

PESTICIDE LAWS, LABELS AND SAFETY

A. LAWS GOVERNING THE USE OF PESTICIDES, FEDERAL.

1. Original law was FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT. (FIFRA).

a) A 1947 law, illegal to detach or destroy pesticide labels, provided for inspections. Did not address use and use within a single state.

2. Current law, PESTICIDE AMENDMENT TO THE FEDERAL FOOD, DRUG AND COSMETIC ACT (FFDCA).

a) A 1972 law provided for broader regulatory use.

b) The EPA must register all pesticides before they can be sold to the public.

c) Any product sold which claims to control pests/diseases or affects behavior must have an EPA reg. number to be legal.

(1) Pesticide means: any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest. Also, any substance or mixture of substances intended for use as a plant [growth] regulator, defoliant, or desiccant.

B. STATE LAWS FOR PESTICIDE APPLICATION.

1. Classification of pesticides.

a) General or non-restricted pesticides are judged as being safe enough for the general public to use when applied in accordance with directions on the label.

- (1) Do not need a permit to buy and use.
- (2) Low to moderate toxicity to people or to the environment.
- (3) Accounts for 94% of pesticide products used in Hawaii (1994 statistics).

b) Restricted use, have "unreasonable adverse effects on the environment or cause injury to the applicator even when applied in accordance with label directions (Labels posting "Restricted use, Danger, Poison or Warning).

- (1) Only applied by certified applicators or those under direct supervision.

(a) Direct supervision applied by a competent person acting under the instruction and control of a certified applicator who is available if and when needed, physical presents of certified supervisor is not necessary.

(b) Written instructions need to be given to supervised person, for application and safety measures.

- (2) Need a permit to buy and use
- (3) Moderate to high toxicity to people or to the environment.

2. Hawaii State Pesticide Laws.

a) Enforced by Hawaii Department of Agriculture.

b) Federal agencies interested in manufacture, registration and labeling use of the pesticide (Worker Protection Standards).

c) Pesticide certification and training.

(1) Applicators must pass a written exam, get a wallet size permit to present when purchasing a restricted use pesticide.

(2) Areas of applicator competency

- (a) knowledge of laws and safety*
- (b) safety and handling procedures*
- (c) ID and classification of pests*
- (d) Principles of pest control*
- (e) Pesticide classification and formulation*
- (f) Pesticide application*

d) Categories of Restricted-use Pesticide permits.

(1) Private applicators permit.

(a) Producing agricultural commodities for sale fruits, nuts, vegetables, livestock, aquaculture, and nursery plants/ornamentals.

(2) Commercial applicators permit.

(a) For non-agricultural uses or “for hire” ag. Uses. Commercial permits are needed for:

- (i) Agricultural plant or animal – “for hire”. Trading application for work does not apply.*
- (ii) Forest Pest control*
- (iii) Ornamental and Turf Pest control*
- (iv) Seed Treatment Pest control*
- (v) Aquatic Pest control*
- (vi) Right-of-way Pest control*
- (vii) (a)-Fumigation (structural), (b)-Termite, (c)-General pest, (d)-Ind., Inst. (bakery, cannery, hotel, school)*
- (viii) Public health pest control (rats)*
- (ix) Regulatory pest control(bunchy top bananas)*
- (x) Demonstration and research pest control*
- (xi) Aerial pest control*

e) Supervising non-certified applicators.

(1) See handout for details on non-certified applicators applying restricted use pesticides.

f) Cooperative extension service provides for training applicators and developing training material.

3. Special local need label

a) Illegal to apply a pesticide to a crop or site which is not on the pesticide container.**b) A SLN is a sheet of paper with special instructions printed on it. Instructions include:**

- (1) How much pesticide to apply
- (2) When the pesticide should be applied
- (3) What special equipment, if any, is need for application, Do's and don't to prevent harm to your self, crop or sensitive areas of the environment.

c) By law, must have a copy of the proper SLN label in your possession at the time you apply the pesticide to the special local crop or site.**d) The SLN label is only valid in the state to which it applies.****C. SAFETY CLASSES OF PESTICIDES**1. Pesticides rated for toxicity by LD₅₀**a) LD₅₀ = mg of chemical/kg of body weight to kill 50% of test pop.****b) Pesticide classes**

Toxicity Rating	Label signal words	Oral LD50 (mg/kg)	Dermal LD 50 (mg/kg)	Lethal Oral dose, 150 pound man
high	Danger-Poison	0 - 50	0-200	Few drops to teaspoon
moderate	Warning	50-500	200-2,00	1 teaspoon to 1 ounce (2 tabelspoons)
low	Caution	500 – 5,000	2,000 – 20,000	1 ounce to 1 pint or 2 pounds
Very low	Caution	5,000 +	20,000 +	1 pint or more, or 2 pounds or more

Note that values in these categories indicate LETHAL (deadly) doses; much lower doses may cause severe injury or chronic health effects. Data collected from URL:

http://ohioline.osu.edu/b861/b861_113.html, viewed on 11/14/01

(1) SEE HANDOUT SHEETS FOR LD₅₀ OF VARIOUS PESTICIDES AND

2. Pesticide exposure risk of aerial application as affected job

Job type	Pesticide exposure risk (more * = higher risk)
Pilot	*
Mixer	*****
Flagman	*
Mechanic	**
Supervisor	**
Scout	*
Washer	****

3. Exposure of body parts with ground application equipment, Knapsack 1 nozzle.

Body Part	Pesticide exposure risk (more * = higher risk)
Head	*
Upper arm	**
Torso	****
Forearm	*
Shin	*****
Thigh	*****

4. Symptoms of pesticide poisoning.
- a) **muscle twitching**
 - b) **dizziness, confusion**
 - c) **excessive sweating**
 - d) **extreme salivation, vomiting**
 - e) **difficulty breathing**
 - f) **Itching and burning of eyes, blurred**
 - g) **skin irritation**
 - h) **Narrowed pupils**
 - i) **abdominal pain, diarrhea**
 - j) **unconsciousness**
 - k) **weakness and fatigue**
 - l) **headache**

5. Maintenance requirements of protective clothing:

Personal Protective Equipment	Maintenance operation	Storage
rubber gloves/boots	wash w/ soap and water after each use Clean inner/outer and mixing area. surfaces. Remove after outer surfaces cleaned.	Away from chemicals.
b coveralls, cotton- polyester mixture	wash w/soap after each working day. Apply starch to enhance repellence effect and improve residue removal during washing. Wash separately from other family members cloths	, same as above
respirator	Wash respirator body w/soap and water after each use Do not wash or wet filter parts	Filters in clean plastic bags, body of mask away from chemicals.

6. Sources of safety equipment:

- a) **In Hawaii, Gaspro Safety Systems has complete line of respirators, gloves and coveralls. A safety system has supplies for all types of hazardous work sites.**
- b) **Mail order: See Gempler's catalog: order 800-382-8473, or www.gemplers.com**