



University of Idaho
College of Agriculture

Cooperative Extension Service
Agricultural Experiment Station

Clothing Selection for Pesticide Application

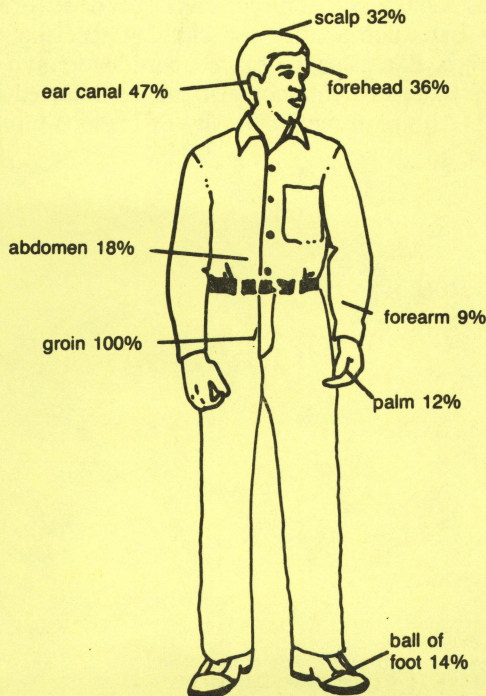
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Wearing the proper type of clothing while applying pesticides can help prevent accidental poisoning to pesticide applicators

Pesticide Poisoning

Poisoning most often results from pesticides entering the body through the skin rather than through the lungs or digestive tract. The greatest incidence of applicator poisoning occurs when mixing chemicals. Symptoms of pesticide poisoning range from headaches and vomiting to unconsciousness and death. You can minimize the dangers of pesticide exposure by wearing clothing that covers and protects your body. The pesticide label will indicate what this clothing should be.

Pesticide residues are absorbed through the skin at different rates on different parts of the body. Fig. 1 shows absorption rates of the different parts of the body.



Clothing Selection

Select clothing that is made of tightly woven material, or as an alternative, durable disposable coveralls made of a non-woven material. Do not wear leather jackets or other expensive clothes. Never wear a t-shirt or short-sleeved shirt, shorts or cloth shoes while applying pesticides.

Make sure that clothing worn while applying pesticides is clean, dry and free of holes. Pesticides coming in contact with the skin are a major hazard, so all skin areas should be covered. Protective clothing includes (Fig. 2):

- Coveralls or long-sleeved shirt and pants
- Waterproof gloves
- Waterproof boots
- Waterproof hat with wide brim
- Lightweight raincoat or apron (waterproof)

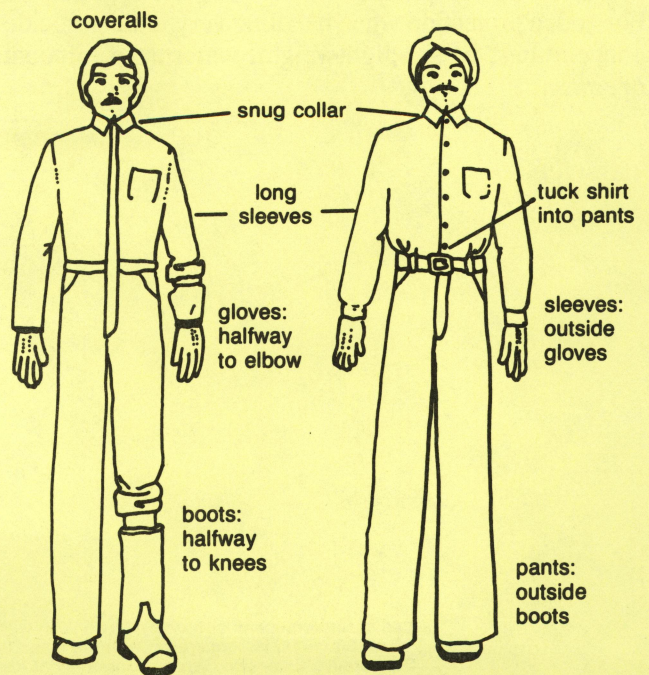


Fig. 1. Dermal absorption rates obtained from volunteers exposed to parathion.

Fig. 2. Clothing specifications for safe use of pesticides.

322

Coveralls — Coveralls should have long sleeves and a collar that fits snugly when buttoned. Wear sleeves outside of gloves and pant legs outside of boots. Waterproof and disposable coveralls are now available. The waterproof coveralls give excellent protection. Disposable coveralls give good protection and may be laundered several times before being discarded.

Long-sleeved shirts — The fabric of the shirt should be closely woven. The shirt should have a collar that fits snugly when buttoned. The shirt should be tucked into the pants. To prevent pesticides from getting inside gloves, wear the shirt sleeves outside of the gloves.

Pants — The fabric of pants should be closely woven. To prevent pesticides from running inside boots, wear pants legs on the outside.

Gloves — Select unlined waterproof gloves that reach at least halfway to the elbow. Test gloves for leaks by filling them with water and gently squeezing. Do not use cotton or leather gloves or gloves with fabric lining because they are impossible to clean once contaminated.

Boots — Select unlined waterproof boots that reach at least halfway to the knee. Do not wear leather boots.

Hat — Special care is needed to protect the scalp, ear canal and forehead. Select a wide-brimmed, waterproof hat that will protect the neck, eyes, mouth and face. Plastic "hard hats" with plastic sweatbands are a good choice. They are waterproof and cool in hot weather. Avoid hats with a cloth or leather sweatband. Cloth headbands are difficult to clean, and leather headbands cannot be thoroughly cleaned.

Lightweight Raincoat or Apron (Waterproof) — For added protection when handling very toxic pesticide concentrates, wear a lightweight, waterproof raincoat or apron.

Use These Safety Items For Additional Protection

Goggles or Face Shield — Your eyes can absorb many pesticides. If there is any chance of getting pesticides in your eyes, wear goggles or a face shield. Wear goggles separately or in combination with a respirator.

Respirator — When there is any risk of inhaling toxic pesticides, wear a well-fitting respirator that has been approved by the National Institute of Occupational Safety and Health, the U.S. Bureau of Mines or the U.S. Department of Agriculture. Carefully follow directions on how to clean and store the respirator, and remember to change the cartridge as recommended by the manufacturer.

Other Considerations

- Have one set of clothing to use only while applying pesticides. Some pesticides are very difficult to remove from clothing. Even after laundering, they could still contain some pesticide residue. Change clothing daily.
- If possible, remove contaminated clothing outdoors or in an entry. If a granular pesticide has been used, shake clothing outdoors and empty pockets and cuffs.
- Avoid wearing a wrist watch with a leather band or any type of jewelry made of leather. Once leather has been contaminated, it cannot be decontaminated.

NOTE: For more information see University of Idaho CIS No. 781, *Laundering Pesticide Contaminated Clothing*.

The Authors

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