

Pesticide Use Can Be Hazardous To Your Health

(Continued from Page A1)

Most physicians don't really have a good handle on low-exposure pesticide poisoning, according to Hock. In fact, unless the farmer were to mention that he'd been working with pesticides, the doctor would probably misdiagnose it. This makes it important for the farmer to recognize the symptoms and watch for them while using pesticides.

How poisoning occurs

Poisoning varies in intensity ranging from reddened skin to death. There are four ways in which pesticides enter the body: through the skin, the mouth, the lungs, or the eyes.

"For most exposure situations, the skin is the most important entry route of pesticides into the body," explained Hock. "About 97 percent of all body exposure to pesticides during a spraying operation is by skin contact."

Dermal exposure can occur during any stage of pesticide use including mixing, applicating, and cleaning. Protective clothing should be worn during all stages, and farmers should take care not to touch any pesticide equipment with bare hands before it has been cleaned thoroughly. Many times exposure results from cleaning equipment with bare hands, wearing liquid-absorbant clothing, removing gloves before they're washed, or spraying when wind is present.

The most serious poisonings come from exposure to organophosphate and carbamate insecticides, according to Hock. Organophosphate insecticides include methyl and ethyl parathion, Cygon, Diazinon, Di-Syston, Guthion, malathion, Metasystox-R, Phosdrin, and Thimet; carbamate insecticides include Sevin, Furadan, Lannate, and Temik.

The early signs of internal poisoning from one of these compounds include fatigue, headache, giddiness, sweating, dizziness or blurred vision, cramps, nausea, vomiting, and diarrhea. During the next stage of poisoning, symptoms that may develop are numbness, changes in heart rate, general muscle weakness, difficulty in breathing and walking, pinpoint pupils, excessive salivation, and an increase in severity of the earlier symptoms. Finally, convulsions and comas can occur that result ultimately in death.

If any of these symptoms should occur while working with pesticides, the farmer should stop what he's doing and administer first aid. The first aid could be as simple as taking a break away from the chemicals and donning additional protective gear. Or it could be a phone call to a poison control center.

Hock recommends that farmers watch for early signs and symptoms of pesticide poisoning. "These often occur immediately after exposure, but may be delayed for up to 24 hours," he added. If a farmer suspects that he or a family member has been poisoned, he should seek medical attention immediately, taking care to bring the pesticide label to the doctor so that he knows how to care for his patient.

In extreme emergencies, contact a nearby poison control center or the National Pesticide Telecommunications Network at 800/858-7378 where a person is standing by 24 hours a day, every day of the year.

Protective gear

When handling pesticides, the

farmer should at least wear a long-sleeved shirt and pants of a tightly woven or waterproof material, unlined waterproof gloves without a fabric wrist band, waterproof boots, and a goggles, according to Hock. Check the pesticide label to know what other precautions may be necessary.

Just wearing the above articles doesn't necessarily mean protection will be absolute, however, unless they are worn to prevent spills from rolling down arms or legs to exposed skin. For example, shirt sleeves should be worn over gloves unless the farmer will be working with his hands and arms overhead, in which case the gloves would be worn outside the sleeve with the glove cuffs turned up to catch pesticide that may run down the arm. Trouser legs should be worn outside the boots.

All protective clothing should be washed after use, and in hot water at full water level separately from the family laundry. The washing machine should be rinsed with "an empty load" using hot water and a heavy-duty detergent afterwards. Bleach or ammonia may help remove some pesticides, but don't use the two in combination as they form chlorine gas, which can be fatal.

Proper mixing

Farmers should use commonsense when mixing pesticides and cleaning up afterwards, according to Hock. "The pesticide mixing and loading area should be outside away from other people, livestock, and pets," he stressed. "Pesticides should not be mixed in areas where a spill or overflow could get into a water supply."

When pouring from a container, the farmer should keep his face far from the container so as to avoid getting splashed in the face. Measuring utensils should be handy and used only with pesticides. Make sure they're labeled so no one else could use them for another purpose. When adding water, the hose should never make contact with the pesticide. This will prevent pesticides from getting into

the water supply or on unprotected hands later on.

Avoid contact when applying
Farmers should bring fresh water, soap, and paper towels in a container when they apply pesticides so that they can quickly wash off any drift or splashes. Hock also warns farmers not to eat, drink, or smoke when applying pesticides.

Before applying pesticides, farmers should check the equipment carefully, looking for leaking hoses and connections and plugged or worn nozzles. If equipment needs to be fixed in the field, try to minimize exposure to the chemicals. "If a nozzle becomes clogged while spraying, stop spraying, and move to an untreated area to correct the problem," advised Hock. "Use an old toothbrush or other brush to clean plugged nozzles; avoid wire or metal, which can damage nozzles."

Often it is windy when farmers need to spray. If this is the case, there are some actions that will reduce drift:

- Select the correct nozzle type and use a spray pressure low enough to produce the largest sized droplet that will provide sufficient penetration and coverage of the intended target.

- Nozzles should be checked for wear, which can affect sprayer calibration and droplet size.

- Select nonvolatile or low volatile formulations.

- Include a drift control agent in the spray mix.

- Spray during the early morning or early evening when wind speeds are lower.

Farmers who live near residential areas have another set of concerns when applying pesticides. For instance, if the wind is strong enough, pesticides may drift into the residential area or children may play in the field after it is sprayed.

"It is a big concern," stated Hock. "It's a case where good neighborly relations will solve some of the problems. The farmer will have to work it out with the residents."

Town	Center	Phone
Allentown	Lehigh Valley Poison Center Allentown Hospital-Lehigh Valley Hospital Center 17th & Chew Sts., 18102	215, 433-2311
Altoona	Keystone Region Poison Center Mercy Hospital 2500 7th Avenue, 16603	814, 946-3711 OR 949-4197
Chester	Sacred Heart Medical Center 9th & Wilson Sts., 19013	215, 494-4400
Danville	Susquehanna Poison Center Geisinger Medical Center Box 273A, 17281	717, 275-6116
Easton	Easton Hospital 21st & Lehigh Sts., 18042	215, 250-4000
East Stroudsburg	Pocono Hospital 206 E. Brown St., 18301	717, 421-4000 Ext. 4666
Erie	Mitcreek Community Hospital 5515 Peach St., 16509	814, 864-4031 Ext. 427
	Hamot Medical Center 201 State St., 16550	814, 870-6111
	Northwest Poison Center Saint Vincent Health Center 232 W. 25 St., 16544	814, 452-3232 OR 452-5350
Gettysburg	Gettysburg Hospital 147 Gettys St., 17325	717, 334-9155
Hanover	Hanover General Hospital 300 Highland Ave., 17331	717, 637-4074
Harrisburg	The Milton S. Hershey Medical Center	717, 531-6111
Hershey	The Milton S. Hershey Medical Center 500 University Drive, 17033	717, 531-6111
Johnstown	Keystone Region Poison Center Mercy Hospital, Altoona	814, 946-3711 OR 949-4197
Lancaster	St. Joseph's Hospital 250 College Ave., 17604	717-299-4546
Latrobe	Latrobe Area Hospital Assn. West 2nd Ave., 15650	412, 537-1000 Ext. 1187
Lewistown	Lewistown Hospital Highland Ave., 17044	717, 248-5411
Philadelphia (Bucks, Chester, Delaware, Montgomery, and Phila. Counties)	Delaware Valley Regional Poison Control Center 1 Children's Center, 19104	215, 366-2066 OR 366-2100 (Emergency line)
Pittsburgh	Pittsburgh Poison Center Children's Hospital 1 Children's Place 3706 5th Ave. at Desoto St., 15213	412, 681-6669
Scranton	Community Medical Center 1622 Mulberry St., 18510	717, 343-5566
Sharon	Sharon General Hospital 740 E. State St., 16146	412, 983-3911 Ext. 3670
Wilkes-Barre	Wilkes-Barre Gen. Hospital N. River & Auburn Sts., 18764	717, 829-2200 OR 829-8111 Ext. 2916
York	The Milton S. Hershey Medical Center	717, 531-6111

Pennsylvania Public Health Offices (Harrisburg)

Harrisburg	J. B. Ogun Div. of Drugs, Devices, and Cosmetics 930 Health and Welfare Bldg. P.O. Box 90 State Dept. of Health, 17106	717, 787-2307 Watts, 447-2307
	Bobby R. Jones, D.V.M., MPH Acting Director Division of Aid, P.O. Box 90 Pa. Dept. of Health, 17106	717, 787-3350 Watts, 447-3350

