Storing Pesticides Safely

Diane Relf, Extension Specialist, Environmental Horticulture, Virginia Tech

**Storage Tips**

Proper storage of pesticides, both synthetic and botanical, in and around the home is important for many reasons, including protection of human health, preservation of the environment, and maintenance of chemical effectiveness. One way to minimize storage problems is through good planning.

Buy only the amount of pesticide that you need for a specific job or for the current growing season. The smaller volume containers, even if more expensive ounce for ounce, may in fact be the "best buy" in the long run, eliminating waste and the need for storage space. If you need to store pesticides on your property, follow these guidelines for safety's sake!

1) Consult the label for specific storage requirements.

Always read the pesticide label for specific storage requirements. The chemical and the container in which it is purchased must be maintained in good condition. This is necessary to ensure that the material remains useful, and to avoid environmental or human health hazards.

2) Design a pesticide storage area.

Design or designate a pesticide storage area that meets the following requirements:

- Easy to lock well-ventilated properly lighted when in use.
- Dry- protected both from flooding and high humidity.
- Protected from extreme heat and freezing.
- Spacious enough to allow for separation of herbicides, fungicides, insecticides, and fertilizers if all these types of materials are to be stored.
- Enclosed in such a manner that leaks and/or spills may be contained and cleaned without compromising the soil and water quality in the vicinity.

The storage area must be designed to keep out unwanted visitors, especially children and animals! Good lighting and ventilation are important to protect the health of anyone using the storage area. Proper ventilation can also prevent chemicals from affecting other materials in storage. It is essential to store pesticides where their fumes cannot invade areas used by people or pets. Group stored chemicals by type as a precaution against contamination.

Dampness is a serious problem, as it reduces the shelf life of many chemicals and causes metal and paper containers to decompose. It is imperative that storage areas be designed so that there is no danger of chemicals being washed into our water by flooding or by accidental spills into water drains.

Temperature extremes can cause physical or chemical changes to pesticide products. Such changes may make the product ineffective and/or cause plant injury. Heat makes chemicals more volatile and unstable. Freezing can cause some types of containers to break open. If specific temperature ranges are required for proper storage, they will be printed on the product label.

Finally, the site must be designed to contain, or stop the further spread of, any spills and/or leaks.
3) Store pesticides safely.

Use approved management techniques for storing pesticides safely:

- Locate your storage area where clean-up materials (absorbents, water) will be near at hand.
- Keep pesticides in their original containers. A legible product label must be attached to the chemical container.
- Do not store pesticides with or near food, medicine, or cleaning supplies.
- Do not store pesticides with or near seed or animal feed.
- Do not store flammable materials with pesticides.
- Organize the materials in storage so they are accessible and visible.
- Place opened containers in clear plastic bags or see-through plastic ware. This will allow for easy identification of products while containing leaks and helping to avoid accidental spills.
- Mark all containers with the date of purchase. Keep a written inventory of materials on hand, and use older chemicals first. A storage inventory helps in planning purchases next season. Useful records may include product name, active ingredient, date of purchase, record of use, and date and volume stored.
- Routinely inspect your storage area. Check containers for damage or leaks. Dispose of unwanted or outdated material according to the label recommendations.

For more information on selection, planting, cultural practices, and environmental quality, contact your local Virginia Cooperative Extension office.

The development of this series was funded by ES-USDA Smith lever 3(d), National Water Quality Initiative Funds and the Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation.

If you want to learn more about horticulture through training and volunteer work, ask your Extension agent about becoming an Extension Master Gardener. For monthly gardening information, subscribe to The Virginia Gardener Newsletter by sending your name and address and a check for $5.00 made out the “Treasurer, Virginia Tech” to The Virginia Gardener, Department of Horticulture, Virginia Tech, Blacksburg, VA 24061-0349.

Publication Number 426-705