

**State of Connecticut**  
**Department of Energy and Environmental Protection (DEEP)**

Information for Applicants for Commercial Supervisory  
Pesticide Applicator Certification – Cooling Towers

**Reference Material**

1. Pesticide Applicator Training Manual - Core Manual

Available from: University of Connecticut  
Agricultural Publications  
Box U-35  
Storrs, CT 06268  
Phone (860) 486-3336  
[On-line Ordering](#)

2. Pesticide Applicator Training Manual – Cooling Tower (Category 7g)

Available from: New York State Pesticide Training Manuals  
Cornell University  
95 Brown Road, RM 223  
Box 1043  
Ithaca, NY 14850  
Tel: (607) 225-7282

on line: <http://psep.cce.cornell.edu/certification/manual.aspx>

3. “Microbial Pest Control”

Available from: Cooperative Extension Service  
The University of Georgia  
College of Agriculture  
Athens,GA  
<http://extension.uga.edu/about/contact/index.cfm>

## HOW POISONOUS ARE PESTICIDES

This is a summary of the toxicity of certain insecticides to test animals (usually the white rat) based on the amount of chemical that would need to be eaten at one time to cause death.

Insecticides	Acute oral LD <sub>50</sub> to rats (mg/kg)	Approximate ingested lethal dose for humans (concentrated chemical)
aldicarb (Temik)	0.93	
Disyston	2.7	
oxamyl (Vydate)	4.7	1/70 to 1/5 teaspoonful
fenaminphos (Nemacur)	8	
abamectin (Avert)	10	
azinthosmethyl (Guthion)	11-13	
methomyl (Lannate)	17	
endothall	38-51	1/5 to 1/2 teaspoonful
dichlorvos (DDVP or Vapona)	50	
nicotine	50-60	
bifenthrin (Talstar)	55	
Metasystox R	65-75	1/2 to 1-1/2 teaspoonfuls
lambda-Cyhalothrin(Scimitar, Demand)	79	
chlorpyrifos (Dursban)	97-276	1-1/2 to 3 teaspoonfuls
fipronil	100	
endosulfan (Thiodan)	100	
Rotenone	132-1500	
trichlorfon (Dylox)	144	
imidan	216	
cypermethrin (Cynoff, Demon, )	247-250	
2,4-D	375	
Diazinon (Knox-out)	300-400	
naled (Dibrom)	430	
imidacloprid (Merit)	450	3 to 9 teaspoonfuls
cyfluthrin (Tempo)	500	
carbaryl (Sevin)	540-800	
MSMA	700	
acephate (Orthene)	866-945	
pendimethalin	1050	
malathion	1500	
propiconazole (Banner)	1517	
DEET (Off)	2000	
oxythioquinox (Morestan)	2500	
permethrin (Dagnet, Flee)	430-4000	1/4 to 1 cup
glyphosate (Roundup)	5600	
dithiopyr (Dimension)	>5000	
Resmethrin	715-10,200	1-1/2 to over 3 cups
chlorothalonil (Daconil)	>10,000	
fosamine ammonium (Krenite)	24,000	

SAMPLE QUESTIONS

The following sample questions may have more than one correct answer:

1. Quaternary ammonium compounds are generally effective in controlling:
  1. viruses
  2. fungi
  3. algae
  4. bacteria
  
2. Slimes are combinations of:
  1. fungi
  2. algae
  3. bacteria
  4. none of the above
  
3. Bacteria that grow only in the absence of air are called:
  1. aerobic bacteria
  2. symbiotic bacteria
  3. anaerobic bacteria
  4. phytotoxic bacteria
  
4. Early symptoms of pesticide poisoning may include:
  1. headache
  2. dizziness
  3. nausea
  4. restlessness

**USEFUL TELEPHONE CONTACTS**

1. In case of a spill  
**DEEP Emergency Response**  
24 hours: (860) 424-3338
2. For information on pesticide products, licensing, state regulations.  
**DEEP Pesticide Management Division** - (860) 424-3369
3. For information on pesticide disposal  
**DEEP Waste Engineering and Enforcement Division** – (888) 424-4193
4. In case of accidental overexposure  
**Connecticut Poison Control Center** - 1- 800-222-1222
5. **National Pesticide Information Center** - 1-800-858-7378