



Safety



IPM-1293

Alabama Pest Management Handbook for 2019

SAFETY CONTACT INFORMATION

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Table 1. Emergency Telephone Numbers
In an emergency dial 911, especially if the person is unconscious, has trouble breathing, or has convulsions.

Contact	Telephone number
Poison Control Centers (Human or Animal)	
National Poison Control Hotline (Spanish speakers available)	(800) 222-1222
Physician (See local phone directory; add number to list at right.)	
Ambulance (See local phone directory; add number to list at right.)	
Fires, Spills, Leaks, Etc.	
Chemtrec (technical assistance 24 hrs. a day for fires, spills, and medical emergency)	(800) 424-9300
Alabama Department of Environmental Management	(334) 271-7700
Alabama Emergency Management Agency	(205) 280-2200
Sheriff (See local phone directory; add number to list at right.)	
City Police (See local phone directory; add number to list at right.)	
Alabama Highway Patrol Post	*HP (*47) for mobile phones
Fire Department (See local phone directory; add number to list at right.)	
Endangerment of Game or Fish	
Alabama Department of Conservation and Natural Resources (Nongame endangered species)	(334) 242-3469
U.S. Fish and Wildlife Service	(800) 344-WILD (9453)

Table 2. Telephone Numbers for Pesticide Information

Contact	Telephone number
Nonemergency	
Alabama Cooperative Extension System	(334) 844-8851 (Sonja Thomas)
Regional Poison Control Center, Children's Hospital, Birmingham, AL, Non-emergencies and educational information	1 (800) 222-1200 Animal Medical Center Poison Control (Birmingham) 1 (800) 292-6678
Alabama Poison Center, Shelton State Community College, Tuscaloosa, AL, Non-emergencies and educational information	1 (800) 222-1222 Animal Medical Center Poison Control (Tuscaloosa) 1 (800) 462-0800
National Pesticide Information Center (NPIC), Oregon State University, General information on toxicology, environmental hazard, etc. (M-F, 8:00 a.m.–Noon Pacific Time)	(800) 858-7378
Pesticide Manufacturer	See pesticide label.

continued

Table 2. Telephone Numbers for Pesticide Information (cont.)

Contact	Telephone number
Nonemergency (cont.)	
CropLife America, General information about the pesticide industry (M–F, 8:30 a.m.–5:30 p.m. EST)	(202) 296-1585
Chemtrec Referral Center, Refers caller to the company responsible for the pesticide (M–F, 9:00 a.m.–6:00 p.m. EST)	(800) 262 8200
National Response Center, Refers caller to proper government agency for hazardous materials	(800) 424-8802 (Voice/TTY)
Pesticide Disposal	
Alabama Department of Agriculture & Industries	(334) 240-7242
Alabama Department of Environmental Management	(334) 271-7700
EPA Hazardous Waste Hotline (Superfund)	(800) 424-9346
Hazard Communication–Workplace Assistance	
OSHA	(800) 321-OSHA (6742) [TTY (877) 889-5627]
Regional IV OSHA Office Alliance in Atlanta	(678) 237-0400
Drinking Water	
EPA Safe Drinking Water Hotline Interprets residue data and gives EPA drinking water regulations Local Health Department or Sanitarian. County (See local phone directory; add number to list at right.) City (See local phone directory; add number to list at right.)	(800) 426-4791
Enforcement of Pesticide Laws	
Alabama Department of Agriculture & Industries, Pesticide Management Division	(334) 240-7242
EPA Region IV Pesticides Section	(404) 562-9038
Applicator certification to use restricted-use pesticides	(334) 240-7243
Structural pest control certification and testing	(334) 240-7243
Safety/Training/Information	(334) 844-8832

Table 3. Websites with Pesticide Information

Contact	Website
The Alabama Cooperative Extension System Pesticide Information Home Page	www.aces.edu/anr/pesticidemgt/
Alabama Department of Agriculture & Industries, Pesticide Management Section	www.agi.alabama.gov/divisions/pesticide-management
Pesticide Action Network North America	www.panna.org
American Crop Protection Association	www.croplifeamerica.org
Extension Toxicology Network	extoxnet.orst.edu
U.S. Fish & Wildlife Service: Endangered Species	www.fws.gov
National Pesticide Information Center	npic.orst.edu
National IPM Network	www.ipmcenters.org
USDA National Organic Program	www.ams.usda.gov/nop
Pesticide labels/MSDS from a range of companies. Daily updates	
EPA Pesticide Product Information	ppis.ceris.purdue.edu
EPA List of Restricted-Use Pesticides	https://www.epa.gov/pesticide-worker-safety/restricted-use-products-rup-report
EPA Pesticide Safety Programs/Worker Protection Standard	www.epa.gov/pesticide-worker-safety
EPA Office of Pesticide Programs	www.epa.gov/pesticides/

WORKER PROTECTION STANDARD

The U.S. EPA Worker Protection Standard (WPS) protects employees on farms, forests, nurseries, and greenhouses from occupational exposure to agricultural pesticides. The regulation covers two types of employees, handlers and workers. In 2015, the EPA revised the Worker Protection Standards, adding new restrictions and requirements for workers and handlers.

1. Training is required yearly for handlers and workers. (There is no grandfather clause.)
2. Applicators must be 18 years or older.
3. Family farms are exempt from this rule.
4. Private and commercial applicators can administer worker and handler training.
5. Visit EPA.gov/pesticides/safety for the detailed changes and training material for workers and handlers.

Compliance assistance has been in effect through 2018. After 2018, ADAI will determine if compliance assistance will continue.

- **Pesticide handlers**—those who mix, load, or apply agricultural pesticides; clean or repair pesticide application equipment; or assist with the application of pesticides in any way.

- **Agricultural workers**—those who perform tasks related to the cultivation and harvesting of plants on farms or in greenhouses, nurseries, or forests. Workers include anyone employed for any type of compensation (included self-employed) doing tasks (such as carrying nursery stock, repotting plants, or watering) related to the production of

agricultural plants on an agricultural establishment. Workers do not include such employees as office employees, truck drivers, mechanics, and any other worker not engaged in worker or handler activities.

In addition there are some WPS requirements that apply to all persons and some that apply to anyone who handles pesticide application equipment or cleans or launders pesticide-contaminated personal protective equipment.

The WPS requires agricultural employers to provide four basic protections for their employees.

1. Employees must receive pesticide safety training annually.
2. Information concerning pesticides applied in the work area must be posted in a central location.
3. Employees must be excluded from treated areas or provided proper training and safety equipment if they may be exposed to pesticides.

4. Employers must supply decontamination sites (soap, water, etc.) for workers. Emergency assistance must be available for any employee injured by pesticides.

Refer to the EPA *Worker Protection Standard for Agricultural Pesticides—How to Comply* for details. (This publication is available at the following website: www.epa.gov/pesticides/safety).

Additional information is available from the Alabama Department of Agriculture & Industries (334-240-7243) or Auburn University Cooperative Extension System (334-844-8851).

SAFE USE, HANDLING, AND STORAGE OF PESTICIDES

Most pesticides are synthesized chemicals which have proven effective, useful, and safe if used according to label instructions. Many pesticides, however, are poisonous and may be a hazard to humans, animals, plants, and the environment if they are not handled and used properly. Certain procedures are required when dealing with pesticides. They are:

- Identify the pest.
- Determine the correct pesticide.
- Apply the pesticide properly.
- Store the pesticide safely according to the label.
- Dispose of the empty containers safely.

The following suggestions for using, handling, and storing pesticides will minimize the likelihood of injury to man, animals, plants, and the environment.

General Precautions

1. Always read all precautionary labeling directions before using pesticides and follow them exactly. Notice warnings and cautions before opening the containers. Read them each time, no matter how often you use a pesticide or how familiar you are with the directions. Apply material only in the amounts and at the times specified.

2. Keep pesticides out of the reach of children, pets, irresponsible persons, and livestock. They should be stored outside the house, away from food and feed, and under lock and key.

3. Store pesticides in their original containers with a legible label intact. Keep the container tightly closed.

4. Never smoke or eat while applying pesticides.

5. Avoid inhaling sprays or dusts. When directed on the label, wear protective clothing and an approved mask.

6. Should pesticides be accidentally spilled on the skin or clothing, remove contaminated clothing immediately and thoroughly wash contaminated skin for at least 15 minutes.

7. Bathe and change to clean clothing after spraying or dusting. If it is not possible to bathe, wash your hands and face thoroughly and change clothes. Also, wear clean clothing each day.

8. Cover all food and water containers when treating around livestock or pet areas. Be careful not to contaminate fish ponds, streams, or lakes.

9. Never reuse pesticide containers.

10. Dispose of all empty containers after rendering them useless, so that they will not become a hazard to humans, animals, valuable plants, or wildlife. Disposal regulations need to be determined before carrying a load of containers to a landfill.

11. Observe directions and follow recommendations in order to keep the residue on edible portions of plants within the limits permitted by law.

12. If symptoms of illness occur during or shortly after dusting or spraying, call a physician or get the patient to a hospital immediately. Also, take a label from the pesticide container with you.

13. Do not use your mouth to siphon liquids from containers or to blow out clogged lines, nozzles, etc.

14. Do not spray with leaking hoses or connections.

15. Do not work in the drift of a spray or dust.

16. Confine a pesticide to the property being treated. Avoid drift to adjacent properties by stopping treatment if weather conditions become unfavorable.

17. Notify all nearby beekeepers before applying any insecticide.

18. If laborers are working in crops with heavy foliage, such as cotton, tomatoes, peaches, or tobacco, that has been treated with highly toxic compounds, be sure the restricted entry interval (REI) between treatment and entrance into the treated area is observed. REIs are listed on the pesticide label. Workers in such fields should follow the same precautions as given for the applicators in regard to changing clothes and wearing protective clothing, eating or smoking, and bathing. If workers become ill while working under these conditions, take them to the emergency room immediately. Be sure to take the pesticide label.

Precautions for Using Highly Toxic Chemicals

Use extreme caution when handling concentrates of any restricted use pesticides or other highly toxic pesticides. When using these materials, observe the following rules:

1. Wear liquid-proof gloves. The pesticide label will tell you what gloves to use. Remember, however, that some fumigants are readily absorbed by neoprene.

2. When mixing and applying these materials, wear a cartridge respirator approved for the specific pesticide and also wear protective clothing such as a long-sleeved shirt and a washable rain hat.

Specific types of cartridges and canisters protect against specific chemical gases and vapors. Be sure you choose one that is made for the pesticide you are using. Use only those that are approved by the National Institute for Occupational Safety and Health (NIOSH) or by the Mining Administration (MESA). This information can be found on the label.

The respirator must fit your face well. Read the manufacturer's instructions on the use and care of any respirator and its parts before you use it.

When applying pesticides, if you have trouble breathing or if you smell the pesticides, change the respirator's filters, cartridges, and canisters. Remove and discard the filters, cartridges, and canisters after use. Then wash the face piece with detergent and water, rinse it, and dry it with a clean cloth. Store it in a clean, dry place away from pesticides.

3. Start each day with clean clothing. Change garments when they become wet with spray. Bathe before returning to work. Take a thorough bath as soon as the work day is finished.

4. Have soap, clean water, and clean clothes on hand in the field in case of an accidental contamination.

5. Aircraft pilots should not assist in mixing or loading the

chemicals into the plane.

6. Avoid overhead or into-the-wind application.

Precautions For Protecting Water Quality

Protecting the quality of our water is one of the Environmental Protection Agency's objectives for an overall cleaner environment. Pesticides have been identified as a potential source of water contamination. The EPA has begun a review of pesticide registrations to determine which pesticides pose undue risks to water supplies.

Users should be aware of the surface-loss and leaching potentials of pesticides and of practices that could contribute to ground water contamination. The following suggestions can help prevent water contamination.

1. Triple rinse your empty pesticide container and pour the rinse water into a spray tank. Then, apply it to the area or site being treated.

2. Prevent any back-siphoning of the chemical when filling a spray tank by leaving an air-gap between the high water level and the end of the water hose or by adding the pesticide after the desired water level has been reached in the spray tank.

3. Catch the rinse water from the spray tank instead of emptying it onto the ground in one area. Then, spray it over the area being treated.

4. Protect the well head from surface water entering the top of the well. Use a concrete apron around the well head with an appropriate cover.

5. Determine if the pesticide you are using may create a problem with leaching. Your county Extension agent can provide you with this information.

6. Calibrate your application equipment to ensure that the correct rate is being applied.

7. Do not fill spray tanks from streams, drinking water tanks, or farm ponds. Pesticide label directions may specify a distance from the well head to fill a spray tank or for handling rinsate.

Endangered Species

The Endangered Species Protection Act of 1973 requires all federal agencies to help protect the environment—specifically, the habitat and species of animals and plants that are almost extinct because of human encroachment or changes in the environment.

A specific pesticide label program was initiated by EPA to identify sites and chemicals that could endanger certain species and their habitat. The final federal regulations have been delayed, but interim county maps are available on the world-wide web (www.acesag.auburn.edu/department/ent/). These maps show areas where endangered species have been identified.

Chronic Toxicity

Toxic doses of chemicals can cause either chronic or acute health effects. An acute effect usually follows a large dose. However, if the chemical is highly toxic, a very small amount can cause symptoms of poisoning. Labels of highly and moderately toxic pesticides list poisoning symptoms.

Generally, chronic toxicity occurs periodically after long-

term exposure. Symptoms are difficult to describe because specific data is often not available. Most long-term effect studies have failed to identify specific pesticides and their role in chronic toxic symptoms.

Pesticide users who experience unusual sinus problems, watery eyes, or some type of skin condition that does not clear up should seek medical attention.

Disposal

Excess Pesticides

The EPA recommends ways to dispose of excess pesticides. Consult local authorities for procedures in your area. If you have excess organic pesticides, use them as directed on the label or store the pesticides until you can use them. If you have any questions concerning the disposal of excess pesticides, contact:

Kristen Lashley
Biologist II and Special Program Manager
Alabama Department of Agriculture and Industries
Pesticide Management Section
1445 Federal Drive
Montgomery, AL 36107 Phone: 334-240-7224 (office)
kristen.lashley@agi.alabama.gov

Mr. Tony Cofer
Program Director—Pesticide Management
P.O. Box 3336
Montgomery, AL 36109-0336 Phone: 334-240-7242

Containers

To prepare a container for disposal:

1. Empty the container into the spray tank. Then, let it drain for an additional 30 seconds.
2. Fill it one-fourth full of water.
3. Replace the lid and gently shake the container. Turn the container upside-down to rinse all of the side surfaces.
4. Carefully drain the rinse water from the container into the tank. Let the container drain for 30 seconds.
5. Repeat steps 2 through 4 at least two or more times for a total of at least three rinses. Remember to empty all rinse solutions into the spray tank.

The EPA recommendations divide containers into three groups and tell you how to dispose of each kind.

Group I Containers. These are containers which will burn. They hold organic or metallic organic pesticides but not an organic mercury, lead, cadmium, or arsenic compound. Dispose of them in one of the following ways:

- Burn them in an approved pesticide incinerator.
- Bury them in a specially designated landfill.
- Burn small numbers of them as directed by state and local regulations.

Air pollution boards or other designated regulations control certain burning conditions.

Group II Containers. These are containers which will not burn. They hold organic or metallic organic pesticides but not organic mercury, lead, cadmium, or arsenic compounds. First, rinse the containers three times. Then, dispose of them in one of the following ways:

- Send or take the rinsed containers to a place that can recycle them as scrap metal or dispose of them for you.
- Many large containers in good shape can be reused by your supplier. Return them to the pesticide manufacturer, formulator, or drum reconditioner.
- All rinsed containers may be crushed and buried in a sanitary landfill. Follow state and local standards.

- Bury rinsed containers in a field or property that you own, if you have obtained a certificate of exception from your county or municipal health department. To get a certificate of exception, file an application and plan for disposal with your county health officer. The officer must investigate the plan and site before approval and certification.

If the containers have not been triple rinsed, they can be buried only in a specially designated landfill.

Group III Containers. These include containers which hold organic mercury, lead, cadmium, arsenic, or inorganic pesticides. Dispose of them in one of the following ways:

- Rinse them three times and dispose of them in a sanitary landfill.
- If they are not rinsed, bury them only in a specially designated landfill.

FOR MORE INFORMATION on pesticides, pesticide safety, or submitting samples for analysis, see the following publications in the IPM series:

IPM 1294, "Submitting Samples." Procedures for submitting samples for diagnosis, analysis, and identification

IPM 1295, "General Pesticide Information." Federal and state restricted use pesticide lists; pesticides and water quality

IPM 1317, "Appendix." Pesticide guidelines for agronomic crops, including preharvest intervals; rain-free requirements; grazing restrictions; crop rotation guidelines; and the names, classifications, and toxicities of pesticides.



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For more information, contact your county Extension office. Visit www.aces.edu/counties or look in your telephone directory under your county's name to find contact information.

Use pesticides **only** according to the directions on the label. Follow all directions, precautions, and restrictions that are listed. Do not use pesticides on plants that are not listed on the label

The pesticide rates in this publication are recommended **only** if they are registered with the Environmental Protection Agency or the Alabama Department of Agriculture and Industries. If a registration is changed or canceled, the rate listed here is no longer recommended. Before you apply **any** pesticide, check with your county Extension agent for the latest information.

Trade names are used **only** to give specific information. The Alabama Cooperative Extension System does not endorse or guarantee any product and does not recommend one product instead of another that might be similar.

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