THE ADVISER

California Association of
Pest Control Advisers

May 2026
Vol. XXIX, No. 2

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MISSION & PURPOSE: California Association of Pest Control Advisers (CAPCA) is a non-profit voluntary mutual benefit association that represents 75% of the 4,000 California EPA licensed pest control advisers. CAPCA's purpose is to serve as the leader in the evolution of the pest management industry through the communication of reliable information. CAPCA is dedicated to the professional development and enhancement of our members' education and stewardship which includes legislative, regulatory, continuing education and public outreach activities.

PUBLISHING INFORMATION: CAPCA Adviser is published quarterly by the California Association of Pest Control Advisers (CAPCA), PO Box 255382, Sacramento, California 95825. Web: www.capca.com, (916) 928-1625. POSTMASTER: send address change to CAPCA. A portion of CAPCA membership dues is used to provide subscription privileges to the Adviser magazine. Non-member subscriptions are $30/year. Third class bulk postage paid at Tucson, AZ and at additional mailing offices. CAPCA has endeavored to include appropriate and accurate statements, but disclaims any and all warranties and/or responsibility for the statements or articles submitted to CAPCA Adviser that may have additionally been edited for style, content and space prior to publication. Views expressed are those of the authors and do not necessarily represent CAPCA policies, or positions or endorsements. Editorial content of this publication is educational and informational in nature. No part of this publication, including images, may be reproduced without prior written permission from the publisher. Contact CAPCA at (916) 928-1625 for reprint authorization.

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Blueprint of the Future

Over the past 18 months, CAPCA has been actively working to identify resources and solutions for PCAs who are advising growers impacted by the rat infestation. We have spent countless hours in weekly meetings with various stakeholders and agencies — such as CDFA, CDPH, UC, and DPR — and have worked on ways for PCAs to share their field-level perspectives to amplify their needs and drive funding requests.

As this cycle of resource development closes and the work shifts to grower groups taking the lead on tackling challenges like abandoned orchards and vineyards, I've reflected on how we can use the network we've built as a model for future pest management strategies. With pest pressure continuing to shift due to changing weather patterns, product access, and state policies (that in this case unintentionally create pest harbors in abandoned acres), CAPCA must reconnect with its regional grassroots history to develop a new blueprint for pest management moving forward.

Looking ahead, we plan to strengthen and speed up our responses by taking a more focused, systematic approach. This includes building effective coalitions, gathering the relevant data, and understanding where agencies and researchers can and cannot guide the industry toward workable solutions.

Although we don't want another infestation, it's clear one could occur soon. We hope the lessons learned from the current process will help us become faster and more flexible in breaking the next pest reproductive cycle.

Visit page 35 for our resource wrap up or visit capca.com/rats-in-the-valley for all current information. ■

Ruthann Anderson
CAPCA CEO/President

"CAPCA's mission is to serve as a leader in the evolution of the pest management industry and we're actively doing it — sponsoring AB 2086, pushing for transparent compliance pathways, and developing a pilot map for C-rated pests as California braces for more infestations. We are the only association representing the PCA license on all fronts."

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Printing: Sundance Press, Tucson, AZ
Graphic Design: Meredith Rehrman Ritchie

Editor's Notes

Spring Challenges, Fresh Solutions

By Ashley Hinson, The Adviser Managing Editor

Welcome to our May 2026 edition! If you're reading this, congratulations — you've made it through another California spring which, for some of you, might mean less "April showers" and more "rat-powered irrigation sabotage."

This issue covers several topics that matter: from privacy protections for license holders, to the economic impacts of pesticide regulation, and yes — rat infestations that have turned almond and pistachio orchards into unintended rodent resorts. We know that managing pests takes grit, ingenuity, and a well-stocked supply of IPM options (and patience), so we've also rounded up several practical resources to help you tackle the issues head-on.

Inside, you'll find a clear call to action on member privacy in "Protecting Privacy: CAPCA Takes the Lead in Sponsoring AB 2086." If you've ever hesitated before putting your home address on a renewal form, you'll recognize the problem this bill aims to solve, and you'll appreciate how directly it speaks to what license holders need: a practical option for routing non-business correspondence away from personal residences.

For those tracking regulatory impacts, don't miss "What California's Chlorpyrifos Withdrawal Can Teach Us About Projecting the Costs of Pesticide Regulation." The piece walks through how OPCA builds cost projections, what assumptions held up (and which ones didn't), and why real-world decision-making — from product availability to resistance management — matters when we talk about "alternatives."

We're also sharing a regulatory reminder from the Apiary Protection Program on "Honey Bee Rewilding." Knowing the Food and Agricultural Code about movable frames and inspections isn't just a technicality — if you spot questionable hive setups, it's worth bookmarking the guidance on reporting to your County Ag Commissioner.

And then there's the topic many of you have been living, not just reading about: rats. In "How Do You Quantify an Infestation?" you'll see practical next steps — like contributing observations through Crop Steward — to help build a clearer, county-level picture of pressure and impact. Pair that with "Rat Infestation Management: A Checklist" for a fast, field-friendly refresh on detection, monitoring, and control. For those working in the hardest-hit areas, the updated CDFA/OPCA memo on rat damage in almond orchards puts hard numbers to what you've been documenting: costs, repairs, yield impacts, and the very real trade-offs growers are being forced to make.

Check out our conference section, "Plan for the Best Conference Experience: Registration & Hotel Details," which lays out key dates, pricing, and expanded hotel options for 2026 — a little early planning can make the whole experience smoother (and more affordable).

I'd like to give a special shout-out to the PCAs who have recently joined DPR committees, listed on page 26. Your boots-on-the-ground knowledge and commitment to advocacy are helping shape policy and ensure that California's agricultural professionals have a seat at the decision-making table. Thank you for speaking up, collaborating, and helping drive solutions that benefit the entire industry.

As you read through these articles, we hope you find inspiration, actionable ideas, and a few moments of connection. Whether you're planning your next conference trip, monitoring for new pest threats, or simply trying to keep your drip lines intact, remember: you're not alone. The CAPCA community — and this magazine — are here to help. Happy reading, and may your fields be rodent-free and your inbox full of good news! ■

CAPCA-Sponsored Privacy Bill: AB 2086

By Matt Bristow, CAPCA Board Chair

As the CAPCA Chair, I wanted to take this opportunity to share some of the reasoning behind our decision to pursue the privacy bill on behalf of the CAPCA membership and CDPR license holders.

First and foremost, we believed it was necessary. There are individuals and groups who strongly oppose the work we do — often with equally strong voices and convictions. It doesn't take much effort to find credible examples of professional PCAs being doxed or threatened over perceived wrongdoing. In that context, I see no justification for making our personal information publicly available. It has no relevance to public good when our employer is the pathway for a work-focused compliance. It does nothing to reinforce meeting our licensing standards or our professionalism, and it creates unnecessary risk.

At the same time, state regulators are constrained by layers of red tape and often overwhelmed by the volume of input from special interest groups that oppose our industry. Simply asking for change proved to be ineffective. As a result, we were left with the conclusion that the only viable path to protecting our members' personal information was to pursue legislation.

The initial momentum for this effort came together at an Alliance of Farmers and Ranchers dinner, during a conversation with a member of the legislature. Her partner, a licensed professional in California, had experienced a similar situation — her home address was publicly accessible, and an individual used that information to harass her directly. That shared real-world example reinforced the urgency and legitimacy of this issue.

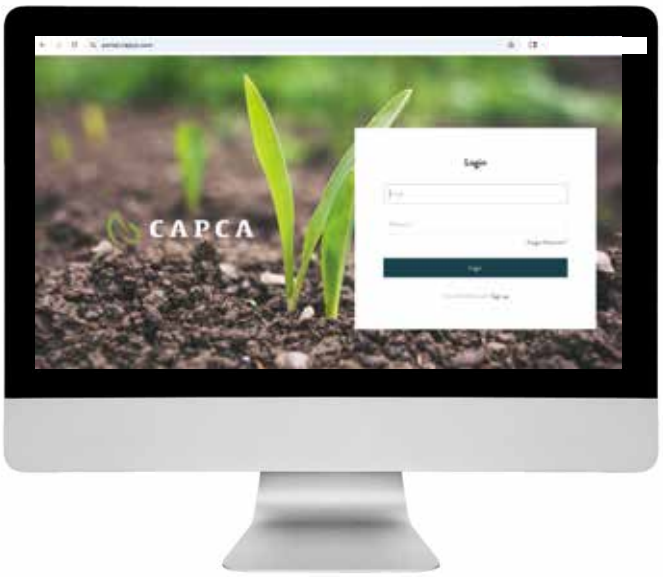
We felt it was important for our organization to take a leadership role, as this issue impacts all licensees, not just our membership. That said, engaging at this level of government is far too large an undertaking for any one individual. Drafting, sponsoring, and passing legislation requires significant coordination, resources, and persistence. I'm grateful we have a strong organization to rely on in moments like this — from members like you to our staff and Advocacy Committee to our contract lobbyist KSC and the broader agricultural network that brought co-sponsor California Agricultural Aircraft Association (CAAA) to the table. The collective enhances and amplifies the effort.

How Can You Help?

I encourage you to take 5 minutes and reach out to your local representative and let them know you support AB 2086. Your voice can make a meaningful difference in moving this effort forward as a constituent. Don't know who your representative is? CAPCA has you covered there too.

Visit capca.com/advocacy/ and scroll to the bottom of the page to find and contact your representative(s). ■

Current CAPCA Online Continuing Education



PLEASE NOTE: These courses are offered exclusively and at no cost to CAPCA members for the 2026 membership year; they are not available for individual purchase. If you haven't renewed your membership yet, do so today to receive this, and many other, member benefits!

COMING SOON: Additional online continuing education courses will be available for purchase later in the year.

Free to All 2026 CAPCA Members

ENDANGERED SPECIES ACT: WORKFLOW FOR COMPLIANCE (1.0 Laws)
This presentation is from CAPCA's 2025 Annual Conference, given by Dillon Gabbert of CropLife America.

LABEL UPDATES 2025 (1.0 Laws)
Label update presentations from CAPCA's 2025 Annual Conference, given by UPL, Wilbur-Ellis, Lallemand, Kemin, SummitAgro, Suterra, and Semios.

OPCA HOUR (1.0 Laws)
These presentations are from CAPCA's 2025 Annual Conference, both presented by Kevi Mace, PhD:

- *What is the Office of Pesticide Consultation and Analysis?*
- *Reading and Understanding Pesticide Regulations*

SPM INSIGHTS (1.0 Other)
This presentation is a review of the CDFA CAPCA Grant program from CAPCA's 2025 Annual Conference, given by Kendall Barton, Alyssa Lindberg, and Bryan Aguilar.

REGULATORY UPDATES & EXPECTATIONS (1.0 Laws)
These presentations are from CAPCA's 2025 Annual Conference:

- *A Look Ahead at Sustainable Pest Management and Pesticide Regulation in California* by Dr. Karen Morrison
- *What is a Pest Control Recommendation and Why It's Important* by Robert Brenton

Membership Matters

By Katrina Silver, CAPCA Director of Business Operations

This time of year is a busy one across the industry. For many of you, long days in the field are already underway, and the pace of work continues to build as the season progresses. We're always mindful of that reality as we think about how CAPCA can best support you — not just during slower months, but also when your time is most limited and access to resources matters most. That perspective continues to guide how we prioritize new tools, programs, and member benefits.

At its core, CAPCA membership is about more than checking a box or meeting a requirement. It's about staying connected to the resources, education, and advocacy efforts that support your work every day. As the industry continues to evolve, so does our approach to ensuring those resources are relevant, accessible, and aligned with how you work today. Our focus is not only on maintaining what exists but continuing to build in areas where members need greater flexibility and support.

One way we're moving in that direction is by developing more gold-standard online continuing education (paid 2026 CAPCA Members will have 5 hours available in the Online CE platform as of this issue of the magazine). Whether you're balancing a full schedule, managing travel limitations, or simply looking for more convenient ways to complete requirements, this is an area we're always actively working on with your needs in mind. More online courses, including timing availability, will be shared soon. We see this as an important step in expanding access to CE while maintaining the quality and integrity that members expect from CAPCA.

Looking ahead, we're also preparing for one of the most valuable opportunities to connect as a community — our Annual Conference & Agri-Expo. Registration will open on May 5, and we've carefully reviewed pricing to ensure accessibility remains a priority. CAPCA members will receive an early-bird rate of $395, reflecting a reduced cost to make it easier for you and your teams to attend. We want to ensure that cost is not a barrier to participation, especially for those looking to engage more deeply with the industry.

In addition to engaging CE sessions and industry updates, we're continuing to expand the content offered at the conference. This year includes the addition of Turf & Ornamentals content, designed to broaden the range of topics across different areas of practice. Our goal is to ensure that when you invest time in attending, you're getting meaningful, relevant value in return.

All of these efforts, whether it's expanding access to CE, refining conference offerings, or continuing our advocacy work, are part of a broader focus: providing CAPCA membership benefits that reflect the realities of your day-to-day work.

As we move further into the year, we also want to take a moment to thank those who have already renewed their 2026 memberships. Your participation continues to shape and strengthen the CAPCA community. If you haven't yet renewed, this is a great time to do so. Renewing now supports the work being done on behalf of the industry as a whole and allows you to take advantage of member-only benefits, such as early-bird conference registration pricing.

We know your time is valuable, especially this time of year. Our goal is to support you with greater access, flexibility, and meaningful connection to the tools and information you rely on. We look forward to sharing more updates soon and, hopefully, seeing many of you at the 52nd Annual Conference & Agri-Expo this fall. ■

$3,000 Scholarship Opportunity

FROM THE STANLEY W. STREW EDUCATIONAL FUND

Photo by: Fred Rehrman

A scholarship opportunity is available for students interested in pursuing careers in the pest management industry. Sponsored by CAPCA, the scholarship is administered by the Stanley W. Strew Educational Fund (SWS).

The SWS Scholarship will be awarded $3,000 to a selected college student actively engaged in a PCA career pathway. The recipient will be chosen by the SWS Board of Directors.

Applications are open to students currently attending college in an agriculture or horticulture-related field or to those entering or returning to such a program in the fall with junior-level status.

Applicants must submit a completed application form and copies of their transcripts.

DEADLINE EXTENDED!

Applications must be postmarked no later than June 5, 2026, and must include the required letters of recommendation to ensure the committee can make final selections.

The selected recipient will be notified in July.

For application information, please visit:
CAPCA.com/career-development

Applicants may contact CAPCA by:
Phone: (916) 928-1625
Email: scholarship@capca.com

Inside CAPCA – Much in Motion

By Katrina Silver, CAPCA Director of Business Operations

If it feels like there's a lot happening right now — it's because there is. This is one of those times of year when multiple pieces are moving at once, and much of the work across our team is interconnected. From advocacy efforts to conference planning to the magazine you're reading now, there's a lot happening behind the scenes to support our members and the industry. What may be less visible is that this work is carried out by a team of just 7.5 full-time equivalent staff — something that often surprises people when they understand what CAPCA delivers.

Our **Advocacy Team** has been actively engaged on several key priorities. This includes nearly two years of ongoing work addressing the roof rat issue impacting California, and the building of many resources like coordination of tours to highlight the issue to key stakeholders, building our Rats in the Valley webpage full of relevant resources, countless hours of meetings with CDFA and CDPH, a recent webinar focused on rat management resources available to PCAs and the broader industry. Those resources, along with additional information, can be found on CAPCA's website. In addition, together with State Assemblymember Stan Ellis, we introduced legislation related to the privacy of license holder personal data — an issue with direct implications for our members and how their information is managed and shared. As always, this work includes ongoing collaboration with regulators, industry partners, and stakeholders to ensure that the PCA voice is represented in these conversations.

Our **Content Team** has been hard at work building out the 2026 Conference CE program — securing speakers, developing sessions, and submitting continuing education for DPR approval. This process starts months in advance, and significant coordination is required to bring together a program that is both relevant and valuable. This team is also responsible for this publication, working to curate and produce content that reflects what is happening across the industry, while continuing to support members, chapters, and CE Hours Reported throughout the year, as well as developing online CE content.

Our **Conference Team** is deep in the details of planning and logistics. They are currently working on exhibitor placements in the exhibit hall, coordinating directly with companies to finalize their spaces, and managing a wide range of sponsor deliverables. There are many moving pieces — from floor plans to timelines to on-site experiences — and this team is focused on ensuring everything comes together to create value for both attendees and industry partners.

Our **Operations Team** continues to support everything that keeps CAPCA running day to day. This includes financial management, reporting, sales, and ongoing work to improve processes and create efficiencies across the organization. We are actively connecting with companies across the industry to support Corporate Partnership renewals, confirm conference sponsorships, and offer advertising options. These conversations are an important part of ensuring companies understand the full range of ways they can engage with CAPCA throughout the year — not just at the annual conference, but also through advertising and other visibility opportunities. If your company is looking for ways to get more involved — whether through exhibiting, sponsoring, or advertising — we'd love to connect. You can reach out to sales@capca.com.

As we move further into the year, the pace will continue to build, particularly as conference approaches, and many of these efforts begin to converge. While each team has a distinct focus, none of this work happens in isolation. It takes coordination, communication, and a shared understanding of priorities to keep everything moving forward.

We recognize that much of this work is not always visible day to day, but it is all designed with the same goal in mind: to support our members, add value to the industry, and ensure CAPCA remains a strong and effective resource. We appreciate your continued engagement, and we look forward to connecting with many of you in the months ahead). ■

Plan for the Best Conference Experience: Registration & Hotel Details

By Ryan Dana
CAPCA Event Coordinator

The 2026 CAPCA Annual Conference marks a meaningful milestone as we celebrate 30 years of hosting our Annual Conference at the Disneyland® Resort. Centered on the theme **Rooted in Experience, Cultivating Affordable Solutions**, the conference brings industry professionals together to build connections, engage with subject matter experts, and exchange practical, forward-thinking solutions for today's agricultural challenges.

Attending the Annual Conference is more than a professional development opportunity—it is a complete experience. From high quality continuing education and meaningful networking with peers, to the convenience and excitement of staying at the Disneyland® Resort, thoughtful planning will help ensure a smooth, productive, and memorable conference.

MEMBERSHIP VERIFICATION PRIOR TO REGISTRATION

Before beginning the registration process, attendees are encouraged to sign in to their CAPCA account to verify their current membership status. The discounted member registration rate is available exclusively to individuals holding an active, individual CAPCA membership.

Please note that Corporate Partnership status does not qualify for individual member pricing. Discounted registration rates apply only to individual memberships – Active PCA and Associate Memberships.

CONFERENCE REGISTRATION: IMPORTANT DATES & PRICING

Registering early not only secures the best available pricing, but also provides earlier access to hotel accommodations, Disney benefits, and the opportunity to plan educational sessions and networking activities in advance.

Conference registration offers tiered pricing designed to reward early planning and encourage timely participation. Early Bird registration opens Tuesday, May 5.

Early Bird Registration (available May 5 – August 31):
- Early Bird Member Rate: $395
- Early Bird Nonmember Rate: $575

Standard Online Registration (September 1 – 21):
- Member Rate: $445
- Nonmember Rate: $625

Onsite Registration (October 10 – 13):
- Member Rate: $525
- Nonmember Rate: $650

HOTEL ROOM BLOCK ACCESS & REGISTRATION REQUIREMENT

To streamline the booking process and ensure availability, completed conference registration is required to access the official conference hotel room block. Once registration is finalized, attendees will receive:

- A link to reserve accommodations within the conference hotel room block
- Access to the discounted Disneyland® ticket purchasing link

This centralized process allows attendees to take advantage of exclusive conference hotel rates while keeping registration, lodging, and ticketing details organized and easy to manage.

2026 CONFERENCE HOTELS: EXPANDED OPTIONS

After recent requests for an offsite hotel option, CAPCA is pleased to offer expanded hotel options for the 2026 Conference, including the addition of The Westin Anaheim Resort, providing even greater flexibility and value for attendees.

Official Conference Hotel Rates
(per night, plus applicable taxes and fees)

- Disneyland® Hotel: $349++
- Disney's Grand Californian Hotel® & Spa: $479++
- The Westin Anaheim Resort (New for 2026): $329++ (Single Occupancy)

Unless sold out, the room block is open until September 18, 2026. Staying within the conference hotel block places attendees close to educational sessions, networking events, and exhibit hall activities—maximizing opportunities to connect with peers and industry partners throughout the conference.

ENHANCE YOUR STAY WITH THE DISNEYLAND MOBILE APP

To make the most of your visit, attendees are encouraged to download the Disneyland Mobile App prior to arrival. It offers convenient features such as:

- Digital Room Key access for those staying onsite at the Disneyland® Hotel or Disney's Grand Californian Hotel® & Spa
- Mobile food and beverage ordering for restaurants at hotels and inside theme park (tickets required)
- Interactive Disneyland® Resort maps
- Realtime park information and updates

PLAN EARLY, STAY CONNECTED

With multiple pricing tiers, expanded hotel options, and a conference program rooted in experience and innovation, early planning is key to maximizing both value and engagement. Attendees are encouraged to register early, secure hotel accommodations promptly, and take full advantage of the continuing education, peer connections, and networking opportunities that define CAPCA's Annual Conference.

We look forward to welcoming you as we celebrate 30 years at Disney and continue cultivating meaningful connections and affordable solutions for the future of our industry.

2026 Program Features: What's New

In collaboration with our Conference Committee, the CAPCA Conference is ever evolving to bring you additional value and networking opportunities. After careful consideration by this committee of your peers, we have made the following feature adjustments to this year's event:

Sunday Welcome Coffee
Coffee and light pastries will be available during early hours of badge pick up on Sunday morning. So, skip the coffee shop and head over to grab your badge and a cup of coffee.

Sunday Midday Refreshments
A heartier lunch-style option will be available, so that you can maximize your time between sessions in the Exhibit Hall without needing to venture off property for meals – saving both time and money!

Sunday Welcome Happy Hour
The Sunday evening reception will take place in the Exhibit Hall from 4:30 – 6:00 p.m., creating a more integrated networking experience as you connect with exhibitors and peers.

We hope these updates help you better balance your schedule, allowing time for business or family dinners after a full day of CE and networking.

Monday Evening Reimagined
Monday evening is being reimagined to give you greater flexibility as you transition from CE to evening activities. We are working to create a collaborative space to continue conversations about presentations from the day and focused networking before you head to a business dinner or spend time with family. Keep an eye out for additional opportunities to connect.

The event features don't stop there, the Conference Committee and CAPCA staff have been hard at work building a quality CE program to engage you in continuing education, expand your knowledge of available resources, and provide practical innovations you can implement in the coming season.

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2026 Program Highlights

The Disneyland Horticulture Team will present on A Pest Management Story Arc: Traditional; Integrated; & Regenerative, which will discuss the range of pest management approaches in the context of an amusement park.

Dr. Eric Middleton will present Cottonseed Bug and Two New Thrips Species: Updates on Invasive Pests in Nurseries and Landscapes. This presentation will discuss identification and biology of several new invasive species as well as appropriate management techniques for each of them.

Dr. Paula Macedo will present Integrated Vector Management: Where Public Health Meets Pest Management. This presentation will examine mosquito control in California as a structured pest management system aligned with Integrated Pest Management principles used by licensed Pest Control Advisers. The session will review regulatory considerations including label compliance, environmental protections, and distinctions between public health and agricultural pesticide applications.

Dr. Zheng Wang will present on Biocontrol of Fusarium Stem Rot and Decline on Processing Tomatoes with Trichoderma, which will discuss using soil-derived Trichoderma Biofungicide to protect tomato plants from FRD and using low-toxic bio-based materials as a key part of IPM.

Join us for these, and many other, timely and relevant topics!

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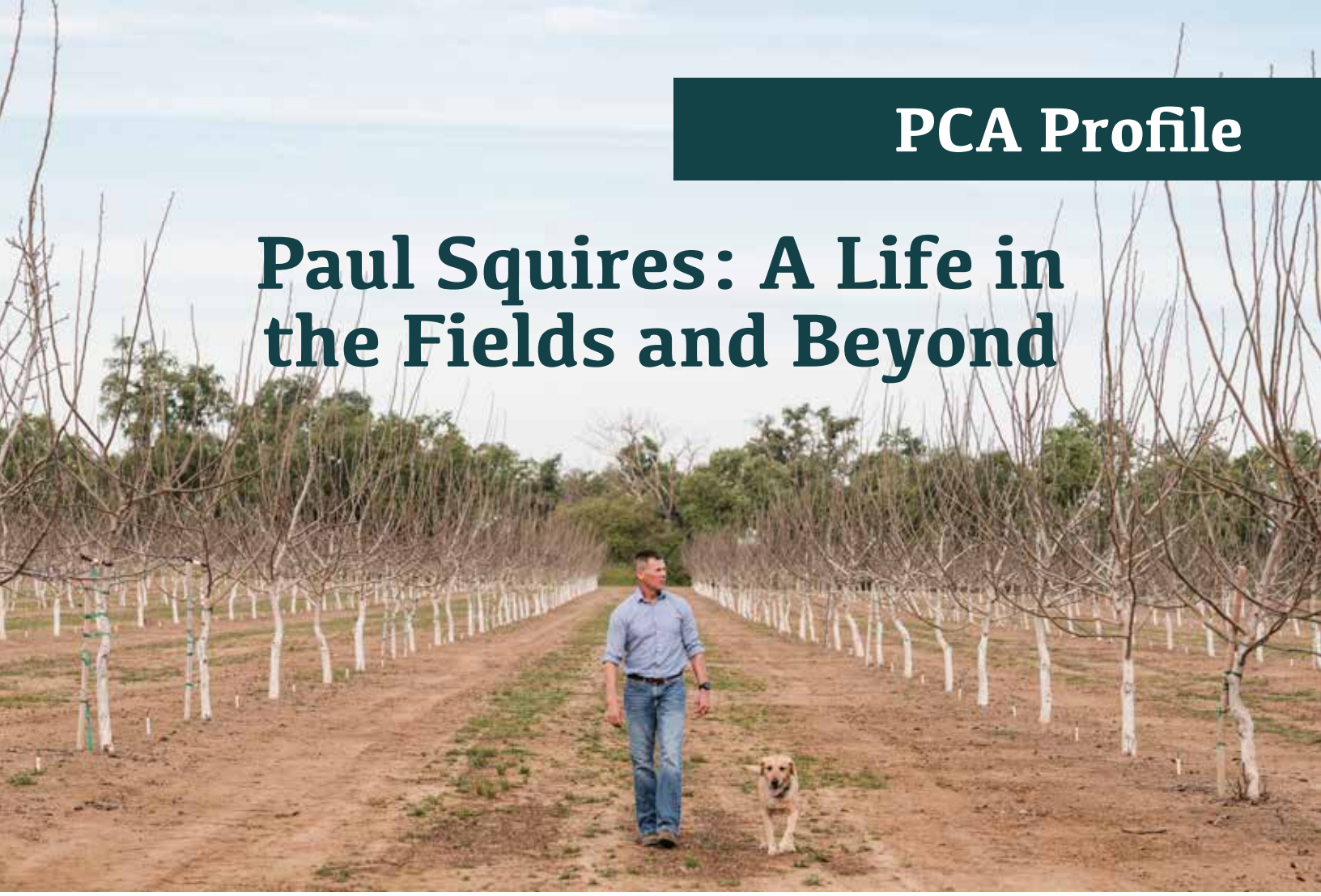
Paul Squires: A Life in the Fields and Beyond



A Humble Leader, Trusted Adviser, and Lover of the Outdoors

In Yuba City, you might find Paul Squires, boots still dusted from his morning walk through the fields, sitting across the desk with a smile that says, "Let's talk." There's no pretense about him — just a straightforward warmth, a readiness to listen, and a quiet dignity in the life he's built through honest work. For more than three decades, Paul has been working as a Pest Control Adviser (PCA), twenty-four years as an independent PCA, business owner, and, perhaps most importantly, a mentor and friend to many. Paul's story unfolds not as a list of accolades, but as a journey marked by curiosity, humility, and a genuine desire to help others grow — crops and people alike.

From Lodi to the Heart of Rice Country

Paul is from Lodi, California, a community better known for its grapes than its rice. "I grew up in Lodi," Paul begins, his tone easy and almost nostalgic, "in high school, I worked in the grape vineyards a little bit." His journey to agriculture wasn't a straight path. He spent a year at college in Stockton before moving north to the Yuba City area, where he enrolled in Chico State. "Chico's... well, Chico State," he says with a chuckle, "I studied Ag Business, actually, but I had to do quite a bit in crop science to get my PCA license."

For Paul, the decision to become a PCA wasn't part of a long-held childhood dream. "At that time, I didn't even know what a PCA was," he admits. Sometimes opportunity comes disguised as a phone call from an uncle or an open door you didn't know existed. In Paul's case, it was both. His uncle, friends with Chris Taylor of John Taylor Fertilizers, suggested Paul apply for a field checker position. "They hired me to help look at melons and tomatoes. I had no experience with either one of those crops." But Paul has never shied away from learning.

Cutting His Teeth on California Crops

Paul started as a field checker in 1992, while still balancing college and commutes. "I worked for them while I was going to college and commuting back and forth to Yuba City," he recalls. By 1994, Paul had both his PCA license and his degree. He even earned his CCA (Certified Crop Adviser) certificate the very first year the test was offered, though he modestly notes, "I don't have it anymore… it got so difficult for tracking hours and stuff that I let it go."

Working those early years was a hands-on education in California agriculture: "Row crop, tomatoes, alfalfa, sunflowers, corn, wheat, beans, even bell peppers at one time, for a while, and then rice." At one point, Paul was responsible for more than 20,000 acres — half rice, half row crops. "I did that for 25 years and then decided I didn't want to do the field and row crops anymore. I just wanted to look at rice. So, I've just kind of worked with the rice since then."

Falling in Love with Rice (and Why Tomatoes Are So Stressful)

Why rice? For Paul, the answer is simple: "It was my favorite. I enjoyed being out in those fields. Tomatoes were really… it's difficult work. Very stressful." There's a practical side to the decision, too. "I had the responsibility of about $8 million of tomatoes. I looked at what I was netting financially from it… It's too much responsibility and liability for what I was getting in return." With rice, he could cover more ground, see more of the land, and find greater satisfaction in his work. "It was a deep dive into my actual return on investment of time in my business." He's not just a numbers guy; he's someone who wants to feel connected to the work, to enjoy it, and to be present with his family.

Family and the Lessons of Roping, Hunting, and Letting Go

Ask Paul about his family, and his voice softens. "Yeah, my son's 15. My daughter's 11. Ty and Elle. My wife's name is Stephanie. She's a nurse." It's a family that shares his love of the outdoors, though each in their own way. Paul's journey has seen him from the baseball diamond (where a torn ACL ended his days as a catcher) to the rodeo arena, chasing the dream of being the world's best team roper. "I spent probably too long thinking that I was going to be the best team roper in the world," he says, a smile in his voice. "It was a losing proposition, but I enjoyed it. I don't have horses anymore."

The roping may be gone, but the lessons remain. A friend once told him, "You try too hard, team roping doesn't define Paul, enjoy it" which was a bit of wisdom that stuck. "It was a time to reflect on me. I took it way too seriously. I never really enjoyed it like I wish I would have." Now, his competitive streak has found a new outlet in archery and bowhunting. "It consumes me. It's very therapeutic. It's challenging. It's just changed the dynamics of hunting for me, and I much prefer it, to anything else that I've done outdoors."

Paul's family shares his love of hunting — most of them, anyway. "My son likes duck and deer hunting, and we have the opportunity to do that. My wife likes it also. She used to be a vegetarian, now she hunts and shoots a bow and she's had some success with that." His daughter, on the other hand, is more likely to be found on the dance

floor than in the duck blind, "but she's doing really well with that," Paul laughs proudly.

Consultant, Manager, and Steward of the Land

Professionally, Paul is the owner and operator of Squires Ag Consulting, based in Yuba City. "It's me," he says simply, but that "me" carries the weight of decades of expertise and a reputation for integrity. His history includes stints at John Taylor Fertilizers and Wilbur-Ellis, but in 2002, he took the leap to start his own business. "Stepping out at 29 years old to start your own business as an independent PCA… it was a risk in a way." But Paul doesn't dwell on the risk. He focuses on the opportunity.

He also serves as general manager and consultant for Gorrill Ranch in Durham, a 4,000-acre, fifth-generation family farm. Managing that much land (and navigating the opinions of 24 owners) is no small feat. "It's a lot of history there," Paul notes, before diving into the story of how Ralph Gorrill, an engineer, turned a wild piece of pasture into a productive rice farm in 1918. Paul's role is part consultant, part steward, and part historian, connecting past and present with an eye toward the future.

What It Means to Be a PCA

If you ask Paul to explain his job to someone outside the industry, he keeps it refreshingly simple: "I work with farmers to help come up with solutions to maximize their crops opportunity and their business returns. I'm just a tool. I'm just a part of the process of protecting their investment." After all these years, it's the people — their trust, their challenges, and their successes — that keep him motivated.

Paul's path into the PCA world was shaped less by destiny than by a practical outlook. Not coming from a farming family, he saw it as the best way to be "hands-on" with the land. "The opportunity I had to be a field scout just opened a lot of doors and taught me a lot about that opportunity to be hands-on and be a part of growing a crop even though it wasn't mine."

He's candid about his personality: "I have a curse, I call it, especially at home. I see every little thing on the floor, every little hairband or rubber band that everyone else walks [past] with their eyes up, and they don't see all this stuff. And so, I'm always the one that's complaining, will you pick that up?" But that attention to detail makes him an exceptional PCA. "It's very good for being a PCA because, I walk with my head down to look at what's on the ground, where are the problems?"

Lessons in Leadership

One of the pivotal experiences in Paul's life was his participation in the Ag Leadership Program, Class 37. "It changed me, really, as a person." Before the program, Paul considered himself an introvert. "And went through that program and found out that I'm an extrovert through the Myers-Briggs process." The program exposed him to experiences far outside the world of agriculture, opening his mind and heart to leadership, to understanding others, and to the importance of self-awareness. "If I don't understand myself, I can't understand others. Therefore, I can't provide leadership."

Paul is also humble about his strengths and open about his weaknesses, especially when it comes to management. "I thought I would do a better job with managing others… I'm not as good at it as I thought I would be. It's difficult working with people, well, in that capacity, that people are working for me." But he's quick to add, "I've learned my weaknesses, my strengths and weaknesses have come out in all these experiences. Trying to manage a farm of that size with 24 owners and all their ideas and being the one that's ultimately responsible for what happens has been a real challenge for me. It's been good. It's been good as far as my own growth because it's been uncomfortable." He adds, "My old boss — Charlie Edgar is his name — who I worked for at John Taylor and then Wilbur-Ellis for ten years, was the best manager ever. He just has an ability to work with people that I have never seen replicated."

Highlights, Wins, and Quiet Success

Paul doesn't boast, but he's quietly proud of his work record. "I think one of [the highlights] is that I've never had a problem… I've been preventative. I've been ahead of things enough that I've never had a mistake that cost somebody because of the effort that I've put in." It's not luck — it's diligence, experience, and a relentless drive to do right by those who trust him. "My job to me is just my job. I have a responsibility. I just want my customers, if you will, to be successful. And I don't want to screw up. I've been able to do that for over 30 years."

He counts the decision to start his own business at 29 as a major win. "If it didn't work, I still had the work ethic

and I think I had the reputation too, to find another job. But I saw it as an opportunity to provide a service to the people I was working for." You can tell in his tone that there's satisfaction in knowing people trust you, and in proving worthy of that trust.

Paul also finds meaning in mentoring the next generation. To "be able to pass it on. There's Drew Mullaney, a young PCA that I've known since he was eight years old who's doing well as a PCA. I've helped him since he was in, well, high school, really. And to watch him do well with it is rewarding."

CAPCA Community and Advocacy

Paul has been a longtime member of CAPCA. When asked what made him decide to become a CAPCA member, he says, "I remember, the standard that CAPCA had and how they represented us. I felt like it was very important and it made me feel like I was a part of something that... represented me, in a sense, and what I chose to do for a living. I just felt like they were doing good work."

For new PCAs, Paul's advice is simple, practical, and very much him: "I think that what a younger PCA should try to do with CAPCA is, whether it's monthly or even yearly, whatever it is, try and find something in there that you can use. And it's there, extract it and use it. You'll only get something from CAPCA if you put the effort in. That might be just reading the magazine. That might be going to the Annual Conference. Try to remember one thing. If you can walk away from a meeting with one thing... those things will add up over time." It's a philosophy of incremental improvement, of always looking for the small lesson that might make a big difference.

Looking ahead, Paul hopes CAPCA continues its work, especially in advocacy. "CAPCA's one of those things that, all their efforts aren't recognized. And I think it's hard to communicate those things to everyone. I think some people are really interested and they pay attention. The work that CAPCA does directly with [regulators]... that is the part that I don't want to go and do. I will if I'm asked. I don't mind going, you know, that's part of why I did Ag Leadership. But I think that I've always known from the very beginning that CAPCA is providing more for me... And there's a lot of value in that."

At Home on the Land and in Life

So, who is Paul Squires? He's kind, humble, honest, and deeply knowledgeable. He's the sort of person who'd rather talk about the people who helped him along the way than his own accomplishments. He believes in the value of showing up, working hard, and learning something new, every single day.

Sitting down with Paul, you get the sense that while he's spent his life looking down at the ground — checking for pests, problems, or lost hairbands — he's also learned, thanks to leadership and life, to look up and see the big picture. Whether he's coaching a young PCA, working with a farmer, or spending time with his family, Paul is a man who clearly brings integrity and care to everything he does. In a world where agriculture can feel fast-paced and impersonal, Paul reminds us that the best work is rooted in relationships, honesty, and the quiet satisfaction of a job well done. ■

Protecting Privacy: CAPCA Takes the Lead in Sponsoring AB 2086

Address Confidentiality Matters for License Holders

Photo: Meredith Rehrman Ritchie

The California Association of Pest Control Advisers is proud to sponsor Assembly Bill 2086, a bill designed to safeguard the privacy of Pest Control Advisers (PCAs) and other license holders. CAPCA's advocacy stems from a fundamental belief that license holders should have the right to keep their home address private or, at the very least, provide an alternative address for non-business-related correspondence.

Many PCAs frequently use their home address as their address of record for license renewals because the license is considered a personal, not a business, asset. DPR has not provided license holders with an alternative pathway or even clearly advised how their address may be used outside of direct interactions with license holders. The current system exposes these personal addresses, making license holders vulnerable to unsolicited and non-business-related communications. CAPCA recognizes that while PCAs are directly affected, this issue extends across a diverse range of agricultural license holders, highlighting the need for a straightforward solution to allow individuals to protect their home addresses.

In reviewing the Public Records Act (PRA), CAPCA believes there are very few legitimate reasons for agencies to disclose a license holder's personal information. Unfortunately, requests under the PRA are increasingly approved for purposes that lack clear public interest, such as marketing solicitations. Limiting access to personal contact information does not hinder enforcement or oversight; it simply ensures communications and official correspondence are directed to a business address rather than a personal residence, preserving privacy without reducing accountability.

Last fall, CAPCA's Demographic Survey reinforced this position, with 90% of respondents supporting either full privacy or limited disclosure of licensing information that excludes personal addresses. This overwhelming support underscores the urgent need for legislative action to protect the privacy of agricultural professionals.

With our membership top of mind, CAPCA has sponsored AB 2086 to address the privacy concerns of license holders and ensure their information, which is accessed through a PRA, is used appropriately for public good. This bill would add confidentiality of personal information to Pest Control licenses in Section 11457 Food and Agricultural Code. This would in essence create a pathway by which PCAs would be able to opt out of DPR sharing personal information – even through a PRA – and provide an alternate address process or program. There is precedence in other departments (like structural pest) for informing license holders of possible disclosure and providing either an employer address or alternative process or program for external requests of private licensing information.

The PCA License has always been personal to individuals, not employers. Especially since COVID, we have seen the address on record shift to a home/personal address for many license holders. If successful, the bill would restore power of choice to the license holder and allow them to

manage best how they want to hear from DPR on licensing and how they want others to be routed who contact DPR with interest in their contact information.

Scan the QR code to see the full bill text

In February, CAPCA CEO/President Ruthann Anderson met with Assemblymember Stan Ellis (District 32) who was gracious to author the bill. Assemblymember Ellis has a personal connection to the agricultural community as he farms 100 acres of Pistachios in his free time. The Assemblymember is also the Vice Chair of the Environmental Safety and Toxic Materials Committee, that hears all licensing and pesticide related issues, offering a unique opportunity to educate his colleagues on the role of the PCA. During a recent meeting, Anderson shared the demographic survey results demonstrating 90% of respondents supported privacy – she asked Ellis to talk to his own PCA as a means to personalize the bill.

CAPCA CEO/President Ruthann Anderson with farmer and Assemblymember Stan Ellis (District 32).

The bill was approved on consent through the first committee on March 24th and at the time of publication is scheduled to be heard on consent in Assembly Judicial Committee on April 7th. *The bill has been recommended to be a consent agenda in both committees due to the broad base of support for the bill and that costs are covered by the licensing program. We expect after this perfunctory committee review, we will see the bill head to the Assembly floor for a vote.*

Through the CAPCA Advocacy Committee and our contract lobbyist KSC, we continue to work on this bill and message the positive impact it has on a professional license. This is an ideal opportunity to put the PCA in front of the legislature in a positive way and reinforce the relationships we continue to build with key legislators.

While we may not need a roomful of PCAs testifying at the Capitol, we hope that you feel personally connected to the work being done on your behalf. If helpful, the CAPCA Advocacy Committee has developed the following talking points to help you articulate the value of this bill on your own professional license:

- The PCA license is personal. As a result, DPR license correspondence goes to my house. Outside of DPR this is not reason for someone to reach out to me directly at home; any issues the public (or a legal team) may have with my work should be directed to my employer or work address. DPR does not ask for a work address that acknowledges this division between personal license and professional role.
- DPR updated all their Licensing and Renewal forms in 2024 but did not take time to add an acknowledgment that DPR may publicize my address of record, nor give me an alternative address to route business versus license focused correspondence.
- As a CAPCA member, my interests are being fought for with my dues. My license is personal, and I want correspondence, like renewals, to go to my home address, but I would prefer any legal or public issues to be routed to my business address or an alternative address. ■

Department of Pesticide Regulation Appoints Members to Two New Committees, Advancing Vision to Foster Safe, Effective and Sustainable Pest Management in California

By DPR Staff

EDITOR'S NOTE: Congratulations to PCAs selected for the SPARC and SPM Committees! We appreciate the investment you are making into representing your license and community!

While these Committees were recently filled, DPR has other Committees with designated PCA seats that need PCA representatives and/or alternates who will be engaged and active in these dynamic conversations. To learn more about all public facing DPR Committees visit cdpr.ca.gov/committees/ or scan the QR code.

- Agricultural Pest Control Advisory Committee (APCAC): Needs a PCA member and an interest list for alternate.
- Pest Management Advisory Committee (PMAC): Needs second PCA member and at least one alternate.

Additionally in April 2026, CDFA announced vacancies for the Fertilizer Inspection Advisory Board's Technical Advisory Subcommittee. This Technical Advisory Subcommittee focuses on the review and recommendation of FREP grants to the Board. We expect additional annual vacancies on the Fertilizer Inspection Advisory Board as well. The application deadline for the Technical Advisory Subcommittee is Friday, July 31, 2026 for a three year term starting January 1, 2027.

If you are interested in joining a committee listed above or being on a wait list as other CDFA committee vacancies open in the coming months, please reach out to ruthann@capca.com so she can work with you directly on steps needed for nomination or application.

WHAT YOU NEED TO KNOW

DPR is appointing members for two new committees to incorporate the expertise of scientists, pest management experts, community leaders and natural and working land managers to inform and prioritize the department's work to mitigate pesticide risks and to foster sustainable pest management in California.

April 2, 2026 – The California Department of Pesticide Regulation (DPR) today announced the appointment of 12 members to its inaugural Scientific Prioritization and Review Committee (SPARC) and 18 members to the Sustainable Pest Management Advisory Committee.

"DPR is thrilled to onboard such a remarkable group of committee members to support our work to continuously evaluate and mitigate pesticides and to effectively foster sustainable pest management approaches across the state," said DPR Director Karen Morrison. "The breadth of expertise represented – from scientific and academic fields to public health, agriculture, community and environmental protection – will enhance DPR's ongoing commitment to making decisions that are informed, inclusive, and grounded in the best available information to protect California's people and environment."

Both committees will host meetings that will be open to the public, with dates and information posted on DPR's website in advance.

SPARC COMMITTEE MEMBERS

The following individuals have been appointed to serve on DPR's Scientific Prioritization and Review Committee to advise DPR on prioritizing actions associated with continuous evaluation and mitigation of pesticides. The committee will provide science-based recommendations to inform DPR's transparent, data-driven process for identifying and addressing potential risks to human health and the environment from pesticide use.

- Dr. Kari Arnold, *Associate Director, IR-4 Western Region / UC Davis*
- Dr. Asa Bradman, *Professor – Public Health Department & Professor – Environmental Systems Graduate Group, UC Merced*
- Dr. Staci Cibotti, *Pesticide Program Specialist, Xerces Society*
- Dr. Chris Geiger, *President, Lacewing Collaborations LLC*
- Beau Howard, *District Manager, JG Boswell Co.*
- Dr. Olukayode Jegede, *Assistant Professor of Ag Toxicology & Cooperative Extension Specialist, UC Davis*
- Dr. Chow-Yang Lee, *Professor & Endowed President Chair – Urban Entomology, UC Riverside*
- Dr. Kelly Moran, *Senior Scientist, San Francisco Estuary Institute*
- Dr. Sascha Carsten Thomas Nicklisch, *Assistant Professor of Environmental Toxicology & Environmental Chemist – Ag Experiment Station, UC Davis*
- Dr. Jhalendra Rijal, *Integrated Pest Management Advisor, UCCE*
- Dr. Hillary Q. Thomas-Sanchez, *Research & Technical Director, Naturipe Berry Growers, Inc.*
- Jess Tyler, *Staff Scientist, Center for Biological Diversity*

In addition to providing science-based recommendations, newly appointed SPARC members will provide input on identifying data gaps, scoping scientific assessments, and feasibility of alternatives. Originally envisioned in concept through the Sustainable Pest Management Roadmap for California, SPARC will inform DPR's prioritization of pesticide-related continuous evaluation and mitigation, with final decisions and timelines associated with action discussed publicly and memorialized on the department's Continuous Evaluation and Mitigation Update.

SPM ADVISORY COMMITTEE MEMBERS

The following individuals have been appointed to serve on DPR's Sustainable Pest Management Advisory Committee to inform and support a statewide transition towards making SPM the de facto pest management approach in California. The committee will advise DPR on goals, tactics, policies, and partnerships that advance DPR's mission to foster SPM and support the implementation of key strategic goals outlined in the Department's 2024-2028 Strategic Plan - English and Spanish.

- Jo Ann Baumgartner, *Executive Director, Wild Farm Alliance*
- Lena Brook, *Deputy Director, Fullwell*
- Jennifer Clarke, *Executive Director, California Leafy Greens Research Board*
- Jim Farrar, *Director, Statewide IPM Program, UC ANR*
- Laura Krueger, *Vector Ecologist, Orange County Mosquito and Vector Control District*
- Kevi Mace, *Senior Environmental Scientist, Office of Pesticide Consultation & Analysis, CDFA*
- Michael Mellano, *CEO, Mellano & Company*
- Cuong "Jimmy" Nguyen, *Food Safety and Organic Production Advisor, UC ANR*
- Mahmood Nikbakhtzadeh, *Assistant Professor, Environmental Health Science, CSU San Bernardino*
- Daniel Palla, *Technical Sales Representative, Trécé, Inc.*
- Renee Pinel, *President and CEO, Western Plant Health Association*
- David Poplin, *CEO of CDS Services Inc., dba Legion Pest Management*
- Margaret Reeves, *Senior Scientist, Pesticide Action and Agroecology Network*
- Maggie Rodriguez, *Director of Global Regulatory & Government Affairs, ProFarm Group Inc.*
- Jason Saling, *Grower Relations Manager, Rodney Strong Vineyards*
- Mayra Sanchez, *Associate Director, Californians for Pesticide Reform*
- Paul Squires, *Owner, Squires Ag. Consulting, Inc.*
- Andrew Sutherland, *Urban IPM Advisor, UC ANR*

The newly appointed committee members will publicly discuss and provide recommendations to inform DPR actions, including:

- Tracking progress and implementation of SPM statewide
- Developing SPM pilot projects
- Advancing procurement and supply chain opportunities
- Reviewing urban pesticide use data
- Identification and implementation of SPM Continuing Education (CE) opportunities
- Promotion, development, and adoption of innovative pest management alternatives

DPR Improves Licensing Renewal Processing Times

By DPR Staff

The California Department of Pesticide Regulation (DPR) completed the 2025 licensing renewal season a month earlier than ever before with significantly improved processing timelines and greater convenience for license holders. For an industry that relies on timely credentialing — whether for individuals renewing their Pest Control Adviser (PCA) license or businesses preparing for another year of compliance — these improvements represent meaningful progress in DPR's ongoing effort to modernize and strengthen its Licensing and Certification Program.

For many years, renewal processing could take up to six weeks during peak season, a timeline driven by the volume of applications and the manual verification steps involved in confirming continuing education (CE) hours and reviewing required documentation. During the 2025 renewal season, DPR reduced this processing time by 30 percent to an average of approximately 30 days. This improvement reflects both strategic operational changes within the program and the implementation of 2024 regulatory updates that helped streamline CE reporting and verification.

Earlier Renewal Mailing Provided a Stronger Start

One of the simplest but most impactful changes came from adjusting the mailing schedule. Historically, individual renewal applications were mailed in August, with business renewal applications mailed in September. For the 2025 renewal season, DPR began mailing individual renewals in July and business renewals in August. By shifting these reminders 30 days earlier, licensees had more time to complete the required steps well ahead of key deadlines.

This extended lead time helps reduce late or incomplete submissions — two common reasons for processing delays. It also spread application inflow across a longer period, giving DPR staff greater ability to manage the workload efficiently.

Expanded Staffing Improved Responsiveness

To support the earlier mailings and anticipated increase in early renewals, DPR assigned additional staff to work on licensing renewals throughout the season. This included expanding the number of team members processing applications as well as increasing staff capacity to handle inquiries submitted via email.

DPR's Licensing and Certification inbox, which receives thousands of messages during the renewal period, is often the first point of contact for applicants who need help correcting an error, confirming documentation, or navigating CE requirements. Faster response times helped many applicants resolve issues early — before their application reached the review stage — reducing delays and preventing applications from being held for follow-up. The expanded DPR support also contributed to greater clarity and fewer repeated errors, creating smoother workflows for applicants.

New CE Regulations Streamlined Documentation

The most significant structural improvement came from regulatory updates that took effect in 2024. Under these regulations, CE course sponsors are now required to submit attendance records directly to DPR. The 2025 renewal season was the first in which these changes were fully in place, and the impact was substantial.

With attendance records being submitted electronically by course providers, DPR introduced three options for completing the CE summary form as part of license renewals. Licensees can either verify that DPR's records already showed all required hours, request a detailed CE report to identify and add any missing courses, or

fully complete the CE summary form to self-report all courses taken. It is the responsibility of the license or certificate holder to meet all CE requirements for renewal and keep all course completion certificates for 3 years. In 2025, many licensees were able to confirm CE completion by checking DPR's online valid license list, which reflects hours already reported to the department.

This shift reduced paperwork for licensees and eliminated many of the most common errors on CE forms. It also significantly reduced the number of applications that required manual follow-up to verify hours. Because CE verification has historically been one of the most time-intensive steps for staff, the new system directly improved processing speed and is part of continuous improvements to the program to meet the needs of licensees.

Attendance Record Reports Enabled Faster Verification

With CE sponsors transmitting attendance records directly to DPR, staff were able to use standardized attendance record reports to verify hours. This streamlined approach allows for licensees to more quickly confirm course completion and reduces the need to request missing documents from individual licensees. For many applicants, this meant their renewal could move through processing with fewer back-and-forth interactions.

Proactive Communication Kept Licensees Informed

Throughout the renewal season, DPR issued biweekly email reminders to licensees. These reminders helped applicants stay on track and reduced the frequency of errors that would otherwise slow down processing. As more licensees become accustomed to checking CE hours online and accessing forms directly through DPR's website, overall workflow efficiency is expected to continue improving.

Ongoing Commitment to Service and Modernization

DPR recognizes the essential role of licensed professionals in California agriculture, horticulture, and public health, and is committed to providing a licensing system that supports their work. While the 2025 improvements represent a notable advance, the department continues to explore opportunities for modernization, efficiency, and improved communication.

DPR's Licensing and Certification team is evaluating additional process enhancements for future renewal seasons, including digital tools, expanded self-service options, and further refinement of CE reporting systems. Feedback from licensees — including PCAs and other certified professionals — remains an important part of this work. The department appreciates the collaboration and attention to detail demonstrated by license holders throughout the renewal process. ■

Tips to Avoid Renewal Delays

- ☐ Submit your renewal application as early as possible
- ☐ Use the correct and current DPR form
- ☐ Confirm all CE hours are complete before submitting
- ☐ Ensure CE hours are completed during your valid license period
- ☐ Double check your application for missing information or errors
- ☐ Ensure payment is included and accurate
- ☐ Respond promptly to any follow-up questions from DPR
- ☐ Keep your contact information up to date
- ☐ Use DPR's online valid license list to verify CE hours
- ☐ Email questions to LicenseMail@cdpr.ca.gov

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Featured Article

What California's Chlorpyrifos Withdrawal Can Teach Us About Projecting the Costs of Pesticide Regulation

By Benjamin Lee and Kevi Mace, California Department of Food and Agriculture Office of Pesticide Consultation and Analysis

EDITOR'S NOTE: Economic assessments of regulations have often been a point of debate between industry and regulators due to differing cost evaluations. Agencies, like CDFA OPCA when estimating the costs of pesticide regulations, are not required to consider all indirect costs that may arise. Their focus is on capturing direct costs, such as those related to alternative products, necessary equipment, or product-specific training. Frequently, the discrepancies in cost projections stem from the exclusion of adjacent, indirect costs in these evaluations. Additionally, the emotional cost of change is not something that can be quantified in a cost projection budget. While the industry may continue to include more indirect compliance costs in their projections, articles like this one offer valuable insight into the evaluation process. We hope this article helps you better interpret projected costs the next time you participate in a regulatory comment period or hear about the projected cost of compliance.

In 2019, the California Department of Pesticide Regulation (DPR) listed the insecticide chlorpyrifos as a toxic air contaminant due to evidence that exposure could cause developmental neurotoxicity in children and sensitive populations. Chlorpyrifos is an organophosphate insecticide that had been widely used in a range of California crops for its broad-spectrum activity and relatively low cost. Following an agreement with Dow AgroSciences and other registrants, DPR announced that the registrations of virtually all chlorpyrifos products (excluding granular) would be cancelled, and all use ended by December 31, 2020. While not an official act of regulation, the withdrawal of chlorpyrifos removed a widely used insecticide from use in California with the potential to significantly affect pest management programs and costs to producers.

The Office of Pesticide Consultation and Analysis (OPCA) at the California Department of Food and Agriculture (CDFA) provides independent analyses on the effects of proposed regulations on the costs and effectiveness of pest management practices. These analyses are used by DPR, other state agencies, legislators, and the public for a variety of reasons. By using pesticide reporting data and collaborating with economists, extension specialists, and industry experts, OPCA works to produce accurate, up-to-date, and timely reports on regulatory actions and emerging pest management issues in agriculture.

After the announcement of the cancellation of chlorpyrifos registrations in 2019, OPCA published an analysis estimating the cost of chlorpyrifos withdrawal on six major California crops (alfalfa, almond, citrus, cotton, grape, and walnut). In brief, the analysis identified the key pests controlled by chlorpyrifos in these crops and what alternative insecticides could be used to effectively manage them should chlorpyrifos become unavailable. Looking at historical use of chlorpyrifos from 2015-2017, the most recent data available at the time, we calculated the total cost if all chlorpyrifos use was replaced by alternative insecticides. In most cases, these alternatives were more expensive than chlorpyrifos and would significantly increase pest management costs for producers. The analysis found if all chlorpyrifos use between 2015-2017 were replaced by alternative insecticides, annual pest management costs in these six crops would have been $10-$12 million greater statewide

than if chlorpyrifos remained available. The full report also highlighted concerns about the role of chlorpyrifos in managing insecticide resistance and the potential for yield loss in cotton.

While it is important to provide regulators with information before policies are finalized to allow for changes to be made, projecting future outcomes always comes with some uncertainty. The analysis relied on several assumptions about how growers would respond to the withdrawal of chlorpyrifos. We assumed that alternative insecticides would replace chlorpyrifos use based on their share of use pre-withdrawal. For example, if an alternative AI was used on 50% of a crop's acreage when chlorpyrifos was available, we assumed its use would increase proportionately once chlorpyrifos was withdrawn (Figure 1). However, as PCAs know, there are a lot of considerations that go into the development of a spray program. Materials might be chosen based on their activity against multiple pest species, effectiveness in specific environmental conditions, non-target effects on natural enemies, cost and availability, usefulness in a tank mix, or as part of rotations to manage resistance. It can be impossible to predict how the addition or removal of a product can affect the total number and composition of applications throughout the year. The analysis also assumed that pesticide prices and the total planted acreage of each crop would remain the same. Assumptions like these are necessary to make projections on a statewide level, but agricultural systems are dynamic and pest management practices are constantly changing as new pest pressures emerge and the economics of production shift.

Since the publication of the 2019 analysis, growers had multiple years to adapt their pest management strategies, including which pesticides growers chose to use in the absence of chlorpyrifos, while pesticide prices and the total acreage grown of these six crops varied over time. New pesticide use reporting data published since chlorpyrifos' withdrawal has allowed OPCA to test the assumptions made in the original analysis, with the goal of improving the accuracy of projections moving forward (Figure 2). By comparing the projections of pesticide use in the original analysis to what growers really applied after chlorpyrifos was unavailable, OPCA has been able to "check our own work" by validating our methodology and increasing transparency into how projections are made.

FIG. 1: Assumption for Projecting Alternative Active Ingredient (AI) Use Post Chlorpyrifos Withdrawal

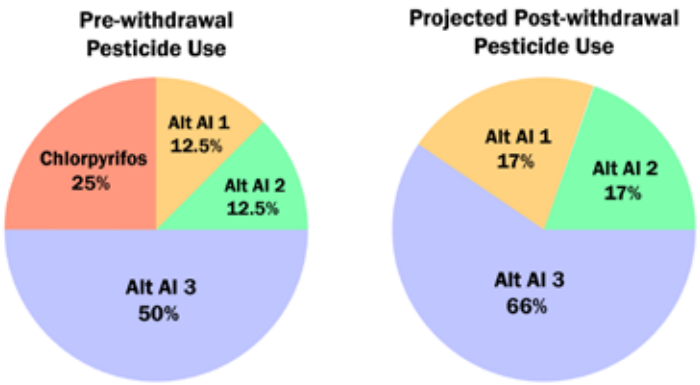
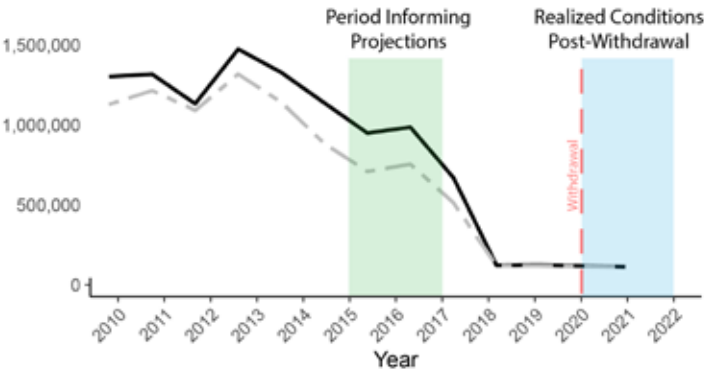


FIG. 2: Total California Chlorpyrifos Use: 2000–2022. Data from 2015 to 2017 (in green) were used to project chlorpyrifos withdrawal costs. Data from 2020 to 2022 (in blue) withdrawal were used to evaluate the accuracy of the projections.



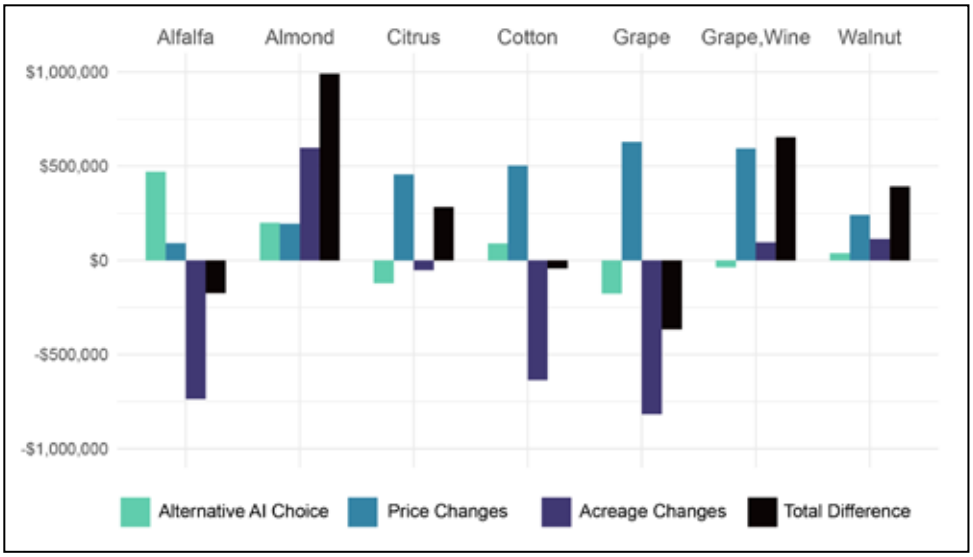


FIG. 3: Annual Differences Between Projected and Realized Withdrawal Costs and Costs Disaggregated into Three Sources by Crop

Recently published in the journal Agricultural Systems, OPCA's new analysis examines the accuracy of the 2019 projections and identifies how changes in statewide crop acreage, pesticide prices, and pesticide use decisions contributed to the economic impacts of chlorpyrifos withdrawal. Using methods developed with Dr. Rachael Goodhue, Donald H and Miriam C Stelling Endowed Chair in Agricultural Resource Economics at UC Davis, we compared realized costs from 2020-2022 to projected costs from 2017-2019. By isolating changes in pesticide use by growers, crop acreage, and pesticide product prices, we calculated the contribution of each change to the accuracy of our projections in each crop analyzed. This allowed us to both examine whether our overall estimates of the costs of chlorpyrifos withdrawal were accurate and which specific changes contributed the most to cost changes.

Figure 3 breaks down how each factor contributed to the accuracy of our projections. For each crop, the black bar represents the total difference between the projected and realized costs, while the colored bars show how each factor contributed to the total difference.

Of the factors we examined, changes in the total statewide acreage of crops (purple) had the biggest effect on whether our projections were right or not. While our

Table 1: Comparison of projected and realized per-acre management costs with alternatives post chlorpyrifos withdrawal.

Crop	Projected $/Acre of Composite Alternative	Realized $/Acre of Composite Alternative	Difference ($)	Difference (%)
Alfalfa	13.14	14.26	1.12	8.5
Almond	20.34	26.51	6.17	30.3
Citrus	42.31	49.66	7.35	17.4
Cotton	15.37	21.09	5.72	37.2
Grape, raisin & table	78.04	84.29	6.25	8.0
Grape, wine	88.30	104.49	16.19	18.3
Walnut	27.58	33.82	6.24	22.6

per-acre cost estimates were fairly accurate (Table 1), our analysis of total costs did not account for large swings in acreage of the crops analyzed. From the original study period to our updated analysis, total almond acreage in the state increased by 20%, while acreage fell for alfalfa (-11.1%), cotton (-39%), and table and raisin grapes (-22.6%). Unsurprisingly, the average price of pesticide products increased across all crops analyzed. However, some individual product prices decreased, possibly from lower demand or generics becoming available.

Most notably, the assumption that alternative AI use would increase proportionately once chlorpyrifos was unavailable (Figure 1) was largely supported. Across commodities, the actual use of alternative AIs after withdrawal was very close to what we projected (<2% of total use). This means that growers and PCAs have been largely relying on increased use of these alternative AIs, often at significantly greater costs, when dealing with pests previously controlled with chlorpyrifos.

We provide evidence that our methodology is largely accurate even as product prices, regulatory actions, and grower decision-making changes over time. However, the analysis also highlights areas where we could improve, especially if total crop acreage is expected to increase or decrease immediately after the regulations take effect. As new pesticide regulations are developed, we are working to ensure that the best information on pesticide use and possible economic impacts are made available to everyone involved in the rulemaking process.

There was substantial variation among all the crops analyzed; we describe some of these specific factors in the sections below.

ALFALFA. In alfalfa, chlorpyrifos alternatives are used to control several species of aphids, alfalfa weevils, leafhoppers, and lepidopteran larvae. The realized annual costs of chlorpyrifos withdrawal were $0.17 million lower than projected. An 11.0% decrease in the harvested acreage of alfalfa primarily drove this lower cost. Realized per-acre costs of alternatives were $1.12 higher than projected, mostly due to growers' increased use of more expensive materials like chlorantraniliprole and decreases in cheaper materials like dimethoate.

ALMOND. In almond, chlorpyrifos alternatives are used to control leaf footed bugs, stink bugs, and navel orangeworm (NOW). The realized annual costs of chlorpyrifos withdrawal were $0.99 million higher than projected. A 20.0% increase in acreage was the primary driver of this substantial increase in total cost. Realized per-acre costs of alternatives were also 30.3% higher than projected due to both increased product prices and increased use of more expensive materials, likely to control navel orangeworm.

CITRUS. In citrus, chlorpyrifos alternatives are used to control ants, Asian citrus psyllid, and several species of scale insects. The realized annual costs of chlorpyrifos withdrawal were $0.28 million higher than projected. Product prices increased substantially relative to projections, though decreased use of relatively expensive materials like spinetoram reduced the overall cost difference.

COTTON. In cotton, chlorpyrifos alternatives are used to control aphids, whiteflies, and several species of hemipteran and lepidopteran pests. The realized annual costs of chlorpyrifos withdrawal were $0.042 million less than projected. An almost 40% decline in harvested cotton acres was the primary driver of this lower annual cost.

GRAPE, RAISIN AND TABLE. In raisin and table grape, chlorpyrifos alternatives are almost exclusively used to control vine mealybug and ants. The realized annual costs of chlorpyrifos withdrawal were $0.37 million less than projected. A 22.6% decrease in harvested grape acres was the primary driver of this lower annual cost. However, increases in product prices reduced the overall cost difference. Notably, vine mealybug mating disruption using lavandulyl senecioate increased significantly.

GRAPE, WINE. In wine grape, chlorpyrifos alternatives are also primarily used to control vine mealybug and ants. The realized annual costs of chlorpyrifos withdrawal were $0.65 million higher than projected. Unlike raisin and table grapes, the total harvested acreage of wine grapes did not significantly fall, and higher product prices increased the total cost difference. Mating disruption using lavandulyl senecioate also increased its share of use in wine grapes.

WALNUT. In walnut, chlorpyrifos alternatives are used to control codling moth, walnut husk fly, walnut aphid, and pacific flathead borer. The realized annual costs of chlorpyrifos withdrawal were $0.39 million higher than projected. Increased product prices primarily drove this higher annual cost, though harvested acreage also increased. ■

Apiary Protection Program: Honey Bee Rewilding

California Department of Food and Agriculture
Plant Health and Pest Prevention Services
Integrated Pest Control Advisory No. 01-2026
Feb. 20, 2026

Photo: Patricia Bohls

The Department has received information about a recent trend encouraging the "rewilding" of European honey bees (*Apis mellifera*). The "rewilding" consists of modifying natural materials (such as hollowed out logs) to create what is being considered as a "natural" nesting habitat to attract honey bees. These nests are altered in their environment using man-made materials to attach the nests to trees with ratchet straps or similar methods. These human-altered nesting habitat creations for European honey bees without removable frames or active management are prohibited as they fail to meet the Food and Agricultural Code (FAC) sections listed below:

FAC Section 29179:
All beekeepers shall provide movable frames in the brood area of all hives which they use to contain bees and shall make provisions so the bees in the hives shall construct combs in the frames in such a way that the combs may be removed from the hives for inspection without damaging other combs in the hives.

FAC Section 29180:
The inspector shall order the owner, broker, or person in charge of any bees that are kept in a box or other unmovable or stationary comb hive to transfer the bees to a movable frame hive within a reasonable time, to be specified in the order. In default of transfer by the owner, broker, or person in charge of the bees, the inspector may destroy in a summary manner the hive and its contents.

The construction, altering natural materials, and keeping of bees in these nests are in violation of the FAC. These practices may lead to the possible spread of disease in managed honey bees and may also affect other native and commercial pollinating species of bees causing long-term, irreversible changes to biodiversity and the beekeeping industry. ■

If you come across or are concerned about any hive that does not seem to have removable frames, please report directly to your County Ag Commissioner office.

Removable frame. *Photo: Patricia Bohls*

BeSure! This Planting Season

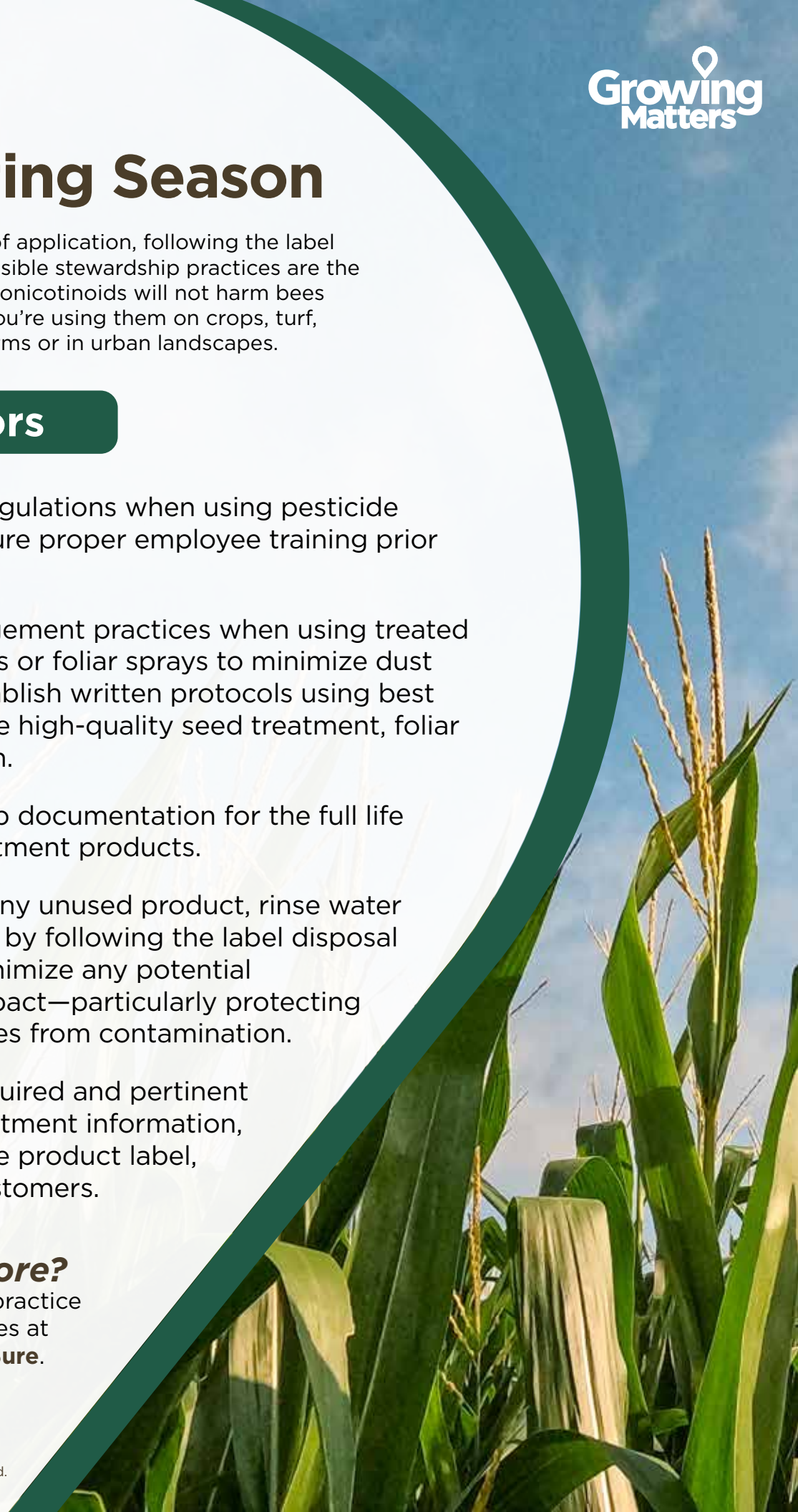
Regardless of the method of application, following the label directions and using responsible stewardship practices are the best ways to ensure that neonicotinoids will not harm bees or other wildlife, whether you're using them on crops, turf, ornamentals or trees, on farms or in urban landscapes.

For Applicators

1. Comply with all regulations when using pesticide products and ensure proper employee training prior to application.
2. Apply best management practices when using treated seed, soil drenches or foliar sprays to minimize dust or spray drift. Establish written protocols using best practices to ensure high-quality seed treatment, foliar or field application.
3. Adopt stewardship documentation for the full life cycle of seed treatment products.
4. Properly discard any unused product, rinse water or seed treatment by following the label disposal instructions to minimize any potential environmental impact—particularly protecting nearby waterbodies from contamination.
5. Ensure that all required and pertinent neonicotinoid treatment information, consistent with the product label, is conveyed to customers.

Want to learn more?

Access a variety of best practice tips and industry resources at **GrowingMatters.org/BeSure**.



CDFA Memo: Rat Damage in Almond Orchards – Updated 2026

Kevi Mace, Office of Pesticide Consultation and Analysis; Yanan Zheng, University of California, Davis; and Rachael Goodhue, University of California, Davis

In fall 2024, California almond and pistachio growers in the western Central Valley experienced severe rat infestations in orchards and farm facilities. According to the California Department of Food and Agriculture's (CDFA) 2024 trapping survey, over 112,000 acres of almond and 116,000 acres of pistachio covering hundreds of operations were affected, that was the equivalent to 36.4% and 69.6% of Fresno County's harvested acreage in 2024, respectively (County of Fresno, 2025). The large majority of the surveyed acres were in Fresno County with smaller areas in Kings and Merced Counties. This memo provides an updated estimate of damages from a year of infestation in only the area surveyed by CDFA in 2024. An earlier memo provided an estimate just for almond *(www.cdfa.ca.gov/oars/opca/docs/Preliminary_analysis_of_rat_damage_in_almonds_202 5_0211.pdf)*. This memo adds pistachio and updates the cost assumptions used for almond to reflect more information.

This updated estimate includes the following for almond and pistachio in the originally defined infested area surveyed by CDFA: yield loss from being unable to water post-harvest, yield loss from direct damage to trees, cleaning and repairing wires for trucks and harvesters, drip line replacement, and tree replacement. All costs were not borne by all affected acres for either crop. Pistachio has not experienced increased damage to drip lines, likely due to differences in irrigation schedules – pistachio does not have a dry down period before harvest like almond. We provide low and high estimates of costs to capture the potential range of financial impacts. Details of the assumptions for each estimate are provided below. We calculate the damages in those areas to be $188.0 million to $297.7 million for almond. For purposes of comparison, that is equivalent to 13.3% to 21.1% of the value of Fresno County's 2024 almond production. For pistachio, annual costs range from $48.1 million to $275.5 million (5.6% to 32.1% of Fresno's production value). Accounting for a total of five years of yield loss, including the current and future years, total estimated costs range from $53.1 million to $300.3 million, or 6.2% to 35.0% of Fresno's production value (County of Fresno, 2025).

In 2024 CDFA conducted a rodent survey in response to requests for assistance with high rat populations. The 2024 survey used standard rodent trapping protocols and recorded 0-32 rats per night per inspection site. The survey provided information to map the areas impacted by rat infestations. We used this map to estimate the number of impacted almond acres.

Based on personal communications with industry members, we considered the following production costs: repairing tractors damaged by gnawed wires, repairing harvesters damaged by gnawed wires, cleaning rat droppings from equipment, repairing gnawed drip irrigation lines, and replacing trees. These are likely not inclusive of all damage costs. The costs for cleaning rat droppings (wage rate) and replacing trees were taken from a 2024 UC Davis cost study on almond (University of California Cooperative Extension (UCCE), 2024) while the cost for replacing drip line irrigation was taken from a 2019 UC Davis cost study on almond (University of California Cooperative Extension, 2019). This is the most recent cost study for almond to include a price for drip line. CDFA has reached out for industry quotes on drip line replacement but has not received any responses. CDFA obtained estimates of the other costs from industry members.

Two sources of yield loss are included for almond: no irrigation post-harvest and direct damage to trees, which both affect yield the following year. Losses due to reduced yields are a significant driver of the cost of rat infestations. In this analysis, we only consider future yield loss. Although yield loss from lack of pre-harvest irrigation may have occurred, CDFA reports only indicated complications from growers not being able to water post-harvest. Table 1 summarizes the analysis. Table 3 details the underlying parameter values and sources.

For pistachio, two sets of analyses are considered: annual yield reductions due to direct damage to trees, and cumulative yield reductions over the next five years due to the original damage, including the current year. Table 2 reports the estimated costs, and Table 4 details the underlying parameter values and sources.

All costs were not borne by all affected acres for either crop. We provide low and high estimates of costs to capture the potential range of impact. For almond, the lower bound estimate uses the following assumptions: per-acre pest management cost increased by $400, 50% of acres had to replace drip lines, 1% acres were unable to water post-harvest, 20% of trees per acre had direct damage leading to 30% yield reduction for those trees, 5% of tractors were damaged, 5% of harvesters were damaged, cleaning was done on 42 vehicles, and 2 trees per acre were replaced. The upper bound estimate uses the following assumptions: per-acre pest management cost increased by $600, 75% of acres had to replace drip lines, 5% acres were unable to water post-harvest, 25% of trees per acre had direct damage leading to 50% yield reduction for those trees, 15% of tractors were damaged, 15% of harvesters were damaged, cleaning was done on 126 vehicles, and 2 trees per acre were replaced. Details of these parameters are provided in Table 3. Estimates of scenarios that use a combination of assumptions (i.e., lower yield losses but higher drip tape replacement) are possible using the information in Table 3.

For pistachio, the lower bound estimate uses the following assumptions: per-acre pest management cost increased by $400, 2% of trees per acre had direct damage leading to 10% yield reduction for those trees, 5% of tractors were damaged, 5% of harvesters were damaged, and cleaning was done on 42 vehicles. The upper bound estimate uses the following assumptions: per-acre pest management cost increased by $2,300, 5% of trees per acre had direct damage leading to 20% yield reduction for those trees, 15% of tractors were damaged, 15% of harvesters were damaged, and cleaning was done on 126 vehicles. The upper bound estimate for pest management in pistachio is likely driven several factors specific to pistachio. One, net returns were higher for pistachio in 2024. And two, pistachio orchards can produce economically for over 100 years. Protecting the trees pays off for decades. Details of these parameters are provided in Table 4.

CAVEATS: This report is meant to provide preliminary estimates of likely impacts based on CDFA's rodent survey, communications with industry, and information on costs. Changing our assumptions about the percent of acres or equipment affected for any of the variables would change the results. It is unlikely that the included costs are inclusive of all damage sustained. In particular, this likely does not fully capture the impact of direct damage to trees, especially to newly planted orchards. We also did not include post-harvest costs, only on-farm costs. Almond yield losses from lack of post-harvest water may not be as high as estimated by Goldhamer and Viveros (2000) if growers managed to get alternate irrigation in place rapidly. We may update these estimates as more information becomes available. ■

VIEW TABLES 1-4 AND LIST OF REFERENCES ON PAGES 37-38

CDFA Memo: Rat Damage in Almond Orchards

Table 1: Estimated Annual Costs Due to Rat Infestations: Almond

	Minimum Cost	Maximum Cost
Almond		
Increased Pest Management Cost	$44,857,200	$67,285,800
Tractor Repair	$60,000	$172,000
Harvester Repair	$10,800	$30,600
Cleaning Rodent Droppings from Equipment	$1,321	$3,964
Drip Line Replacement	$112,143,000	$168,214,500
Tree Replacement	$8,747,154	$8,747,154
Yield Loss Next Season (No Water Post-Harvest)	$2,422,963	$12,114,817
Yield Loss (Direct Damage)	$19,752,419	$41,150,874
Total Estimated Costs	**$187,994,858**	**$297,719,709**

Table 2: Estimated Costs Due to Rat Infestations: Pistachio

	Minimum Cost	Maximum Cost
Increased Pest Management Cost	$46,570,000	$267,777,500
Tractor Repair	$60,000	$176,000
Harvester Repair	$10,800	$32,400
Cleaning Rodent Droppings from Equipment	$1,321	$3,964
Yield Loss, Current	$1,499,554	$7,497,770
Yield Loss, Current and Future (5 years)*	$6,466,267	$32,331,335
Total Estimated Costs, Current	**$48,141,675**	**$275,487,634**
Total Estimated Costs, Current and Future (5 years)*	**$53,108,388**	**$300,321,199**

* An 8% deflation rate is used to convert future costs to current values.

Table 3: Parameter Values and Sources: Almond

Cost	Parameter	Source
Almond Acreage	112,143 Affected Acres	CDFA
Almond Yield	0.90 tons/acre	CDFA (2024)
Almond Price	$3,280/ton	CDFA (2024)
Increased Pest Management Cost	$400 per Acre	$600 per Acre
Tractor Repair	1 Tractor per 400 Acres; 5–15% affected; $4,000 per tractor affected.	Communication with Industry
Harvester Repair	1 Harvester per 1,000 acres; 5–15% affected; $1,800 per harvester affected.	Communication with Industry
Cleaning Rat Droppings from Equipment	1 hr of labor per machine affected; Machines affected = 2x vehicles needing repair; $31.46 per labor-hour.	UCCE (2024)
Drip Line Replacement	50% –75% of acres affected; $2,000 per acre affected.	UCCE (2019)
Tree Replacement	2 trees per acre affected; $39 per replacement tree.	UCCE (2024)
Yield Loss Next Season (No Water Post-Harvest)	If water is restricted post-harvest, yields for the following season are reduced by 73.6%; 1–5% of acres affected.	Goldhamer and Viveros (2000)
Yield Loss (Direct Damage)	30–50% of trees affected; 20–25% yield loss per affected tree.	Communication with Industry

Table 4: Parameter Values and Sources: Pistachio

Cost	Parameter	Source
Pistachio Acreage	116,425 Affected Acres	CDFA
Pistachio Yield	1.61 tons/acre	CDFA (2024)
Pistachio Price	$4,000/ton	CDFA (2024)
Increased Pest Management Cost	$400–2,300 per Acre	Communication with Industry
Tractor Repair	1 Tractor per 400 Acres; 5–15% affected; $4,000 per tractor affected.	Communication with Industry
Harvester Repair	1 Harvester per 1,000 acres 5–15% affected; $1,800 per harvester affected.	Communication with Industry
Cleaning Rat Droppings from Equipment	1 hr of labor per machine affected; **Machines affected = 2x vehicles needing repair;** **$31.46 per labor hour**	UCCE (2024)
Yield Loss Current and Future (5 years)	**2-5% of trees affected;** **10-20% yield loss per affected tree.**	**Communication with Industry**

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EDITOR'S NOTE: This update contains the 2024 acreage only, but cost impacts were updated based on various interactions including the field tour that CAPCA hosted in June 2025, various interviews set with PCAs and growers and receipts outlining costs that CAPCA has facilitated to support a wider view on the impact of rat infestation. While the total acres will not change, if CDFA finds the need to re-assess the scope (acres) of impact, they would perform an updated trapping to reset the boundaries of infestation for subsequent years. While both OPCA and CAPCA did our best to represent the costs of the infestation and the dynamics that went into differences between commodities, the conversation continues to evolve. If you are currently impacted by the rat infestation and you do not feel these cost ranges per acre reflect your technical costs, feel free to contact CAPCA and we can set up an interview for future updates.

Rat Infestation Management: A Checklist

Essential Steps for Detection, Monitoring, and Control

CAPCA has been compiling resources and developing baseline monitoring for rat infestations. As these initiatives wrap up, the responsibility is moving to grower groups to tackle the challenge of abandoned acres.

With the recent spike in hot weather and early irrigation, we've heard about an increase in rat activity. It is crucial that Pest Control Advisers and growers — both those new to the issue and those continuing to manage high populations — have access to the latest information and effective strategies.

The checklist on page 40 is designed by PCAs to help quickly identify signs of rat problems and implement proven management strategies, keeping your acres productive and protected. ■

Checklist: How to Spot and Control Rat Infestations

TYPES OF DAMAGE TO LOOK FOR

Early detection is critical—act quickly at the first signs. Please note that several other rodents can cause this damage as well.

- Drip line chewing
- Tree girdling
- Equipment damage (includes wiring, pumps, tractors and vehicles)
- Crop loss

EARLY WARNING SIGNS

- In almonds, rats consume all mummy nuts overwinter
- Feeding activity during flowering and early set
- Increased nighttime activity since rats are exclusively nocturnal

MONITORING PRACTICES

- Remove mummies promptly
- Night shaking to detect populations
- Identify infestation hotspots within the orchard

INITIAL INFESTATION RESPONSE

- Use rodenticides (e.g., diphacinone) as appropriate following recommendations for pre-baiting, bait station placement and PPE. Always read the label!
- Apply treatments directly where needed
- Following bait application, implement a follow-up approach, such as long-term trapping, to keep populations from rebounding
- Identify and target burrow and tree nest locations
- Reduce habitat by removing burn piles, cleaning ditches and edges, and eliminating surrounding cover
- Use a combination of approaches; labor-intensive but helps prevent rapid population growth
- Manage other pests that amplify the issue (e.g., gophers)
- Leverage natural predators including adding owl boxes
- Contact your crop insurance provider to clarify reporting requirements and documentation needed in case of crop claim

PROTECT AND MONITOR CRITICAL AREAS

- Pumps and filters
- Irrigation system repairs. Water availability influences rat behavior; monitor irrigation closely and repair promptly.
- Assess risk factors regularly

AFTER INITIAL INFESTATION

- Support tree recovery with selective pruning
- Monitor damage and test for disease
- Maintain efforts to keep populations low
- Engage with neighbors and the local community to coordinate efforts

Stay vigilant and proactive. Consistent monitoring and a combination of control methods are the foundation for successful rat management on your farm.

Crop Steward

How Do You Quantify an Infestation?

By Ruthann Anderson and Kendall Barton

Over the last year and a half working on the rat infestation issue, CAPCA has been faced with several questions and opportunities to tell the story of impact to help leverage resources and response where it matters. In simple terms, most legislators and agency representatives have a hard time grasping the scale of the rat problem is that some of you are dealing with in the Central Valley. At times, it took shocking numbers to help someone understand the sharp difference between maintenance level pressure and the infestation currently being addressed.

The population numbers in an infestation require a whole different level of tools, some of which exist and are outlined on page 40 in our resource reminders and a new one, in particular, that we are excited to announce in this issue.

CAPCA, in collaboration with CDFA, has been working on a way to visualize and monitor the scope of the impact that rats are causing across the state in real time. We are doing this with a blend of data:

- Crowd Sourced Crop Steward Data
- PUR Data of aluminum phosphide, diphacinone, zinc phosphide, and chlorophacinone
- CDFA and UC scouting and trapping data

This anonymized county-level data was the solution we presented when stakeholders wanted a public facing map. We knew that public facing would severely impact the usability of the tool – so we offered Crop Steward as the vehicle to house the data. Crop Steward provides a firewall by which only PCAs and anyone they assign in their workflow can access the data. There is an admin level that can view data, which we can share with collaborative agencies and commodity groups to provide a more real-time view of what is being reported.

Nothing like this currently exists. When you look at PUR data alone, it doesn't tell the full story of pest pressure or quantify the level of pressure being addressed. When we look at incoming calls or reports from PCAs in the field, it doesn't give us the full picture of acreage of collective impact to each county. Nor does the CDFA or UC trapping give us the broad scope of the other two elements. *But combined, we hope that it will tell a story to drive the support, solutions and funding needs the industry has been asking for.*

How Can You Participate in Telling This Larger Story?

First, create an account in Crop Steward – it is free! Before being shared, the data is *fully anonymized*. That means no PCA names, license numbers, company information, grower names, or field-identifying details are shared outside of CAPCA.

Visit cropsteward.com with your PCA license number to create a user account. Then add in your growers and blocks. See page 44 for a quick guide on setting up your account now!

Next add rat observations to Crop Steward – once you've set up your account, you're ready to scout for rats! Follow the Quick Guide instructions on page 44 to learn how to do this.

Start inputting your data now so when the map goes live in May, we have data ready to integrate with PUR to showcase the map.

CROP STEWARD

Visit page 44 for easy set up instructions – and visit cropsteward.com to sign up and start tracking now!

OBSERVATIONS OPTIONS:

NONE

No rats present. While taking the time to provide a data point of zero may seem irrelevant, a no/none data point allows us to better amplify the actual points of infestation as we fill in the map.

LOW

Normal rat pressure for this field is present. No changes in population.

MEDIUM

Higher than normal rat pressure for this field is present, but little to no damage to trees, irrigation or structures because of a higher population.

HIGH

Higher than normal rat pressure and damage to this field. Higher than normal rat pressure for field and damage to trees, irrigation or structure is present.

URGENT

Significantly higher than normal rat pressure for field and/or significant spread of damage to trees, irrigation and structure across acreage. *This may be an initial escalation point if a sudden swell in population emerges and/or a progressive point if methods to manage a population stall out with the population and damage increasing.*

SCAN TO SIGN UP FOR CROP STEWARD

We recognize that rats are still top of mind for many PCAs, we received even more calls from those impacted in key counties this year. We continue to add to the page any resources that have been made available or updated.

Some highlights:

Updated CDFA OPCA economic assessment for impacted almonds and pistachio areas – This is still 2024 season but updated with feedback from PCAs and growers on costs and loss. ***The update is also included in this issue on page 35.***

QR Code for Bait Stations – This can be used to request your two free stations (until funding runs out) or purchase additional stations!

Example of a modified bait station.
Photo courtesy of Roger A. Baldwin, Ph.D.

Rat Management Training Videos by UC and CDFA are linked from the webpage. These videos are a practical how-to for rat management by Dr. Roger Baldwin. *The bait stations can be viewed in the series starting on Topic 11.*

In March, we held a rat-focused webinar with a variety of resources presented – we compiled the notes from that webinar into a one-page checklist that we hope serves you from one Adviser to another – you can see the checklist on page 40. ***The key takeaway from the webinar and the checklist is that there is no silver bullet, and not one solution will address these populations in a singular approach.*** A true IPM approach must be considered and thoughtfully deployed.

CAPCA has delivered what we promised to the industry, clear resources – both physical, in the form of subsidized and compliant bait stations, and material from updated labels to guidance videos along with a solution on baseline monitoring. These were deliverables that were executed by CAPCA staff as well as collaboratively with CDFA, DPR, and a coalition of commodity groups. Since the beginning, our plan has been to step away from the constant meetings once we had delivered what you the PCA needed most. The remaining piece of how to address the abandoned orchards is being passed off to the network of grower groups we have built, county leadership, and legislative staffers to provide direct engagement in identifying a solution and the funding to execute. Sadly, we expect that these abandoned acres are harboring more pests than just rats and will continue to impact "maintenance" rated pests if left unaddressed.

Throughout this time listening to growers and PCAs, meeting with agencies across the nation, and broadening our network even further (from public health officials to taskforce leadership), we have started outlining a blueprint of priorities that we hope to use moving forward to strengthen the response time that the industry, including CAPCA, can leverage for future emergencies like this that are centered around unexpected infestations of non-invasive pests.

We hope you, too, will join us in this journey as we apply new learnings, new resources, and new relationships to build out the future of IPM in California. ■

Bookmark it! CAPCA has created a one stop online resource for rats at: capca.com/rats-in-the-valley/

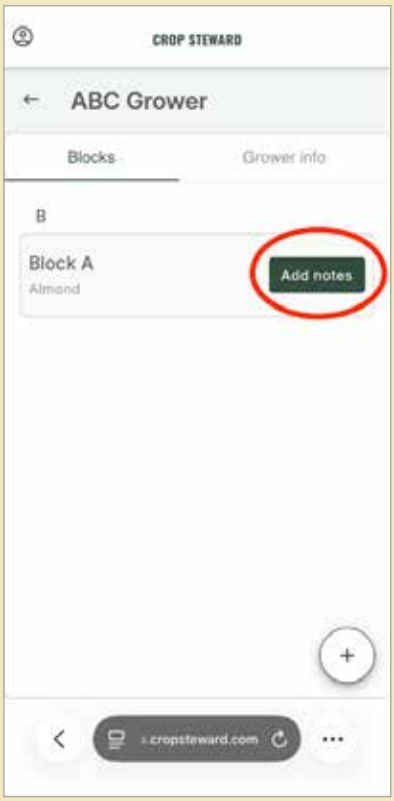
QUICK GUIDE: How to Add Rat Observations to Crop Steward

If you don't have an account already, visit cropsteward.com with your PCA license number to create a user account. Then add in the growers and blocks you want to report on. *Once you've done that, you're ready to scout and report on rats!*

1 Set up and/or log into account at cropsteward.com.

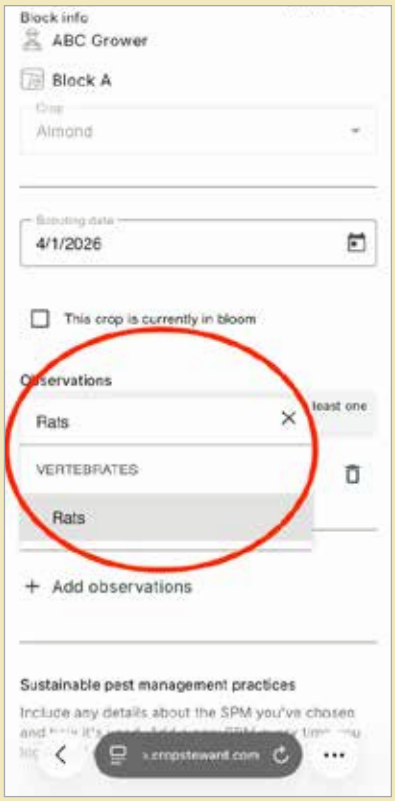
2

Once logged in, from the home screen of cropsteward.com, choose one of your grower accounts, then scroll to a block and select "Add notes."



3

Once you're in the notes section, the scouting date will be automatically entered for you. Scroll down to "Observations" and type "Rats" under the Pest or Beneficial section.



4

Once you select Rats, you will choose a pest pressure level.

Options are None, Low, Mid, High, or Urgent. ***Definitions for each option are noted below, or you can reference them in the Pressure/Prevalence entry:***

None – *No rats present. While taking the time to provide a data point of zero may seem irrelevant, a no/none data point allows us to better amplify the actual points of infestation as we fill in the map.*

Low – *Normal rat pressure for this field is present. No changes in population.*

Medium – *Higher than normal rat pressure for this field is present, but little to no damage to trees, irrigation or structures because of the higher population.*

High – *Higher than normal rat pressure and damage to this field. Higher than normal rat pressure for field and damage to trees, irrigation or structure is present.*

Urgent Pressure – *Significantly higher than normal rat pressure for the field and/or significant spread of damage to trees, irrigation and structure across acreage. This may be an initial escalation point if a sudden swell in population emerges, and/or a progressive point if methods to manage a population stall out with the population and damage increasing.*

5

Don't have rats? You're data is still valuable to the mapping system. Even adding observations of no visible rat pressure helps inform our rat monitor map!

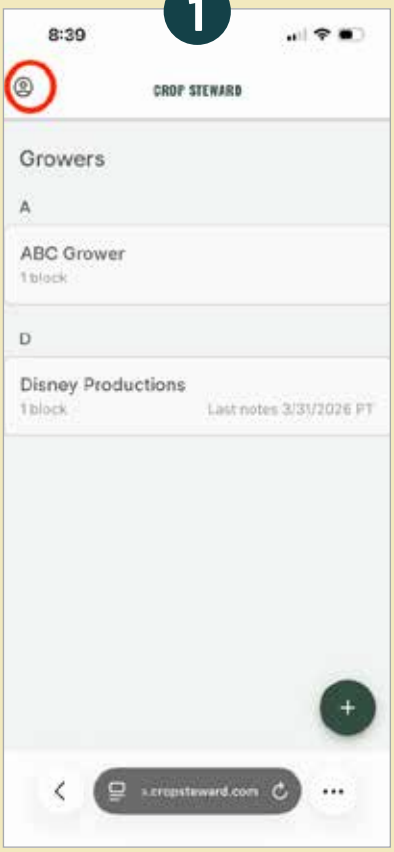
When you've chosen a pest pressure, you can either continue to add more notes about that block to capture all your scouting notes or scroll down and click "Save." Add rat notes as often as you'd like! The more data we collect, the more accurate our rat monitor map will become.

How to Add Scouts to Crop Steward

Are you too busy to scout for rats as often as you'd like? You can assign an intern or even a grower as a scout for your individual blocks! Bonus: that scout or grower will have access to see the area wide map that's still in development too.

To assign a scout or grower access, click the top left corner of your Crop Steward screen, then click on the profile icon. Once you're in your user profile, select "Scouts." Enter in the email address of whoever you'd like to add as a "field scout" (the scout or grower who will gain access to add notes for assigned blocks). They will receive an email with a link to create their scout account. Scouts are allowed to enter observations for only the blocks to which they've been assigned. **They cannot view complete field notes or access blocks or growers they are not assigned to.**

1



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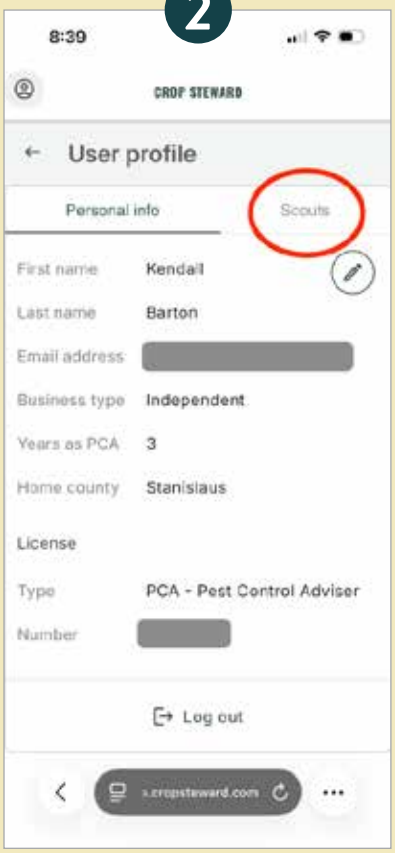
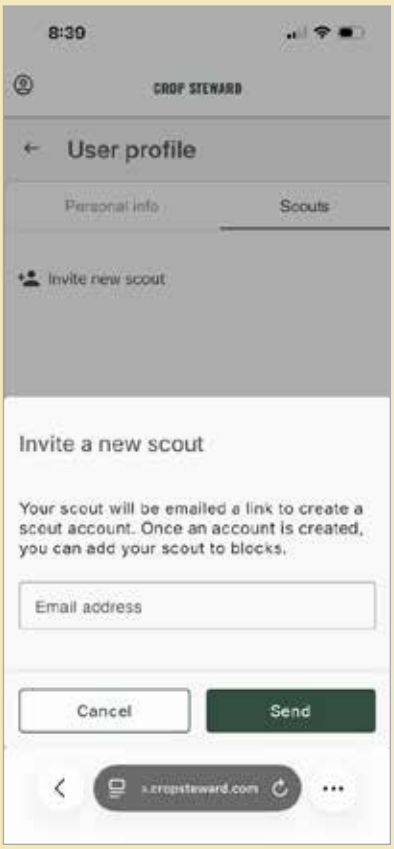
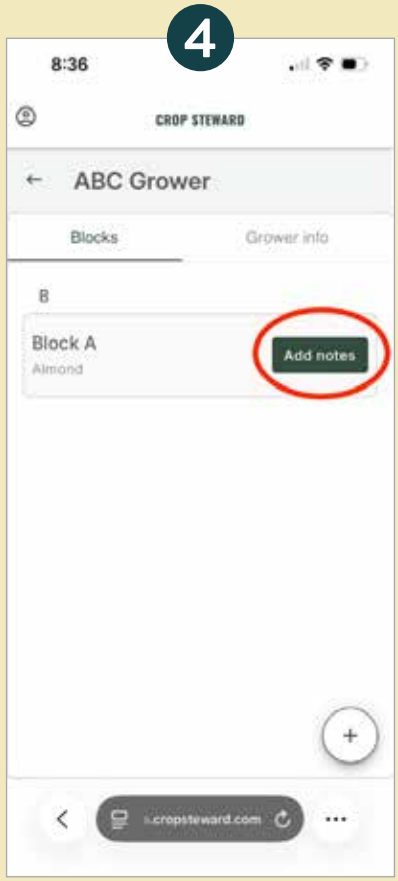




When a scout has finished creating their own account, head back into your PCA account and choose the grower you'd like to assign your scout to, then choose the block you need scouted.



Under the "Block info" tab, select "Assign scout" and choose the correct scout for that block. They can now access that block and enter field notes and rat pressure observations!

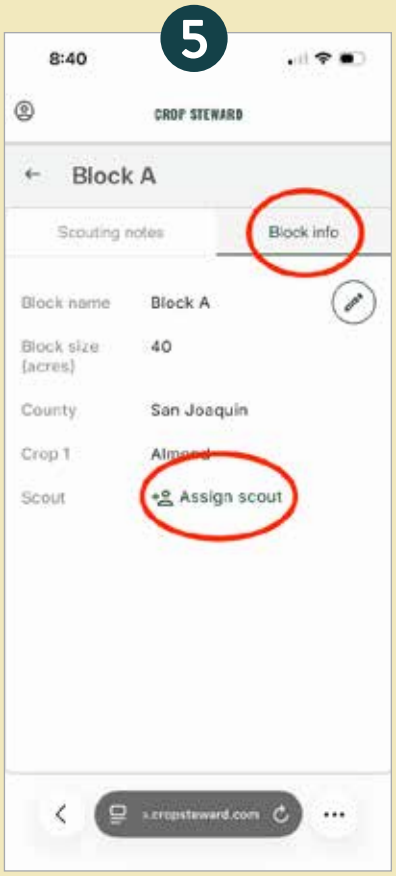
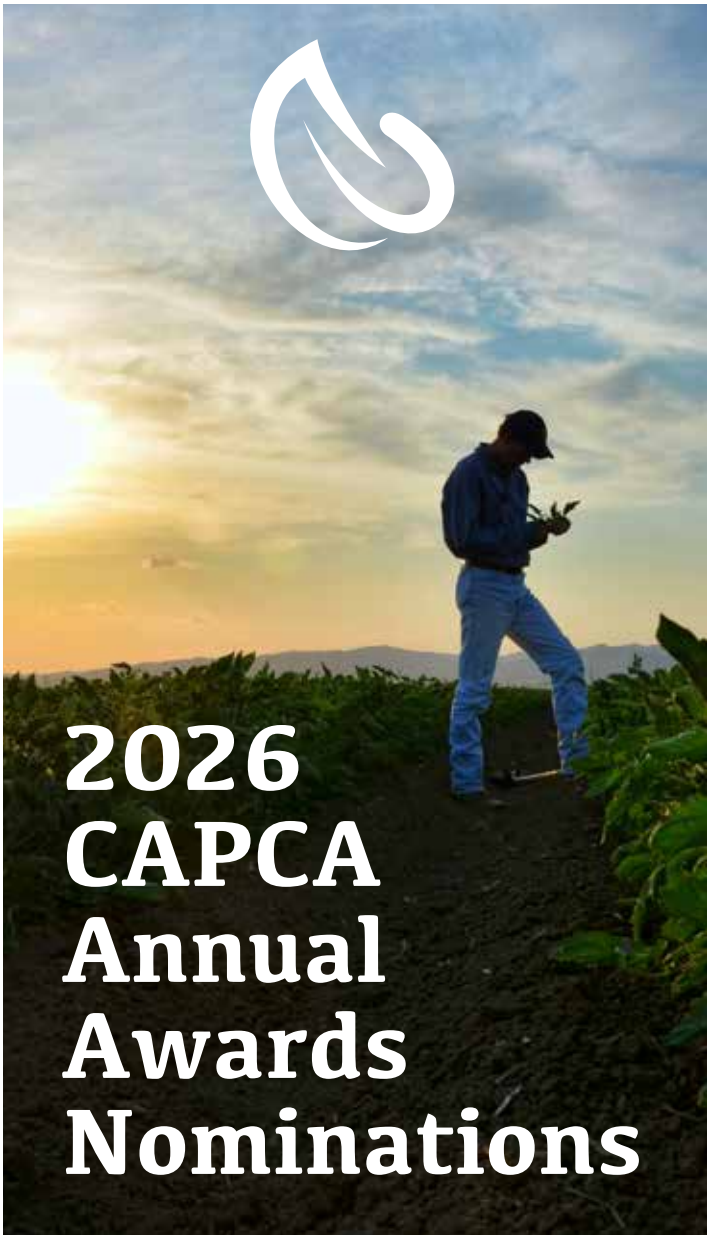



Photo: Meredith Rehrman Ritchie

VISIT CROPSTEWARD.COM
for more information and updates as the Rat Observation Mapping launches in May 2026



2026 CAPCA Annual Awards Nominations

Since 1975, CAPCA has honored exceptional individuals and organizations with the Member of the Year and Contribution to Agriculture awards at the Annual Conference and Agri-Expo. The CAPCA Board invites nominations for these prestigious awards to recognize advocacy efforts on behalf of the PCA license and CAPCA membership.

NOMINATION PROCESS

- Nominations are currently open and close on June 5, 2026.
- Visit CAPCA.com/nominations.
- A separate form is required for each nominee. Nominees must provide additional information to support the review process.
- Top nominees will be featured in CAPCA's Adviser magazine. Award winners will be recognized at the Annual Conference on October 12, 2026, during the Monday Luncheon.

NOMINATION GUIDELINES AND BACKGROUND

Outstanding Contribution to Agriculture

The award is open to individuals, companies, or organizations across various sectors, including agriculture, media, government, and more. Ideal nominees are those who have demonstrated exceptional contributions to the agricultural industry. This may include leading successful public relations programs, facilitating impactful educational initiatives, developing innovative agricultural tools, or dedicating years to volunteering and advocacy efforts for the advancement of agriculture.

The 2025 CAPCA Outstanding Contribution to Agriculture was awarded to Michael D. Rethwisch.

CAPCA Member of the Year

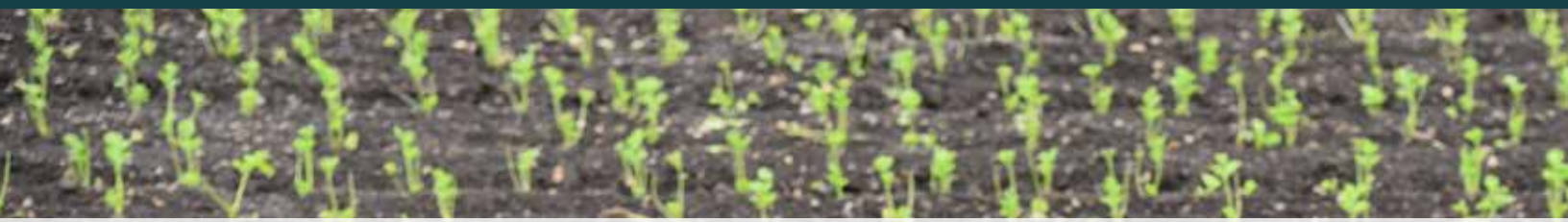
This award is reserved for CAPCA members who are licensed PCAs. Nominees should demonstrate active involvement in the PCA profession and CAPCA activities, serving as role models of leadership, integrity, and dedication to the industry. Ideal candidates are those who participate in CAPCA committees, volunteer within their communities, and contribute to the growth and advancement of agriculture and horticulture.

The 2025 CAPCA Member of the Year was awarded to Mando Perez.

Thank you for helping us recognize the outstanding work of individuals who work to advance the PCA profession and agriculture in California!

THANK YOU 2026 CORPORATE PARTNERS

PLATINUM STEWARD LEVEL



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BIO-NUTRIENTS

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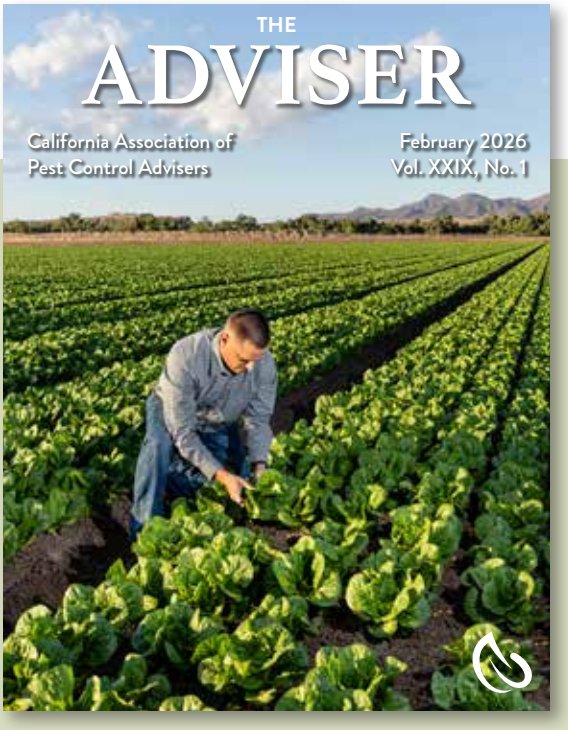

Share Your Thoughts!

Have ideas or feedback for The Adviser? We want to hear from you! Scan the QR code to take a quick survey and share your thoughts. Your input helps us continue delivering valuable content for PCAs and the industry. Thank you for your time and insights!

Recent Updates to CAPCA.COM to Support Pest Control Professionals

CAPCA is dedicated to delivering timely, reliable information that advances the pest management industry, and the CAPCA website stands at the center of this mission. Through ongoing updates to its resources, CAPCA ensures professionals across California have access to the latest industry insights, educational opportunities, and advocacy engagement.

capca.com/conference/capca-annual-conference-agri-expo-south

Registration for CAPCA's 52nd Annual Conference opens in May! Check the Conference page for updates and the latest information.

capca.com/rats-in-the-valley

We have been regularly updating the Rats in the Valley webpage for 18 months – visit it for the latest updates, including the resources in this issue.

capca.com/advocacy

For all things advocacy related, check the Advocacy Central page. Learn what CAPCA is working on and how you can be involved!

capca.com/events

Check the Events Calendar for new updates on local chapter continuing education sessions, label update meetings, and field activities scheduled throughout the year. These events are designed to keep professionals at the forefront of technical knowledge, regulatory updates, and peer dialogue.

capca.com/chapters

At the heart of CAPCA's grassroots work are its regional chapters — statewide hubs that bring members together around shared goals of continuing education, networking, and advocacy. Each chapter reflects the unique agricultural landscapes of its region, offering local meetings, crop-specific seminars, and community networking opportunities. These chapters serve as more than just meeting points — they are engines of professional support and development.

CAPCA

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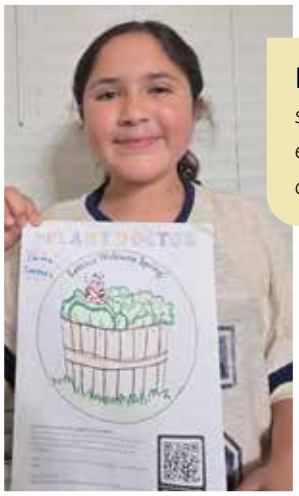
Color Me a Plant Doctor®

The current coloring page is tucked inside this issue! Send a photo of your artist with their completed page, along with their name, age, and a few fun facts, to adviser@capca.com for a chance to be featured in the next issue!

Ayla (6) *loves to draw, sing and dance, as well as playing golf and softball.*

Cora (7) *loves to ride horses and rodeo when she's not playing with friends. She enjoys getting the chance to check fields with her dad in the heart of California agriculture.*



Emma *enjoys going to lake in the summer, loves to ride her scooter, enjoys sleepovers with her cousins, and loves Chick-fil-A.*

Colton James (7) *and his younger brother,* **Tyler Dean (3)** *enjoy artwork and coloring and share a love for big trucks and tractors. They are both playing baseball this spring and are excited for soccer in the fall.*

Kade (10) *is looking forward to getting "his" garden in this year (with a little help from mom).*

Teyah (9) *enjoys growing fruits and vegetables in the summer.*

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