

PESTICIDE EMERGENCIES

**POISON CONTROL CENTER (HUMAN OR ANIMAL)
National Poison Control Hotline (Spanish speakers available)
(800) 222-1222**

SPILLS

(800) 241-4113 (Georgia Environmental Protection Division)

Avoid emergencies/prepare for emergencies.

1. Keep children away from pesticides!
2. Do not store pesticides around food or drink, and do not store pesticides in food or drink containers.
3. Keep gloves and other protective clothing wherever pesticides are used or stored.
4. Have water available to wash pesticides from skin or eyes.
5. Store and handle pesticides in areas where spills will be contained.
6. Assemble and maintain a spill kit wherever you handle pesticides.
7. Make sure that all adults understand how to handle pesticide emergencies.
8. Be familiar with the first aid instructions on the pesticide label.

Symptoms of pesticide poisoning: nausea, vomiting, diarrhea, cramps, headache, dizziness, weakness, confusion, sweating, chills, chest pains, difficulty breathing, and/or unconsciousness. If you have any of these symptoms while you are handling pesticides, suspect pesticide poisoning.

FIRST AID FOR POISONING

1. Stop the pesticide exposure as quickly as possible. **CALL 911 IF SYMPTOMS ARE SERIOUS! CALL POISON CONTROL (800-222-1222) FOR FIRST AID INFORMATION. YOU WILL NEED THE PESTICIDE LABEL.**
2. If the victim is not breathing, administer artificial respiration at once.
3. Consult the pesticide labeling if possible. Directions for first aid will be on the front panel.
4. Otherwise, follow these guidelines.

SKIN: Drench skin as quickly as possible with plenty of water. Any moderately clean water can be used if not contaminated with pesticides. Remove contaminated clothing. Wash with soap if available. Dry victim and treat for shock. If skin is burned, cover with clean, loose bandage or cloth. Do not apply ointments to burned skin.

EYE: Wash eye quickly but gently. Rinse eye with clean water for at least 15 minutes.

INHALED: Move victim to fresh air. Warn other nearby people. Loosen clothing that restricts breathing. Administer artificial respiration if necessary.

SWALLOWED: Rinse mouth with plenty of water. Give large amounts of water or milk (up to one quart) to drink. Consult the label before you induce vomiting. Do not give liquids or induce vomiting to anyone who is unconscious or convulsive.

5. **Take the pesticide label with you to the doctor or hospital.** DO NOT transport pesticides in the passenger compartment of the vehicle.

PESTICIDE EMERGENCIES

HEAT STRESS

Avoid heat stress.

1. Acclimate to hot weather or new strenuous activities slowly.
2. Drink plenty of water or sports drinks.
3. Take frequent breaks during hot weather.
4. Plan strenuous activities for the cooler part of the day.

Symptoms of heat stress: sweating, nausea, headache, confusion, loss of coordination, dry mouth, and/or fainting. Severe heat stress (heat stroke) is VERY dangerous.

The EPA Guide to Heat Stress in Agriculture is available through your local Cooperative Extension office.

FIRST AID FOR HEAT STRESS

1. **CALL 911 IF SYMPTOMS ARE SERIOUS!**
2. Move the victim to a cooler area immediately.
3. Cool the victim as quickly as possible by splashing cool water on them or immersing them in cool water. Do not immerse anyone who is unconscious, convulsive, or confused.
4. Remove all protective equipment or clothing that is keeping the victim too warm.
5. If the victim is conscious, have them drink as much cool water as possible.
6. Keep the victim quiet. Get medical advice.

PESTICIDE SPILLS

Prepare for a potential pesticide spill by assembling a spill kit that includes the following items.

1. Protective equipment indicated on pesticide label.
2. Absorbent material to soak up liquids (cat litter, sand, sawdust, or dirt).
3. Scoop to pick up contaminated absorbent material.
4. Container for contaminated absorbent material (e.g., heavy duty plastic bag).

IF SPILL OCCURS

Place absorbed contaminated material in a heavy-duty plastic bag and store securely away from living areas. Consult the pesticide label for disposal instructions. In many cases, contaminated absorbent materials or soil may be land-applied according to the pesticide label. Call your local landfill; home-use pesticides can be disposed of at landfills, but each landfill has its own protocols.

For large spills, leaks, or pesticide fires:

Call Georgia DNR EPD Response Team **(800) 241-4113**

For spills on public roads or other public areas call:

Local sheriff or police.

Georgia State Patrol ***GSP (*477) on mobile phone**

For smaller spills:

1. **DO NOT HOSE DOWN SPILLS!**
2. Protect yourself and others.
3. Stop the spill sources.
4. Confine the spill with a dike of earth or other materials. Protect water sources.
5. Absorb liquids with cat litter, sand, earth, etc.
6. Scoop up contaminated materials. Store securely.
7. Neutralize contaminated site with bleach, activated charcoal, hydrated lime, or by removing contaminated soil.
8. Absorb any liquids used during neutralizing.
9. Contaminated absorbent materials or soil may be land-applied according to the pesticide label.

IMPORTANT CONTACTS

DIAL 911 to get help with pesticide emergencies. Be prompt in calling if the person is unconscious, has trouble breathing, or has convulsions. Try to have the pesticide label with you when you call.

POISON CONTROL CENTER (HUMAN OR ANIMAL)

National Poison Control Hotline (Spanish speakers available)

(800) 222-1222

Physician _____ Ambulance _____

FIRES, SPILLS, LEAKS, ETC.

Georgia DNR Environmental Protection Division Response Team (pesticide fires, spills, leaks) **(800) 241-4113**

County Police or Sheriff _____ City Police _____

Georgia Highway Patrol Post (*GSP (*477) for mobile phones) _____ Fire Department _____

ENDANGERMENT OF GAME OR FISH

Georgia Department of Natural Resources (Non-game endangered species) **(800) 241-4113**

U.S. Fish and Wildlife Service **(800) 344-WILD**

PHONE NUMBERS FOR PESTICIDE INFORMATION (NON-EMERGENCY)

University of Georgia Cooperative Extension

(706) 540-4108

email: mickeyt@uga.edu

PESTICIDE INFORMATION

National Pesticide Information Center (NPIC), Oregon State University – General information on toxicology, environmental hazard, etc. (M-F, 10:30 a.m.-6:30 p.m. EST), npic@ace.orst.edu, **(800) 858-7378**

Pesticide Manufacturer – The telephone number should be listed on the pesticide label

CropLife America – General information about the pesticide industry (M-F, 9:00 a.m.-5:00 p.m. EST) **(202) 296-1585**

National Response Center – Refers callers to proper government agency for hazardous materials **(800) 424-8802** (Voice/TTY)

PESTICIDE DISPOSAL

Georgia Department of Agriculture **(800) 282-5852**

EPA Hazardous Waste Hotline (Superfund) **(800) 424-9346**

EPA SAFE DRINKING WATER HOTLINE – Interprets residue data and provides EPA drinking water regulations. **(800) 426-4791**

Or call your local Health Department or Sanitarian. County _____ City _____

ENFORCEMENT OF PESTICIDE LAWS

Georgia Department of Agriculture, Pesticide Division **(800) 282-5852**

EPA Region IV Pesticides Section **(404) 562-8956**

Safety/Training/Information – Dr. Milton Taylor (UGA Pesticide Safety Education Program Coordinator) **(706) 540-4108**, mickeyt@uga.edu

IMPORTANT CONTACTS

WEBSITES WITH PESTICIDE INFORMATION

Georgia Integrated Pest Management (IPM)	http://ipm.ent.uga.edu
University of Georgia Cooperative Extension	http://extension.uga.edu
Georgia Department of Agriculture – Pesticides Division	http://agr.georgia.gov (click on Divisions and Plant Industry)
Pesticide Risks	http://extoxnet.orst.edu
U.S. Fish & Wildlife Service: Endangered Species	http://fws.gov
Pesticide Questions	http://npic.orst.edu
USDA National Organic Program	http://www.ams.usda.gov/nop
Georgia Organics	http://www.georgiaorganics.org
EPA Office of Pesticide Programs	http://www.epa.gov/pesticides/

WEBSITES FOR HOME LAWN AND GARDEN PESTICIDES:

Bayer: <http://www.bayeradvanced.com>

Enforcer: <http://www.enforcer.com>

GreenLight: <http://www.greenlightco.com>

Hi-Yield, VPG, Natural Guard: <http://www.fertilome.com>

Lebanon Seaboard – Preen: <http://lebsea.com>

PBI Gordon: <http://www.gordonsusa.com/>

Scotts, Miracle-Gro, Ortho, Roundup, Ortho Elementals, Tomcat: <http://www.scottsbrands.com/>

Southern Ag: <http://www.southernag.com/>

Spectracide: <http://www.spectracide.com/>

FREQUENTLY ASKED QUESTIONS

How can I find my local Cooperative Extension office?

Call 1-800-ASK-UGA1 or visit <http://extension.uga.edu/about/county/>.

How are my children most likely to be injured by pesticides?

Pesticide exposure risks for children are most often encountered around the home. According to an EPA survey, 50% of households with a child under 5 years of age store pesticides within the reach of children.

Many household disinfectants can injure children under the age of 5. ALWAYS store pesticides and other hazardous materials safely. NEVER store pesticides in food or drink containers.

Will pesticides hurt my pets?

Some pesticides are dangerous to pets, but the degree of risk depends on the particular pesticide and the type of animal. Fish, small animals (e.g., lizards), and arthropods (e.g., tarantulas) are very sensitive to many pesticides. Remove these types of pets or securely cover their cage/tank whenever pesticides are applied. Pets may be attracted to pesticides formulated as baits. Squirrels or other rodents will eat mouse/rat baits. Dogs will eat slug baits.

The pesticide label will provide more information about the pesticide risks in the section titled, "Hazards to Humans and Domestic Animals." Follow these precautions very carefully. Also, keep pets away from treated areas until pesticide sprays are dry, or as directed by the label. Never allow pets to play with pesticide containers.

How can I get more information about the health and environmental risks of pesticides?

Visit this website <http://ace.orst.edu/info/extoxnet/>. It is an excellent source of information about pesticide risk written in language that is easily understood. The EPA website is also a good source of pesticide information: www.epa.gov/pesticides/.

Which pesticides are the most dangerous?

Pesticides must carry one of three signal words that indicate the acute toxicity of the product. The most dangerous pesticides carry the word "DANGER." "DANGER-POISON" indicates a pesticide can kill in small amounts. "DANGER" pesticides can cause irreversible eye damage or severe injury to the skin. Pesticides approved, or labeled, for use around the home are less dangerous; they will carry the signal words "WARNING" or "CAUTION."

Look for the signal word before you buy the pesticide. Do not buy "DANGER" pesticides or bring them to your home.

Even pesticides with the signal words "WARNING" or "CAUTION" can be associated with illnesses including cancer. Minimize your exposure to all pesticides.

I have heard that almost all pesticides cause cancer. Is that true?

Pesticides are toxins. The U.S. Environmental Protection Agency (EPA) labels or regulates pesticide use. The EPA conducts rigorous testing before products are labeled or, periodically, relabeled. Dose strongly influences risks of all sorts (environmental, human health, non-target organisms, etc). Labeled pesticide rates fall far below levels shown to be of meaningful risk. By using pesticides sparingly and ALWAYS following label directions, scientific evidence suggests risks are so low as to not constitute a public health concern. You can find more information about pesticide safety at our website: www.ent.uga.edu/pesticide.htm.

What are restricted-use pesticides?

Pesticides fall into two broad categories: general use (or unclassified) and restricted use. Any adult may purchase general-use pesticides in big box stores, garden centers, supermarkets, and farm supply stores. Restricted-use pesticides (RUP) are more hazardous to humans or the environment. Only licensed applicators who have received special training may purchase or use restricted-use pesticides. Homeowners should avoid the use of any restricted-use pesticide.

I want to control pests around my home with fewer pesticides. Where can I go for information?

IPM or "Integrated Pest Management" is a way to control pests with a combination of tactics. Pesticides may be part of an IPM program, but other techniques can reduce the need for pesticides.

If you have roaches in the kitchen, for example, a weekly application of insecticide could control the roaches. However, your family would also be exposed to the pesticide each week. Through an IPM approach, you would reduce the roach's food source through better sanitation; you would remove sources of water (e.g. a leaky pipe); and you would try to seal cracks where roaches like to hide. You may still have to use pesticides occasionally, but an IPM program can greatly reduce the amount of pesticide needed to control the roaches.

Check with your local county Cooperative Extension office. They can provide a wealth of information. You may also be interested in the Master Gardener program available through your local Extension office.

FREQUENTLY ASKED QUESTIONS

The University of Georgia has information about all kinds of plants and pest problems around the home. You can find them by using the plant name and “UGA” in a search engine. For example, to find information about azalea, use the search terms “azalea UGA.”

In many cases, it is possible to reduce the amount of pesticide needed to control pests around the home using IPM. Our website will help you get started: <http://ipm.ent.uga.edu/>.

How can I dispose of unwanted pesticides?

Avoid having leftover pesticides. Only buy the amount of pesticide that you will use within a few weeks. Measure pesticides carefully to avoid mixing more than you need. If you have leftover pesticide mix, apply it to a site listed on the pesticide label. **NEVER pour pesticides down the drain.**

Rinse empty pesticide containers three times, and pour the rinse water into your sprayer for application to a site listed on the pesticide label. Discard the properly rinsed container with your household trash. **DO NOT** place any pesticide container with recyclable materials.

If you have pesticide that you do not want, ask your local Extension office staff for advice. They can tell you how to dispose of the pesticide safely and legally.

What does “organic” mean on a food label?

If it includes the USDA seal, it means the product was produced with at least 95% organic ingredients. Visit this website for information: www.ams.usda.gov/nop/.

How can I use pesticides safely?

Use IPM to reduce the amounts of pesticides you use (<http://ipm.ent.uga.edu/>). **ALWAYS** follow the label directions, even if this handbook or someone else gives you different information.

ATTENTION! PESTICIDE PRECAUTIONS

1. Observe all directions, restrictions and precautions on pesticide labels. It is dangerous, wasteful and illegal to do otherwise.
2. Store all pesticides in original containers with labels intact and behind locked doors. **KEEP PESTICIDES OUT OF THE REACH OF CHILDREN.**
3. Use pesticides’ correct label dosages and intervals to avoid illegal residues or injury to plants and animals.
4. Apply pesticides carefully to avoid drift or contamination of non-target areas.
5. Surplus pesticides and containers should be disposed of in accordance with label instructions so that contamination of water and other hazards will not result.
6. Follow directions on the pesticide label regarding restrictions as required by state and federal laws and regulations.
7. Avoid any action that may threaten an endangered species or its habitat. Your county Extension agent can inform you of endangered species in your area, help you identify them, and through the U.S. Fish and Wildlife Service field office identify actions that may threaten endangered species or their habitat.

ABBREVIATIONS AND EQUIVALENTS

FORMULATIONS¹

a.i. = active ingredient	EC = emulsifiable concentrate	S = sprayable powder
AC = aqueous concentrate	EL = emulsifiable liquid	SC = spray concentrate
AS = aqueous suspension	F = flowable	SP = soluble powder
DF = dry flowable	FC = flowable concentrate	W = wettable powder
DG = dispersible granules	G = granules	WDG = water dispersible granular
B = bait	L = liquid	WDL = water dispersible liquid
D = dust	LC = liquid concentrate	WM = water miscible
E = emulsifiable	M = microencapsulated	WP = wettable powder

¹ Numbers preceding abbreviations for liquid formulations equal pounds of active ingredient per gallon (e.g., 4EC = 4 lb/gal emulsifiable concentrate); numbers preceding abbreviations for solid formulations equal percent active ingredient by weight (e.g., 50WP = 50 percent wettable powder).

METHOD OR TIME OF APPLICATION

CR = cracking stage	PEI = pre-emergence incorporated	PRE = pre-emergence
LV = low volume	PO = post-emergence	PT = post-transplant
NS = nonselective	POT = post-emergence over-the-top	RCS = recirculating sprayer
PDS = post-emergence directed spray	PP = pre-plant	ULV = ultra low volume ²
PE = pre-emergence on surface	PPI = pre-plant soil incorporated	WICK = rope wick applicator

² Ultra low volume refers to a total spray volume of a 1/2 gallon or less per acre.

MEASURES AND EQUIVALENTS

tsp.	=	teaspoon			1 teaspoon	=	4.9 milliliters
Tbsp.	=	tablespoon	1 Tbsp.	=	3 teaspoons	=	14.8 milliliters
fl. oz.	=	fluid ounce	1 fl. oz.	=	2 tablespoons	=	29.6 milliliters
c.	=	cup	1 c.	=	8 fluid ounces	=	236.6 milliliters
pt.	=	pint(s) (1 .04 lb. of water)	1 pt.	=	2 cups	=	473.2 milliliters
pt./100	=	pint(s) per 100 gallons	1 pt./100	=	1 teaspoon per gallon		
qt.	=	quart(s) (2.09 lbs. of water)	1 qt.	=	2 pints	=	946.4 milliliters
gal.	=	gallon(s) (8.35 lbs. of water)	1 gal.	=	4 quarts	=	3.7854 liters
oz.	=	ounce			1 ounce	=	28.35 grams
lb.	=	pound	1 lb.	=	16 ounces	=	453.59 grams
in.	=	inch	1 in.	=	1000 mils	=	2.54 centimeters (25,400 microns)
ft.	=	feet	1 ft.	=	12 inches	=	30.48 centimeters
yd.	=	yard	1 yd.	=	3 feet	=	91.44 centimeters
mi.	=	mile	1 mi.	=	5280 feet	=	1609 meters (16.09 kilometers)
sq. in.	=	square inch			1 square inch	=	6.45 square centimeters
sq. ft.	=	square feet	1 sq. ft.	=	144 square inches	=	929.03 square centimeters
A.	=	acre	1 A.	=	43560 square feet	=	0.4047 hectare
cu. in.	=	cubic inch			1 cubic inch	=	16.387 cubic centimeters
cu. ft.	=	cubic feet	1 cu. ft.	=	1728 cubic inches	=	0.0283 cubic meter
cu. yd.	=	cubic yard	1 cu. yd.	=	27 cubic feet	=	0.7646 cubic meter
p.p.m.	=	parts per million	1 p.p.m.	=	1000 p.p. billion	=	1 milligram/kilogram ³
p.s.i.	=	pounds per square inch			1 p.s.i.	=	70.3 gram-force per square centimeter

³ 1 milligram/kilogram or 1 p.p.m. is equal to 1 milligram/liter of water.

SUBMITTING SPECIMENS FOR IDENTIFICATION: COLLECTION, PREPARATION, AND SHIPMENT

INSECTS, PLANT DISEASES, VIRUS DIAGNOSIS, NEMATODES, WEEDS, FISH, VERTEBRATES

Proper identification of pest problems is the foundation of any control program. UGA Cooperative Extension will help you identify pest problems at little or no cost to you. Contact your local Extension office. In most cases, your local agent can diagnose the problem and advise you about proper control. If the local office staff cannot identify the pest, they will contact the appropriate specialist at the University of Georgia. The telephone number of your local Extension office is listed below. You may also check the Web for updated or changed phone numbers: <http://extension.uga.edu/about/county/>.

Appling County, 912-367-8130
Atkinson County, 912-422-3277
Bacon County, 912-632-5601
Baker County, 229-734-3015
Baldwin County, 478-445-4394
Banks County, 706-677-6230
Barrow County, 770-307-3029
Bartow County, 770-387-5142
Ben Hill County, 229-426-5175
Berrien County, 229-686-5431
Bibb County, 478-751-6338
Bleckley County, 478-934-3220
Brantley County, 912-462-5724
Brooks County, 229-263-4103
Bryan County, 912-653-2231
Bulloch County, 912-871-6130
Burke County, 706-554-2119
Butts County, 770-775-8209
Calhoun County, 229-849-2685
Camden County, 912-576-3219
Candler County, 912-685-2408
Carroll County, 770-836-8546
Catoosa County, 706-935-4211
Charlton County, 912-496-2040
Chatham County, 912-652-7981
Chattahoochee County, 706-653-4200
Chattooga County, 706-857-0744
Cherokee County, 770-721-7803
Clarke County, 706-613-3640
Clay County, 229-768-2247
Clayton County, 770-473-3945
Clinch County, 912-487-2169
Cobb County, 770-528-4070
Coffee County, 912-384-1402
Colquitt County, 229-616-7455
Columbia County, 706-541-4011
Cook County, 912-896-7456
Coweta County, 770-254-2620
Crawford County, 478-836-3121
Crisp County, 229-276-2612
Dade County, 706-657-4116
Dawson County, 706-265-2442
Decatur County, 229-248-3033
DeKalb County Main Office, 404-298-4080
DeKalb County South Office, 404-244-4881
Dodge County, 478-374-8137
Dooly County, 229-268-4171
Dougherty County, 229-436-7216
Douglas County, 770-920-7224
Early County, 229-723-3072
Echols County, 229-559-5562
Effingham County, 912-754-8040
Elbert County, 706-283-2037
Emanuel County, 478-237-1226

Evans County, 912-739-1292
Fannin County, 706-632-3061
Fayette County, 770-305-5412, Ext. 7
Floyd County, 706-295-6210
Forsyth County, 770-887-2418
Franklin County, 706-384-2843
Fulton County Main Office, 404-332-2400
Fulton County North Office, 404-613-7670
Fulton County South Office, 404-762-4077
Gilmer County, 706-635-4426
Glascocock County, 706-598-2811
Glynn County, 912-554-7577
Gordon County, 706-629-8685
Grady County, 229-377-1312
Greene County, 706-453-2083
Gwinnett County, 678-377-4010
Habersham County, 706-754-2318
Hall County, 770-535-8293
Hancock County, 706-444-7573
Haralson County, 770-646-2026
Harris County, 706-628-4824
Hart County, 706-376-3134
Heard County, 706-675-3513
Henry County, 770-228-8421
Houston County, 478-987-2028
Irwin County, 229-468-7409
Jackson County, 706-367-6344
Jasper County, 706-468-6479
Jeff Davis County, 912-375-6648
Jefferson County, 478-625-3046
Jenkins County, 478-982-4408
Johnson County, 478-864-3373
Jones County, 478-986-3958
Lamar County, 770-358-5163
Lanier County, 229-482-3895
Laurens County, 478-272-2277
Lee County, 229-759-6025
Liberty County, 912-876-2133
Lincoln County, 706-359-3233
Long County, 912-545-9549
Lowndes County, 229-333-5185
Lumpkin County, 706-864-2275
Macon County, 478-472-7588
Madison County, 706-795-2281
Marion County, 229-649-2625
McDuffie County, 706-595-1815
McIntosh County, 912-437-6651
Meriwether County, 706-672-4235
Miller County, 229-758-4106
Mitchell County, 229-336-2066
Monroe County, 478-994-7014
Montgomery County, 912-583-2240
Morgan County, 706-342-2214
Murray County, 706-695-3031

Muscogee County, 706-653-4200
Newton County, 770-784-2010
Oconee County, 706-769-3946
Oglethorpe County, 706-743-8341
Paulding County, 770-443-7616
Peach County, 478-825-6466
Pickens County, 706-253-8840
Pierce County, 912-449-2034
Pike County, 770-567-2010
Polk County, 770-749-2142
Pulaski County, 478-783-1171
Putnam County, 706-485-4151
Quitman County, 229-334-4303
Rabun County, 706-782-3113
Randolph County, 229-732-2311
Richmond County, 706-821-2350
Rockdale County, 770-278-7373
Schley County, 229-937-2601
Screven County, 912-564-2064
Seminole County, 229-524-2326
Spalding County, 770-467-4225
Stephens County, 706-779-5501
Stewart County, 229-838-4908
Sumter County, 229-924-4476
Talbot County, 706-665-3230
Tattall County, Glennville, 912-654-2593
Tattall County, Reidsville, 912-557-6724
Taylor County, 478-862-5496
Telfair County, 229-868-6489
Terrell County, 229-995-2165
Thomas County, 229-225-4130
Tift County, 229-391-7980
Toombs County, 912-526-3101
Towns County, 706-896-2024
Treutlen County, 912-529-3766
Troup County, 706-883-1675
Turner County, 229-567-3448
Twiggs County, 478-945-3391
Union County, 706-439-6030
Upson County, 706-647-8989
Walker County, 706-638-2548
Walton County, 770-267-1324
Ware County, 912-287-2456
Warren County, 706-465-2136
Washington County, 478-552-2011
Wayne County, 912-427-5965
Webster County, 229-828-2325
Wheeler County, 912-568-7138
White County, 706-865-2832
Whitfield County, 706-278-8207
Wilcox County, 912-365-2323
Wilkes County, 706-678-2332
Wilkinson County, 478-946-2367
Worth County, 229-776-8216

PESTICIDE SAFETY AND OTHER PESTICIDE INFORMATION

USE PESTICIDES SAFELY

Milton Taylor, UGA Pesticide Safety Education Program Coordinator

Pesticides are biologically active materials applied to kill or disable target pests. If not handled properly, many are also potentially toxic, or even lethal, to non-target plants and animals, including man. Pesticide labels should be carefully followed, as they enable the applicator to use these materials safely.

1. **Apply pesticides only when they are needed.** Properly identify the pest and evaluate whether it will cause enough damage to justify a pesticide application. Your local Cooperative Extension office can help you identify and evaluate your pest problems.
2. **FOLLOW THE LABEL DIRECTIONS!** Most pesticide accidents are the result of not following the directions, restrictions, and precautions on the label. Avoid the temptation to use greater than the labeled rates; you increase your risk and you may injure or damage the site of application. Additionally, it is illegal to use any pesticide in a manner not prescribed on the label.
3. **Store pesticides safely.** Far too many households have a pesticide stored within reach of children. Keep pesticides in the original packaging with the label securely affixed. The storage area should be clearly marked and locked if possible. Keep pesticides beyond the reach of children and animals. Never store pesticides with food, feed, or clothing. NEVER store pesticides in any food or drink container!
4. **Prevent pesticide drift and runoff.** Never apply pesticide when the wind is blowing more than 5 mph or when rain is imminent. Crops that receive regular pesticide applications should not be planted near bodies of water or near sensitive areas, such as schools or wildlife habitat.
5. **Wear the proper protective clothing.** If you wear the label-prescribed protective equipment, your risk from applying pesticides is very small. Wear a hat and eye protection when spraying overhead.
6. **Measure pesticides carefully.** Do not mix more pesticide than you need. It is much easier to use pesticides than to properly and safely dispose of them.
7. **When you use pesticides, wash your hands** before you eat, drink, use tobacco, or go to the restroom. Shower as soon as you can, taking care to thoroughly clean your hair and fingernails. Wash the clothes you wore while applying pesticides before wearing them again. Separate your pesticide application garments from regular household laundry, washing them in a separate load.
8. **If you or someone else is exposed to a pesticide, take immediate action.** Remove any contaminated clothing. If pesticide is on the skin, wash immediately. If pesticide is in the eye, rinse with clean water for at least 15 minutes. If pesticide is swallowed, give large amounts of water or milk to drink. DO NOT induce vomiting unless the label directs you to. Never give liquids or induce vomiting if a person is unconscious or convulsive. If pesticide is inhaled, move victim to fresh air. **Promptly seek medical attention.**

STORING THE PESTICIDE

1. Store pesticides in a locked and posted place that is accessible only to qualified individuals. Keep pesticides out of reach of children, unqualified people, or animals.
2. Store pesticides in their original containers with intact labels. NEVER place a pesticide in a food or beverage container.
3. Do not store pesticides with food, feed, or seed.

PROTECT HONEY BEES FROM PESTICIDES

Keith S. Delaplane, Extension Entomologist

Many pesticides are hazardous to honey bees and other floral visitors. Some are acutely toxic to bees, that is, exposed individuals very often die. Lower doses or exposures may be sub-lethal, but toxic enough to disable the exposed bees. Damage can be minimized if the pesticide user and the beekeeper cooperate and take proper precautions.

The Pesticide User's Role

1. Use pesticides only as needed.
2. Select the least hazardous pesticides that will control the target pest.
3. Use the least hazardous method of application. Granular pesticide formulations are usually harmless to honey bees. Sprays drift less than dusts and are less likely to kill bees in nearby areas.
4. Do not apply pesticides when honey bees are active. Applications in late evening or night are least likely to kill bees. Do not apply pesticides when plants are in flower unless it is absolutely necessary.