

Dealing with pesticides during and after flooding

If flooding has occurred . . .

Be very careful when entering pesticide storage areas that may be flooded, since the pesticides may have contaminated the water. Wear personal protective equipment, especially chemical-resistant boots.

You must notify local and state authorities, such as the Local Emergency Planning Committee (LEPC) if pesticides have leaked from their containers (N.D. Administrative Code 60-03-01-09). For information on meeting state reporting requirements, call the North Dakota Division of Emergency Services (NDDDES) Spill Hotline at **1-800-472-2121**. This hotline is available 24 hours a day, 7 days a week.

Emergency hotline personnel will gather information about the pesticide release and make response decisions. Emergency response professionals in your area will be notified to serve as the first responders to the flood site, as necessary. Some possible scenarios:

- For minimal flooding or leakage from paper containers, officials may provide you with specific clean-up instructions. For example, you may be asked to place the water-damaged pesticide into a secondary waste container and take it to one of the Project Safe Send collections scheduled in July 2009. Contact the North Dakota Department of Agriculture (NDDA) at **1-800-242-7535** for more information and container bags.
- If moderate flooding has occurred, containment and clean-up may be feasible. An area emergency response professional may be sent to the site. Technical guidance from NDDDES, NDDA, and the North Dakota Health Department may be necessary.
- If major flooding has already occurred, containment may be very difficult. Check your storage inventory to determine if product is missing. If so, inform your LEPC about types of pesticides and approximate amounts removed by floodwaters.

Contain the area

Take steps to prevent further release of the pesticides if possible and feasible. Put smaller containers that are leaking into larger containers. Wear personal protective equipment so you do not expose yourself to the material in the process of stopping the spill.

If possible, contain the spill material to the area by constructing a dam or dike to prevent the chemical from spreading.

Flooded pesticides

Some pesticides and pesticide containers can survive flooding without harm and be saved for future use. Others are ruined when wet and must be properly disposed of to reduce their potential harm.

Salvage

Pesticides in unbroken, waterproof containers can usually be salvaged. Salvageable pesticides may include:

- Liquid concentrates in glass, metal, or plastic containers. If liquids have a milky appearance, water has probably leaked in, and the pesticide should be properly disposed of. Clear liquid concentrates are probably unharmed.
- Pressurized cans or “bug bombs.”
- Baits, powders or granules in waterproof containers.

Labeling

Labels on salvaged containers may be loose and should be firmly reattached. Unlabeled pesticides are dangerous to handlers and the environment, since there is the possibility that they might not be used correctly. If there is any question about a container’s contents, set it aside for disposal.

Disposal

Dispose of any flooded pesticide dusts, wettable powders or soluble powders packaged in paper or cardboard containers. If pesticides in these containers have become wet, chemical changes may occur, and the formulations may become hard and/or lumpy so that they cannot be properly suspended in water or used as a dust.

Be very careful when handling these containers, since they may be soggy and may break when handled. Some pesticides react unpredictably in the presence of water. Properly dispose of any containers that cannot be identified because of wet, illegible, or missing labels. The recommended method for pesticide disposal is to bring the pesticides to the next Project Safe Send collection. Call the NDDA at **1-800-242-7535** for more information. If unsure of the correct procedure for disposal, contact the regional EPA office, NDDA, or your local Extension Service office for directions and help in disposing of damaged pesticides.

Watch for pesticide poisoning

Be alert to signs of any illness that may result from handling pesticides or pesticide waste. Acute symptoms frequently include headache, nausea, diarrhea, visual disturbances, excessive salivation or sweating, difficulty breathing, weakness, tremors or convulsions. Acute symptoms usually appear within 24 hours, although occasionally they may be delayed for several days after exposure. Consult the pesticide label or Material Safety Data Sheet (MSDS) for information regarding pesticide poisoning. See a physician immediately or contact your local poison control center if symptoms appear. Be sure to provide a copy of the label and/or MSDS to the physician.

No safety precautions and protective measures will completely eliminate risks, but you can minimize the risk of exposure. Here are some suggestions:

- Inspect containers. If a container looks as if it may tear or rupture when moved, carefully repackage the container. Heavy plastic bags for repackaging containers can be obtained by calling NDDA.
- Wear the personal protective equipment (goggles, gloves, respirator, etc.) described on product labels when handling pesticides. If you suspect that any of the older chemicals or unlabeled chemicals are highly volatile or are packaged under pressure, consider the need for appropriate respiratory protection.
- If the product is not labeled or if the product label is not legible, wear the protective clothing you would normally wear when applying pesticides. At a minimum, wear gloves, goggles, respirator and boots.
- Handle all containers of waste and unused pesticides with care to minimize the possibility of container rupture and loss of material.