

# Pyrethroid Outreach To Structural Pest Management Professionals

Principal Investigators: Loren Oki, Karey Windbiel-Rojas  
Project Manager: Jared Sisneroz

DPR Seminar December 17, 2018

# Project Background

- 2013 US EPA label changes to non-ag pyrethroid products
- Changes to Title 3 CCR §6970
- Improve awareness and adoption by structural pest management professionals (PMPs)
- Darren Haver's project in Southern CA



# Project Deliverables

- Identify PMPs in Sacramento metropolitan area
- Survey PMPs
- Develop a workshop curriculum
- Conduct a minimum of 3 workshops for 30 participants each



Photo: CAPCA

# Project Collaborators

- Michael Ensminger - *DPR Environmental Monitoring*
- Dave Fujino - *California Center for Urban Horticulture*
- Darren Van Steenwyk - *Clark Pest Control*
- Rick Strider/ Alicia Scott - *DPR Enforcement*
- Andrew Sutherland - *UC ANR Urban IPM Advisor*

# Curriculum Development

- Process
- Topics covered in workshops
  - Hands-on section
- Structural Pest Control Board mandatory CE quiz
- Pre/Post Questions
  - Help us evaluate knowledge coming into workshop
  - Did they gain knowledge from the training



Photo: CAPCA

# Initial Curriculum (Pilot)

- Ecological impacts of runoff and impact of monitoring on regulations - *Michael Ensminger*
- Regulatory response to monitoring data - Using CA Code of Regulations and product labels to inform applications - *Alicia Scott*
- Critical uses and alternatives to pyrethroid insecticide applications around structures - *Karey Windbiel-Rojas*
- Group Exercise: Overview of best practices, from calibration to recording - *Darren Van Steenwyk, moderator*

# Pilot workshop, October 19, 2017

- Held in Davis at UC ANR building
- Initial Curriculum
- Evaluated
  - Pre/Post questions
  - Pest Board questions
  - Participant satisfaction

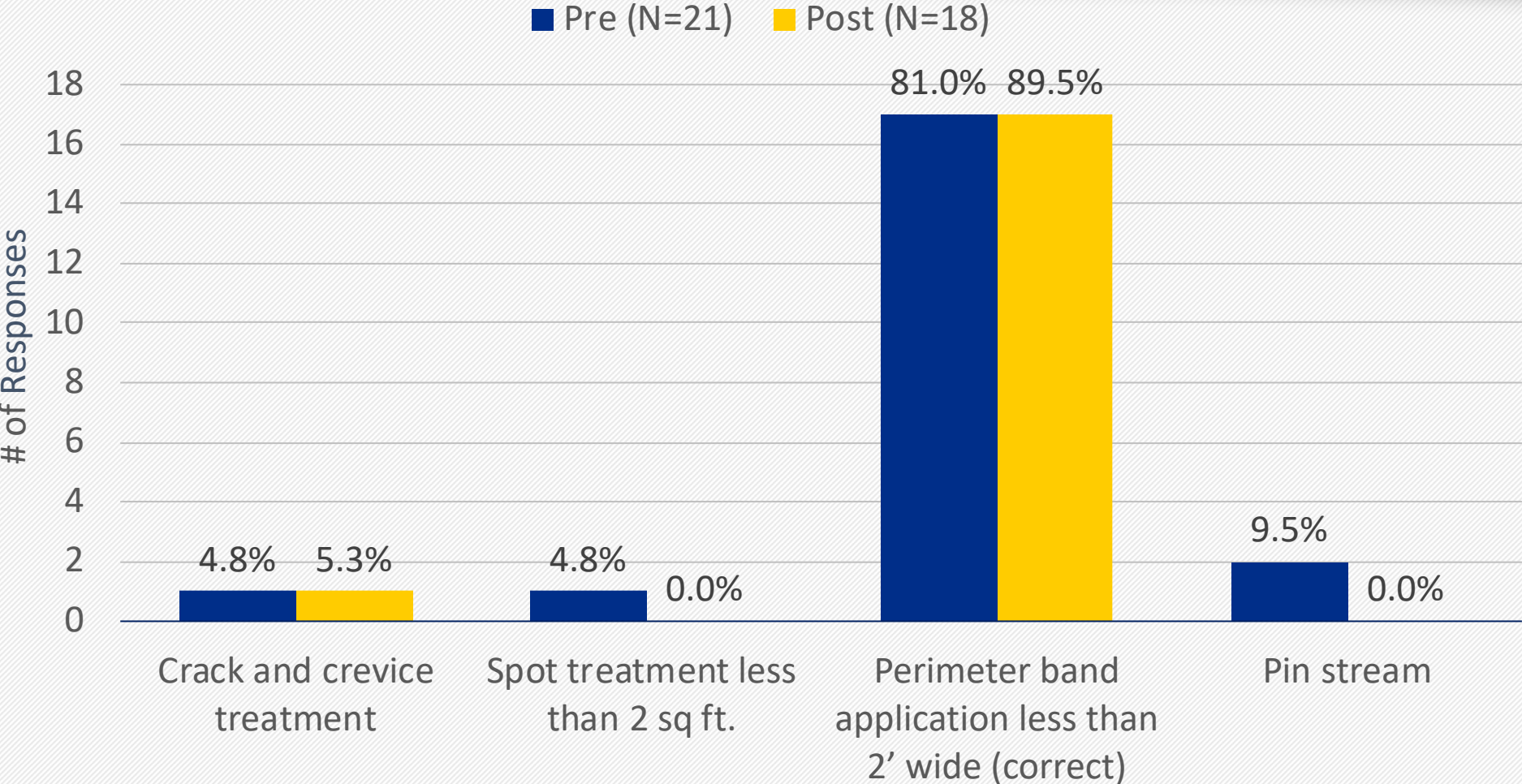
# Pre/Post Question 1

When applying pyrethroids to a horizontal impervious surface such as a driveway, which of the following application methods are not permitted according to updated surface water regulations in Title 3, California Code of Regulations Section 6970 Surface Water Protection in Outdoor Nonagricultural Settings?

- a) Crack and crevice treatment
- b) Spot treatment less than 2 sq. ft.
- c) Perimeter band application less than 2' wide**
- d) Pin stream



# Pre/Post Question 1 Results

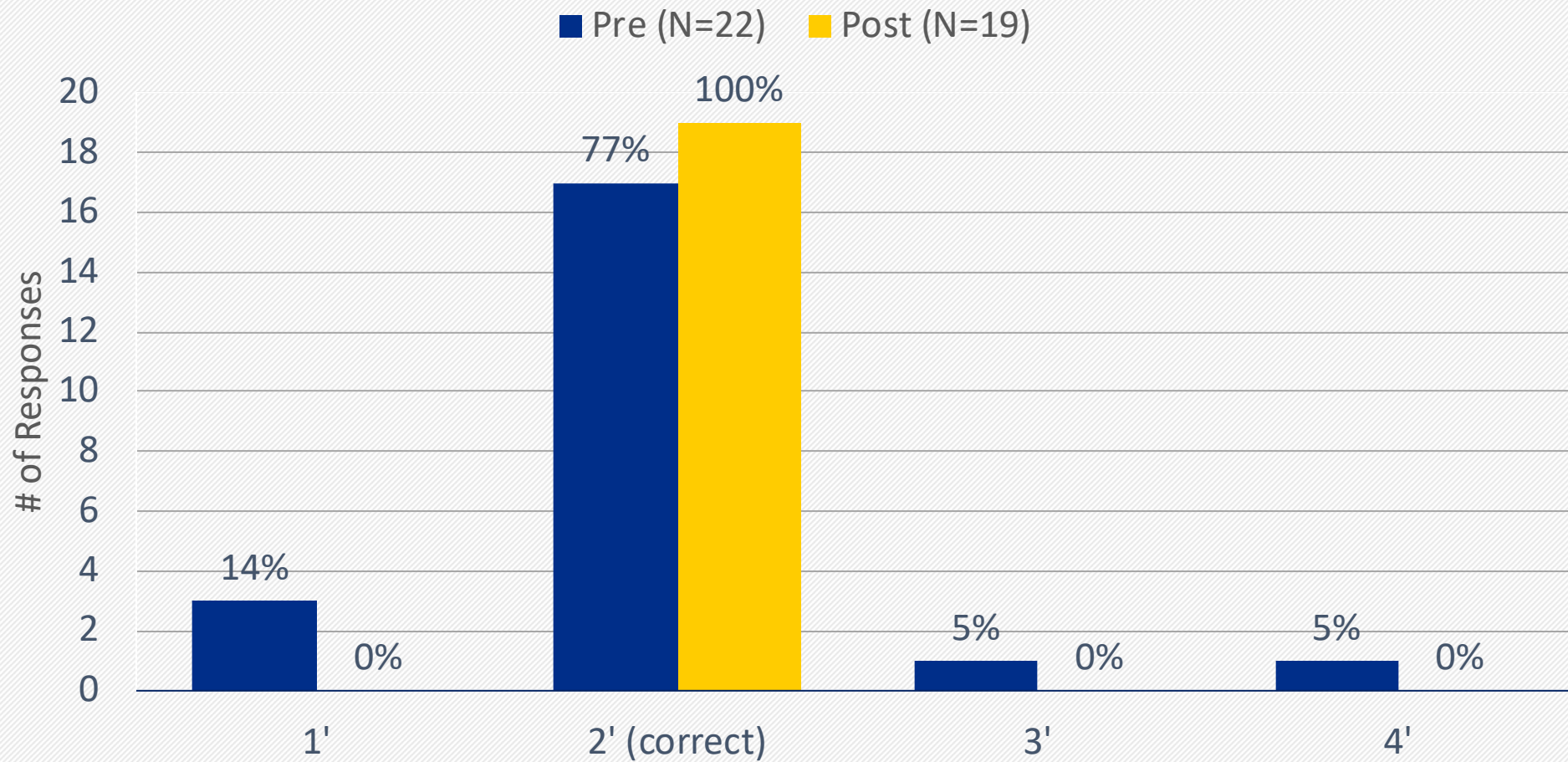


## Pre/Post Question Question 2

Broadcast applications of granular pyrethroids are not permitted within \_\_\_ feet of horizontal impervious surfaces.

- a) 1'
- b) 2'
- c) 3'
- d) 4'

# Pre/Post Question 2 Results

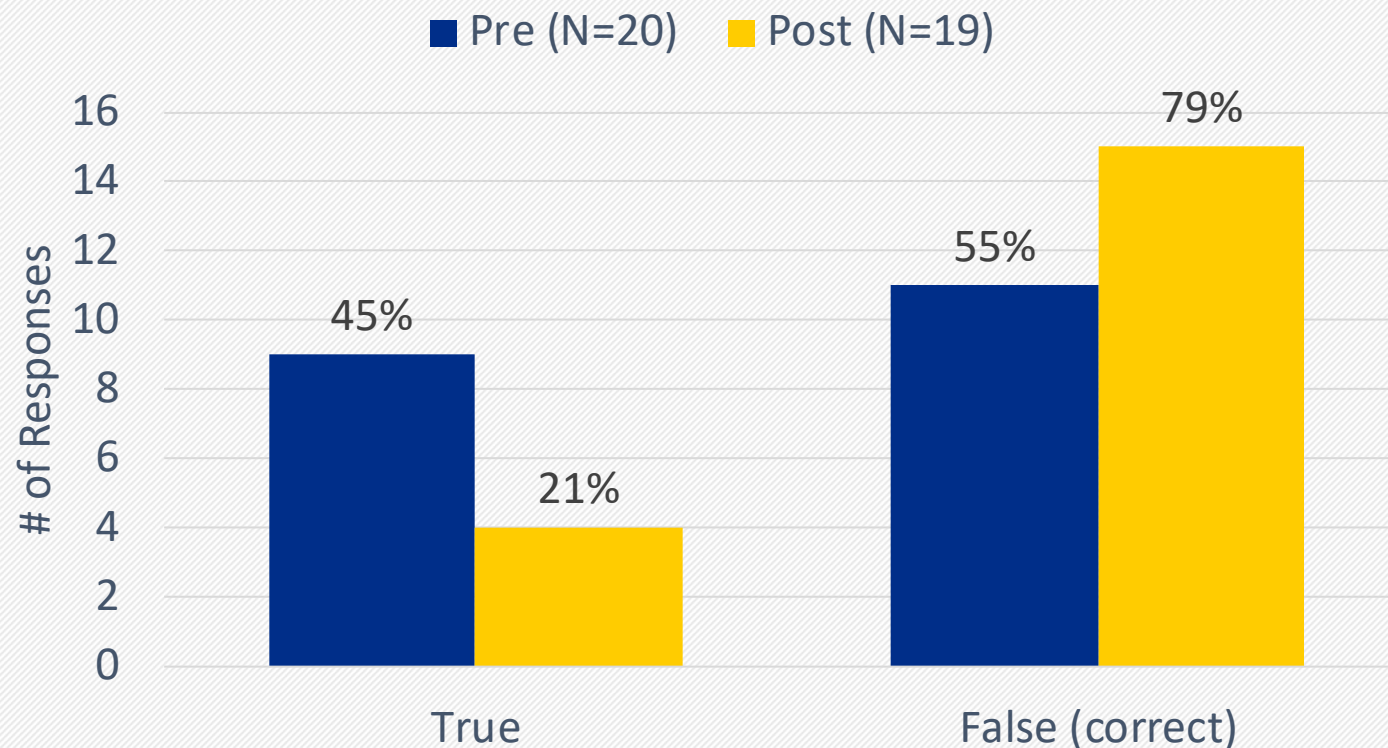


# Pre/Post Question Question 3

In California, pyrethroid applications can be made to vertical surfaces up to 3' above grade, if the label states that.

a) True

b) False

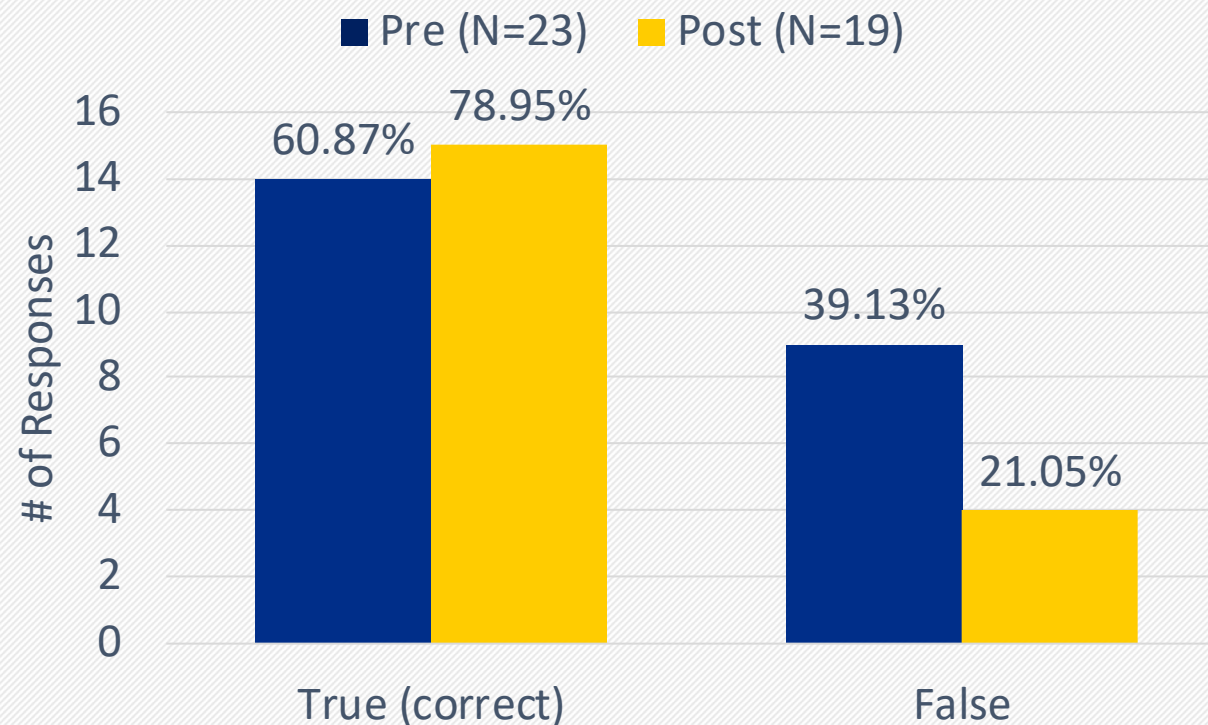


# Pre/Post Question Question 4

In California horizontal perimeter band treatments cannot be made 3' or greater from the base of a building outward.

a) True

b) False



# Learning experience: Structural Pest Control Board Quiz questions

**11. Pyrethrin applications are regulated under Title 3, California Code of Regulations Section 6970 Surface Water Protection in Outdoor Nonagricultural Settings.**

- True
- False (correct)

**20. The following applications are exempt from regulations:**

- Applications to above ground insect nests made of mud or paper combs (5%)
- Applications of baits in weather-proof stations or gel baits (correct) (11%)
- Applications to ant nest holes that go below grade (0%)
- All of the Above (84%)

# Participant review of Pilot workshop



# Revised Curriculum

- Ecological impacts of runoff and impact of monitoring on regulations - *Michael Ensminger*
- Regulatory response to monitoring data - Using CA Code of Regulations and product labels to inform applications - *Alicia Scott*
- Critical uses and alternatives to pyrethroid insecticide applications around structures - *Karey Windbiel-Rojas*
- Calculation & Calibration Exercise - *Loren Oki/K. Windbiel-Rojas*
- Group Exercise: Overview of best practices, from calibration to recording - *Darren Van Steenwyk, moderator*



# Workshops in March 2018

- Folsom -
  - March 9
  - Folsom Community Center
- Roseville
  - March 14
  - Maidu Community Center



Photo: K. Windbiel-Rojas

# Workshop Promotion

- PCO List
  - email invites
  - Phone calls
- Product distributor
- Pest Control Operators of California (PCOC)
  - District meeting announcement
  - Emailed out to local membership list

University of California, Division of Agriculture and Natural Resources  
**Pyrethroid Training for Structural PMPs**

Workshop Information

### Best Practices for Urban Pyrethroid Applicators

Is your pest control company in compliance with the 2012 U. S. EPA and California pyrethroid label changes? Are you unsure?

The University of California Cooperative Extension and the California Department of Pesticide Regulation are offering several half-day workshops to help you learn about the issues surrounding pyrethroid pesticide use and to ensure you are in compliance with California's laws and regulations.

We are offering two continuing education workshops in the Sacramento area. Each workshop will include information on the latest laws, regulations, pesticide calibration, and best practices.

Professionals with Applicator licenses are eligible for 4.5 Continuing Education hours have been requested from both SPCB and DPR.

-----

**Who:** Licensed Structural Pest Management Professionals  
**Cost:** \$15  
-----

**Folsom**

**Date:** March 9, 2018  
**Time:** 7:00am-12:00pm (continental time)  
**Where:** Folsom Community Center  
[Directions, agenda, and registration](#)

**A Workshop for Structural Pest Management Professionals**  
March 1, 9, and 14, 2018

**BEST PRACTICES FOR URBAN PYRETHROID APPLICATORS**

Presented by  
UC Statewide IPM Program  
University of California Cooperative Extension  
California Department of Pesticide Regulation

**Topics**

- Ecological impacts of pesticide runoff
- Regulatory response to monitoring data—using CA Code of regulations and product labels to inform applications
- Critical uses for and alternatives to pyrethroid applications around structures
- Hands-on activities demonstrating best practices and equipment calibration

**Cost:** \$15  
4.5 CE hours have been requested from both SPCB and DPR.

**Elk Grove**  
March 1, 2018  
6:30am-12:00pm  
Barbara Morse Wackford Community & Aquatic Complex

**Folsom**  
March 9, 2018  
6:30am-12:00pm  
Folsom Community Center

**Roseville**  
March 14, 2018  
6:30am-12:00pm  
Maidu Community Center

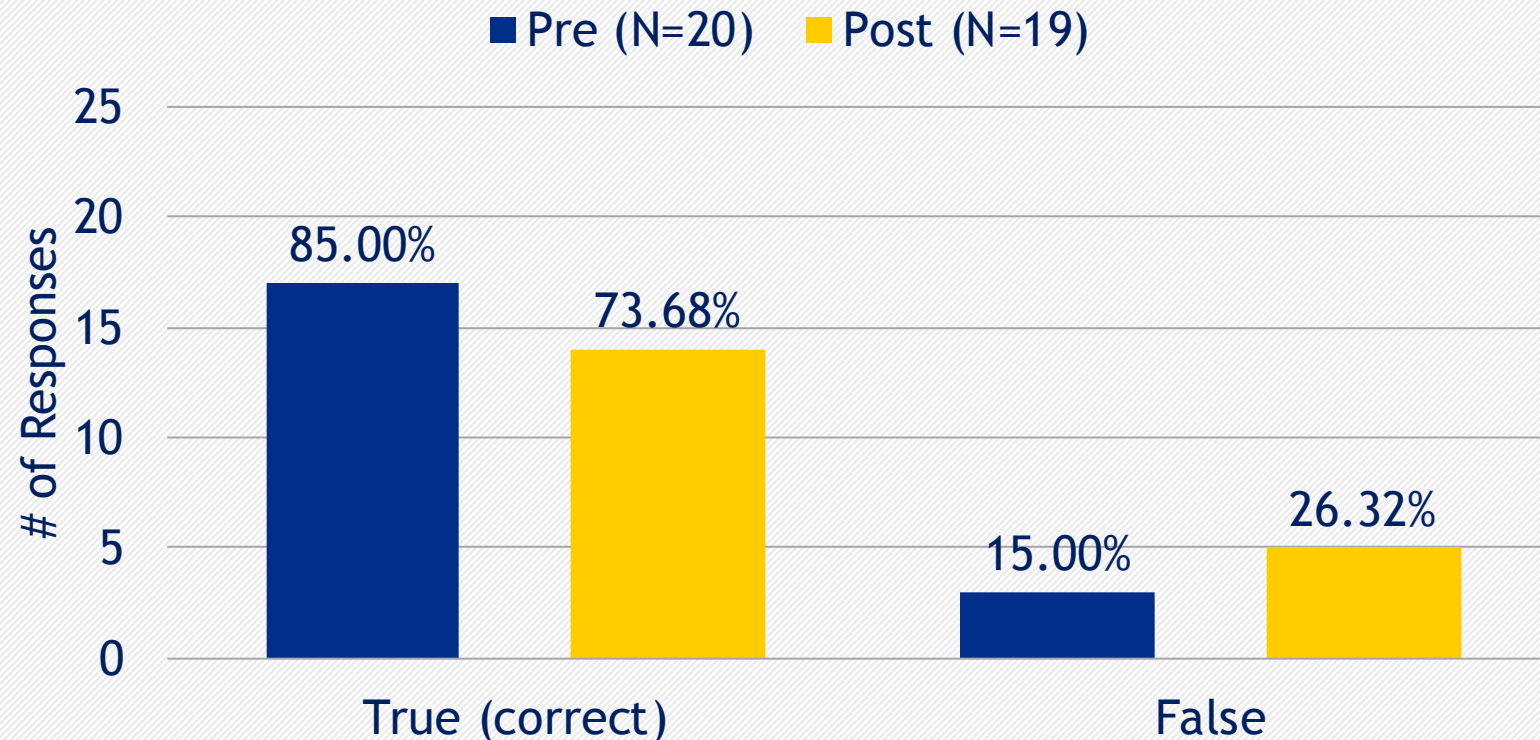
Visit the website to register, view agenda, and location details:  
[ucanr.edu/sites/PMPpyrethroid/](http://ucanr.edu/sites/PMPpyrethroid/)  
For questions about this workshop, contact Eileen Hollett at (530) 752-6642 or [eahollett@ucdavis.edu](mailto:eahollett@ucdavis.edu).

# Folsom & Roseville Pre/Post Results

- Similar answer pattern to Pilot
- Some confusion about horizontal perimeter band application

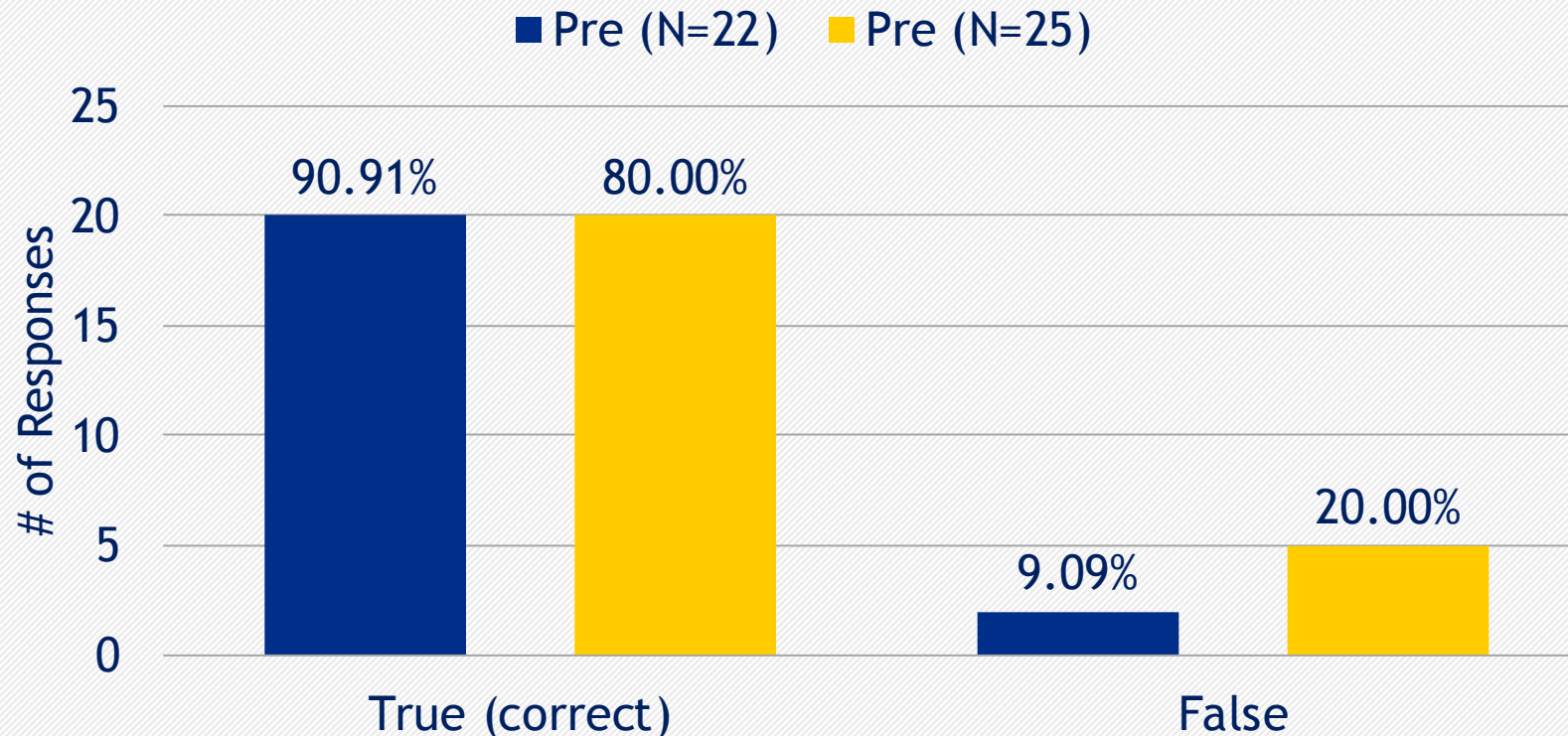
# Folsom Pre/Post Results - Question 4

- In California, pyrethroid applications can be made to vertical surfaces up to 3' above grade, if the label states that.



# Roseville Pre/Post Results - Question 4

- In California, pyrethroid applications can be made to vertical surfaces up to 3' above grade, if the label states that.



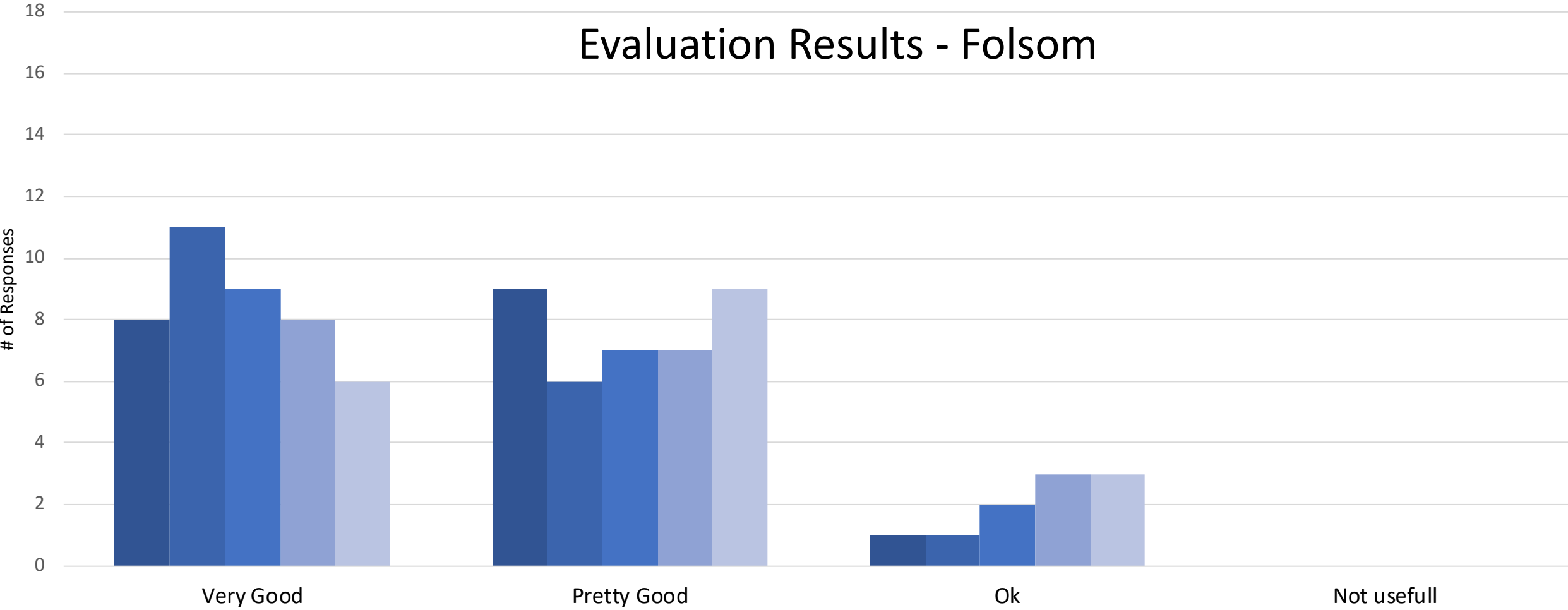
# Folsom & Roseville Pre/Post Results

- Previous question:

In California, pyrethroid applications can be made to **vertical** surfaces up to 3' above grade, if the label states that.

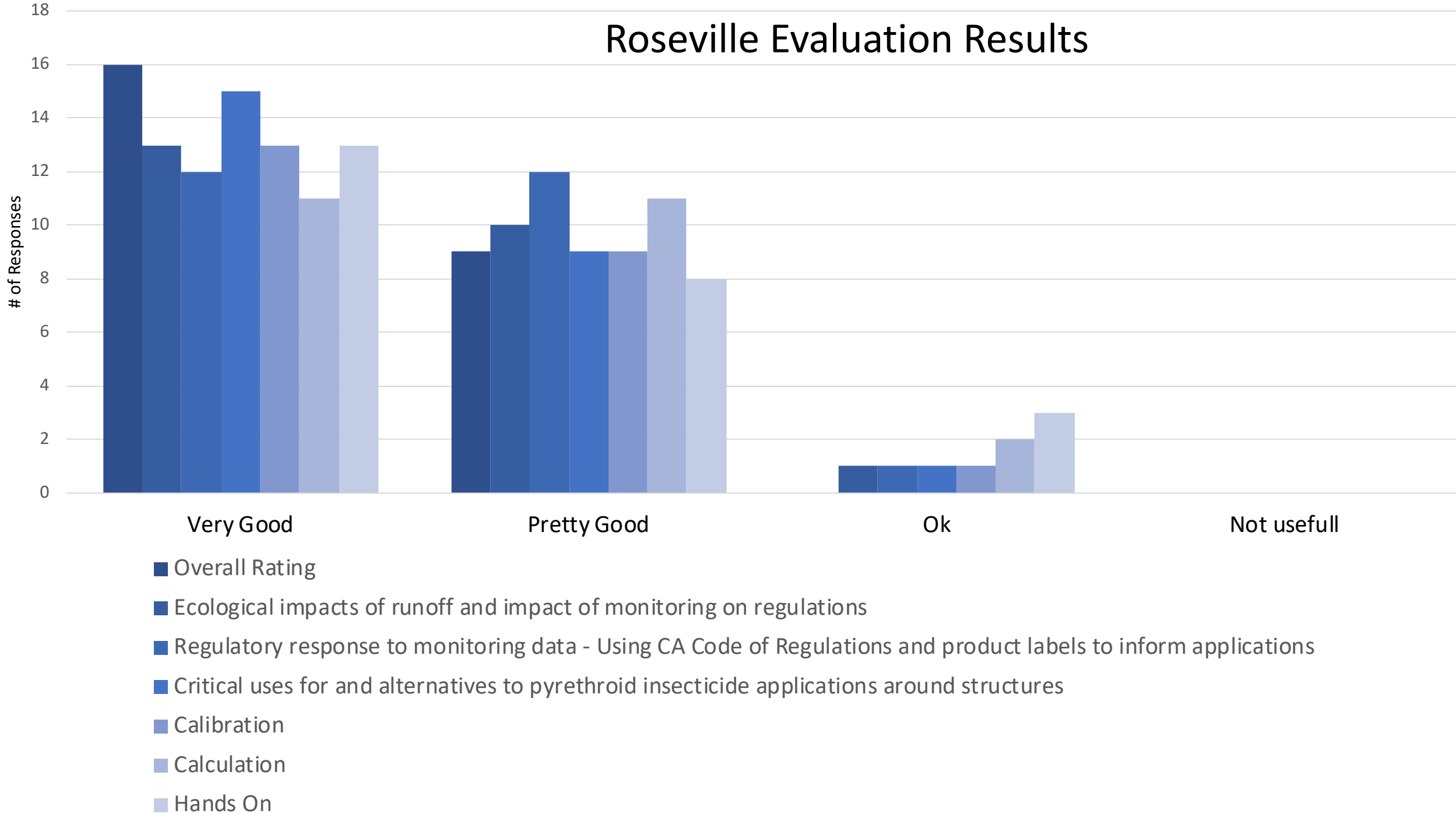
- Current regs: 2' up, 3' out

# Evaluation Results - Folsom



- Overall Rating
- Ecological impacts of runoff and impact of monitoring on regulations
- Regulatory response to monitoring data - Using CA Code of Regulations and product labels to inform applications
- Critical uses for and alternatives to pyrethroid insecticide applications around structures
- Group Exercise: Overview of best practices, from calibration to recording

# Roseville Evaluation Results

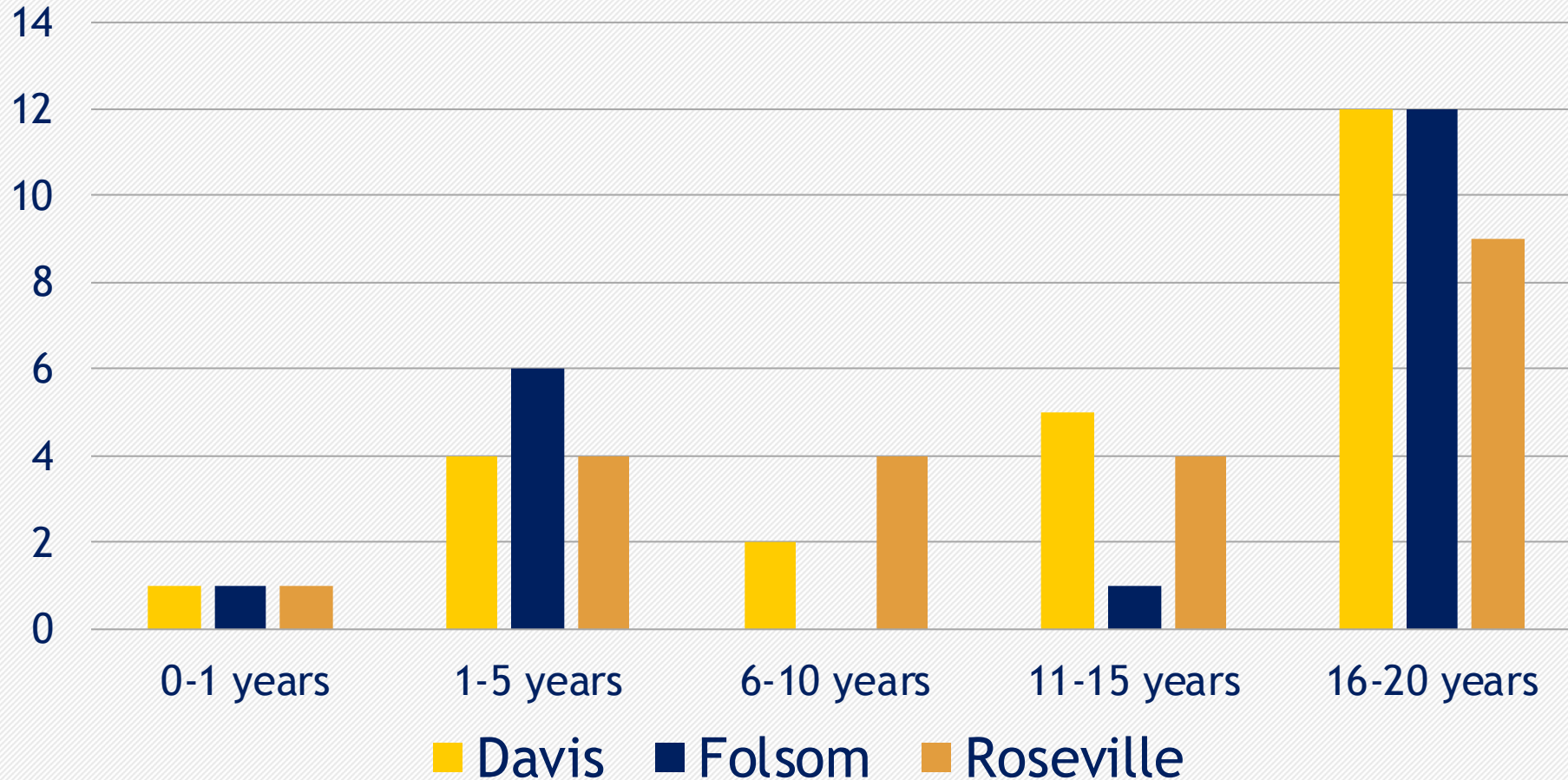




# Information about Participants

- How long have you been a PMP?
- Where do you get information about regulations & label requirements?
- What do you primarily use pyrethroids to control?
- What drives your product selection?
- Where do you apply pesticides?
- Familiarity with pyrethroids

# How long have you been a Pest Management Professional (PMP)?



# Which source of information do you rely on the most to learn about new regulations and label requirements?

	Davis		Folsom		Roseville	
Internal/company provided education	2	9%	2	10%	2	9%
<b>Continuing education classes and/or workshops</b>	<b>7</b>	<b>32%</b>	<b>9</b>	<b>45%</b>	<b>10</b>	<b>45%</b>
Vendors and/or pesticide suppliers	8	36%	2	10%	4	18%
Trade publications	1	5%	0	0%	1	5%
Government and regulatory agencies	4	18%	7	35%	5	23%
	n= 22		20		22	

# I primarily use pyrethroids to control?

	Davis		Folsom		Roseville	
Ants	7	30%	5	25%	<b>9</b>	<b>39%</b>
Bed Bugs	1	4%	0	0%	0	0%
Cockroaches	2	9%	4	20%	3	13%
Fleas	0	0%	0	0%	0	0%
Flies	0	0%	0	0%	0	0%
Mosquitos	0	0%	1	5%	1	4%
Spiders	<b>11</b>	<b>48%</b>	<b>9</b>	<b>45%</b>	<b>8</b>	<b>35%</b>
I do not use pyrethroids	2	9%	1	5%	2	9%
n=	23		20		23	

# What drives product selection?

	Davis		Folsom		Roseville	
Price/economy	1	4%	2	10%	1	5%
Toxicity	2	9%	0	0%	3	14%
Previous experience with a product	<b>14</b>	<b>61%</b>	<b>9</b>	<b>45%</b>	<b>8</b>	<b>36%</b>
Customer preferences	0	0%	0	0%	0	0%
Advice from pesticide supplier/dealer	3	13%	0	0%	3	14%
Advice from boss/manager	3	13%	<b>9</b>	<b>45%</b>	<b>7</b>	<b>32%</b>
	n=	23		20		22

# Where do you apply pesticides?

	Davis		Folsom		Roseville	
<b>Outdoors</b>	<b>17</b>	<b>81%</b>	<b>14</b>	<b>70%</b>	<b>17</b>	<b>74%</b>
Indoors	1	5%	2	10%	0	0%
Equally indoors and outdoors	3	14%	4	20%	6	26%
n=	21		20		23	

# Future Project Goals

- Increase accessibility to content
- Break up workshop to individual talks
- Convert talks to online training resources



# Questions



Photo: K. Windbiel-Rojas