

PROTECTING FARM FAMILIES FROM PESTICIDE EXPOSURES

Tips on Working Safely with Pesticides in North Carolina



This publication is available in Spanish.

A farm is generally viewed as a great place to work and raise a family. But the complex modern technologies used on today's farms must be managed carefully to protect the safety of farmers, workers, and farm families. Pesticide use is one of those technologies that warrants special attention

Increase Farm Family Awareness of Pesticide Exposure Pathways

Agricultural chemicals represent a potential health hazard for farmer applicators and farm workers and their families. Direct exposure to pesticides can occur during the transport, mixing, loading, or application of pesticides. Indirect exposure of farm spouses and children to pesticides can occur through spray drift, the handling of contaminated clothing, personal contact with exposed individuals, or by the transfer of contaminated dust from treated fields to farm vehicles and farm buildings--including the home.



Minimize Farm Family Pesticide Exposures

To prevent exposure to spray drift during application, apply pesticides to fields near homes only when drift is least likely to occur. After pesticides are used, a number of steps should be taken to protect family members from indirect exposure.

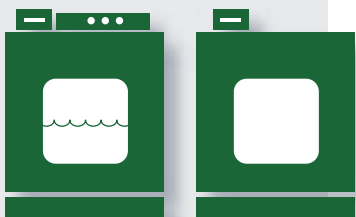
- Wash thoroughly with soap and water immediately after using pesticides and before interacting with family members.
- Remove work clothes and shoes before entering the family residence.
- Clothing worn while working with pesticides should be laundered separately from family laundry after each use, using both pre-rinse and regular washing cycles. Heavily contaminated clothing should be discarded.
- Keep pesticides away from food, drinks, dishes, glassware, and cooking utensils.

Cleaning vehicles also helps to protect families from indirect exposure.

- Keep farm vehicle interiors clean so that pesticide-contaminated dust will not be picked up when other people ride in the vehicle.
- A research study has reported that the level of pesticide contamination in dust found in farm homes correlates closely with that found in vehicles used by members of that household.

The information in this document is for educational purposes only. Individuals who use agricultural chemicals are responsible for ensuring that the intended use conforms to the product label and complies with current regulations.

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Minimize Farmer and Farm Worker Exposure

By employing proper chemical handling practices in the farm workplace, applicators, mixers, and loaders will minimize direct exposures to themselves and also indirect exposures to their children and spouses.

- ❑ Personal Protective Equipment (PPE) specified by pesticide product labels is the first line of defense in minimizing exposure.
- ❑ It is the responsibility of the buyer and user of a pesticide product to assure that required PPE is available and used.
- ❑ Using required PPE should be a routine and accepted part of standard good operating practices in the farm workplace.

More About Personal Protective Equipment (PPE)

During the pesticide-registration process, EPA reviews and approves the PPE for that product based on the toxicity of the product and the hazards associated with the formulation of the product.

- ❑ The PPE required by a product label represents the minimum protection measures for that product.
- ❑ The PPE requirements are found on the label under the headings of: PRECAUTIONARY STATEMENTS-Personal Protective Equipment, or DIRECTIONS FOR USE-Agricultural Use Requirements
- ❑ Examples of PPE include:
 - Protective clothing – coveralls, long sleeves and pants, aprons
 - Protective eyewear – goggles, face shields, safety glasses
 - Chemical resistant or waterproof gloves, footwear, hats
 - Respiratory protection to filter out particulates and vapors

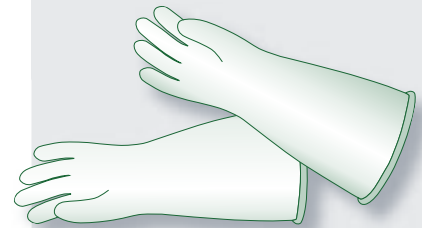
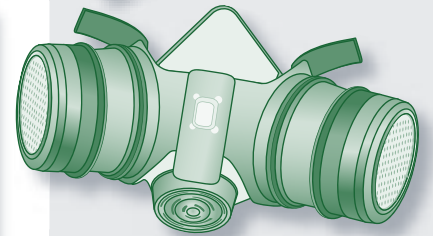
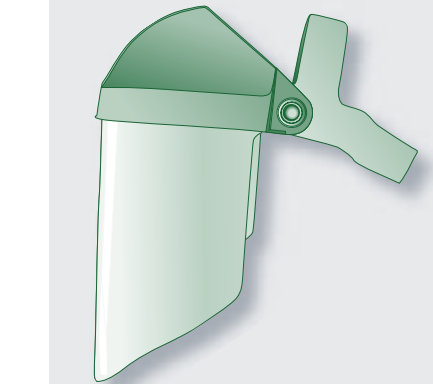
Study Results Confirm: Personal Protective Equipment Works!

The Farm Family Exposure Study conducted by the University of Minnesota monitored farmer-applicators, their spouses, and children for pesticide exposure following typical pesticide application activities on farms in Minnesota and South Carolina. Exposure of family members depended on their degree of involvement in the application process or on their presence in the immediate vicinity of pesticide mixing or application. Study findings also showed that farm workplace use of PPE does reduce applicator exposure to pesticides:

- ❑ Wearing protective rubber gloves when mixing and loading a widely-used herbicide or repairing application equipment reduced exposure levels to one-sixth what it was without gloves.
- ❑ This protective effect of gloves was especially notable as applicator activity levels increased with increased numbers of mixing and loading operations and increased number of acres treated.

For more information on reducing pesticide exposure contact:

- ❑ The North Carolina Department of Agriculture and Consumer Services, Pesticide Section at (1-919-733-3556), or
- ❑ The North Carolina Cooperative Extension Service. A directory of County Centers can be found at <http://www.ces.ncsu.edu>, click on "People".



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For questions regarding human health and pesticides, call the Carolinas Poison Center 1-800-848-6946 (1-800-84TOXIN).