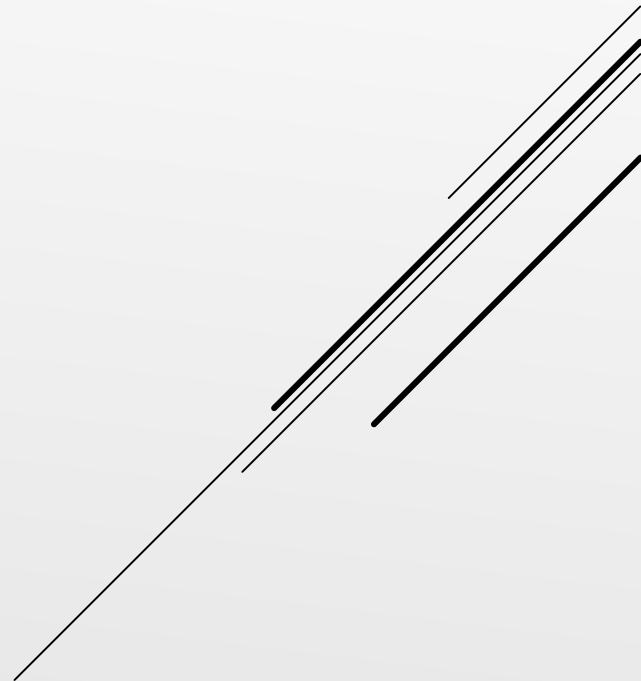


**TITLE 3, CALIFORNIA CODE OF REGULATIONS,
(3 CCR) SECTIONS 6970 AND 6972,
SURFACE WATER PROTECTION REGULATIONS**

CARLOS GUTIERREZ
DEPARTMENT OF PESTICIDE REGULATION
ENFORCEMENT BRANCH



POLL QUESTION #1



PRESENTATION OUTLINE

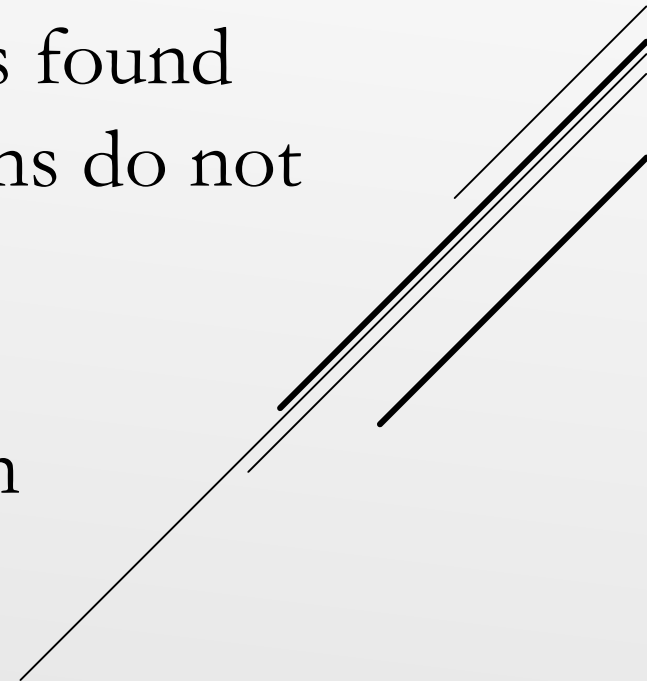
An Overview of California's Surface Water (SW) Regulations

- ▶ Background / Goal / Purpose of SW Regulations
 - ▶ Scope of SW Regulations & Definitions (New Terms in 3CCR 6000)
 - ▶ Regulated Pyrethroid Applications
 - ▶ Prohibited & Exempt Pyrethroid Applications
 - ▶ Additional Restrictions - Bifenthrin, Fipronil
 - ▶ SW Regulations Video
 - ▶ Example scenarios
- 

PYRETHROID vs PYRETHRIN

- PYRETHROID – general name for class of synthetic pesticides (SW Regulations apply to 17)
- PYRETHRIN – naturally occurring insecticides found in Chrysanthemum, a perennial plant (regulations do not apply)

Can be confusing because many pyrethroids end in “..thrin”. (bifenthrin)



BACKGROUND

- ▶ Surface Water Regulations became effective July 2012
 - ▶ New Title 3, California Code of Regulations (3CCR) sections 6970 and 6972 (and five (5) new associated definitions in 3CCR §6000)

Basis

- Aquatic life is very sensitive to pyrethroids
- Pyrethroids are persistent, and mobile under runoff conditions (offsite transport)
- Water monitoring samples frequently detect pyrethroids
- Pesticide runoff to surface water is a significant source of aquatic toxicity
- ❖ SW Regulations Goal: To reduce surface water contamination from pyrethroid insecticide use

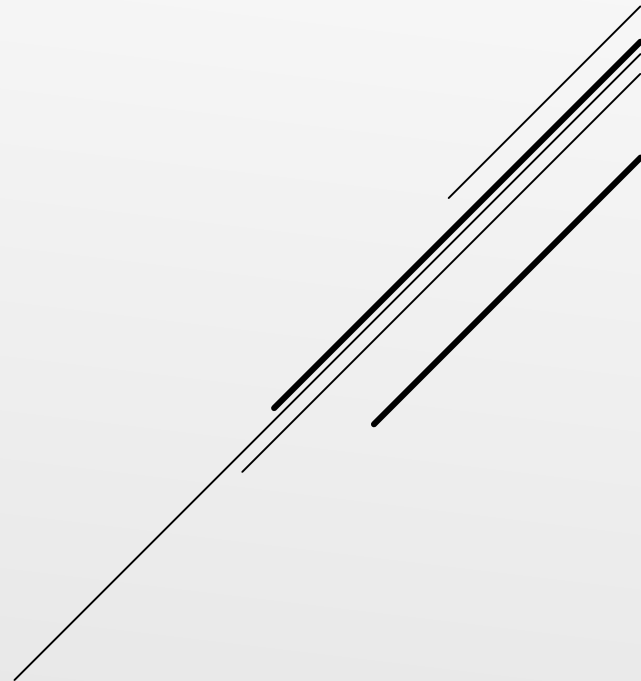
BACKGROUND (CONT.)

JUSTIFICATION FOR REGULATIONS

- ▶ Urban hardscapes create lots of impervious surfaces with a high runoff potential;
- ▶ There is a high pyrethroid detection frequency statewide and concentrations are found at toxic levels in streams near urban areas
- ▶ Pyrethroid residues persist for a long time in these streams (years)



POLL QUESTION #2



SURFACE WATER REGULATIONS (3CCR 6970)

APPLICATIONS AFFECTED

Pesticide applications that meet all of the following criteria:

- ☑ **outdoor applications**
- ☑ **to non-agricultural sites** (including structural, residential, industrial, and institutional)
- ☑ **of any of the 17 listed pyrethroids**
- ☑ **by persons performing pest control for hire** (pest control businesses, including landscape maintenance gardeners)

3CCR SECTION 6970. [SURFACE WATER PROTECTION IN OUTDOOR NONAGRICULTURAL SETTINGS](#)

3CCR SECTION 6972. [EXEMPTIONS FROM SURFACE WATER PROTECTION IN OUTDOOR NONAGRICULTURAL SETTINGS](#)

17 REGULATED PYRETHROIDS: THE SIX “LEAST AFFECTED”

Active Ingredient	Product Example
Bioallethrin	Ace Wasp/Hornet Killer
S-bioallethrin	Zep Ant & Roach Spray
Phenothrin	Wasp & Hornet Killer
Prallethrin	Flying Insect Spray
Resmethrin	Black Flag Fogging Insecticide
Tetramethrin	Ortho Hornet/Wasp Killer 4

If ends in “thrin”, it’s probably a pyrethroid

17 REGULATED PESTICIDES: THE 11 A.I. MOST AFFECTED

Active Ingredient	Product Examples
Bifenthrin	Talstar, Masterline
Cyfluthrin	Tempo 20 WP, Cy-Kick
Beta-cyfluthrin	Tempo SC, Cyguard, Temprid
Gamma-cyhalothrin	Standguard
Lambda-cyhalothrin	Demand, Cyonara
Cypermethrin	Demon Max
Deltamethrin	Enforcer, Deltagard, Suspend
Esfenvalerate	Ortho Bug B Gon, Onslaught
Fenpropathrin	Tame
Tau-fluvalinate	Mavrik
Permethrin	Dragnet, Raid, Tengard

3 CCR §6970

3CCR §6000 DEFINITIONS

(SEE TEXT OF REGULATION FOR COMPLETE DEFINITIONS)

Aquatic Habitat:

Bodies of water, such as lakes, reservoirs, rivers, perennial and intermittent streams, wetlands, or ponds, sloughs, and estuaries

Crack and Crevice Treatment:

Application of small amounts of insecticide directly into cracks and crevices in which insects hide or through which they may enter the building and only minimal amounts of pesticide should remain on the surface.

DEFINITIONS (CONT.)

Impervious Surfaces:

Hard surfaces, such as concrete or asphalt streets, sidewalks, and driveways

Precipitation:

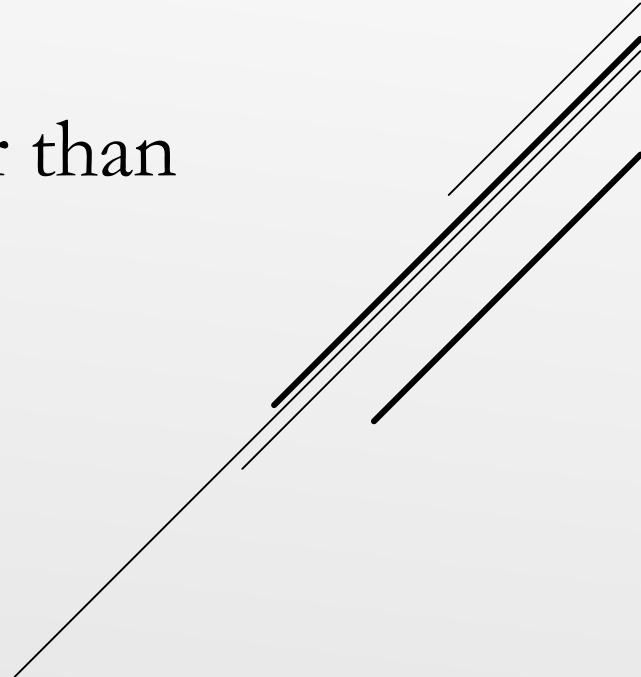
Condensation of atmospheric water vapor that falls under gravity.

Precipitation does not include mist or fog.

Spot Treatment:

Application to limited areas ≤ 2 sq. ft. on which pests are likely to occur or have been located during the process of monitoring or inspection.

SITES & APPLICATION METHODS AFFECTED

- I. Applications to soft surfaces
 - II. Applications to various hard horizontal surfaces, plus doors and windows
 - III. Applications to vertical structural surfaces other than doors and windows
 - IV. Prohibited applications
 - V. Exempt Applications
- 

I. REGULATED APPLICATIONS TO SOFT SURFACES

(E.G. SOIL, MULCH, GRAVEL, LAWN, GROUNDCOVER)

Limited to four options:

(1) Spot treatments; or

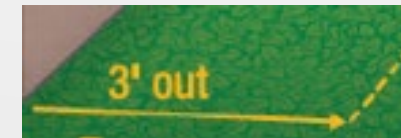


(2) Pin stream treatments of 1" wide or less; or



(3) Perimeter band treatments \leq 3 feet outward from the base of a building;

OR



3 CCR §6970 (a) (1-3)

I. APPLICATIONS TO SOFT SURFACES (CONT.)

(4) **Broadcast treatments**, but not within two (2) feet of horizontal impervious surfaces

Pin stream treatments of $\leq 1''$ can be made within the 2-foot no-broadcast treatment zone



3 CCR §6970 (a) (4)

I. APPLICATIONS TO SOFT SURFACES (CONT.)

- ▶ Broadcast preconstruction termiticide treatments done prior to precipitation...

Site must be covered w/waterproof covering OR concrete slab must be poured over treated soil.



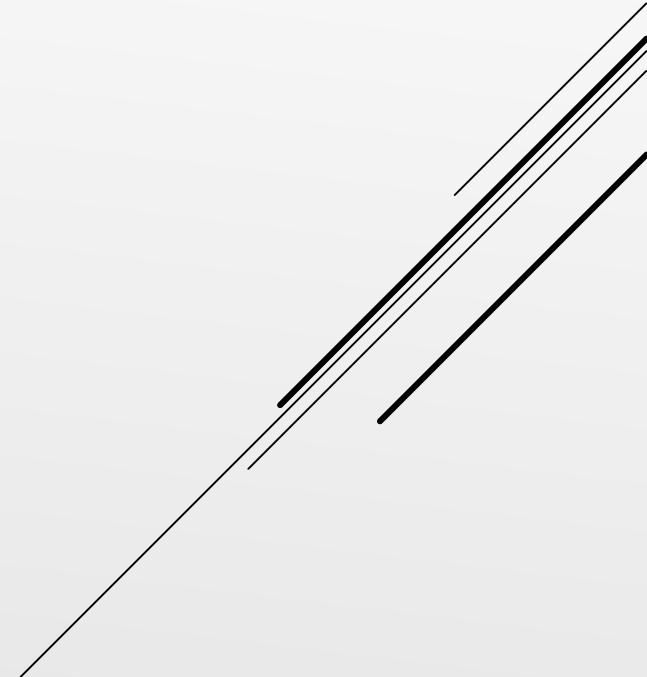
3 CCR §6970 (a) (5)

I. APPLICATIONS TO SOFT SURFACES (CONT.)

- ▶ If you apply a **granular** pyrethroid pesticide, any granules that land on horizontal impervious surfaces must be swept back onto treatment site



3 CCR §6970 (d)



II. REGULATED APPLICATIONS TO HORIZONTAL IMPERVIOUS SURFACES AND DOORS/ WINDOWS

Limited to:

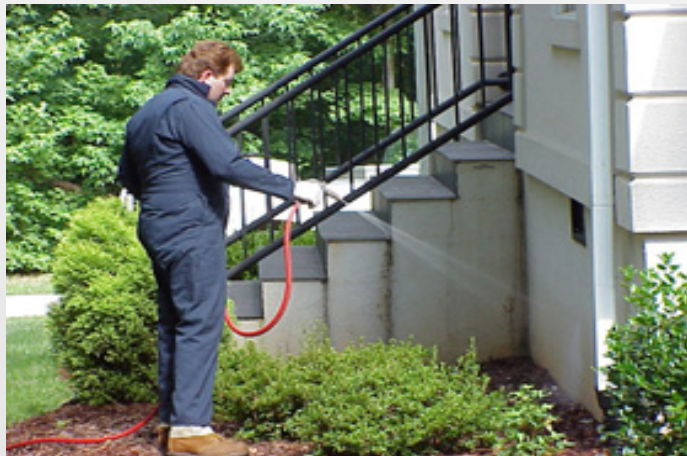
- (1) **Spot treatment**
- (2) **Crack and crevice**
- (3) **Pin stream of one (1) inch or less**



III. REGULATED APPLICATIONS TO VERTICAL STRUCTURAL SURFACES OTHER THAN DOORS, OR WINDOWS

Limited to:

- (1) Spot treatments
- (2) Crack and crevice
- (3) Pin stream of 1 inch or less
- (4) Perimeter band treatment up to a max. of 2 feet above grade level*



* DPR reg more restrictive than U.S. EPA label (3 feet above grade level)

3 CCR §6970 (c) (1-4)

IV. PROHIBITED APPLICATIONS

- ▶ **NO applications** during rainfall, except those to the underside of eaves



3 CCR §6970 (e) (1)

IV. PROHIBITED APPLICATIONS (CONT.)

- ▶ **NO applications** to any horizontal surface (including the soil surface, mulch, gravel, lawn, turf, groundcover, or horizontal impervious surfaces) with **standing water**, including puddles



3 CCR §6970 (e) (2)

IV. PROHIBITED APPLICATIONS (CONT.)

- ▶ **NO applications** to sewer or storm drains or curbside gutters



3 CCR §6970 (e) (3)

IV. PROHIBITED APPLICATIONS (CONT.)

- ▶ **NO applications to constructed drainage systems** that drain to a sewer/storm drain, curbside gutter, or aquatic habitat



3 CCR §6970 (e) (4)

IV. PROHIBITED APPLICATIONS (CONT.)

Constructed Drainage Systems

Example:

Visible drainage grate connected to drain pipe



3 CCR §6970 (e) (4) (A)

IV. PROHIBITED APPLICATIONS (CONT.)

Constructed Drainage Systems

Another Example:

Visible french drain, landscaped dry river bed, swale or
trench filled with gravel or rock



3 CCR §6970 (e) (4) (B)

IV. PROHIBITED APPLICATIONS (CONT.)

NO applications to any horizontal surface (soil, turf, etc., or impervious or preconstruction) within 25 feet of an **aquatic habitat** located downgradient from the application site



3 CCR §6970 (e) (5)

IV. PROHIBITED APPLICATIONS (CONT.)

NO applications to a preconstruction termiticide site within 10 feet of a storm drain located downgradient from the application



<http://www.tbd.co010/09/flooding-update-so-far-so-good-in-arlington-2476.html>

3 CCR §6970 (e) (6)

IV. PROHIBITED APPLICATIONS (CONT.)

No applications to plants/trees/shrubs if standing water in dripline or “perimeter” area of those plants



3 CCR §6970 (f)

V. EXEMPT APPLICATIONS, 3CCR §6972

- ▶ Injections into soil or structural materials (concrete, wood)



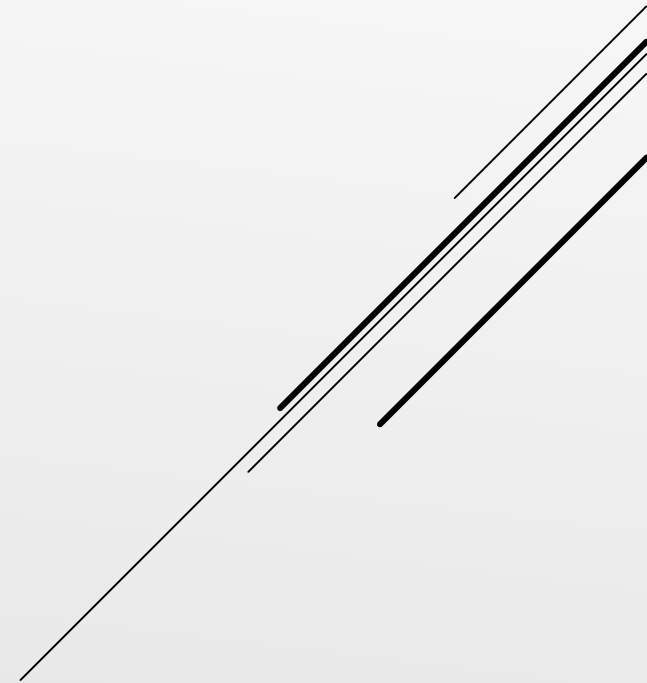
3 CCR §6972 (a)

EXEMPT APPLICATIONS (CONT.)

- ▶ Post-construction rod / trench termiticide apps



3 CCR §6972 (b)



EXEMPT APPLICATIONS (CONT.)

- Applications to below-ground insect nests made of mud or paper comb
- Applications of baits in weather-proof bait stations or applied as “gel baits”



3 CCR §6972 (c-d)

EXEMPT APPLICATIONS (CONT.)

Applications to receiving waters for which a National Pollutant Discharge Elimination System (NPDES) permit has been issued (for pesticide discharges to waters of the U.S. from spray applications and vector control applications)

3 CCR §6972 (e)

EXEMPT APPLICATIONS (CONT.)

- ▶ Applications to the underside of eaves

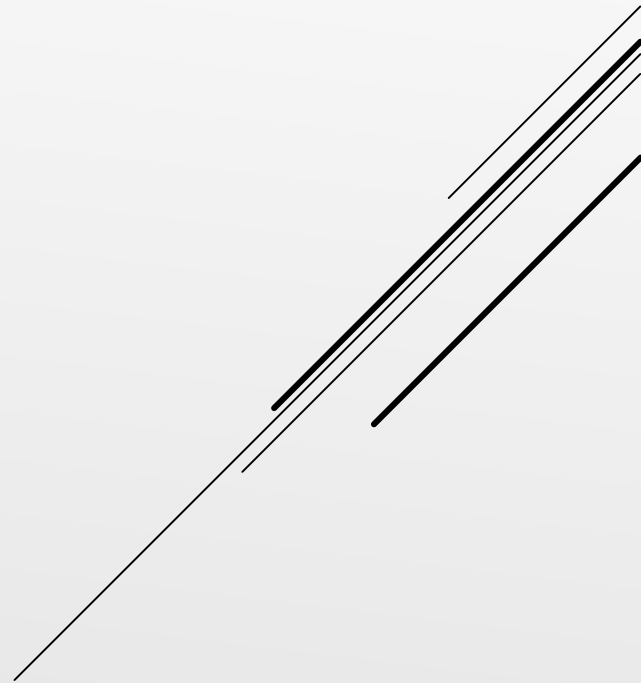


- Fogger or aerosol applications

3 CCR §6972 (f-g)



POLL QUESTION #3



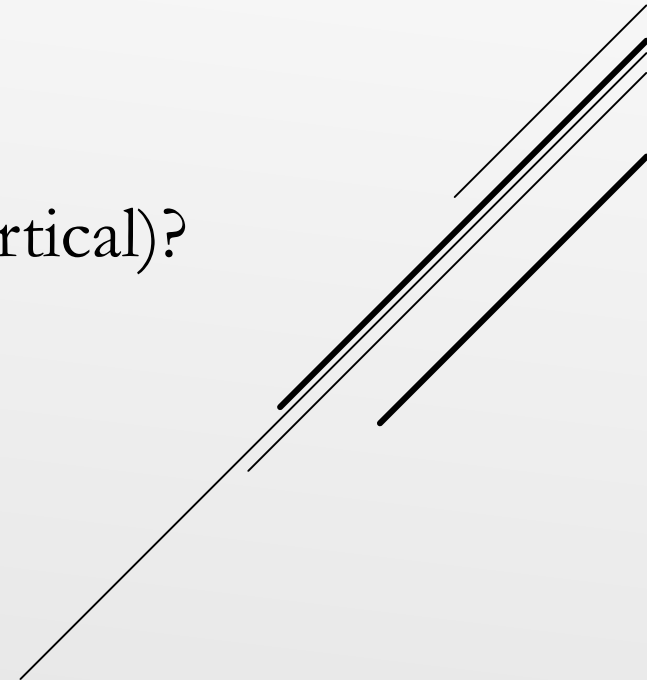
SOLVING THE PUZZLE...

WHEN DO THESE SW REGULATIONS APPLY?

To help you in the field:

Six Questions to ask about the application

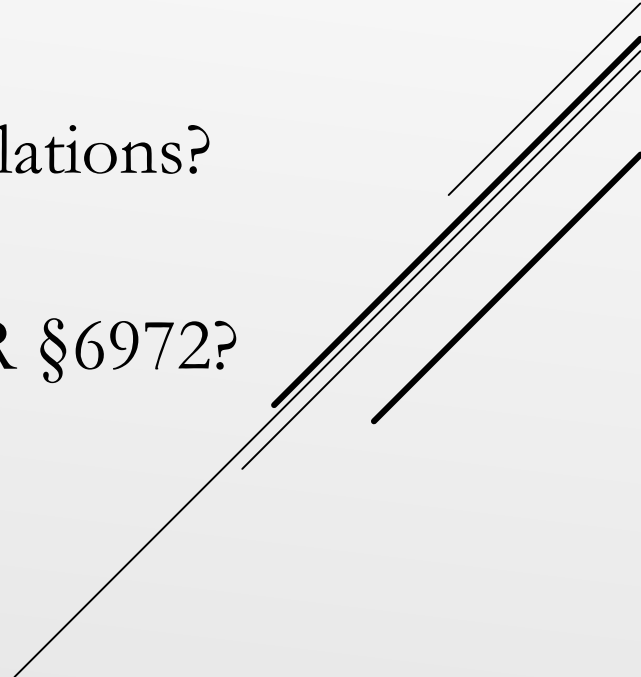
- ✓ Is the pyrethroid listed in the SW Regulations?
- ✓ Is the use site listed (e.g. soft, hard, horizontal, vertical)?
- ✓ Is the surface area type impervious/ pervious?
(soil, lawn, concrete, etc.)



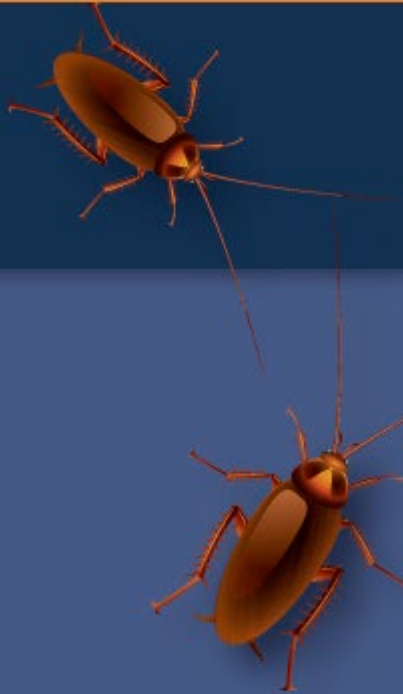
SOLVING THE PUZZLE... WHEN DO THESE SW REGULATIONS APPLY? (CONT.)

To help you in the field:

Six Questions to ask about the application (cont.)

- ✓ Is the application method listed in the surface water regulations?
 - ✓ Is the treatment site adjacent to a “problem” area?
 - ✓ Is the application site/method listed as exempt in 3 CCR §6972?
- 

Pyrethroid Working Group Resource:



Spray Smart

Best Practices for Complying with
**California Surface
Water Regulations**

1

Structure Base
STAY 2 feet up and 3 feet out as directions permit

2

Spot Spray
NO LARGER than 2 square feet

3

Drains
Do NOT allow the pyrethroids to enter drains

Avoid spraying on hard surfaces like driveways & sidewalks that lead to gutters & drains to minimize pyrethroid runoff.
Always read & follow label directions.

4

Cracks & Crevices
Spray MUST stay in cracks & crevices

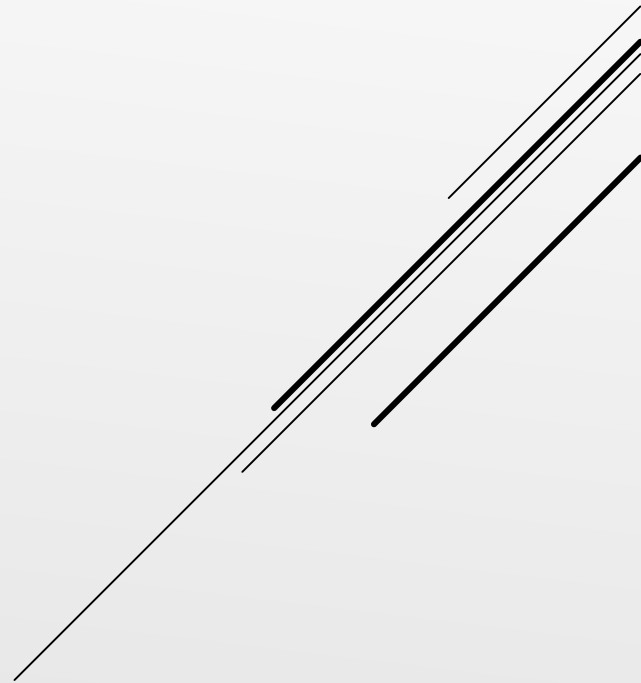
5

Pin Stream
On vertical & horizontal surfaces that do not have cracks, a pin stream application of 1" OR LESS is permitted

6

DRIVEWAY OR HARD SURFACE
Pin Stream OK
↓ 2' away
Horizontal Surfaces
Broadcast spray must stay at least 2 feet AWAY from concrete AND hard surfaces

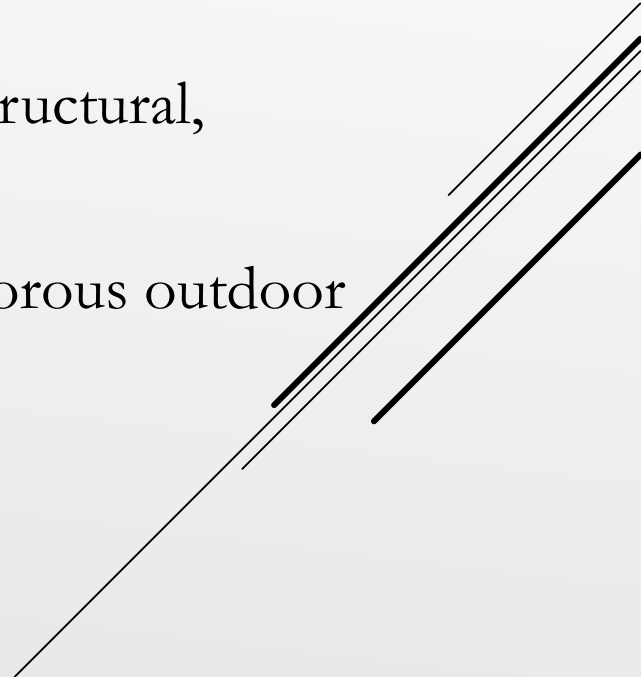
POLL QUESTION #4



ADDITIONAL RESTRICTIONS – BIFENTHRIN LABEL RESTRICTIONS FOR SPECIFIC BIFENTHRIN PRODUCTS

Bifenthrin Memorandum of Agreement (MOA) –

Established 4 criteria for inclusion in MOA:

- ▶ AI – Bifenthrin
 - ▶ Outdoor structural sites – directions for outdoor applications to structural, residential, industrial, institutional
 - ▶ Non-porous surfaces – directions that allow applications to non-porous outdoor surfaces either vertical or horizontal
 - ▶ Professional use – pest control for hire
- 

BIFENTHRIN – LABEL RESTRICTIONS

Applications to Horizontal Non-porous Surfaces

“The following procedures must be followed to help achieve maximum control of the pest:

1) Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fluid oz. of product per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet”

BIFENTHRIN – LABEL RESTRICTIONS

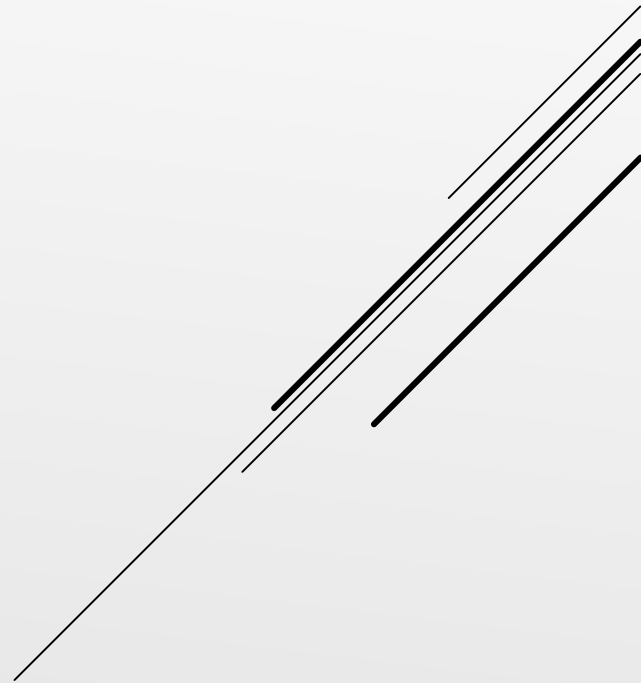
Applications to Vertical Non-porous Surfaces

- ▶ Pest Control on Outside Surfaces and Around Buildings -
Perimeter Treatment

“Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can **only** be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) they don’t drain into a sewer, storm drain, or curbside gutter

(e.g., not to sections that abut driveways or sidewalks that drain into streets)”

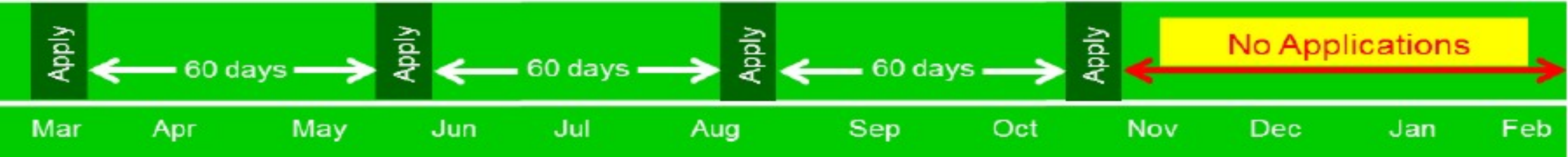
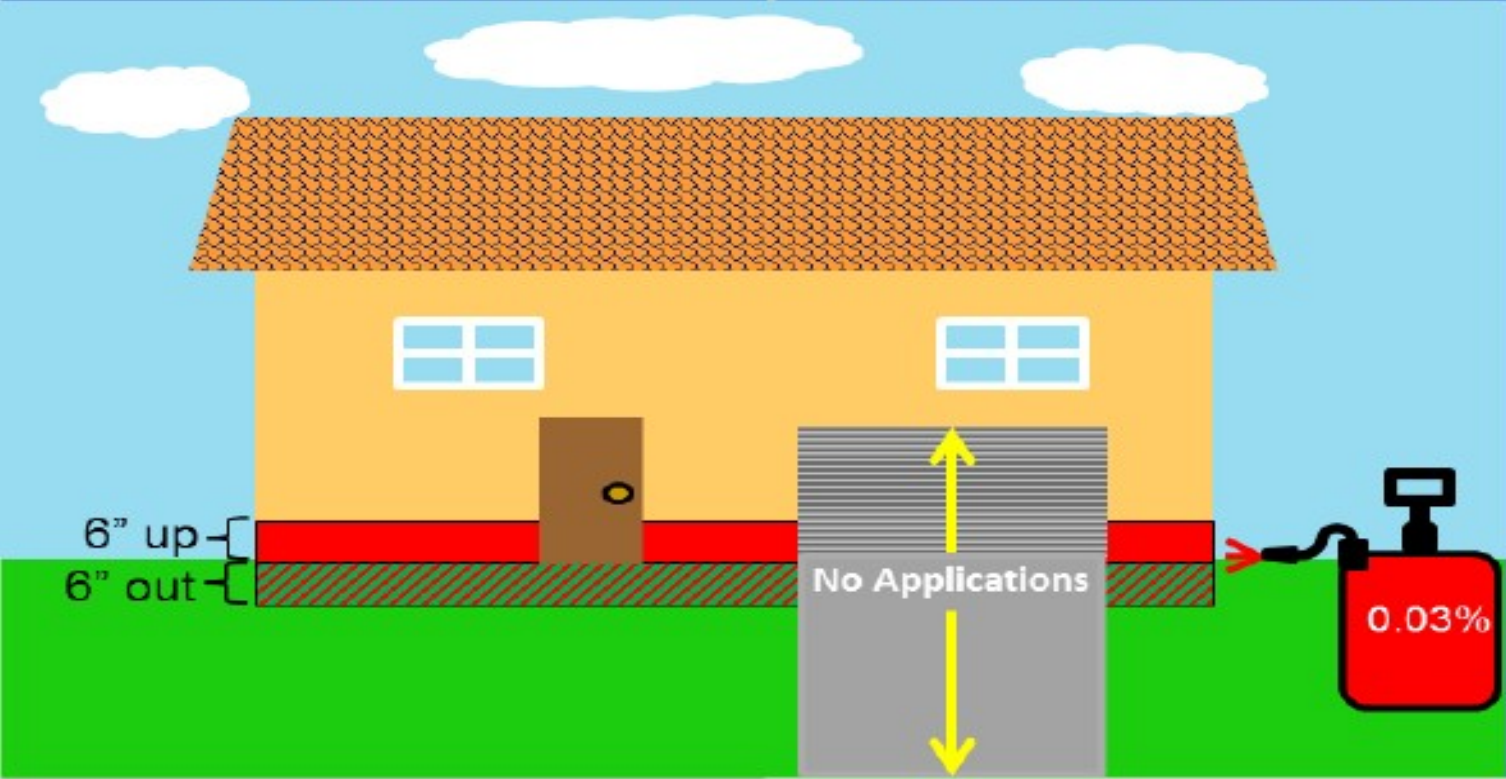
POLL QUESTION #5



ADDITIONAL LABEL RESTRICTIONS - FIPRONIL

*Label changes in November 2017. Affects only General Pest Control, not termiticide treatments.

California Fipronil Label Restrictions*

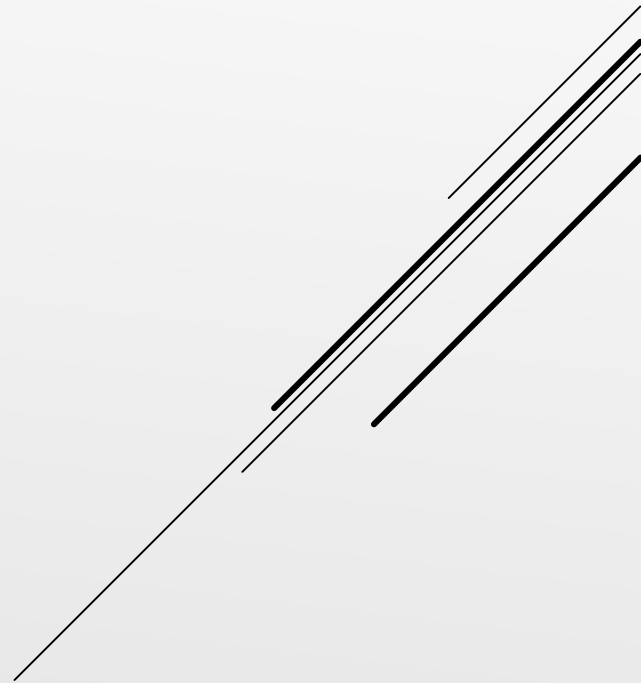


dpr
(www.cdpr.ca.gov)

- Only apply 0.03% finished dilution
- Only apply spray bandwidth 6 inches up or out from where foundation meets the ground
- Do not apply to garage door, driveway, or cracks and crevices adjacent or leading to driveway
- Maximum 4 applications per year
- Minimum 60 days between applications
- Do not apply between November 1st and February 28th

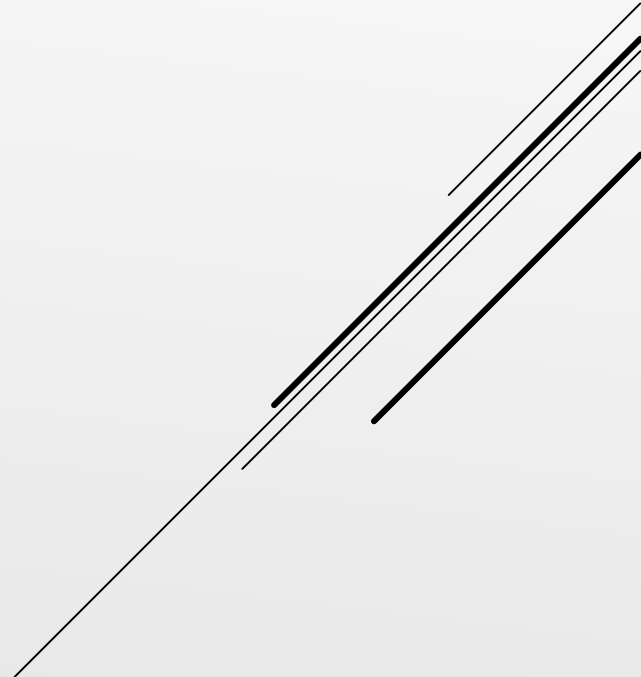
*Does not affect traps or bait products

POLL QUESTION #6



PYRETHROID APPLICATION BEST PRACTICES

- ▶ [Pyrethroid Working Group and CDPR](#)
- ▶ <https://www.youtube.com/watch?v=DJ5yZT0T9nI&feature=youtu.be>



BRANCH 2 APPLICATORS AND APPLICATIONS

In the following exercises

- Registered pesticides are being mixed and loaded or applied.
- The material being applied is cypermethrin and bifenthrin as a residential perimeter treatment.
- The pesticide labels require chemical resistant gloves, protective eye wear, long sleeve shirt, long pants and shoes for all handler activities.



WHAT'S WRONG WITH THIS PICTURE?



Mix and load

- Sleeves are rolled up
- No eye protection
- Chemical resistant gloves are missing

WHAT'S WRONG WITH THIS PICTURE?



- Missing PPE: Sleeves rolled up, no CR gloves, no eye protection, could require CR boots
- Damaged CR gloves

3CCR 6738; FAC 12973

WHAT'S WRONG WITH THIS PICTURE?



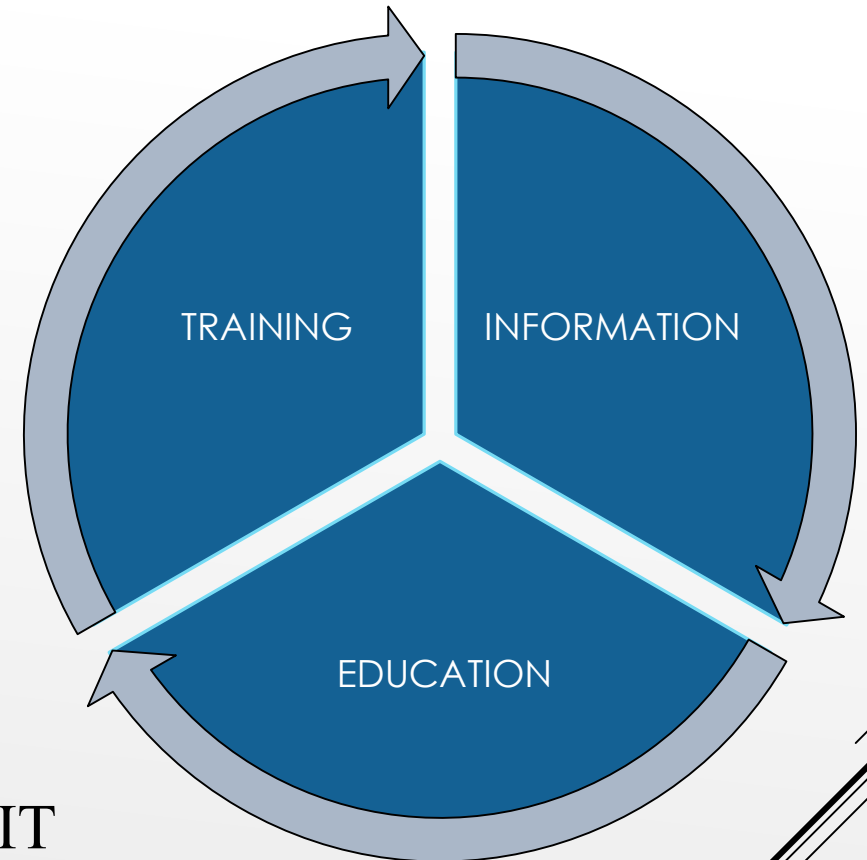
- Branch 2-mix of cypermethrin and bifenthrin applied as a broadcast spray to a non-impervious surface
- Not following label and possibly endangering persons, animals, property

3CCR 6970; 6614; FAC 12973

KEYS TO COMPLIANCE...

BE INFORMED
BE EDUCATED
BE TRAINED

LAWS, REGULATIONS, LABELS, AND PERMIT
CONDITIONS EVOLVE OR CHANGE. CONSULT YOUR
COUNTY AG COMMISSIONER OR DPR FOR HELP!



Questions?

