

PESTICIDE SAFETY AND OTHER PESTICIDE INFORMATION

Milton D. Taylor, Coordinator, Pesticide Safety Education Program (PSEP)

PESTICIDE POISONING

Symptoms of pesticide poisoning may include headache, pin-point pupils, blurred vision, weakness, nausea, cramps, diarrhea, and chest discomfort. If symptoms occur during or within 24 hours after mixing, loading, or applying, or from any accidental exposure, stop work at once and take care of the individual or individuals who may have been poisoned. Be familiar with the label first-aid statements prior to finding someone in trouble, but the basic rule to remember is: “Dilute the pesticide.” If pesticide is spilled on the skin, immediately remove any contaminated clothing and wash the area gently but thoroughly with soap and large amounts of clean, lukewarm water. If pesticide gets in the eye, flush the eye for 15 minutes with a gentle stream of clean water or eyewash solution. This requires about 6 gallons of clean water or eyewash solution. If pesticide is inhaled, move the individual to open, clean air and have the person lay down. If pesticide is ingested rinse out the mouth and follow the pesticide label directions for first aid. If the situation indicates, give CPR. **If the situation is life threatening call 911. For less serious emergencies, immediately contact your physician, local emergency room, or poison control center (1-800-222-1222) and transport the victim to the nearest medical care facility. Take the pesticide label with you or have others get it to the facility. Do not transport the pesticide container in the passenger compartment with the victim or allow other people or objects to become contaminated by the pesticide.**

Failure to follow pesticide label precautions can lead to lethal consequences for pesticide handlers, especially with overexposure to organophosphate or carbamate insecticides/nematicides. Follow all label safety precautions. Be especially aware of proper hygiene during mixing, loading, and applying the pesticide. More than 90 percent of occupational exposure is through the hands and forearms. Use chemical resistant gloves (nitrile, butyl rubber, etc.) to reduce exposure. Rubber boots prevent acute exposure from spills and chronic exposure from accumulation of residues in materials of boots and shoes. Pant legs should be on the outside of boots or shoes and not tucked into boot or sock. **The Personal Protective Equipment (PPE) on the pesticide label is not a suggestion—it is the legally required minimum protection for pesticide use.**

PESTICIDE SIGNAL WORDS

In order from most dangerous to least: **Danger-Poison** accompanied by skull and crossbones means **a few drops to a teaspoon can kill**. **Danger** indicates **eye and skin damage concerns are greater than acute lethal toxicity** (even though it can

kill at small doses). **Warning** indicates moderate toxicity where **1–2 tablespoons can kill** and **eye and skin damage** is of moderate concern. **Caution** indicates slight toxicity where it takes a pint or more to kill and eye and skin effects are mild or slight. Pay particular attention to labels on pesticides displaying a Warning signal word for they often are of serious concern for multiple routes of entry.

CLASSIFICATION OF PESTICIDES

Pesticides that the U.S. Environmental Protection Agency has determined to need additional regulatory restrictions to avoid unreasonable adverse effects on humans (handlers), other organisms, or the environment are classified as **Restricted Use**. Restricted Use pesticides may only be purchased and applied by certified licensed applicators or under their direct supervision. Lower risk pesticides are classified as General Use or Unclassified. General Use and unclassified pesticides may be purchased by the general public. All pesticides must be strictly applied according to their label directions.

RECORDKEEPING

In Georgia, licensed pesticide contractors must keep a record of all pesticide applications that are made as a part of their business. Any licensed Commercial Pesticide Applicator who is not operating under a Pesticide Contractor’s License must keep a record of all restricted-use pesticide applications. Licensed Private Applicators are required to keep records of their use of restricted-use pesticides unless they fall under EPA’s Worker Protection Standard Regulations, when all applications must be recorded. Georgia requires all records of pesticide application include the date and time of application; the name of the person for whom it was applied; the location of application site; the crop or target to which it was applied; the acreage, size of area treated, or total amount of pesticide applied; the target pest; the pesticide used and the application rate; the type of equipment used; the name of the applicator; a notation of any unexpected occurrence at or during application, such as spillage, exposure to humans or non-target animals, or drift, and any corrective or emergency action taken; and the names, concentrations and quantities of all pesticides disposed of and the manner of their disposition.

LICENSING OF APPLICATORS

The Georgia Department of Agriculture has specific pesticide licensing and recertification requirements. Restricted Use Products (RUP) may only be pur-

■ PESTICIDE LEGISLATION, REGULATIONS, AND CERTIFICATIONS

chased and applied by licensed certified applicators or persons under their direct supervision. Commercial applicators are required to pass an examination on core pesticide safety topics (from the *National Pesticide Applicator Certification Core Manual, 2nd Edition* of 2014) and one or more category tests (derived from state-approved category manuals) to become a certified licensed applicator. The license lasts for five years and requires the applicator to achieve specific numbers of continuing education credits/hours at least 90 days prior to the license expira-

tion date. Private applicators must complete an online training course available through UGA's Pesticide Safety Education Program or a face-to-face training program with their local county Extension agent and certify that they are engaged in the production of an agricultural, horticultural, or forestry commodity. They must achieve 3 credit hours of continuing education at least 90 days prior to their license expiration date. Check with your county agent for licensing, document requirements, and continuing education programs.

PESTICIDE LEGISLATION, REGULATIONS, AND CERTIFICATIONS

Milton D. Taylor, Coordinator, PSEP

INTRODUCTION

Pesticide production, transportation, distribution, sale, use, application, storage and disposal in Georgia are regulated under both federal and Georgia laws. The federal laws are the Insecticide, Fungicide, and Rodenticide Act and the Food Quality Protection Act. The state laws are the Georgia Pesticide Use and Application Act of 1976 and the Georgia Pesticide Control Act of 1976. Federal laws are enforced by the administrator of the Environmental Protection Agency (EPA). The Georgia laws are enforced by the Commissioner of Agriculture through the Pesticides office of the Georgia Department of Agriculture.

Many features of the Georgia laws are necessary to comply with FIFRA and FQPA as amended and requirements laid down by EPA. The Georgia statutes authorize the Georgia Department of Agriculture to perform certain necessary functions that benefit the pesticide industry, pesticide users and consumers.

USE INCONSISTENT WITH LABEL IS UNLAWFUL

Pesticides that are shipped, distributed, or sold in the U.S. must be registered with EPA and bear the proper label. In Georgia, they must also be registered with the Pesticides office of the Georgia Department of Agriculture. FIFRA, as amended, makes it unlawful to “use any registered pesticide in a manner inconsistent with its labeling.” The Georgia Pesticide Control Act of 1976 makes it unlawful “for any person to use, or cause to be used, any pesticide in a manner inconsistent with its labeling.” FIFRA also makes it unlawful to make any recommendation for a pesticide use that is not in compliance with the label. Specific deviations from the label are permissible in narrowly defined fashions. One may:

- 1) Apply a pesticide at any dosage, concentration or frequency less than that specified on the label.
- 2) Apply a pesticide against any pest not specified on the labeling if the crop, animal, or site is listed and if the labeling does not prohibit such a use.
- 3) Use any application method not prohibited by the labeling, e.g., aerial application.
- 4) Mix a pesticide with fertilizer if not prohibited by the label.
- 5) Use a pesticide differently from the label in conformance with FIFRA Sections 5 (Experimental Use Permits), 18 (Emergency Exemptions for Governmental Agencies), and 24 (Special Local Needs Registration).

Federal and state laws regulate use of the particular product or trade name, not merely the active ingredient or the type of formulation. Even though two products use the same active ingredient in a similar formulation, it is unlawful to use a particular brand for a use that is not included on its label. For example, Roundup™ and Rodeo™ use the same active ingredient in a similar formulation, but it is unlawful to use Roundup™ to control aquatic weeds, as this use is not included on its label.

RESTRICTED USE PESTICIDES (RUP)

Restricted use pesticides are more toxic than general use or unrestricted use pesticides. Restricted use pesticides must be clearly identified. The words “Restricted Use Pesticide” will appear in a box at the top of the pesticide label. To use RUPs in Georgia, you or your supervisor must be licensed by the Georgia Department of Agriculture. An overview of the pesticide licensing process in Georgia follows.

CERTIFICATION AND LICENSING**■ Who needs a pesticide applicator's license?**

If you wish to purchase or use a restricted-use pesticide (RUP), you or your supervisor must have a pesticide applicator's license from the Georgia Department of Agriculture. Any business that operates as a pesticide contractor (charges a fee) must have a pesticide contractor license for each business location and must have at least one commercial pesticide applicator in fulltime employment per location.

■ What is the difference between a private license and a commercial license?

Private license holders may apply RUPs and they can supervise employees who use RUPs to produce agricultural, horticultural, or forestry commodities on the licensee's property, property that is rented, or the property of their employer, including rented property. Private pesticide licensees may only apply RUPs to someone else's property if they are not paid for their service (in exchange for personal services is allowed, however). An agricultural commodity includes any plant, plant part, animal or animal product produced primarily for sale.

Commercial licenses allow the holder to apply RUPs and general or unclassified pesticides if they do not qualify as a private applicator. To charge a fee for their service, a commercial applicator must also hold a pesticide contractor license or work for a pesticide contractor. If you are a pesticide contractor (see below), at least one employee must have a commercial pesticide license to apply any pesticide for a fee and be employed full-time at each business location.

■ Do all of my employees have to have a pesticide license?

No. Only the supervisor is required to have a license. Keep in mind that the license-holder is responsible for the actions of everyone that he or she supervises.

■ What do I need to start a pesticide applicator's business?

You will need a commercial pesticide applicator's license, a pesticide contractor's license, and you must register power application equipment with the Georgia Department of Agriculture. If you wish to start a business to control structural pests (e.g., termites, roaches), you should contact the Georgia Department of Agriculture at (404) 656-3641 to request an application packet. You must have a four-year degree in entomology (or a related field) or two years of experience in structural pest control.

■ How often will I have to take the tests?

You will only have to retake the tests if you allow your license to expire.

Private applicators must earn 3 hours of recertification credit within the 5 years their license is active. They must either complete recertification 90 days before their license expires or repeat the certification training after license expiration.

Commercial applicators must earn 6 or more hours of recertification within the 5 years their license is active, depending on the specific category or categories they hold. They must complete recertification 90 days before their license expires or retake both the core manual and category manual exams. Check the Georgia Department of Agriculture web site for recertification opportunities by going to: <http://agr.georgia.gov/1pesticide-applicator-licensing-and-certification.aspx>.

■ How can I find how many recertification hours I have?

Check the Georgia Department of Agriculture website: <http://agr.georgia.gov/1pesticide-applicator-licensing-and-certification.aspx>.

■ Is my pesticide license valid in other states?

Georgia has reciprocal agreements with Alabama, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. If you have a private pesticide applicator license from Georgia, you may use RUP in any of these other states. If you have a commercial license from any of the cooperating states, you may obtain a reciprocal license from the others without taking their certification tests. Contact the Department of Agriculture for the state in which you are interested.

■ Who needs a pesticide contractor's license?

Any company or individual that applies pesticides for a fee must have a pesticide contractor license for each business location. Contact the Georgia Department of Agriculture (404-656-4958) for additional information. There is no test, but pesticide contractors must pay an annual fee of \$55 and demonstrate proof of financial responsibility. Also at least one certified commercial applicator must be employed full-time, even if RUPs are not used at each business location.

■ What do aerial applicators need?

The business must have a pesticide contractor license. All pilots must meet all FAA and Georgia aeronautical requirements and have a commercial pesticide applicator license with certifications in one or more categories 21–32 and 38, in addition to category 34. Mississippi and Georgia have a reciprocal agreement concerning aerial application, which includes plant agriculture, aquatic, forestry, and right-of-way categories.

■ PESTICIDE LEGISLATION, REGULATIONS, AND CERTIFICATIONS

■ Where can I get more information?

- 1) Your local Cooperative extension office: extension.uga.edu/about/county
- 2) Georgia Department of Agriculture (404-656-4958)
- 3) UGA Pesticide Safety Education Program, Coordinator Milton (Mickey) Taylor, 706-540-4108 or mickeyt@uga.edu
- 4) UGA PSEP website:
extension.uga.edu/programs-services/pesticide-safety-education.html

■ How do I get a pesticide license?

To obtain private or commercial pesticide licenses, you must follow these steps:

1. **Private Pesticide Applicator Licenses** are obtained under the direction of your local Cooperative Extension office. To get a private license, contact your local extension office: extension.uga.edu/about/county. You will have to complete a training course that is available on the Georgia Professional Certifications website after paying an access fee. **Unless you produce an ag-**

ricultural, horticultural or forestry commodity, you do not qualify for a private license.

- 2a. **Georgia Commercial Pesticide License Manuals** may be obtained online at https://estore.uga.edu/C27063_ustores/web/store_main.jsp?STOREID=203&SINGLESTORE=true.
- 2b. **Testing** for Commercial Pesticide Licenses follows after mastering the information in your core and category manuals. You will be required to demonstrate your competency by successfully passing the core manual exam and the appropriate category exam(s) with score(s) of 70% or higher. Commercial Pesticide Applicator License testing is administered by your local University System of Georgia Technical College for a fee of \$45 gapestexam.com/TestingCenters.cfm.
3. **Licensing.** After successfully passing core and appropriate category exam(s) and paying a \$90 licensing fee to the Georgia Department of Agriculture, you will be issued your license(s).

COMMERCIAL PESTICIDE APPLICATOR LICENSE FEES

CATEGORY, SUBJECT	CATEGORY MANUAL	NATIONAL CORE MANUAL	TECHNICAL COLLEGE	GEORGIA DEPT. OF AGRICULTURE	TOTAL COST
Category 21, Agricultural Plant Pest Control	25.00	35.00	45.00	90.00	195.00
Category 22, Agricultural Animal Pest Control	15.00	35.00	45.00	90.00	185.00
Category 23, Forest Pest Control	20.00	35.00	45.00	90.00	190.00
Category 24, Ornamental & Turfgrass Pest Management	35.00	35.00	45.00	90.00	205.00
Category 25, Seed Treatment	10.00	35.00	45.00	90.00	180.00
Category 26, Aquatic Pest Management	25.00	35.00	45.00	90.00	195.00
Category 27, Rights-of-Way Pest Control	15.00	35.00	45.00	90.00	185.00
Category 27, Sewer Line Chemical Root Control (Metam-Sodium)	15.00	35.00	45.00	90.00	185.00
Category 31, Public Health Pest Control	30.00	35.00	45.00	90.00	200.00
Category 32, Regulatory Pest Control (for government employees only)	15.00	35.00	45.00	90.00	185.00
Category 33, Demonstration & Research Pest Control	10.00	35.00	45.00	90.00	180.00
Category 34, Aerial Applicator's Manual	25.00	35.00	45.00	90.00	195.00
Category 35, Industrial, Institutional, Structural & Health Related Pest Control	20.00	35.00	45.00	90.00	190.00
Category 36, Wood Preservation and Wood Products Treatment	10.00	35.00	45.00	90.00	180.00
Category 37, Microbial Pest Control	15.00	35.00	45.00	90.00	185.00
Category 38, Agricultural Commodity Fumigation	15.00	35.00	45.00	90.00	185.00
Category 41, Mosquito Biology, Surveillance and Control	35.00	35.00	45.00	90.00	205.00

PESTICIDE REGISTRATION

Producers occasionally face pests for which there are no registered pesticides. These situations are likely to become more common as international trade expands. However, there are some programs that can help.

Emergency exemptions. The EPA will allow emergency exemptions (Section 18) to use an unregistered pesticide under special circumstances. You will need to work with the Cooperative Extension Service and the Georgia Department of Agriculture to obtain an emergency exemption.

Minor use registrations (IR-4). Minor crops and minor uses often lack needed pesticides. IR-4's Minor Use Registrations Program may be able to register critical minor-use pesticides. Visit IR4.rutgers.edu for details or contact Stanley Culpepper at 229-386-3328, stanley@uga.edu.

WASTE DISPOSAL

Local landfills have the right to refuse any pesticide, no matter how it is presented. The best method to dispose of mixed pesticides or rinse water is to apply them on the crops or sites for which they are labeled. It is very important to contact your local landfill in advance to determine if it will accept small quantities of unused pesticide that has been absorbed in cat litter and bagged. Have in-hand copies of pesticide(s) labels you would like your local landfill to accept when you contact them.

Triple-rinsed (or equivalent), used containers can often be offered for recycling or disposed of in permitted sanitary landfills without an ID number or further regulation. The use of triple-rinsed stickers (available commercially) is highly recommended.

Georgia Environmental Protection Division (EPD) permits landfill disposal of small quantities of certain concentrated pesticides as long as they are absorbed and bagged. Under EPD guidelines, up to 2.2 pounds of a Category I, Highly Toxic pesticide may be taken to a sanitary landfill. Liquid formulations must first be absorbed by kitty litter or similar materials and contained in plastic bags. Up to one gallon of liquid Category II, Moderately Toxic pesticide may be taken to a sanitary landfill per visit. If you have more than one gallon, but less than 220 pounds (about 25 gallons), you may take it to a sanitary landfill, but not in a liquid form. It must be absorbed and bagged as described above. If in one month you generate more than 220 pounds of toxic pesticide waste or more than 2.2 pounds of acutely hazardous pesticide waste, you must contact EPD for special instructions.

For current information on the list and location of permitted sanitary landfills please go to epd.georgia.gov/permitted-solid-waste-facilities and on the compliance of hazardous waste management, and technical assistance contact Geor-

gia Environmental Protection Division Hazardous Waste Management Program at <https://epd.georgia.gov/about-us/land-protection-branch/land-protection-branch-technical-guidance/hazardous-waste-technical>. In emergencies call the Georgia Environmental Protection Division Emergency Operations Center at (800) 241-4113 (continuous service). Both EPD and the Georgia Department of Agriculture Pesticides office (404-656-4958) must be notified of fires, spills, etc. that might endanger the public or the environment.

OSHA AND THE HAZARD COMMUNICATIONS STANDARD

The purpose of the OSHA Standard Act of Congress, 1987, was to provide employers and employees with information regarding hazardous chemicals, including certain pesticides. The basic document involved with this information procedure is the Safety Data Sheet or SDS available for each chemical and formulation.

Basic manufacturers and importers are required by OSHA to provide the immediate customer a single SDS with each shipment of hazardous chemicals. Dealers and formulators are required to have lists of what chemicals are considered hazardous. Employers who use such hazardous chemicals must keep the SDS on file and available to workers. The employer must teach all workers to read the sheets as part of the safety training program. Visit osha.gov.

PESTICIDE RECORD KEEPING REQUIREMENTS

(1990 Farm Bill, Georgia Law, EPA Worker Protection Standard)

The 1990 Farm Bill requires certified private pesticide applicators to record applications of restricted-use pesticides (RUPs). Each RUP application made by a private applicator must be recorded within 14 days and records must be maintained for 2 years.

The 9 required elements that must be recorded within 14 days of each RUP application are as follows:

1. Brand or product name.
2. EPA registration number.
3. Total amount of product used.
4. Month, day, and year of application.
5. Location of treated area.
6. Crop, commodity, stored product, or site to which the restricted-use pesticide was applied.
7. Size of area treated.

■ PESTICIDE LEGISLATION, REGULATIONS, AND CERTIFICATIONS

8. The name of the certified private applicator who applied or supervised the application of the restricted-use pesticide.
9. The certification number of the certified private applicator who applied or supervised the application of the restricted-use pesticide.

For more information about 1990 Farm Bill recordkeeping visit, <https://www.ams.usda.gov/rules-regulations/pesticide-records>.

In Georgia, state regulations require that commercial applicators maintain records of RUPs and that pesticide contractors keep records of ALL pesticide applications, RUP and general use.

These elements are required by Georgia regulations:

- (a) Date and time of application;
- (b) Name of person for whom applied;
- (c) Location of application site;
- (d) Crop or target to which applied;
- (e) Acreage, size of area treated, or total amount of pesticide applied;
- (f) Target pest for which applied;
- (g) Pesticide used and application rate;
- (h) Type of equipment used;
- (i) Name of applicator;
- (j) Notation of any unexpected occurrence at or during application, such as spillage, exposure of humans or non-target animals, or drift, and any corrective or emergency action taken;
- (k) Names, concentrations, and quantities of all pesticides disposed of and the manner of disposition.

The EPA's Worker Protection Standard requires you to record the following information concerning applications of ALL pesticides, both RUPs and general use or unclassified pesticides.

- location and description of treated area
- product name, EPA registration number, and active ingredient(s)
- time and date of application
- restricted entry interval (REI)

WPS requires that you keep this information for 30 days after the REI expires. However, WPS records have been requested as evidence of proper pesticide use long after the 30-day mandate. We recommend that you maintain computerized records indefinitely.