

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

Information for Applicants for Commercial Supervisory  
Pesticide Applicator Certification – Wood Preservation

An applicant for a wood preservation certificate is expected to possess a working knowledge of the operation performed by wood treaters and the reasons for performing them. Outlined below are areas in which an applicant should be proficient.

**DIAGNOSIS**

Diagnosis is of primary importance and an applicant should:

- (a) be able to identify all common wood destroying organisms found in the region including, but not limited to:

Wood Inhabiting Fungi

Brown rot  
White rot  
Soft rot

Wood Staining Fungi

Sapstaining fungi  
Mold fungi

Insects

Subterranean termites  
Drywood termites  
Dampwood termites  
Carpenter ants  
Powderpost beetles (Lyctus, Anobiid)  
Roundheaded borers  
Flatheaded borers  
Marine borers  
Shipworms  
Pholads  
Crustacean borers

- (b) know the biology and habits of the species listed;  
(c) recognize evidence of infestation such as damage; and  
(d) be aware of conditions such as temperature, moisture and wood/soil contact which favor infestation.

**TREATMENT**

Having determined the needs of a given situation, the applicant should be able to prescribe and apply the proper treatment. This requires knowledge of:

- (a) whether or not pesticides are to be applied;  
(b) the pesticides used, their properties, such as effectiveness against certain pests and their toxicity to humans and other warm blooded animals. These pesticides should include, but not be limited to:

Creosote and Creosote solutions  
Pentachlorophenol  
Inorganic Arsenicals  
Methylisothiocyanate  
Sodium fluoride;

(c) for pesticides used:

- (i) the dosage and timing involved;
- (ii) how the pesticide is to be mixed;
- (iii) methods of application and the various types of equipment;
- (iv) how to calibrate equipment; and
- (v) how to properly store and transport pesticides; and

(d) State of Connecticut and federal pesticide laws and regulations.

### **OPERATIONAL PRACTICE**

The applicant should know:

- (a) basic safety and handling rules for pesticide use;
- (b) how and when to use common types of protective equipment;
- (c) early signs and symptoms of pesticide poisoning;
- (d) first aid which can be used in the event of pesticide poisoning;
- (e) precautions to be taken to protect workers, the public and the environment; and
- (f) the proper disposal of pesticide containers and surplus pesticides.

## 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	
aziphosmethyl (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 (Dragnet, 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	

## 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. Wood Preservation and Wood Products Treatment Manual

Available from: Pesticide Management Division  
Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127 Tel: (860) 424-3369

## 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 disposal of pesticides  
**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