatures.

The type and severity of exposure symptoms can be influenced by several factors, such as the

- pesticide itself,
- toxicity of the product,
- amount and concentration of the pesticide at the time of exposure,
- length of exposure,
- amount absorbed into the body,
- route of entry, or
- how fast the body absorbs and excretes it.

One pesticide may cause only mild eye irritation if splashed in a person's eye, while exposure to another product may result in blurred vision or blindness. Some pesticides are extremely toxic if swallowed but not as harmful if spilled on the skin. Finally, there are pesticides that, when used correctly and according to the safety measures listed on the label, cause no known adverse health effects.

Another factor that can significantly influence the type and severity of reaction to pesticide exposure is the overall health and genetic makeup of the individual. Each person is different. People who are elderly, very young, sick, or who have compromised immune systems may have less tolerance to some types of pesticides.

Furthermore, people who have medical conditions, such as asthma, may experience breathing difficulties when working in an area where pesticides have been applied even after the REI has expired.

Pesticide exposure can be hazardous for pregnant women and may result in miscarriage or cause harm to their unborn child.

Children are often more susceptible to the effects of pesticides as their bodies and internal organs are still developing and may be negatively impacted by exposure. For this reason **all handlers who work directly with pesticides or workers who enter an area still under a REI (early-entry workers) must be at least 18 years old.**

Acute, Chronic and Delayed Effects of Pesticide Exposure and Sensitization

Many pesticide exposure symptoms will show up immediately following an exposure incident; other symptoms can be delayed and result in long-term (chronic) health effects or chemical sensitivity.

Immediate or Acute Health Effects

The onset of **acute** illness or injury occurs shortly after or within 24 hours following an exposure. These illnesses or injuries can be serious and may result in lost work time and/or medical treatment. In the most serious cases, acute health effects could result in death.

Examples of **acute** health effects include

- nausea;
- headache or dizziness;
- red or watery eyes;
- rash, irritated, or burning skin; and
- throat irritation or difficulty breathing.

Delayed, Long-Term or Chronic Health Effects

Long-term or **chronic** effects are illnesses or injuries that develop or persist over long periods of time. They may result from a single exposure incident involving an extremely toxic pesticide or a large amount of pesticide. It may also result from many repeated exposures at a level that is too low to produce noticeable immediate illnesses or injuries. Therefore, it is extremely important for workers and handlers to take all of the necessary steps to protect themselves from a pesticide exposure.

Symptoms from repeated pesticide exposure may not show up for weeks, months, or even years. These **delayed** symptoms may be difficult to associate with their cause because of the lapse of time between exposure and observable effects.

Delayed and **long-term** or **chronic** health effects associated with exposure to certain pesticides include

- cancer,
- fertility problems,
- respiratory illness,
- nervous system disorders,
- birth defects,
- damage to the organs or immune system, and
- skin disorders.

Sensitization is the gradual development of an allergic reaction to a type of pesticide or chemicals in general. Some people get headaches, rashes, or experience dizziness each time they work with a pesticide or enter an area where pesticides were recently used.

Workers and handlers may better understand sensitization if it is compared to an allergic reaction to poison oak or poison ivy. Not everyone will have an adverse skin reaction the first few times they come in contact with the plants. However, after repeated exposures some people will become sensitized and develop a rash that becomes worse with each additional exposure.

Photo courtesy of Merete Pinker and Mark Morrison

Some people will experience sensitization after working with a product for several years. Not everyone will develop a sensitivity to pesticides, but those who do should avoid exposure to the pesticide creating the adverse reaction.

Reducing the Risk of Pesticide Exposure

Since pesticide residues are usually invisible, it is often difficult for workers to avoid contact. Therefore, they should take steps to protect themselves from exposure to these residues. The first step to preventing pesticide exposure is understanding who is allowed to enter the area during the application, during the REI, and after the REI expires.

Restrictions During Pesticide Applications

Only appropriately trained and equipped handlers can enter and work in areas during a pesticide application.

Restrictions During the REI

The REI is the amount of time that must pass after a pesticide application before it is safe for workers to enter the area without the required PPE and additional protections. During the REI, only appropriately-trained and equipped handlers and early-entry workers are allowed in the area.

Working in "Treated Areas" Following the End of the REI

Once the REI expires, all WPS-trained employees are allowed into the "treated area," which is the term used to describe an area that was treated with a pesticide within the previous 30 days. This 30-day period begins at the completion of the REI.

Table 5.1: Entry Restrictions

During the Application	Following the Application During the REI	After the REI has Expired
• **ONLY** WPS-trained handlers, equipped with the PPE listed on the label for the handling task.	• WPS-trained handlers equipped with the PPE listed on the label for handling task. • WPS-trained workers who have received product-specific training and protections for the particular early-entry situation, and who are equipped with the PPE listed on the label for the early-entry task.	• **All** WPS-trained employees, including workers and handlers.

Notification About Pesticide Applications

Central Posting of Pesticide Application Information and Safety Data Sheets

It can be difficult for workers to know and remember every detail about the pesticide applications made at the worksite. Therefore, the WPS requires that employers provide this information in writing at a central location on the establishment. The central location is any area the employees are likely to pass by or congregate where the information can be readily seen and read. Many agricultural employers choose to display the pesticide application information on the wall of a lunchroom, on a display board outside of a central office, or in a binder inside the farm shop. Employers must tell employees where they can find this information and make it readily accessible during their normal work hours.

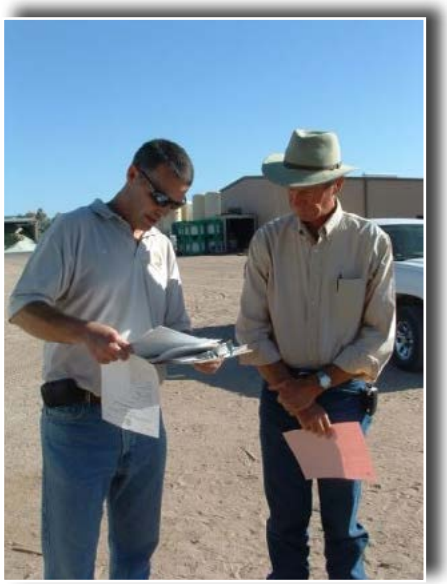


Photo courtesy of Jennifer Weber, Arizona Department of Agriculture

The following pesticide application information must be up-to-date and available for 30 days following the end of the REI for each pesticide:

- location and description of the treated area,
- pesticide product name,
- EPA registration number,
- active ingredient(s),
- date and time each application started and ended, and
- length of the REI.

Note: The employer must keep the pesticide application records and SDS for each pesticide product on file for an additional 2 years. The employer must provide this information to any worker, handler or their designated representative upon request.

The safety data sheets (SDSs) of the pesticides that have been applied must also be available at the central location for 30 days following the end of the REI.

In addition to the pesticide application information, the central posting area must contain the following:

- **basic pesticide safety information** that contains the concepts listed in the next section;
- **emergency information**, including the name, telephone number, and address of a nearby medical facility; and
- **pesticide regulatory agency contact information** for the local state or tribal government.

Oral Warning and Warning Sign Posting

It is the employer's responsibility to inform all workers and handlers about pesticides used at work. This can be done orally or by posting a warning sign at the application area. **Warning sign posting is required either when indicated on the label or for outdoor pesticide applications that have an REI of greater than 48 hours.** See the photo for an example of the federally-approved REI warning sign.

Photo courtesy of Elizabeth Buffington, Iowa State University Extension

It is important workers understand the field posting sign is a warning that it is not safe to enter the application area. They can only enter the area if the employer verifies that the REI has ended **and** the sign is covered or removed. Workers may also enter if they are directed by their employer to do so to perform early-entry tasks with the appropriate protections.

Trainers who are interested in learning more about the central location requirements, field posting and notification about pesticide applications can refer to the "How to Comply Manual," (EPA 735-B-16-001). See Chapter 10 for a list resources.

If the REI is 48 hours or less, employers may choose to either use the field posting sign or orally provide employees with details about the application and the length of the REI.

Enclosed Space Production Areas

The notification requirements for pesticide applications in enclosed spaces production areas, such as greenhouses, are similar to those described previously. However, warning sign posting is required for applications of pesticides with REIs greater than 4 hours.

Reducing Hazards from Pesticide Drift

Drift is the movement of pesticide dust, spray or vapor away from the application site. Handlers are prohibited from applying pesticides in a manner that will contact people (other than appropriately trained and equipped handlers involved in the application), either directly or through drift. In fact, as described in the AEZ section below, handlers must suspend all applications if workers are in the area they are treating.

Workers should leave immediately if they are working in an area where someone is applying a pesticide, or if a pesticide from a nearby application is drifting towards them. Workers and handlers can also come into contact with pesticides through drift if their homes are located near pesticide treated areas.

Application Exclusion Zones (AEZ)

The WPS includes measures designed to protect people from pesticide drift. One such measure is the AEZ.

The AEZ is an area around the pesticide application equipment that should be free of all persons other than properly trained and equipped handlers who are involved in the application.

The employer is responsible for ensuring people are outside the AEZ. In addition to the employer's responsibility, starting in January 2018, handlers must temporarily suspend their application if there are people in the AEZ.

Pesticides have a greater potential to drift when they are applied through nozzles designed to deliver small droplets. These droplets are light weight, and can be carried further in the wind than medium- or coarse-sized droplets.

Wind also plays an important role in the distance that pesticide vapors or dust can travel. Therefore, as the distance from the sprayer to the ground increases, so does the likelihood that pesticide vapors or dust will be impacted by any existing wind.

To reduce the possibility of contamination, AEZs have been developed based on equipment type, nozzle size, and distance from the nozzle to the ground. More detailed information can be found in Chapter 6-5: Applying Pesticides Safely and Effectively.

Work Clothing and Personal Protective Equipment (PPE)

Workers and handlers should wear clothing that protects them from contact with pesticides. Appropriate work clothing includes

- long-sleeved shirts,
- long pants,
- closed-toe shoes, and
- socks.

Photo courtesy of Jennifer Weber, Arizona Department of Agriculture

Employers of early-entry workers and handlers must always refer to the pesticide product label and provide the PPE required for their individual handling and early-entry tasks. Additional information about the proper use, care, and storage of PPE can be found in Chapter 6-2: Selecting and Inspecting Personal Protective Equipment (PPE).

Routine Decontamination Procedures

Routine decontamination procedures can minimize workers' and handlers' exposure to pesticides and pesticide residues. Routine decontamination procedures include the following:

Decontamination supplies must be readily available for handlers at the mixing and loading sites at all times.

- Agricultural employees should not drink or use irrigation water to wash their hands as it may contain pesticides or pesticide residues.
- Employees should use the decontamination supplies to wash their hands before eating, drinking, smoking, chewing gum or tobacco, or using the restroom while at work.
- Employees should shower/bathe and shampoo their hair immediately after working with pesticides or in areas where pesticides have been used and before changing into clean clothes.

Decontamination Supplies

The WPS requires employers to provide decontamination supplies for all workers, handlers, and early-entry workers. Decontamination sites for workers must be located outside of the treated area but within 1/4 mile of their worksite and contain

- soap,
- single-use towels, and
- 1 gallon of water for each employee at the beginning of their shift.

Photos courtesy of Olga Anaya, Foothill Packing

Early-entry workers and handlers must always have access to

- soap,
- single-use towels,
- 3 gallons of water for each employee, and
- a change of clothing to use if their protective clothing or PPE becomes contaminated.

Reducing Exposure to Pesticide Residue on Clothing

As was mentioned earlier in this chapter, workers and handlers may come into contact with pesticide residues that remain on their clothing or PPE. They can reduce their risk of exposure to these residues by

- wearing work clothes only once before washing them,
- having at least two sets of work clothes to avoid wearing potentially contaminated clothes before they are washed,
- keeping work clothes that may contain residues separate from other clothing by placing them in a clean plastic bag,
- washing work clothes separately from other clothing,
- informing people who wash agricultural work clothing that the clothes may contain pesticide residues and telling them how to protect themselves, and
- decontaminating the washing machine after washing a load of work clothes by running another full wash cycle with hot water and detergent to remove any remaining pesticide residues from the machine.

Photos courtesy of Ed Crow, Penn State Pesticide Education Program

Protecting Family Members from Pesticide Exposure

The following are additional steps trainers can provide to workers and handlers to help them reduce the likelihood of exposing their family members to pesticides used at work.

- Keep all children and nonworking family members away from pesticide-treated areas. Even if children do not come into direct contact with pesticides, they may still be at high risk for exposure to residues if they play in or near treated areas or irrigation ditches, live in labor camps, or play with empty pesticide containers.

Photo courtesy of Ashley Estes, Arizona Department of Agriculture

- Children who live near treated areas should always wear shoes when playing outside.
- If pets have become exposed to pesticides or pesticide residues, wash them before allowing children to touch them.
- Never take home pesticides or pesticide containers. Even empty and rinsed pesticide containers can contain pesticide residues.
- Never pour pesticides from their original containers into food or beverage containers. **This is very dangerous and illegal.** An unsuspecting person may mistake the pesticide for something edible and swallow it.
- Remove work boots or shoes before entering homes.
- Remove work clothes and wash or shower before physical contact with children or family members.

Photos courtesy of Jennifer Weber, Arizona Department of Agriculture

Responding to Pesticide Illnesses and Injuries

While it is very important to take steps to prevent pesticide exposure at work, accidents do happen. Therefore, it is necessary that people who handle pesticides or work in pesticide-treated areas know how to correctly respond to pesticide illnesses and injuries. It is also imperative that they know where to find the emergency medical and pesticide application information so they will have the tools to properly respond to these situations.

How and When to Obtain Emergency Medical Care

The employer must post the name, address and phone number of a nearby medical facility that employees can use in case of a pesticide emergency. Similar to the pesticide application information, it must be available at a central location that is accessible to employees during their normal working hours.

Safety data sheets (SDS) for each pesticide applied in the previous 30 days must also be accessible at the central location. The employer must also keep copies of the SDS for two additional years and make them available to employees upon request. These resources can be very useful for gathering and providing product information during pesticide exposure situations.

In some pesticide exposure cases, the person who is suffering from pesticide exposure may need to get to a hospital. Agricultural employees have the right to receive transportation to the designated medical facility if they are exposed or suspect that they have been exposed to pesticides at work. Do not allow the victim to drive to the hospital. Someone else must take the victim to a nearby medical facility.

Photos courtesy of Jennifer Weber, Arizona Department of Agriculture

The employer must provide the employee or treating medical personnel with the following information about the pesticide to which the employee was exposed:

- product name, EPA registration number, and active ingredient(s);
- antidote, first aid, and other medical information from the product's SDS;
- circumstances of the application or the use of the pesticide; and
- circumstances of the exposure.

For additional information about employer responsibilities for the provision of emergency medical, pesticide application records, and SDS requirements, refer to the "How to Comply Manual." See Chapter 10 for a list of resources.

Emergency First Aid for Pesticide Exposure

When helping someone who has been exposed to pesticides, there are several steps that can be taken immediately to reduce the effects of the exposure before the person is taken to a nearby medical facility.

First Aid for Skin Exposure

Photo courtesy of Jennifer Weber, Arizona Department of Agriculture

If a pesticide gets onto a person's clothing or skin, remove the pesticide-contaminated clothing immediately and wash the affected skin with soap and lots clean water.

It is important to wash the skin thoroughly to keep the pesticide from being absorbed into the person's body. The people assisting in the decontamination process must take steps to prevent exposing themselves to contaminated items. One way to do this is by wearing gloves.

First Aid for Eye Exposure

Photo courtesy of Ed Crow, Penn State Pesticide Education Program

If a pesticide splashes or runs into a person's eye, gently hold the person's eyelids open and rinse the eye with the solution from an eyewash kit or any gentle stream of clean, cool water for at least 15 minutes.

Tilt the person's head so that the affected eye is lower than the unaffected one. This will keep contaminated water from entering the unaffected eye.

If the person wears contact lenses, remove the lenses and continue to rinse the eye.

Never add any kind of medicine or other substance to the eye rinsing water because it may damage the eye by interacting with the pesticide residue.

Get the injured person medical help as soon as possible.

First Aid for Inhalation Exposure

If you find a person who has inhaled a pesticide, assess the situation to make sure you won't get exposed to pesticides if you enter the area. If it is safe to do so, get the person to fresh air and loosen any clothing that might make breathing difficult.

If the person is unconscious inside an enclosed area and it is possible the person inhaled pesticides, don't go into the area unless you have the appropriate respiratory equipment. Call for emergency assistance. Explain the situation to the emergency personnel so they can arrive with the appropriate equipment to rescue the person.

Photo courtesy of Chazzbo Media

First Aid for Exposure Through Ingestion or Swallowing

When helping a person who has swallowed a pesticide, **read and follow the first aid information on the product label or the SDS. Get immediate medical attention.** Each pesticide is different and reacts differently in the body, therefore first aid treatment will vary. Some labels recommend you feed the person water, milk, egg whites, or activated charcoal. Other labels may recommend that you assist the person by making them vomit. Other labels may contain specific warnings against inducing vomiting. Workers and handlers must understand they should never induce vomiting if the person is unconscious, having convulsions, or is lying face up. **The most important step in cases of swallowing pesticides is for the employer to get the person to a nearby medical facility as quickly as possible.**

Photos courtesy of J. Hollyer, University of Hawai'i at Mānoa

Employee Rights and Protections Against Retaliatory Acts

The WPS states an agricultural employer must not punish or retaliate against any agricultural employee for attempting to comply with the protections that are provided by the WPS. Among the many protections are the right to

Note: Trainers must explain to workers and handlers how to report suspected WPS violations and the contact information of their local regulatory agency must be available to them at the central location.

- receive annual WPS pesticide safety training;
- information about pesticides used at work through the availability of pesticide application records, SDS, and oral or posted notifications;
- transportation to a nearby medical facility and treatment for any suspected pesticide illnesses and injuries;
- the provision of PPE for pesticide handling and early-entry worker tasks;
- routine and emergency decontamination supplies;
- leave a situation that may lead to pesticide exposure through drift or direct contact; and
- contact their local state or tribal pesticide regulatory agency, should they have pesticide-related questions, concerns, or complaints.