
CHEMICAL LOG

HANDLING PESTICIDES SAFELY

By Cynthia Drake

In pest control operations, employee and environmental safety should be your foremost concern. This article will discuss the safe and proper methods for mixing, rinsing, storage, and disposal of pesticides.

Additional information and employee training documents are available through your local or state farm bureau, cooperative extension, or agriculture department. Each state has different regulations governing the safe and legal handling of pesticides, and I would encourage you to contact the sources listed above for further assistance.

Mixing Stations

Prior to handling any pesticide, read the label. Among other things, the label will indicate the amount of pesticide needed for the application, precautions in handling the pesticide, possibilities for tank mixing more than one pesticide, and safety clothing requirements.

The greatest chance for a pesticide poisoning exposure comes from the mixing operation. The greatest potential for pesticide exposure poisonings occur during the mixing and handling of undiluted pesticides.

It is recommended that the applicator wear goggles or a face shield, rubber boots and gloves, a respirator, and either a rubber apron or water-retardant protective clothing.

It is mandatory that you provide an available water source at the mixing site for emergency decontamination. Soap, paper towels, and an additional change of clothing must be available to the applicator as well. An eye wash station is also recommended.

Always mix and load pesticides below eye level to avoid splashes into the face and eyes. Use a level sur-

face to measure pesticides. For best results, you should use calibrated weighing scales and standard measuring spoons and cups. The water you use should be clear of debris and grit. It is best to measure the pH of the water prior to mixing, should a buffering or acidifying agent be required.

Most Category 1 pesticides will require a closed mixing system. Your state agriculture department will have information on closed mixing requirements. Following the mixing and loading operation, you will either properly seal and store the pesticide container you used or triple rinse

and dispose of it.

Rinsing

Each state has its own manner of handling used pesticide containers and rinsate from pest control operators. It is mandatory in most states that you triple rinse your containers prior to disposal. The rinsate from the container can be added to your mixed solution. The container can then be punctured or destroyed prior to disposal.

Some companies are now providing containers that can be turned in for reuse. Some states are offering plastic container recycling, to produce park benches, plastic fencing, and other items. Containers that *cannot* be triple rinsed pose a hazardous waste problem. Check with your state EPA and agriculture department for disposal requirements of aerosol cans, pressurized injection units, and sealed containers. Using pesticides in such containers may require you to have hazardous waste storage and disposal documentation.

The rinsate from cleaning your spray tank should be directed onto the area that has been treated, never onto off-site areas or down the drain. The rinsate from washing spray equipment and vehicles should be collected and reused as well.

Disposal

The improper disposal of pesticides and their waste can lead to environmental and human health hazards. It is a federal offense to illegally dispose of your pesticides waste and containers. Check with your state EPA and agriculture department for laws regarding disposal.

Container disposal has become one of the largest problems we face. Our landfills are filling up. With tons of plastic and metal containers being turned

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in daily, the problem is compounding.

Use pesticides that are available in dissolvable pouches, returnable containers, paper or cardboard boxes and bags. Encourage manufacturers to help, not hinder, legislation aimed at solving the container crises.

Storage

Storing pesticides properly will save you money in the long run. The shelf life of pesticides can be extended by tightly sealing the pesticide container after use.

All pesticides should be stored in a locked enclosure, such as a shed or building. The enclosure should be lighted inside, with adequate ventilation. Signs should be placed on all sides showing **DANGER: PESTICIDE STORAGE** in large enough print to be readable from 25 feet.

Pesticides should be kept at an even temperature. Extreme cold or heat may shorten the shelf life of most pesticides, and destroy others.

You should develop an emergency response plan for your storage area, in

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the event of fire or other disaster. The plans for this will need to be filed with your local government agencies, such as the agriculture department, EPA, and Department of Health Services. For more information regarding your business emergency plans, contact the agencies listed above.

Pesticide storage in a vehicle should also be locked, signed and secured. Never transport pesticides in the open bed of a truck, or in the same compartment as passengers. It is wise to

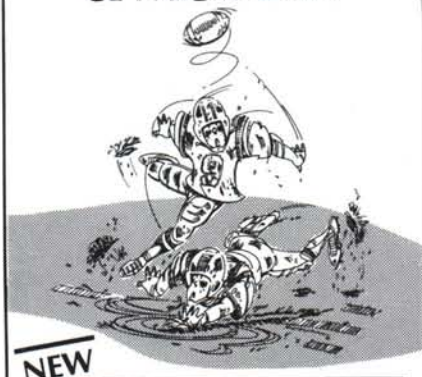
separate your pesticides in storage so that herbicides are away from other products and plant seed. Category 1 and 2 pesticides must always be kept out of reach from small children, and volatile pesticides should be kept away from ignition sources.

Just a last reminder to *read the label* of the pesticide you are about to use. Check it for use, rate, mixing, storing, disposal, and safety equipment instructions. Check with your local EPA, health and agriculture department regarding state and federal laws concerning the use, waste, and disposal of pesticides and their containers. Train your applicators yearly on these and other mandatory rules and regulations.

Finally, take a pro-active stand on the proper control of pesticides so that you can continue to have a safe and effective pest control service. □

Editor's Note: Cynthia Drake is the statewide training coordinator for the California Pesticide Applicators Professional Association and a Certified Arborist in San Diego, CA.

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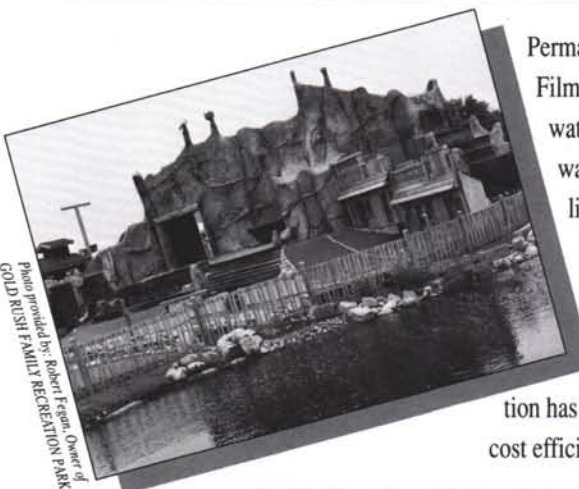


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