

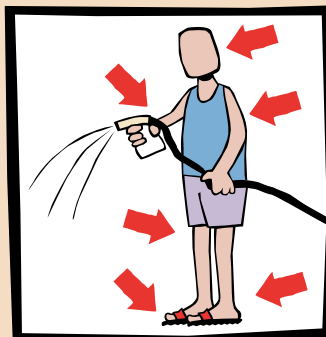
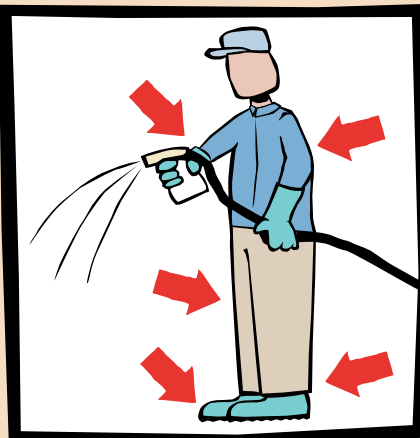
What you need to know about . . .

# Protecting Yourself When Using Pesticides

## Why wear protective clothing?

**P**rotective clothing used when mixing, loading, or applying pesticides provides a barrier between the pesticide and the human body. Even though it can be uncomfortable to wear, appropriate protective clothing and/or equipment should always be worn by anyone working with pesticides. The type of protective clothing and equipment needed depends on the job being done and the type of chemical being used. Always read the label to determine what protective clothing is required.

Protected



Not protected

Pesticides can enter your body by being inhaled, swallowed, or absorbed through your skin or eyes.

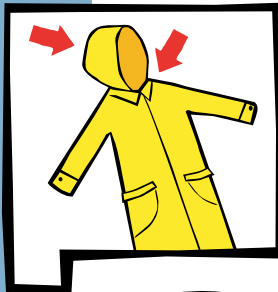
Wear protective clothing whenever handling pesticides (such as mixing, applying, storing, and disposing), cleaning equipment, touching freshly treated surfaces, or laundering contaminated clothing.

Studies show that over 90 percent of chemical exposure occurs through the skin. **To reduce pesticide exposure, wear:**

- **Chemically resistant gloves**
- **Long-sleeved shirt;** button all sleeves and collars
- **Long pants** with pant legs over footwear
- **Shoes or boots with socks;** preferably unlined rubber boots

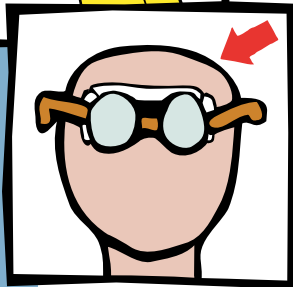


## Additional tips about protective clothing

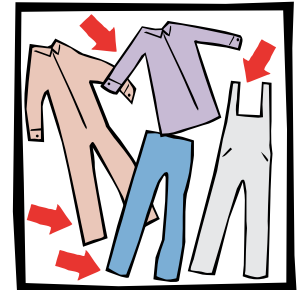


When spraying overhead or mixing, wear safety glasses with side and brow shields or goggles, and a wide-ribbed rain hat or hooded raincoat.

Coveralls and shirts provide added protection. Shorts do not provide adequate protection as over 90 percent of all pesticide exposures are through the skin.



If possible, wear unlined rubber boots to help reduce exposure, as canvas, cloth, or leather footwear has a greater absorbency potential.



## Glove safety

Nitrile, butyl, and neoprene gloves provide the best protection against pesticide exposure.

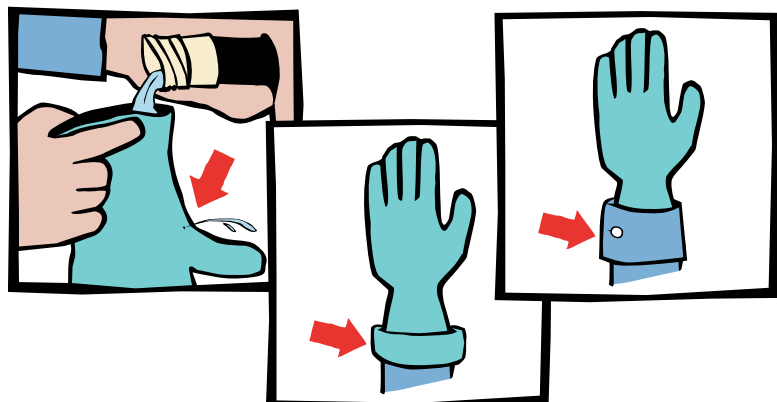
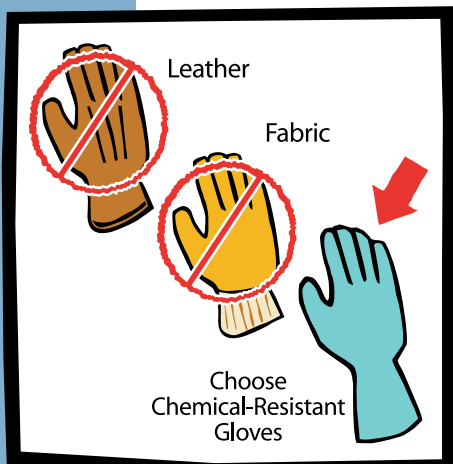


**Never use leather or fabric or lined gloves**, as they absorb pesticides. If pesticides are absorbed in these types of gloves, they cannot be completely decontaminated or cleaned; disposal is the only option.

Check gloves frequently for holes by filling them with water. Dispose of any gloves that leak.

For most jobs, shirt sleeves should be worn on the outside of the gloves. Place an elastic band where the shirt sleeve and glove overlap to prevent pesticides from running down into the gloves or up into the sleeve. But when working with hands and arms overhead, sleeves should be tucked into the glove with the cuff of the glove turned up to catch the material that might run down the gloves.

While still wearing gloves, wash off gloves with soap and water to remove any chemicals before removing the gloves to avoid contaminating your hands while removing gloves.



## Other types of protective clothing

Always read the label to determine what protective clothing is required.

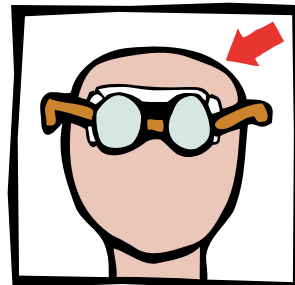
Besides wearing the minimum amount of protective clothing including gloves, other types of protective clothing that may be required by the label include goggles and dust masks. Those who wear contact lenses may want to consult an eye doctor prior to handling pesticides.



Dust masks and goggles should be tight fitting for best protection.

Dust masks should not be worn when mixing or applying liquids because splashed or spilled liquids or vapors can be absorbed by the mask.

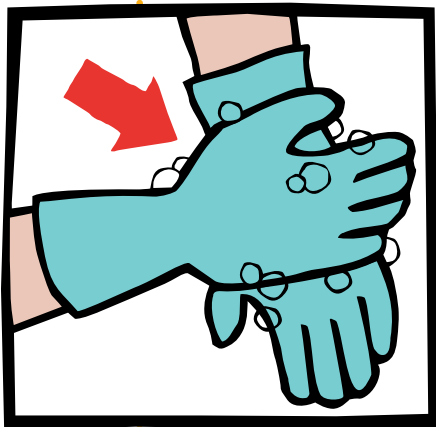
Goggles should be washed with soap and water and sanitized by soaking for 2 minutes with 2 tablespoons of chlorine bleach and a gallon of water, then rinsed and air-dried.



## After handling pesticides: WASH

**Remember, wash your gloves with soap and water prior to removal.** This will protect your hands from the pesticide residue still left on the gloves. Now you can safely remove your gloves and wash your hands and face thoroughly with soap and water.

Always wash your hands before eating, drinking, using tobacco products (cigarettes or chew), or using the bathroom.



Wash any other parts of your body that may have come in contact with the pesticide.

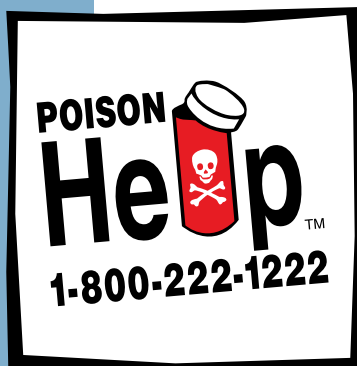


To prevent tracking pesticides inside, remove or rinse your boots or shoes before entering your home.

## Tips for laundering pesticide-contaminated clothing

- Treat all clothing worn while handling or applying pesticides as contaminated.
- Handle all contaminated clothing with gloves.
- Empty all pockets and cuffs of any pesticide residue.
- Wash contaminated clothing as soon as possible.
- Wash contaminated clothing separately from family wash.

- Prerinse, presoak, or pretreat with stain remover.
- Use hot water.
- Use the highest water level.
- Use the longest wash cycle.
- Use heavy-duty liquid detergent.
- Wash clothing 2–3 times if heavily soiled or if pesticides are highly toxic, or consider discarding.
- Rinse twice with warm water.
- Line dry, outside is preferable.
- After washing, run the machine without clothes through a complete cycle with hot water and detergent.



## For More Information

Contact your county Penn State Cooperative Extension office:  
[www.extension.psu.edu/extmap.html](http://www.extension.psu.edu/extmap.html)

**PENN STATE PESTICIDE EDUCATION PROGRAM**

**114 BUCKHOUT LABORATORY**

**UNIVERSITY PARK, PA 16802-4506**

E-mail: [pesticide@psu.edu](mailto:pesticide@psu.edu)

Web site: [www.pested.psu.edu](http://www.pested.psu.edu)

Prepared by Richard H. Johnson Jr., extension associate; Sharon I. Gripp, database administrator/Webmaster; and Kerry M. Richards, acting director, Penn State Pesticide Education Program

Visit Penn State's College of Agricultural Sciences on the Web: [agsci.psu.edu](http://agsci.psu.edu)

Penn State College of Agricultural Sciences research, extension, and resident education programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

This publication is available from the Publications Distribution Center, The Pennsylvania State University, 112 Agricultural Administration Building, University Park, PA 16802. For information telephone 814-865-6713.

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, gender identity, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 328 Boucke Building, University Park, PA 16802-5901; Tel 814-865-4700/V, 814-863-1150/TTY.

© The Pennsylvania State University 2009

Produced by Ag Communications and Marketing

**CODE # UO218** Rev11.2M08/09payne4579

This publication is also available in Spanish.