

only be applied in select situations and only by certified applicators.

FIFRA establishes minimum standards for pesticide regulation nationwide. In Louisiana, the Department of Agriculture and Forestry (LDAF) regulates pesticide use through FIFRA and the Louisiana Pesticide Law. Louisiana can pass laws that are more stringent than FIFRA, but may not weaken its provisions. For example, Louisiana schools are required to develop an Integrated Pest Management plan and maintain records of pesticides used on school property. Schools are encouraged to use the least toxic method of pest control.

Improper labeling, use or application of pesticides violates FIFRA, and can result in civil and/or criminal penalties. State agencies have been delegated the authority to prosecute FIFRA violations.

The U.S. Environmental Protection Agency's **Worker Protection Standard** (WPS) protects the health of workers and pesticide handlers (mixers, loaders and applicators) involved in the production of agricultural and forestry products.

WPS requires agricultural employers to exclude workers from areas being treated with a pesticide and areas under a restricted-entry interval (REI). List of pesticide treatments made on a field and applicable REIs must be posted in a central location. REIs are found on the pesticide label.

WPS also requires agricultural employers to provide the following:

- pesticide safety training for all workers and pesticide handlers;
- personal protective equipment for pesticide handlers and early-entry workers;
- adequate supply of water, soap and towels for decontamination; and
- transportation to a medical facility when a worker or handler is injured.

Are there laws governing aerial application of pesticides?

LDAF regulates the spraying of pesticides from aircraft. The Federal Aviation Administration regulates the operation of aircraft during aerial

applications. Complaints regarding the operation of aircraft may be directed to the Federal Aviation District Office: (225) 358-6800.

Whom may I contact about pesticide problems?

If you believe you have suffered health effects from a pesticide exposure, file a Health-Related Pesticide Incident Complaint as soon as possible with LDAF. Complaints are investigated by LDAF and the Department of Health and Hospitals (DHH). LDAF determines if a misapplication or violation has occurred, and DHH evaluates the health effects resulting from the pesticide exposure. A final report is provided to the complainant. To file a complaint, contact

LDAF's Pesticide Hotline: (225) 925-3763

If you believe a pesticide is being applied incorrectly, or wish to report violations of the Worker Protection Standard, contact LDAF.

Steps you can take after a Health-Related Pesticide Incident:

1. Call LDAF's Pesticide Hotline: (225) 925-3763.
2. Contact the applicator and/or property owner to inquire about the pesticides used and to inform them of the incident.
3. Save contaminated clothing in a plastic bag for sampling. Close the bag securely.
4. Take photographs and/or a videotape of the area that was sprayed.
5. Record contact information of any witnesses.
6. Keep a written record of the incident and subsequent events, including agency contact, onset and duration of symptoms, physician visits and medical tests.
7. Keep copies of all letters and records.

Are there organizations working on the issue of pesticides?

To learn about organizations working in your area on the issue of pesticides, contact the Louisiana Environmental Action Network (LEAN). LEAN is a non-profit organization dedicated to making Louisiana's communities safer, healthier places to live. Its goal is to foster cooperation and communication among individuals and organizations to address environmental problems in Louisiana.

Department of Agriculture and Forestry
Office of Agricultural & Environmental Sciences
Pesticide & Environmental Programs
P.O. Box 3596
Baton Rouge, LA 70821-3596
24-hour Pesticide Hotline: (225) 925-3763
Website: www.ldaf.state.la.us

Department of Health and Hospitals
Office of Public Health
Section of Environmental Epidemiology
& Toxicology
PO Box 60630
New Orleans, LA 70160
Toll-free Number: 1-888-293-7020
Website: www.seet.dhh.louisiana.gov

Louisiana Environmental Action Network (LEAN)
P.O. Box 66323
Baton Rouge, LA 70896-6323
Telephone Number: (225) 928-1315
Website: www.leanweb.org

Louisiana Poison Control Center
Toll-free Number: 1-800-222-1222
Website: www.lapcc.org

National Pesticide Information Center (NPIC)
NPIC provides pesticide information to the public.
Toll-free Number: 1-800-858-7378
Website: npic.orst.edu

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What You Need To Know About Pesticides & Your Health in Louisiana



This pamphlet was created by the Louisiana Department of Agriculture & Forestry, the Louisiana Department of Health & Hospitals and the Louisiana Environmental Action Network.



WHAT EVERYONE SHOULD KNOW ABOUT PESTICIDES

What is a pesticide?

Pesticides are chemicals developed to repel, control or kill pests. Pests can be insects, weeds, fungi or rodents. There are more than 17,000 pesticide products used in the U.S.. Pesticides are widely used on agricultural crops, in the home, yard and public places. The types of pesticides commonly used are also called insecticides, herbicides, fungicides and rodenticides.

Are pesticides harmful to people?

In addition to harming pests, many pesticides can also harm people. The harmful effect of a pesticide depends on the strength or toxicity of the chemical ingredients, the amount and the length of time of the pesticide exposure and the way it enters the body. *Reading the label and following directions can prevent many pesticide-related illnesses.*

Are some people at greater risk to the effects of pesticides?

People have different responses when exposed to pesticides. Depending on their basic health condition, age and individual characteristics, the responses of people can be very different. Small children, the elderly and people with health conditions may be affected more. How often and how long people come into contact with pesticides also affects their risk of developing problems from exposure.

How can I be exposed to pesticides?

Exposure occurs when you come into contact with a pesticide and it enters your body. A risk of exposure may be present if pesticides are nearby, but they must contact your body to harm you. There are three major ways for pesticides to enter the body. If a pesticide is in the air, it can be inhaled and may pass into the bloodstream. If it is in food or water, or if it is accidentally swallowed, it can enter through the stomach. Certain pesticides may pass through the skin. Some pesticides may irritate the skin, eyes, nose and throat if you come into direct contact with them.

Examples of Pesticide Exposure:

Drift or Overspray: Pesticide spray from an airplane, tractor or a home sprayer may drift or blow onto people living, working or going to school near agricultural fields or other application sites.

Occupational: Farmworkers, applicators or mixers may touch or inhale large amounts of pesticides. Workers may unknowingly expose their families by carrying pesticides into their homes on their bodies, clothes and shoes, or by not washing their work clothes separately from the family laundry.

Household: Improper use, storage and application of household pesticides such as insect repellents, foggers and baits, rodent poisons, weed killers, flea and tick control products and disinfectants (such as bleach) can lead to poisonings.

WHAT TYPES OF PESTICIDES ARE COMMONLY USED

Insecticides

Insecticides are used to control or kill insects.

Organophosphate and carbamate insecticides were commonly used on crops and in the home although in the past several years many of the products are no longer sold for residential use. Organophosphate and carbamate insecticides affect the nervous system of people. Exposure to toxic amounts can cause adverse effects ranging from shortness of breath, excessive salivation, nausea, vomiting, headache, dizziness and chest discomfort to convulsions, paralysis and even death.

Examples of Organophosphates:

- Chlorpyrifos
- Diazinon
- Malathion
- Methyl Parathion

Examples of Carbamates:

- Aldicarb
- Carbaryl

Two other types of insecticides are pyrethrins/pyrethroids and organochlorines:

Pyrethrins/pyrethroids are not considered to be very toxic, although skin irritation and asthma have occurred following exposure.

Examples of Pyrethrins/Pyrethroids:

- Cypermethrin
- Lambda-cyhalothrin
- Permethrin
- Bifenthrin
- Pyrethrin



Organochlorine insecticides include DDT, chlordane, endosulfan and lindane. DDT and chlordane are no longer widely used because of their persistence in the environment and their toxicity to wildlife and humans. Organochlorines can accumulate in the body and remain for long periods of time. Short-term exposure can cause headache, vomiting, diarrhea, dizziness and seizures. Long-term exposure to some organochlorines has been shown to alter reproductive development in animals.

Examples of Organochlorines:

- Endosulfan
- Lindane

Herbicides

Herbicides are used to kill weeds. Exposure to toxic amounts of a herbicide can cause eye and skin irritation, coughing, burning of the throat and lungs, dizziness, nausea and temporary incoordination.

Examples of Herbicides:

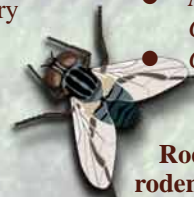
- Atrazine
- 2,4-D
- Dicamba
- Glyphosate
- Triclopyr

Fungicides

Fungicides are used to control molds, fungi and mildew. They are widely used in agriculture, industry, and the home and garden for a number of purposes: protection of seed grain, berries, flowers and grasses; and control of mildews and slime. Different fungicides vary in their potential for causing harm. The most common health effect is irritation to the skin, mouth and nose. Some of the more toxic fungicides can cause headaches, nausea, vomiting, dizziness and loss of consciousness.

Examples of Fungicides:

- Benomyl
- Mancozeb
- Chlorothalonil
- Captan



Rodenticides

Rodenticides are used to kill rats, mice and other rodents. Exposure to toxic amounts of warfarin and other anticoagulant rodenticides can cause internal bleeding. Exposure to other rodenticides can cause difficulty breathing, nausea, vomiting and

unconsciousness. Typically, it is necessary to consume rodenticides by mouth in order to be harmed.

Examples of Rodenticides:

- Bromadiolone
- Brodifacoum

WHAT SHOULD I DO IF I AM EXPOSED TO A PESTICIDE?

1. First Aid Treatment:

Poison on Skin or Clothing -Remove clothes immediately and wash skin with running water for fifteen minutes.

Poison in Eyes-Rinse eyes with water for fifteen minutes.

Inhaled Poison-Leave the area and seek fresh air.

Swallowed Poison-Read label to determine if there is something you should do right away.

2. Call the

Louisiana Poison Control Center 1-800-222-1222

The Center is staffed by trained professionals 24 hours a day. Center staff provide poison information and treatment recommendations related to pesticide exposure.

3. Seek medical help from your physician or hospital emergency room. Bring with you:

- labels of all pesticides to which you may have been exposed; and
- records indicating what was sprayed from the person or company that sprayed.

LAWS REGULATING THE USE AND APPLICATION OF PESTICIDES IN LOUISIANA

What laws regulate how pesticides are used?

The *Federal Insecticide, Fungicide and Rodenticide Act* (FIFRA) regulates the manufacture, sale and application of pesticides. FIFRA requires registration and labeling of all pesticides, for either general or restricted use. Restricted use pesticides can

