SAFEGUARDING SURFACE WATER SUPPLIES

The importance of protecting ground water quality is getting lots of attention, but surface water, which supplies many urban areas, must also be addressed. Those of us involved with agricultural (ag) chemicals must take necessary precautions to protect surface water too.

ON THE FARM

Several commonsense practices can go a long way toward preventing runoff from fields from entering streams, lakes, rivers and ponds. These tips are valuable throughout the growing season:

- Calibrate, fill and rinse chemical application equipment a safe distance from water supplies.
- Leave no-spray strips around surface water supplies, wells or irrigation ditches.
- Maintain grass waterways and grass or forage strips in fields as buffers to help retard the runoff of soil and agricultural chemicals into water supplies.
- Use contour farming or no-till farming on erodible lands to help keep runoff out of nearby water supplies.
- Plow berms around sink holes to prevent surface runoff from entering water supplies.

Contact your local Soil Conservation Service to discuss conservation farming practices.

PRIVATE APPLICATORS

Aerial and ground-rig applicators must be particularly careful to identify surface water which may be near spray targets. Locate nearby streams, lakes and ponds by talking with the landowner and target spraying to protect surface water supplies. Close attention to windspeed and direction will prevent off-target drift into these water supplies.

DEALERSHIP PRECAUTIONS

Dealers play a vital role in water quality protection. Many are installing secondary containment facilities around their ag chemical storage tanks and loading areas.

Containment facilities protect ground water aquifers located under the site and protect nearby surface water supplies too. Spills and equipment rinsewater can be collected, thus preventing runoff into storm drains, drainage ditches and adjacent streams or lakes. Collected solutions should be applied to fields or recycled into future mixes of the same chemical.

By reducing runoff, you reduce losses of soil, fertilizers and ag chemicals to adjacent surface water.

Photo courtesy of Soil Conservation Service.
Chemtrec is a 24-hour emergency telephone service for roadway spills (800-424-9300).

Chemtrec is staffed by chemical experts who provide information on whom to call or what procedures to use for handling or cleaning up a spilled ag chemical. They also contact the chemical manufacturer for you and give you the phone number for follow-up.

**KEEPING SPILLS FROM ENTERING SURFACE WATER SUPPLIES**

Although prevention of ag chemical spills and runoff is a cornerstone of water protection, knowing what to do if a spill occurs, whether its on your property or on the road, is also of vital importance. Hopefully, anyone who handles ag chemicals will never have to face a serious spill such as a tipped spray rig or truck. But spills do occur, and every employee should be trained to properly control, contain, clean up and report spills. Of course, appropriate personal safety equipment should be used, e.g. rubber gloves, rubber boots and eye protection.

Coupling the techniques in this fact sheet with other ACRE information can help protect both surface and ground water supplies, and safeguard your family and employees.

**CONTROL THE SPILL** as quickly as possible by restoring the container to its upright position, closing a leaking valve or hose or putting a secondary container in place to catch the leaking solution. Since direct worker exposure is highly likely during this process, exercise care and judgement to prevent accidental exposure.

**CONTAIN THE SPREAD** of the spill when the leak has been stopped by creating soil dams in the path of the spilled liquid. It may be most important to first divert a spill away from a nearby pond or stream and then attempt to stop the leak or spill. This is a judgement call that only you can make.

**BEGIN CLEAN UP** as soon as the situation has been stabilized. Quick action on your part to clean up a spill is not only required in many states, but will prevent the chemical from leaching or washing away in a rainstorm. A call to the manufacturer for advice on clean-up of their chemical is a good safety practice.

**USE ABSORBENT MATERIALS** on pavement or concrete to capture the spilled liquids. They then can be shoveled or swept. An excellent, inexpensive absorbent material to keep on hand for such purposes is pet litter. Other materials are available, including commercially-available absorbent pillows.

**PROPERLY DISPOSE** of the drenched soil or absorbent material. This will depend on what and how much was spilled and the rules for disposal in your state. Contact state or local officials for legally acceptable options of disposal. In many states, the soil can be spread over a field if the labeled application rate is not exceeded. If this is not an option, the soil or absorbent material may need to be disposed of in a landfill that handles such material.

**REPORT THE SPILL** if it spreads into surface water or threatens public health or the environment. If the spill is large or enters a waterway, you'll need to call the local EPA office, the local emergency planning office or the state health department. Also, notify the wastewater treatment facility of your town if a spilled solution enters a city drain. The reporting criteria vary with the chemical spilled, however, so check the Material Safety Data Sheet or call the manufacturer for further details.

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