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PESTICIDE AND PESTICIDE CONTAINER DISPOSAL

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Pesticides
Fact Sheet

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When pesticides are used, there is usually a need for disposal of either excess pesticides or the empty pesticide containers. Careful preplanning and anticipation can reduce disposal problems.

Ways to reduce the amounts of pesticides or pesticide containers that must be disposed include:

1. Purchase only the amount of pesticide needed to accomplish the intended pest control practice or to be sufficient for the season's use.

2. After getting the needed information, calculate how much pesticide will be needed to treat the intended site. Mix only that amount and apply with properly calibrated equipment. Be careful during mixing and loading procedures so there is no spillage.

3. Minimize residues and rinsates including:
   a. Spray material left after an application job is completed.
   b. Solution that is left in the sprayer boom and hoses.
   c. Water used to rinse the sprayer tank.
   d. Water used to wash the outside of the spray equipment.

   All residues and rinsates should be collected and used according to their labeled application method or they should be used to mix similar solutions of the pesticide. To make solution collection simple, some applicators mix and load solutions, rinse sprayer tanks, and wash off equipment on a concrete pad equipped with a tank to collect the runoff. Others do most of their rinsing in the field by equipping the sprayer with a flush tank of clean water so they can rinse the spraying system with water from the flush tank and leave this rinsate right in the field. Many pesticide labels now permit disposal of wastes generated by the use of the product on the site of application. Filtering through activated charcoal is another option for handling excess liquids.

4. Use water soluble pesticide packaging that eliminates container disposal.

5. Protect pesticides from damage and contamination so they remain useful products and have legible labels.

Store pesticides in a cool location out of the sun such as a locked cabinet or room. They should be kept in their original containers and out of reach of children or animals. Sunlight, moisture, and excessive heat or cold can destroy the effectiveness of a pesticide. Use up pesticides before their shelf life is exceeded and they are no longer effective for their intended purpose. Use older products first. Additional information on storage and shelf life is available in "PESTICIDES NO. 4, PESTICIDE STORAGE FACILITY DESIGN AND MANAGEMENT PLAN."

DISPOSING OF EXCESS PESTICIDES

Even planning ahead doesn't eliminate the need for pesticide disposal. Disposal methods available include:

1. Use the pesticide according to label directions as a means of disposal for the pesticide. This practice will not always be feasible, especially when the label limits the frequency of application to a site. If you can't use up the pesticide, consider giving it to another pesticide applicator to use according to label directions. If the pesticide is a restricted use pesticide, give it only to a licensed applicator.

2. Pesticides can be disposed of in EPA approved facilities. Help in utilizing these facilities can be obtained from the Utah Department of Environmental Quality, Division of Solid and Hazardous Waste (801) 538-6170; or the Utah Department of Agriculture and Food (UDAF), Division of Plant Industry (801) 538-7123. The UDAF is also sponsoring a series of pesticide disposal collection days. These regional collections require advance registration and are available on a limited basis. Table 1 lists EPA approved hazardous waste disposal facilities in this region. Contact the site before shipping or delivering any wastes.

Table 1. EPA Approved Hazardous Waste Facilities

Ashland Chemical Company PO Box 160367 Clearfield, Utah 84016 800-293-1295 or (801) 776-5481	Van Waters and Rogers, Inc. PO Box 2369 Salt Lake City, Utah 84110 800-669-8978 or (801) 328-1112
Safety Kleen, Inc. 8960 North Highway 40 Lake Point, Utah 84074 (801) 252-2000	US Ecology PO Box 95488 South Jordan, Utah 84095 800-695-1195 or (801) 253-3450

3. Incineration of excess pesticides is an alternative, but incineration is very expensive and often requires a great deal of paper work and positive identification of materials to be burned.

4. Any amounts of pesticides needing disposal may be stored under environmentally safe conditions until a more acceptable method or facility for their disposal is available; however, this may involve storage for several years and environmentally safe storage may be costly and difficult to maintain.

DO NOT dispose of pesticides in the following ways:

1. DO NOT pour pesticides down the drain or into water.
2. DO NOT pour pesticides on the ground.
3. DO NOT discard pesticides in desolate areas.
4. DO NOT burn excess pesticides.
5. DO NOT use pesticides for other than their labeled uses.
6. DO NOT sell excess pesticides, unless you are licensed to do so.

DISPOSING OF PESTICIDE CONTAINERS

The requirements for proper cleaning of empty pesticide containers are found in the "Storage and Disposal" section of the label. Pesticide containers must be cleaned in some manner before they are disposed. Most commonly this is accomplished by triple rinsing or pressure rinsing of containers with water. In the case of paper or plastic bags, they should be shaken clean.

Properly cleaning pesticide containers also allows pesticide applicators to avoid violating provisions of the **Resource Conservation and Recovery Act (RCRA)**. Containers that held pesticides regulated as hazardous waste (ie. 2,4-D, aldicarb and phorate) are hazardous wastes when empty unless they have been properly cleaned. Pesticide containers come in many shapes and sizes and are most commonly made of paper, glass, plastic, or metal. Proper methods for disposal of pesticide containers include:

1. Paper bags should be thoroughly emptied and either buried on your own property in a safe location away from water and animals or susceptible plants, or they may be added to other solid waste trash for ultimate sanitary landfill disposal.

2. Glass, plastic and metal containers should be triple-rinsed (Table 2) and then recycled if possible or either buried or added to other solid waste trash for sanitary land filling. Some metal drum reconditioners will accept properly rinsed containers for reconditioning or recycling. Check the yellow pages of your telephone directory under barrels and drums or under recycling centers. Make sure that containers are damaged prior to disposal to prevent inappropriate reuse.

3. Avoid purchasing pesticides in glass containers. Glass containers are more susceptible to damage in handling and can create an extra hazard when dropped or broken.

4. For large volume users, the rinse and drain routine of the triple rinse procedure can be tedious and time consuming, especially during a busy season. There are jetspray devices

available that attach to a hose and pierce the bottom of the container. A 60-second spray equals triple-rinsing. Put the rinsates into the spray tank. Storing unrinsed containers with plans to rinse them during the off season increases compliance problems. Container rinsing is never a welcome job, but rinsing as containers are emptied is the best choice.

TABLE 2. Triple Rinse Procedure

1. Empty pesticide container into spray tank and allow container to drain for 30 seconds.

2. Add rinse water to container so it is one-fourth full.

3. Rinse container thoroughly, pour rinsate into spray tank and drain for 30 seconds. Do this procedure three times.

4. Recycle or dispose of the triple-rinsed container along with other trash.

DO NOT dispose of pesticide containers in the following ways;

1. DO NOT send nontriple-rinsed pesticide containers to sanitary landfills or recyclers.
2. DO NOT discard pesticide containers in unapproved locations.
3. DO NOT re-use pesticide containers for other purposes.
4. DO NOT allow nontriple-rinsed pesticide containers to accumulate.

PRECAUTIONARY STATEMENT

All pesticides have both benefits and risks. Benefits can be maximized and risks minimized by reading and following the labeling. Pay close attention to the directions for use and the precautionary statements. The information on pesticide labels contains both instructions and limitations. Pesticide labels are legal documents and it is a violation of both federal and state laws to use a pesticide inconsistent with its labeling. The pesticide applicator is legally responsible for proper use. Always read and follow the label.

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