

For the newbies: What you need to know when applying pesticides!

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UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

Statewide Integrated
Pest Management Program

OUTLINE OF TOPICS...

- ✓ **What is needed to become a certified applicator?**
- ✓ **Layer Cake of Laws and Regulations**
- ✓ **Fundamentals of Pesticide Safety**
- ✓ **Label comprehension**
- ✓ **Protecting the Environment**

What is needed to become a certified applicator?

- General Requirements include:
 - Submitting application to DPR, with corresponding fee
 - Application Fee \$40
 - Exam Fee \$50 x 2
 - Total of \$140



therefore it is public information. You may wish to use a post office box in lieu of a physical address. Web site: <http://www.cdpr.ca.gov/>

A. Application Type. Check the appropriate box(es). *FOR COMPLETE INSTRUCTIONS, SEE PAGE 2.*

NEW APPLICATION (New Application Fee of \$40 is required in Section G). REEXAMINATION - FAIL OR NO SHOW ON PREVIOUS EXAM ADDING PEST CONTROL CATEGORY(IES)

B. Applicant Information.

NAME (Last)	(First)	(Middle Initial)	QAC NUMBER/Certificate/Application # (if applicable)	HOME PHONE NUMBER () () ()
MAILING ADDRESS (Number and Street or P.O. Box)				WORK PHONE NUMBER () () ()
(City)	(County)	(State)	(Zip Code)	CELL PHONE NUMBER () () ()
CURRENT EMPLOYER (Check only one box) <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> Pest Control Business <input type="checkbox"/> Maintenance Gardener <input type="checkbox"/> Other or N/A				E-MAIL ADDRESS
EMPLOYER NAME AND MAILING ADDRESS (if Applicable) (Number and Street, P.O. Box, City, State, Zip Code)				

C. Examination - Laws, Regulations and Basic Principles.

Laws, Regulations and Basic Principles **\$50** No fee or examination is required if you:
This examination must be passed in addition to one or more categories in Section D below to obtain a QAC. (1) Have a valid PCA, APC, JPC, OR QAL License/Certificate Number: _____
OR
 (2) Have passed this exam within the last 12 months Application #: _____

D. Examinations - Categories. Indicate the examination(s) you want to take by checking the appropriate boxes. One or more of the following exams must be passed in addition to the exam in Section C above to obtain a QAC. Only four (4) examinations may be taken at one time (including Laws, Regulations and Basic Principles).

<input type="checkbox"/> (A) Residential, Industrial, and Institutional \$50	<input type="checkbox"/> (I) Animal Agriculture \$50
<input type="checkbox"/> (B) Landscape Maintenance \$50	<input type="checkbox"/> (J) Demonstration and Research \$50
<input type="checkbox"/> (C) Right-of-Way \$50	<input type="checkbox"/> (K) Health Related \$50
<input type="checkbox"/> (D) Plant Agriculture \$50	<input type="checkbox"/> (L) Wood Preservation \$50

One core exam plus one pest category

LAWS AND REGULATIONS AND BASIC PRINCIPLES

- | | | | |
|---|--|---|------------------------|
| A | Residential, Industrial, and Institutional | K | Health Related |
| B | Landscape Maintenance | L | SOIL FUMIGATION |
| C | Right-of-Way | M | NON-SOIL FUMIGATION |
| D | Plant Agriculture | | |
| E | Forest | | |
| F | Aquatic | | |
| G | Regulatory | Q | Maintenance Gardener * |
| H | Seed Treatment | | |
| I | Animal Agriculture | | |
| J | Demonstration and Research | | |



3RD EDITION

Laws and Regulations

STUDY GUIDE

California Environmental Protection Agency
dpr Department of Pesticide Regulation

Becoming a certified applicator? Cont...

- Knowledge of Pesticide Use and Safety (Study Material)
 - Label comprehension
 - Effective Use of Pesticides
 - Handler and Fieldworker Safety



THE SAFE AND EFFECTIVE USE OF PESTICIDES

THIRD EDITION

UC Statewide Integrated Pest Management Program

University of California
Agriculture and Natural Resources

Publication 3324



Becoming a certified applicator? Cont...

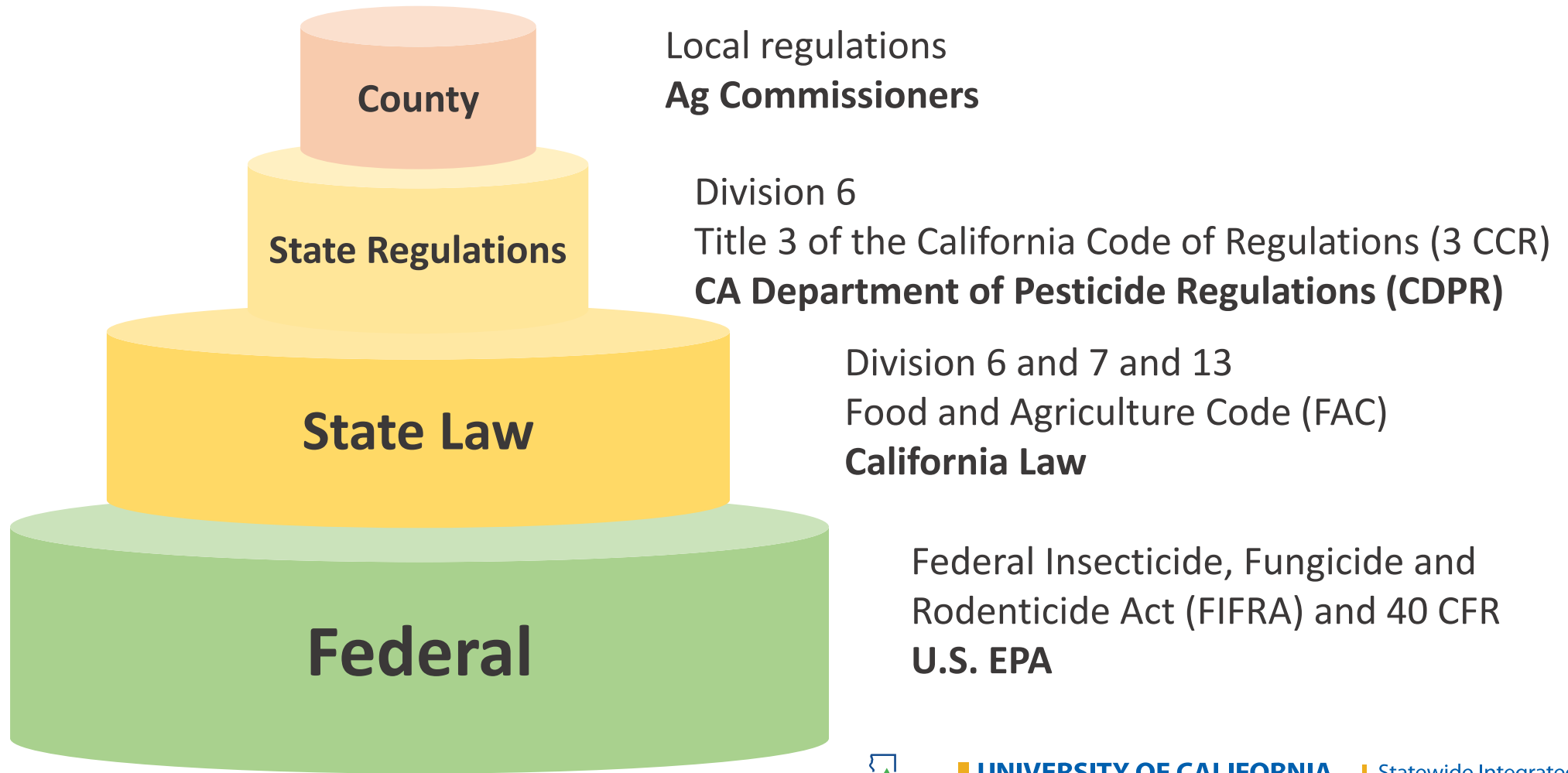
- Continuing Education record keeping
 - Every two years you submit a renewal application
 - Renewal Fee \$60
 - Most pest control categories require 20 hours of CEU
 - 4 hours Laws and Regs
 - 16 hours other
- DPR does not record your attendance to CEU workshops, classes so you need to maintain a record to submit for renewal



In-Person Courses - November 2023

<i>Title</i>	<i>Date</i>	<i>Laws</i>	<i>Aerial</i>	<i>Other</i>	<i>Total Hours</i>	<i>City</i>	<i>State</i>	<i>Zip Code</i>	<i>Sponsorin</i>
WCRA Fall 2023 Day 1	11/1/2023	0.00	0.00	5.00	5.00	n/a	CA	n/a	BASF
BASF Fall Technical Review	11/1/2023	0.50	0.00	1.50	2.00	Bakersfield	CA	93308	BASF
Pesticide Haz Com	11/1/2023	5.50	0.00	0.00	5.50	Petaluma	CA	94954	California Safety T
IPM-2	11/1/2023	0.00	0.00	2.00	2.00	North Fork	CA	93643	Target Specialty Pi
Habitat, Natural Enemies/Pest Control and Healthy Soils to Optimize Production	11/1/2023	0.00	0.00	2.00	2.00	Soledad	CA	93960	Wild Farm Alliance

Layer Cake of Laws and Regulations



LAWS

In California, laws are passed to address specific pesticide sales and use concerns and are enacted into effect when the Governor signs them

REGULATIONS

Regulatory agencies such as DPR writes and implements regulations that carry out requirements of the law

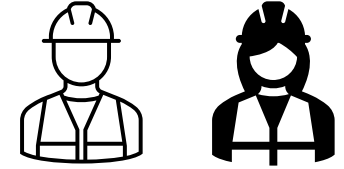


Purpose of the Laws and Regs in CA

- Promote proper, safe, and effective use of pesticides used in the production of food and protection of public health and safety
- Assure that pesticide handler in Ag and non-Ag settings have safe working conditions where pesticide are present
- Protect the environment



Fundamentals of Pesticide Safety



- Safety first!
 - Using pesticides can be dangerous if you aren't properly trained.
 - For example, herbicides are useful in controlling invasive species but need to always follow the label
 - Knowledge is power, keeping up to date with regulations and attending CE course → less accidents and high efficiency

Standards of Care in the field

- Read the label
- Checking application equipment is in good working condition
- Checking meteorological conditions
- Examining surrounding areas
- A clear understanding of the risks when using herbicides → toxicity
 - Humans
 - Animals
 - Environment



More on pesticide safety!



- Planning prior and post application of pesticide
 - Proper field posting
 - Notifying fieldworkers

Pesticide Handler and Fieldworker annual trainings

- Knowledge on Pesticide Safety resources such as PSIS A series and N series.
- Provide pesticide handlers and crew members with emergency plan in case of exposure or medical emergency.



PESTICIDE SAFETY INFORMATION SERIES (PSIS)
A Series

AGRICULTURAL SETTINGS



PESTICIDE SAFETY INFORMATION SERIES (PSIS)
N Series

NON-AGRICULTURAL SETTINGS

EMERGENCY MEDICAL CARE

Your employer must make plans for emergency medical care before you start working with pesticides. If you think that pesticides made you sick or hurt you at work, immediately tell your employer. They must make sure that you are taken to a doctor right away. **DO NOT TAKE YOURSELF.**

Emergency medical care is available at:

NAME:

ADDRESS:

TELEPHONE:



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Keeping handlers safe

- Herbicide handlers should be 18 years or older
- Most common routes of exposure: skin, mouth, eyes and nose
- At minimum wearing proper attire:
 - Long Pants
 - Long Sleeve shirt
 - Closed toed shoes
- CA Code of Regulations section 6738
 - Safety glasses
 - Chemical resistant gloves



3 CCR Section 6738 cont...

- If pesticide label contains word signal
 - “DANGER” OR “WARNING” must wear coveralls
 - When required by the label



Keeping Fieldworker and Handlers safe

- Wash or shower with soap and water, shampoo hair, and change into clean clothes as soon as possible after working in pesticide treated areas
- Remove work boots or shoes before entering your home
- Do not take pesticides or pesticide containers used at work to your home



Label Comprehension



Why is the label important?



It is the law – must read



Required Personal Protective Equipment (PPE)



Safe pesticide storage



Safe pesticide transportation

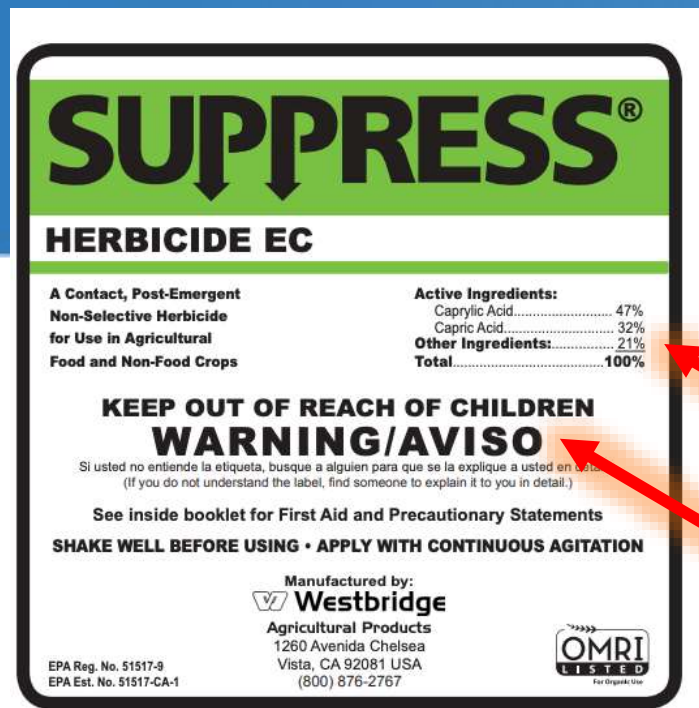


Triple rinsing and disposal of pesticide containers



Disposal of unused or unwanted pesticides

Label example



ACTIVE
INGREDIENT

SIGNAL WORD

FIRST AID	
If in Eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on Skin or Clothing	<ul style="list-style-type: none"> • Remove contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Wash exposed area with soap and water. If irritation persists, seek medical attention. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Poison Control Hotline at 1-800-222-1222 for emergency medical treatment information 24 hours a day, 7 days a week.	
NOTE TO PHYSICIAN:	
Probable mucosal damage may contraindicate the use of gastric lavage.	

First Aid
statement

CATEGORY	SIGNAL WORD
I	DANGER
II	WARNING
III	CAUTION

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin and clothing. Wear protective eyewear such as goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin and clothing. Wear protective eyewear such as goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical-resistance selection chart.

Applicators and other handlers must wear:

- Protective eyewear
- Coveralls worn over short-sleeved shirt and short pants
- Shoes plus socks
- Chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE items separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if the product gets inside. Wash thoroughly and put on clean clothing.
- Remove PPE after handling this product.
- Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothes.



DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner that is inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State or Tribe, consult the State/Tribal agency responsible for the pesticide regulation.

Use sites

Target pests

Crops, plant species where pesticides can be applied

Application methods

AGRICULTURAL USE REQUIREMENTS
<p>Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It also contains specific instructions and exceptions pertaining to statements on this label about personal protective equipment (PPE). The requirements of this box only apply to uses of this product that are covered by the Worker Protection Standard.</p> <p>Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.</p> <p>PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and involves contact with anything treated such as plants or soil is:</p> <ul style="list-style-type: none"> • long-sleeved shirt and long pants • protective eyewear • chemical-resistant gloves • shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS
<p>The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.</p> <p>For early reentry to treated areas and that involves contact with anything that has been treated such as plants, soil, or water, wear: coveralls, shoes, socks, and waterproof gloves.</p>

Non-Food Crops:

Turf, Flowers, Bedding and Landscape	Bedding Plants, Flowers and Ornamentals, Turf Grass (Maintenance, Sod or Seed Production)
Trees and Shrubs	Christmas Trees, Forest and Commercial Trees, Landscape Trees, Nursery Trees or Shrubs
Greenhouse and Nurseries	All Crops, Plants
Fallow Land, Forages and Pastures, Uncultivated Land	

For use in Non-Agricultural and Industrial Sites:

SUPPRESS® Herbicide EC can be used to control undesired vegetation, weeds, and grasses growing in and around parks, golf courses, turf, ornamentals, landscapes, interiorscapes, non-crop areas, right-of-ways, and around building structures, and similar areas.

For use on Sucker Control*:

To burn back unwanted basal sucker growth on woody trees and foliage growth on vines, and excessive cane growth in the brambles. Apply before suckers become woody and only to unwanted vegetative parts. Use the 6% to 9% solution to control sucker growth.

**Not for use in California*



STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store **SUPPRESS® Herbicide EC** in a cool place out of direct sunlight. Do not freeze.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING [for containers less than 5 gallons]: Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) container promptly after emptying, then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by incineration. If burned, stay out of smoke. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture or dispose of in a sanitary landfill, or by incineration. Do not burn unless allowed by state and local ordinances.

CONTAINER HANDLING [for containers greater than 5 gallons]: Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into the application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available, or puncture or dispose of in a sanitary landfill, or by incineration. Do not burn unless allowed by state and local ordinances.

Information on how to store pesticide:
- Temp requirements

Information on where and how to dispose of empty containers or left over pesticide



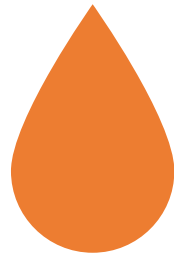


Protecting the Environment

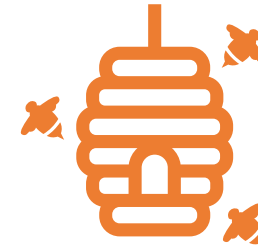
- Vegetation and wildlife present in the area
- Persistence and off-site movement of chemical in soil or near water sources
- If making broadcast application of herbicides → Buffer zones



CCR 3, Chapter 3 & 4 – Environmental Protection and Regs



Groundwater and Surface water Protection Programs



Non-target effects

Toxicity to bees

Endangered Species Acts

Groundwater Protection Regulations

CCR 3 section 6609

- Cannot apply or mix pesticides within 100 feet from well or body of water

CCR 3 section 6800

- Restricted Materials List



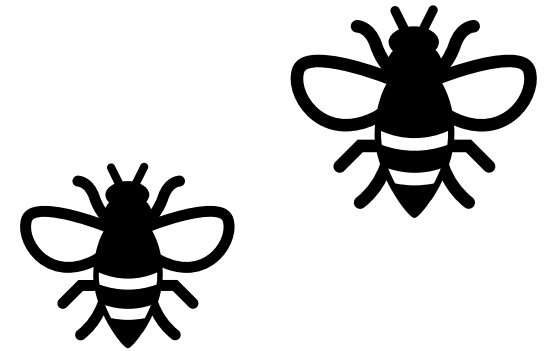
Non-target effects → Pollinator protection

CCR 3 section 6980

- Pesticides Toxic to Bees

Best Management Practices:

- Pesticide applicators must identify and verify hive locations and maintain appropriate buffers between treated areas and hives.
- Avoid applying herbicides in high bee activity time



Protecting wildlife

Endangered Species Program –CA DPR resources



PRESCRIBE Online Database Application

[Back to Endangered Species Project](#)

Welcome to Pesticide Regulation's Endangered Species Custom Realtime Internet Bulletin Engine (PRESCRIBE). The PRESCRIBE online database application was developed to help pesticide applicators find out if they have any endangered species in the vicinity of their application site, and the use limitations applicable to the pesticide product(s) they intend to use.

This site provides information consistent with the U.S. Environmental Protection Agency (U.S. EPA)'s Interim Measures Bulletins for Protection of Endangered Species for user-selected sites and pesticides. Habitat data is from the Department of Fish and Wildlife (DFW) Natural Diversity Database, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Pesticide toxicology follows U.S. EPA standards and advice of DFW Pesticide Investigations Unit. Habitat protection measures are from U.S. Fish and Wildlife Service biological opinions and local plans developed through the cooperation of the County Agricultural Commissioners and Sealers Association, the Department of Fish and Wildlife and the California Department of Food and Agriculture. This program is implemented by the Department of Pesticide Regulation on behalf of U.S. EPA under Section 7(a)(1) of the Endangered Species Act.

- [How to Navigate PRESCRIBE](#)
- [Start a PRESCRIBE query](#)
- [PRESCRIBE Mobile App](#)

For content questions, contact:
Leopoldo Moreno
1001 I Street
Sacramento, CA 95812-4015
(916) 324-3888
E-mail: Polo.Moreno@cdpr.ca.gov



PRESCRIBE MOBILE APP



Takeaway message!

- **How to become a certified applicator**
- **Keep record of CEU**
- **Maintain pesticide safety trainings with crews**
- **Skipping step leads to reduced efficacy and more work**
- **Know the label is the law**
- **Pesticide hazards in the environment include threat to non-target organism and off-site movement**
- **When in doubt check with County Ag Commissioners Office or CA-DPR**



THANK YOU!



Questions?

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