Safe storage and transport of pesticides

By Ryan Atwood and Steve Futch

properly designed and maintained storage site for pesticides is essential. The storage site should reduce the possibility of pesticide exposure to people and the environment, which reduces potential liability. In addition to safety or legal concerns, a secure location helps prevent theft, damage from temperature extremes, moisture, vandalism and unauthorized use. In order to prevent unwanted access, storage sites should be securely locked. In addition, pesticide signs along with no-smoking signs should be clearly posted.

Some factors to consider when choosing a site for chemical storage are the potential for controlling the environment, having proper lighting, use of non-porous flooring materials and providing adequate ventilation. Choosing a storage site that is unlikely to have water damage is wise. Water from burst pipes, spills, overflows, excess rain or flooding conditions can cause paper and cardboard to crumble, metal containers to rust and damage pesticide labels. Additionally water can dissolve, degrade or release certain types of pesticides and move them offsite.

A storage site should be indoors, if possible. A cool, well-vented and insulated room or building is ideal. The pesticide label will tell you at what temperature pesticides should be stored. Freezing temperatures or excessive heat can cause certain types of containers to become damaged. These extreme temperatures may destroy the effectiveness of the pesticides. The storage facility's floor should be made of some easily cleaned material such as cement or glazed ceramic tile. Floors containing carpet, wood or soil tend to absorb chemicals and are near impossible to clean. Shelving and pallets should also be made of easy-to-clean material such as plastic or metal. If wood is used, it should be coated with plastic, polyurethane or epoxy paint.

Clean water should always be available at the storage site for emergency decontamination. If potable running water is not available, then the use of a carboy or large sealable container with clean water should be readily available. Water should be changed regularly to ensure safety for use on skin or in eyes. Additionally, an eyewash kit should be available.

Food, drinks, tobacco, animal feed, medical/veterinary supplies, seeds or clothing should not be kept in a pesticide storage facility. Pesticides in storage facilities should all have legible labels. If labels are smudged, smeared or damaged, request a replacement label from a pesticide dealer or manufacturer. You should only store pesticides in their original containers. If you must transfer chemicals to another container, be sure to clearly label the new container with the proper pesticide label. Never put pesticides into containers that someone could mistake for food or drink. The legal responsibility falls to you if someone is injured due to improper labeling or unsuitable use of containers.

Volatile pesticides (such as some types of 2, 4-D) should be stored separately. Vapors from volatile chemicals can move into nearby pesticides and make them useless. The label will tell you if a chemical is volatile and if it needs to be stored separately. Flammable pesticides should be stored separately as well. Store these types of pesticides away from open flames and heat sources. Do not store glass containers in the sunlight where they can possibly explode or ignite. If you store highly toxic or large amounts of pesticides, inform-

ing your local fire department before an emergency occurs is a wise decision.

Inspect your pesticides frequently for damage to containers. If a container is damaged, use pesticide immediately at a site and rate allowed on the label or transfer the pesticide into a container that has held the same material and still has an intact and proper label. Keep an up-to-date inventory of the pesticides in your storage facility. Every time that you add or remove a container, update your inventory list. Write the date of purchase on each container and use older materials first.

When discarding pesticide containers, make sure to triple rinse, marking them with the 3x on the outside and make holes in the empty and triple-rinsed container to prevent future use. The only legal use of a pesticide container is the storage and transportation of a pesticide. You may not use the container for any other uses. In some areas, triple-rinsed metal or plastic containers may be recycled. Selected 55- and 30-gallon drums can be returned to the manufacturer to be reconditioned or reused. Containers that have been properly rinsed may be disposed of as regular trash at the landfill (unless prohibited by label or local laws).

Anyone who transports pesticides is responsible for taking necessary precautions. Carelessness can result in damaged containers and spills, which have the potential to harm others and you. Accidents can occur no matter the distance that you are traveling, so be prepared for the worst-case scenario. Being prepared starts with learning what you need to do to prevent mishaps from occurring and knowing what to do if a pesticide is spilled.

The safest way to transport pesticides is in the back of a truck. Trucks that have steel or plastic bed liners are best as cleaning up spills is much easier. If using a flatbed truck, it should have side and tail racks. Regardless of the type of vehicle you use, all containers should be properly secured or tied to prevent movement during transportation. You never should carry pesticides in the cab of your vehicle as hazardous vapors may be released. These vapors or pesticides that are spilled on you or your passengers have the potential to cause serious illness. Also, it is very difficult to remove spills completely from floor mats or seats.

Children or animals should never travel in the same area as the pesticides. You should never transport pesticides with anything that may come into contact with people or animals, such as food, feed or clothing. If you must stop while transporting pesticides, you should never leave them unattended. If someone were to accidentally become poisoned by pesticides, you are the responsible and liable party. If possible, it is a good idea to keep pesticides in a securely locked compartment.

Before transporting a pesticide, make sure to inspect containers. Proper transportation of pesticides will occur in undamaged intact containers which have readable labels. All containers should be anchored to prevent movement or tipping. Protection of containers from extreme temperatures will help to maintain the materials' effectiveness.

It is your responsibility to properly use, store and transport pesticides. The safety and health of you and your employees depends on your actions. Pesticide safety is everyone's concern.

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