

THE ADVISER

California Association of
Pest Control Advisers

February 2026
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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.

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New Year, Same Trusted Association: CAPCA

For more than fifty years, CAPCA has been a cornerstone of California's PCA community. We've helped shape industry standards, championed regulations that supported the role of the professional PCA and consistently delivered reliable information through numerous platforms — from The Adviser to in-person CE meetings like the Annual Conference & Agri-Expo, and more recently, online and on-demand CE opportunities.

Throughout our history, we've worked to consistently enhance member value. In the 1990s, CAPCA, through our investment in CECPM, introduced the benefit of tracking hours to support timely and professional license renewal. In the decades that followed, CAPCA has reliably tracked hours, most recently deploying CE Hours Reported. With each update, the system has helped members evolve with changing regulations while still providing real-time access to comprehensive CE summaries.

Over time, hours tracking, over any other facet of our comprehensive membership support system, including advocacy, became too tight a focus. And as a result, a small subset of the industry pigeonholed CAPCA's value with that singular purpose. This misconception has been challenged by DPR's deployment of their public, online reporting hours tracking system. However, users have quickly come to understand that relying on government is fickle and efficiency in government, at times, remains an aspirational goal.

In continuing our advocacy work, we have had ongoing discussions with DPR to express our concerns that tracking CE hours is more complex than it appears.

For example, we shared that combining the work of hours tracking support with compliance auditing for the same set of professional licenses creates conflicts. DPR communication suggesting that licensees could "...write on the form that you have verified your hours on our website and report that you meet the CE requirement to renew" was a simplification. In December, this conflict quickly became a reality for some licensees as the year end renewal deadline loomed. There was limited guidance to answer last minute questions like: What are the

implications if my hours are incorrectly recorded? What if I certify them as accurate based on DPR's website summary without reviewing a detailed breakdown?

As regulated professionals, we know too well the consequences of noncompliance. Since 2018 and the implementation of Assembly Bill 1480, state law has given DPR the authority to fine license holders (and CE sponsors) up to \$5,000 per record if false CE records are submitted. And if repeated, though perhaps unintentional, errors can lead to license suspension or non-renewal. It's these and other recent changes, implemented by the Licensing Division at DPR without industry consultation, that CAPCA is engaged in — they represent a significant shift that may impact compliance and professional standing for license holders if left unchecked.

As always, CAPCA remains committed to advocating for the best interests of PCAs, maintaining robust hours tracking, and keeping you informed about developments that could affect your professionalism. With CAPCA's support, you can focus on what truly matters — continuing to serve as trusted advisers in the field. ■

Ruthann Anderson

CAPCA CEO

CAPCA EDITORIAL STAFF

Ruthann Anderson, *Editor-in-Chief*

Ashley Hinson, *Managing Editor*

Katrina Silver, *Director of Business Operations*

Carrie Kihlthau, *CE & Technology Manager*

Briana Love, *Member & Chapter Support Specialist*

Ryan Dana, *Events Coordinator*

Keri Frank, *Sales Manager*

Magdalen Silver, *Part-Time Bookkeeper*

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Facing Challenges, Finding Solutions: A Sneak Peek at This Month's Issue

By Ashley Hinson, The Adviser Managing Editor



Welcome to your quarterly rendezvous with The Adviser. This issue is full of articles rooted in real-world Integrated Pest Management (IPM), straight from California's farms and firmly backed by data.

This month, following up on Dr. Jay Rosenheim's thought-provoking piece from December, I'd like to highlight Jim Farrar's article titled "Integrated Pest Management is Standard Practice in California Specialty Crops Production." It explores the widespread adoption of IPM practices across California's specialty crops, and draws on recent data, detailing how IPM has become the standard in both vegetable and fruit and nut crop production.

Spoiler: IPM isn't just a buzzword, it's the backbone of sustainable ag (but you already knew that). Check out his article on page 27 for the details and stats.

Meanwhile, Adam Tavares and Gary Silveria tackle the persistent narrative of conflict of interest and PCA integrity head-on. They reflect on the history of the PCA license and recent research validating PCA recommendations, as well as reminding us why the PCA license matters and how advocacy and science keep the profession solid.

Next up, Abby Taylor-Silva looks at California's urgent rodent crisis. Drawing on the latest data, Abby reveals the staggering economic impact, evolving regulatory landscape, and collaborative solutions required to protect

crops and communities. If rodents are keeping you up at night, Abby's piece is your new bedtime reading.

Victoria Hornbaker from CDFA spotlights the ongoing battle against invasive fruit flies and the threat they pose. This piece offers practical guidance for field scouting, treatment options, and collaboration, with links to essential resources and upcoming educational opportunities.

If you think you have enough pests to worry about — think again. Christina D. Hoddle and colleagues present an in-depth analysis of the cotton seed bug. Their expert guide covers what to look for, how to react, and why staying sharp is half the battle.

Finally, check out the executive summary of "Impacts on Pest Management Costs of Resistant Diamondback Moth Outbreaks in Central Coast Brassicas." I encourage you to read the full study, linked in the article, which quantifies the real-world costs of resistance outbreaks, and offers a detailed breakdown of increased pest management expenses, crop-specific impacts, and the broader implications for California's lettuce-brassica rotation system.

This issue is packed with takeaways and action steps to get involved, speak up, support research, and help educate those around you about what you do and how you do it. The obstacles are real, but so are the victories — and it's all driven by informed, united action from folks like you.

I hope you find something to enjoy (and maybe even brag about) in this month's Adviser. California ag is nothing if not resilient — and with your help, it can only get stronger and smarter. ■

A New Year, A Steady Standard: Renew and Connect

By Katrina Silver, CAPCA Director of Business Operations



A new year brings both optimism and responsibility. In agriculture, January doesn't come with a pause button; it comes with planning, compliance, and setting the tone for the season ahead. As 2026 begins, now is the time to focus on what matters most:

staying licensed, staying informed, and staying connected. That's where CAPCA membership continues to play a central role.

2026 CAPCA Membership Renewal

CAPCA's 2026 membership cycle is open! Renew early to ensure uninterrupted access to resources, discounts, and professional support you rely on throughout the year. Membership is more than a line item — it's your connection to industry-specific education, regulatory updates, local chapter support, and a statewide network of professionals navigating the same challenges you face.

Many members are enrolled in CAPCA's new membership auto-renewal, which eliminates the risk of lapsed membership. If you're enrolled, no action is required — your membership renewal processes automatically. If you're unsure of your status or would like to confirm your renewal, you can log in to your CAPCA dashboard to view your membership and auto-renewal information. The CAPCA office is always happy to assist.

Quick Reminder on DPR License Renewal & CE

To protect your CE credits, please do not take any continuing education courses until your license renewal has been fully processed and reflected in the DPR system.

DPR will not recognize CE hours taken before your renewal is finalized. While waiting can feel inconvenient, it ensures your CE hours are recorded accurately and without issue. If you have questions, you can check DPR's website for your license renewal status.

What to Expect in 2026

The year ahead brings continued focus on what CAPCA does best: delivering high-quality continuing education, advocating for the PCA profession, and keeping members informed in a regulatory environment that continues to evolve.

Behind the scenes, CAPCA remains focused on strengthening systems, improving efficiency, and ensuring that member dollars are invested where they matter most — education, support, and professional representation.

Thank you for being part of CAPCA and for supporting the association that supports your profession. Here's to a productive and successful 2026. ■

**SEE THE NEXT PAGE FOR
MEMBER BENEFITS HIGHLIGHTS**

CAPCA Membership Benefits

Join a community that champions your profession. As a Member, you gain access to top-tier continuing education, a strong voice in advocacy, and a network that has your back. We don't just offer benefits — we defend your future.

PCA MEMBERSHIP	QAL, QAC, AND INDUSTRY MEMBERSHIP
<p>2026 Membership Pricing: \$190 or \$180 with auto-renewal discount.</p> <p>BENEFITS</p> <ul style="list-style-type: none">• Advocacy (see below for some recent examples)• Tracking CE hours through CE Hours Reported system• Gold standard CE and CE support, so DPR renewal is never a hassle• Save on CAPCA Annual Conference — packed with CE, networking, and industry insights• Connect locally through CAPCA chapters — local CE content, community events, and support for the next generation of PCAs• Timely updates on issues and changes that impact your work (The Adviser magazine subscription included)	<p>2026 Membership Pricing: \$64 or \$61 with auto-renewal discount.</p> <p>BENEFITS</p> <ul style="list-style-type: none">• Advocacy (see below for some recent examples)• Tracking CE hours through CE Hours Reported system• Gold standard CE and CE support, so DPR renewal is never a hassle• Save on CAPCA Annual Conference — packed with CE, networking, and industry insights• Timely updates on issues and changes that impact your work• Optional subscription to The Adviser magazine — CAPCA's flagship publication for industry professionals



1. Initiating legislation to protect DPR license holders' privacy by preventing their personal information from being made public.
2. Promoting the findings of Dr. Jay Rosenheim's study, which found that PCA recommendations are based on managing pest and disease risks — not on sales commissions.
3. Sharing research results that support and amplify Dr. Rosenheim's findings, including learnings from the OPCA grant data. We've launched an article series in The Adviser and are collaborating with UC IPM to provide legislative education through lunch-and-learn sessions.
4. Strengthening SPM CE opportunities for PCAs, ensuring access to cutting-edge tools and concepts that meet evolving requirements for license renewal.
5. Developing sustainable solutions for growers and PCAs facing rat infestation issues, with a focus on long-term, non-invasive pest infestation strategies to support effective responses.

CAPCA Forward Committee: The Roadmap for Evolving Member Value

By Matt Bristow, CAPCA Board Chair



As CAPCA Board Chair, I'm proud to share how the 2025 Forward Committee sessions have shaped our association's direction and reaffirmed our commitment to serving Pest Control Advisers (PCAs) and the broader agricultural community. Our

strategic planning process was a collaborative effort focused on developing actionable deliverables and maintaining our role as a strong advocate for the industry. The committee held three separate meetings along with presentations to the Executive Committee and CAPCA Board in 2025.

Overview and Deliverables

The committee, comprised of dedicated members — Committee Chair David Drucker, Bret Menagh, Gary Silveria, Paul Crout, Junior Evans, Katie Driver, Bart Haycraft, Molly Yager, Ted Swartzbaugh and me — engaged in open dialogue to review, refine, and prioritize our strategic goals. Our approach emphasized transparency and systematic evaluation, ensuring every initiative was weighed for both innovation and fiscal responsibility. We recognized early on that effective decision-making requires balancing bold ideas with the practical realities of funding and member needs.

Key deliverables emerged from our discussions:

- Shifting to a corporate membership model (for those license holders whose employer pays for annual membership or CE meetings) to streamline costs and expand value.
- Elevating the PCA role as the unique IPM practitioner, delivering specialized professional development and license acknowledgements to reflect the scope of role in the field.
- Enhancing continuing education engagement in the Exhibit Hall at conferences through new technologies and formats.
- Bridging the gap between field needs and research priorities by re-invigorating local Chapter purpose and piloting regional collaboratives.

Each initiative was scrutinized for its potential impact on our members and its alignment with CAPCA's mission.

How Decisions Were Made

We made decisions not just by consensus, but through rigorous brainstorming and debate about funding sources, value added to members and long-term sustainability. The committee prioritized grant writing and creative funding strategies to ease the financial burden on members, while also outlining a 10-year roadmap to guide our progress. Importantly, we committed to streamlining communications and support by exploring modern platforms like online education and AI-driven customer service, always with an eye toward maximizing member benefit.

Another critical aspect of our planning was reviewing current resource allocation. We challenged ourselves to identify programs and services that could be reduced or concluded as we continue to evolve programming, focusing our energy and funding on those initiatives that truly advance CAPCA's advocacy and value. This discipline ensures that every decision supports our core mission.

Lastly, we had to acknowledge that some parts of our goal setting are outside of our hands no matter how strong our advocacy is. Whether it be regulatory uncertainty or the JLAC audit outcomes, we have to remain flexible to identify how to deliver on the strategic plan set forward as things continue to evolve in our regulatory environment.

Priorities Moving Forward

As we move forward, CAPCA staff will update roadmap deliverables for further Board and committee review, making real time decisions around costs, funding strategies, and program recommendations as variables shift. The consensus at the close of our sessions was clear — our future depends on innovation that is both flexible and member-centered. The strength of CAPCA lies in our ability to adapt and advocate as a driving force for progress in our industry. Maintaining advocacy is our priority, otherwise we're just a club.

Thank you to all committee members and CAPCA staff for your dedication. Together, we are building a future that keeps advocacy at the heart of CAPCA's work and delivers meaningful value to every member. ■



CAPCA EXECUTIVE COMMITTEE (L TO R): Paul Crout, ex officio; Michael Haupt, treasurer; Matt Bristow, chair; Jeannette Rapicavoli, secretary; and Adam Tavares, vice chair.

CAPCA Staff Focused and Moving Forward

By Katrina Silver, CAPCA Director of Business Operations

The start of a new year is always a good moment to reset, refocus, and get back to work. For CAPCA staff, 2026 is all about execution — turning plans into results and supporting members where it matters most. After a busy 2025, the CAPCA team is back in the office with clear priorities for the year ahead. Across departments, the focus remains the same: support licensed professionals and ensure CAPCA continues to be a steady, credible voice for PCAs and the broader ag community.

Looking Ahead: Staff Goals for 2026

One of our primary goals every year is to support members and the industry. In 2026, you can expect gold-standard CE opportunities, engaging conference speakers, exceptional Adviser magazine content, clear communications with advance notice of key deadlines, and consistent updates throughout the year — whether related to events, licensing, or advocacy efforts. On the advocacy front, CAPCA staff remain deeply involved in regulatory conversations. While much of this work happens quietly behind the scenes, it's a core function of the organization and a key reason CAPCA exists: to protect the PCA license and ensure professional voices are represented at the state level. Another priority for 2026 is operational efficiency. It may not sound exciting, but it's the backbone of everything CAPCA does. From conference planning and member support to CE tracking and advocacy, staff are focused on improving internal processes so programs run smoothly behind the scenes. Every improvement means a better experience for our members.

Welcoming a New Team Member

Strong operations start with strong people, and we're excited to grow the team.

CAPCA has added a part-time bookkeeper to strengthen internal operations. Please join us in welcoming

Magdalen Silver, who joined CAPCA late

last year. Magdalen supports CAPCA on a part-time basis and reports to CAPCA's external accountant, Dale Sloss. Her role focuses on bookkeeping support, reconciliation, and maintaining accurate, organized day-to-day financial records. We greatly appreciate Magdalen's contributions, especially given the scale and complexity of CAPCA's operations. Her addition allows staff to stay focused on member services while maintaining strong financial controls and oversight.



A Practical, Productive Year

As 2026 gets underway, the CAPCA staff's approach is practical and measured. The emphasis is on doing the fundamentals well: responsive support for members and chapters, licensee representation, and operational efficiency. Here's to a productive year ahead — focused, collaborative, and member-driven. ■

Celebrating Excellence: SWS Scholarship Alumni Shaping Pest Control Advising

Each year, the Stanley W. Strew (SWS) scholarship program recognizes an outstanding agricultural/horticultural student whose passion for learning and dedication to their communities sets them apart. Today, we shine a spotlight on three remarkable past winners, who represent just a few of the many talented individuals who have received the scholarship over the years. Their accomplishments serve as a beacon for future applicants, demonstrating the profound impact of scholarship support. All of these remarkable alumni now serve as dedicated Pest Control Advisers (PCAs).

Ignacio Mendoza
2017 Winner

PCA in Monterey County

Brett Thomason
2020 Winner

PCA in Imperial County

Colin Koubek
2023 Winner

PCA in San Luis Obispo County

By spotlighting these scholarship winners, we hope to inspire the next generation of applicants to pursue their goals with courage and determination. The legacy of SWS scholarship award winners exemplifies the scholarship's enduring impact on careers and communities.

How You Can Support Future PCAs

By donating to the SWS Trust, you directly support the future of the PCA license — strengthening educational activities for upcoming generations. These alumni stories highlight the transformative power of the SWS scholarship and the pivotal role of the SWS Trust. Your contributions equip local chapters with vital resources, foster engagement, and enable broad outreach to college students, opening career pathways and helping them land their ideal PCA roles.

As we celebrate the achievements of Ignacio, Brett, and Colin, we invite you to join us in championing the next generation of PCAs. Your donation is an investment in resilient agriculture, professional growth, and a healthier environment for all. Together, we can continue nurturing excellence and innovation in pest control advising. ■



\$3,000 Scholarship Opportunity

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. ***Applications must be submitted or postmarked no later than May 4, 2026, and must include all application requirements 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](https://capca.com/career-development)

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

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Annual CAPCA Conference & Agri-Expo

October 11 – 13, 2026
Disneyland Hotel • Anaheim
www.capca.com/events

Rooted in Experience, Cultivating Affordable Solutions

By Ryan Dana

We are pleased to welcome you to CAPCA's 52nd Annual Conference — Rooted in Experience, Cultivating Affordable Solutions. As you plan your participation in Anaheim for October 11–13, we are excited to announce the addition of a room block at the Westin Hotel located on W. Katella for those looking for a Marriott property for their stay. We encourage you to note the important dates below to ensure a smooth and enjoyable conference experience.

KEY DATES TO REMEMBER

February – Exhibitor booth selection opens. Corporate Partners will select first, followed by exhibitors in the order of which booth selection interest forms were received.

May 5 – Early Bird Registration opens. We encourage all attendees to take advantage of discounted rates. The final day to receive a reduced registration rate is Monday, August 31.

August 31 – Last day for Early Bird pricing.

September 18 – Disney Room block closes (unless sold out in advance).

September 24 – Last day to purchase online registration.

October 11-13 – 52nd Annual Conference & Agri-Expo.

TENTATIVE CONFERENCE SCHEDULE

Saturday, October 10

8:00 am – 5:00 pm Exhibitor Set Up
10:30 am – 4:30 pm – Onsite Registration & Conference Badge Pickup

Sunday, October 11

7:00 am – Registration Opens
8:30 am – CE Program Begins
9:00 am – Exhibit Hall Opens
4:30 pm – Exhibitor Happy Hour
6:00 pm – Welcome Reception

Monday, October 12

6:00 am – Breakfast
7:30 am – CE Program Begins
8:00 am – Exhibit Hall Opens
11:45 am – Monday Luncheon
1:15 pm – CE Program Breakout in Exhibit Hall
3:15 pm – Exhibit Hall Closes
3:15 pm – CE Program Continues
5:30 pm – Monday Networking Reception

Tuesday, October 13

7:00 am – Breakfast
7:45 am – CE Program Begins
12:00 pm – Annual Conference Concludes

We look forward to welcoming you to another exceptional conference and to sharing a program grounded in experience while cultivating practical, affordable solutions for our industry.





Boots on the Ground, Heart in the Field: The Story of Junior Evans

If you ask anyone in Yuma’s agriculture circles about Ralph “Junior” Evans, you’ll likely get a knowing smile and a story — maybe about his contagious laugh, his “dad jokes,” or his ability to recall your name even if you’ve only met him once. But behind the humor and approachable personality is a driven professional and a fierce advocate for the industry. In a field where the boots are often muddier than the business suits are crisp, Junior has built a career — and a life — defined by connection, perseverance, and a belief in the power of community.

From the Soccer Field to the Farm

Junior’s career story begins in Scottsdale, Arizona. “I attended Scottsdale Community College and played soccer there,” he recalls with a smile. But family and home pulled him back to Yuma, where he attended Arizona Western College before completing his degree at the University of Arizona-Yuma, earning a BS in Agricultural Technology Management in 2014.

During his college years, Junior juggled two full-time jobs that would prove invaluable to his future career. For three years, he served as the Land Lab Manager and Technician at Arizona Western College, where he gained hands-on experience in farming fundamentals and developed a passion for the agricultural industry. At the same time, he worked nights and weekends as a Starbucks barista, where he learned how to connect with people from all walks of life, and provide service and value in every interaction. “I am incredibly grateful for both jobs. They really helped shape me.”

The trajectory, however, wasn't always straightforward. “I never wanted to work for a chemical manufacturer,” Junior admits. “To be honest, I just wanted to be a PCA. That felt like the golden ticket.” Like many in agriculture, his path was forged through a mix of ambition, circumstance, and mentorship — a theme that would come to define his career.

For Junior, becoming a Pest Control Adviser (PCA) was never just about a job; it was about legacy, respect, and curiosity. Two figures loom large in his narrative: Dr. John Palumbo, a steadfast advocate of Integrated Pest Management (IPM), and Bill Fox, a respected PCA and family friend. “I was very blessed to have had Dr. John Palumbo around in my undergraduate years and a PCA, named Bill Fox, who was a frequent guest lecturer in the program. Bill's love for his growers, being a ‘bug man,’ and Palumbo's passion for IPM really spoke to me.”

Reflecting on his college years, Junior remembers “I couldn't find an internship anywhere. I even offered to mop floors at a local retailer. I just wanted a chance.” That chance came thanks to Doug Van Vooren and Cesar Mendoza, who saw potential where others saw inexperience. “Shoot, if it wasn't for Doug and Cesar, I'd probably be a branch manager at Starbucks. I owe them so much.”

Mentorship and community are a keystone to Junior's career path. Additionally, a man named John Reding, with whom he interned and trained, had a significant impact on him. “He was such a kind man to me and really set me up to get my foot in the door. I owe a lot to him too.”

Professional Experience

Junior's career at Corteva Agriscience has spanned more than a decade, starting in central Arizona before expanding to Yuma, southern California, and Hawaii. “The diversity is crazy when you think about the Desert Valleys, SoCal, and then Hawaii,” he laughs. “If I had to pick the crops I deal with most, it'd be vegetables, alfalfa, and fruiting crops — both tree and veg.”

His area of specialty? Insecticides. “I've always had a natural pull towards insecticides. They just make sense to me — especially how they fit into an IPM program.” His technical knowledge is matched only by his eagerness to share it, whether with channel partners, end users, or the next generation of PCAs.

At Corteva, his responsibilities are as dynamic as the environments he manages: creating demand for products, providing technical assistance, and developing annual plans for key accounts. But perhaps most importantly, he's a problem-solver — a chess player in the field, always thinking three steps ahead.

The Chess Game of Pest Management

Ask Junior about a particularly challenging pest management problem, and his eyes light up. “It's like a chess game,” he says, grinning. One of his favorite topics is the use of herbicide in the desert — a practice that, by his own admission, can be “finicky” at best. “We use it through sprinkler communication 90% of the time. It's so technical, and there are endless variables: sprinkler output, soil type, weed spectrum, timing, even lettuce variety. I love it because even when it doesn't work, you get to dig into all these factors and figure it out. It's never boring.”

Junior's approach is methodical yet creative. “Have you tried a split-shot application? Are you looking at your days between irrigation and application? Maybe shorten the injection time?” It's a process of constant learning, adjustment, and collaboration — a testament to his adaptability and his willingness to get “lost in the weeds” if it means finding a solution.

But it's not just about chemistry and technique. “At the end of the day, you're helping someone solve a problem that matters. That's what makes it fun.”

Volunteering for the Bigger Picture

For many, CAPCA is just an acronym. For Junior, it's a calling. "I became a CAPCA member as soon as I got my license. It's the right thing to do. As PCAs, this is our organization. We need to be proud of it, support it, and speak up when we need its help."

Junior's involvement with CAPCA goes far beyond dues. Since 2016, he's volunteered with the Desert Valleys Chapter, serving as treasurer, vice president, and now board member in charge of continuing education (CE) programs. "We offer four free classes a year for CAPCA members, aiming for 12 to 16 hours of CE. I love putting those meetings together — getting PCAs in the room, learning, growing."

Volunteering has also broadened his perspective. "When I first joined, I had no clue what CAPCA was really doing. It's not just about tracking hours. CAPCA is working with industry, Capitol Hill, DPR — protecting the PCA. I've been to meetings with political figures and made connections I never imagined. I know not every PCA can do this, so I'm grateful Corteva empowers me to be involved."

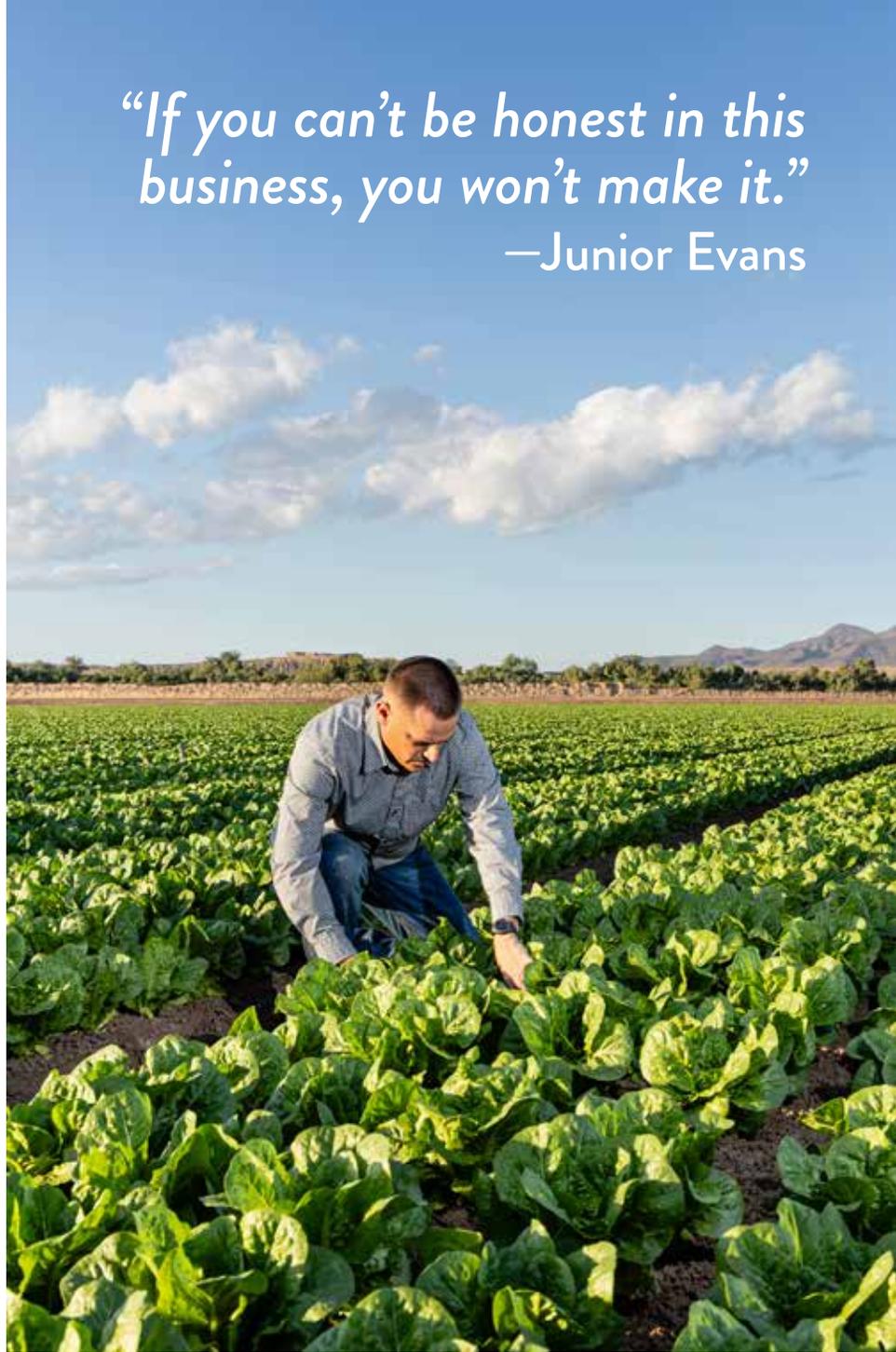
And he's proud of it. "We gave out \$12,000 in scholarships in 2025. We won Chapter of the Year. It's a special group. I absolutely love all of them."

Learning from the Best

Ask Junior who's shaped him most, and you get a heartfelt roll call: Doug Van Vooren, Bill Fox, and especially Dr. John Palumbo. "After college, John became a great friend and really taught me a lot about life and work. However, what he taught all of us in industry was his saying on IPM: 'When in Doubt...Scout!' This moniker was meant as an IPM reminder that if you had issues in the field, were unsure, then scout some more, and dig deep. As time goes on, I think this can be applied to life and across all parts of our industry. There's more to it than just IPM. Since John's passing, I've really

"If you can't be honest in this business, you won't make it."

—Junior Evans



tried to carry that with me. The other thing I've learned from John, and other mentors, is that you have to be honest. If you can't be honest in this business, you won't make it."

Bill Fox, who went to school with Junior's dad, remains a frequent sounding board. "He's like the uncle I never wanted," Junior jokes. "When I first got in the industry, I called him 'Mr. Fox' and he about punched me. He's been a mentor, a teacher, a friend. I still talk to him several times a week."

These relationships go beyond technical know-how; they're about support, candor, and shared experience. "Honestly, I wouldn't have made it as a manufacturer's rep without people being really good to me and helping me along the way."

Junior's not shy about paying it forward. "If you're new or young, find some old people you can latch on to. They have so much knowledge. History always repeats itself. Learn the big picture, the history — understand why things are the way they are."

Life Off the Field

Outside of work, Junior's life is just as full. "I'm married to my beautiful wife, Sierrah. We've been together almost 13 years now. We have three kids — Laylah (10), Sophia (7), and Lucas (4). Our weekends and weeknights are packed with soccer and gymnastics."

Coaching soccer is more than a hobby; it's a passion. "I've been coaching since I was 20. Right now, I coach a U11 girls club team in Yuma. I love it. It's about giving back, teaching, and building confidence. There's a lot of overlap with how I approach my work. Every player, like every grower, has their own strengths and challenges. It's all about helping them reach their potential."

Even his time as a Starbucks barista had an impact. "It helped me learn how to talk to people from all walks of life, how to treat people, and provide value. Those soft skills matter. I still see myself as that guy, remembering coffee orders and names — though now I wish I had permanent name tags for everyone, I'm running out of bandwidth!"

Reflections on the Industry

Junior is candid about the challenges facing agriculture. "In real estate, they say location, location, location. For us, it's regulation, regulation, regulation. It scares me how much it's changed since I became a rep. We've lost chemistries and technologies; innovation is harder because getting a new pesticide registered can take years and hundreds of millions of dollars."

Water scarcity, urban encroachment, and the consolidation of manufacturers all loom large. "Sometimes I wonder, will we even have water in 30 years? But as John Palumbo once told me, 'I'll always believe in the survival of man. If people come together, we can fix it.' That gives me hope."

Despite the hurdles, Junior remains optimistic. "We're a small group — less than 1.5% of the workforce works on farms, and an even smaller fraction are working to protect its future. We all have our weight to pull."

Advice for the Next Generation

What would Junior tell a new PCA? "First, join CAPCA. Duh, the hours tracking alone is worth it. But it's so much more — scholarships, advocacy, continuing education, local meetings. We're stronger when we're united as one. People can be critical about CAPCA decisions sometimes (myself included). I get it, but we all want to get to the same destination. We might not take the same exits, but we'll get there. There's a ton more good than bad."

Above all, Junior advocates for connection. "Go out of your way to talk to people. Cultivate friendships, learn from everyone. At events, I'm the guy selling Ladybug T-shirts and shaking a ridiculous number of hands. Maybe I'm a bit of a social butterfly, but people are the best part of this industry. It still doesn't feel real that I get to be a part of it."

A Legacy of Laughter, Learning, and Leadership

Junior Evans may joke about people reading his story here "only in the bathroom," but his impact on agriculture — and on those around him — is no joke. From his soccer days to his current role helping growers across the West, Junior has built a career rooted in hard work, humility, and humor. He's a connector, a mentor, and a relentless problem-solver. He believes in the industry, in the next generation, and in the power of coming together.

As the ag industry evolves, faces new challenges, and welcomes new members, it's voices like Junior's — authentic, approachable, and fiercely dedicated — that remind us why agriculture is more than an occupation. It's a community, a calling, and, for many like Junior, a way of life. ■

Crop Steward: The Essential Tool Empowering California PCAs

Innovative Field Notes, Direct Communication, and Secure Data—All in One Free App

How Crop Steward Is Changing the Game for PCAs

California's Pest Control Advisers (PCAs) are on the front lines, navigating an ever-shifting landscape of crop protection, regulation, and environmental stewardship. While use reports tell part of the story, the true measure of PCA expertise lies in comprehensive field observations, real-time decision-making, and the ability to communicate urgent needs directly to industry stakeholders. Enter Crop Steward — the app designed to put the power of robust data, seamless communication, and policy advocacy into the hands of California PCAs.

The Evolution of Crop Steward: From Grant Study to Indispensable Free Resource

Originally conceived as a field observation tool for a California Department of Food and Agriculture (CDFA) grant-funded study, Crop Steward was tasked with gathering in-depth, field-level data from over 100 PCA participants. The goal: to illuminate the real-world practices and challenges that drive sustainable pest management decisions. After a successful study and invaluable feedback from participants, CAPCA identified an opportunity to transform Crop Steward into a practical, everyday app — one that's now available free of charge to all California PCAs. No CAPCA member dues or program funds were used for this purpose. The app update was funded using leftover money from the specified grant, which needed to be used or would be lost.

Key Features and Benefits

Crop Steward elevates field notetaking to a new standard of simplicity and efficiency, supporting PCAs to quickly document what matters most in the field with no hidden agenda or unnecessary frills. The app's voice-to-text capability enables rapid, hands-free note entry, perfect for busy days or when typing isn't an option.

- **Photo Integration:** Attach images directly to field notes — no more hunting through camera rolls.
- **Nutrition and Water Notes:** New dedicated areas make it easy to record every aspect of your field visits, ensuring complete and organized records.
- **Scout Assignment:** Assign scouts to fields, enabling collaborative data collection while maintaining full oversight and control over your notes. Easily add or remove scouts as your services and support change.

These features are designed with your workflow in mind, making Crop Steward not just a tool, but a trusted partner for busy PCAs.

Moving Beyond the PUR with Direct Communication and Real-Time Reporting

Traditional pesticide use reports offer only a limited snapshot of field activity. Crop Steward's new features enable direct, timely, and anonymous communication with CAPCA's Advocacy Team and CDFA's Office of Pesticide Consultation and Analysis (OPCA). PCAs can:

- **Flag abnormal pest pressures** needing immediate attention or support.
- **Report chemistries** with limited or no alternatives, giving voice to field-level challenges.
- **Share real-time pest pressure data and resistance issues**, helping connect policy decisions to actual field conditions.

This feedback arms the CAPCA Advocacy Team and CDFA with actionable insights for research, project prioritization, and regulatory support—ensuring PCA needs are heard where it matters most.

California's Easiest Scouting App

Designed for California PCAs, Crop Steward combines notebook simplicity with digital power.

Keep records organized, share insights effortlessly, and stay current on sustainable practices — all in one trusted app.

Create account

Protecting Data, Building Trust

With Crop Steward, data privacy isn't just a promise — it's a guarantee. Information shared with CDFG OPCA is fully anonymized. No PCA names, license numbers, company details, grower identities, or field-specific data is disclosed. All data is aggregated to the county level, safeguarding both individual and grower privacy while delivering meaningful insights to policymakers. CAPCA's commitment to confidentiality ensures that PCAs can contribute to industry advocacy without hesitation.

Driving Policy Advocacy and Sustainable Pest Management

PCAs play a vital role in shaping sustainable pest management (SPM) policy. Crop Steward enables users to “color in” the field-level narrative, providing context to PUR statistics and helping explain spikes or drops in pesticide use due to unique weather events or pest outbreaks. Data from Crop Steward supports advocacy for the IPM toolbox, highlights product gaps or resistance, and empowers PCAs to influence policy from the ground up — especially as new committees like SPARC focus on additional re-evaluation and mitigation of products readily used in the field.

By aggregating real-world insights, Crop Steward strengthens CAPCA's efforts to champion informed, practical solutions for California agriculture.

Designed by PCAs, for PCAs

Crop Steward's latest updates reflect direct input from CDFG grant participants and the wider PCA community. Planned future integrations promise even smoother workflows — whether collaborating with existing scouting apps or entering quick field updates. The mission is clear: streamline processes, minimize redundant entry, and amplify the voice of every PCA.

Get Organized for 2026 — Join the Movement

Ready to simplify your field notes and help shape the future of pest management policy? We hope you consider entering at least minimal notes to tell your in-field story (with anonymized data protection of course!).

Sign up today at cropsteward.com and become part of the growing community of PCAs using Crop Steward to make field insights count — for themselves, their growers, and the industry.



Built by CAPCA. Designed for PCAs. Your expertise matters — let Crop Steward help you tell your full story. ■

CROP STEWARD

Highly Invasive Golden Mussels Foul Pumps and Pipes

By David Hammond, Ph.D., Senior Scientist and VP of Applications Development, Earth Science Labs, Inc.

Golden mussel is an invasive and prolific mollusk native to Asia that has fouled infrastructure such as the California aqueduct and smothered native aquatic species since its discovery near the Port of Stockton in October 2024. In less than one year, it spread more than 300 miles south via the aqueduct and was detected in Silverwood Lake, an important drinking water source.

For farmers and ranchers, the biggest concern is that mussels attach to the walls of pipes, tunnels, canals and filtering systems, and disable valves, flow meters, gates, and sprinklers. The result is reduced water flow, clogging, and reduced pumping efficiency. Removing mussels by hand requires hours of costly, tedious labor. Shells accumulate and cannot simply be thrown in the trash due to regulatory constraints on handling of invasive species.

Golden Mussel Control Alternatives to Manual Removal

One control alternative to manual removal is the application of UV light to flowing water as it passes through a chamber. UV light damages the DNA, cellular functions, and reproductive capacity of larval stage mussels (i.e., those not protected by a shell) as they pass under the UV lamps. Effective use of UV light is limited to piping less than 14-inch diameter and does not control adult mussels already present but protects against spread. Whether this is a cost-effective option depends largely on your cost of electricity.

Another control method is chlorine, typically applied as sodium hypochlorite. Chlorine is a strong oxidizing agent and wide-spectrum biocide that attacks mussel cell membranes and disrupts a wide variety of cellular functions involving proteins, lipids, respiration, and the nervous system. Adult mussels may close their shells to resist exposure but can't stay closed indefinitely and eventually succumb within a few weeks. Chlorine is



Water district's intake pipe, fouled by golden mussels.



Invasive mussels fouling a 90" conduit (before treatment).



After treatment.



readily available and familiar, but it is worth noting that its cost has increased more than 4x in the past 5 years. It is also corrosive to infrastructure, especially at the relatively high doses required to control golden mussels.

Innovative Solution to Control Golden Mussels

A leading control method for invasive mussels is the use of acid-stabilized liquid ionic copper, which has been the subject of dozens of publications and case studies, leading to its wide adoption around the country and solid history of safe use.

Copper is a micronutrient that in low concentrations is essential for all living things yet becomes toxic at higher concentrations. Aquatic organisms like mollusks are particularly sensitive to copper, so low doses can be used to suppress invasive mussels while minimizing the risk of harm to fish and other non-target organisms.

Acid-stabilized liquid ionic copper performs well at a wide range of pH values and has excellent dispersal properties, diffusing easily in water to penetrate nooks and crannies. It is labeled in California. This chemistry has a decades-long reputation of safety when used in crop protection.

Application Guidelines

Dose rates should take into consideration factors like water temperature, the length of pipeline or canal requiring protection, and the concentration of organics already present in the water. Do not exceed the max dose of 1.0 mg/L as copper. Typical dose rates depend on the life stage of golden mussel being targeted and

other site-specific criteria and objectives. Episodic dosing can be used for periodic clean-out events, or a low continuous dose can be used as preventative maintenance. Consult your manufacturer and always follow the label.

Acid-stabilized liquid ionic copper is typically applied with a simple metering pump, using fittings rated for contact with acid. The ionic properties of liquid copper promote natural dispersal and distribution throughout the treated water without a need for mechanical mixing. It performs well at a wide range of pH values.

Treatment Area: Infrastructure located downstream of the dosing point can be protected against fouling.

Utilities and Irrigation Districts Faced with Choosing

As golden mussels spread through California's Central Valley, monitoring for and managing this pest becomes critical to keeping infrastructure operational. Quick response to its discovery will not only save farmers and ranchers from their own costly equipment repairs but also their neighbors'. California's agricultural industry will be at the forefront of optimizing ways to cope with this highly invasive pest, as well as preventing its spread to downstream systems and water bodies.

For further assistance in addressing invasive mussels, please contact:

David Hammond, Ph.D.
510-289-3310
www.EarthTecQZ.com



Addressing California's Rodent Infestation Through Technical & Science-Based Advocacy

By Abby Taylor-Silva, Managing Director of Regulatory Affairs, Kahn, Soares & Conway LLP



California faces an unprecedented rodent infestation threatening both agricultural viability and community health. For Pest Control Advisers (PCAs), this crisis demands technical expertise as well as science-based advocacy and collaborative action. As

the problem persists into another year, understanding its causes and consequences is essential for protecting crops, livelihoods, and public health.

A fall 2024 study by the California Department of Food and Agriculture (CDFA) revealed severe rat infestation in Central Valley almond orchards. Inspections documented up to 32 rats per night in a single orchard, signaling a rapidly escalating crisis (Goodhue, Mace-Hill, & Raburn, 2025).

The economic toll is staggering. Across 112,000 acres covering hundreds of operations, damage ranges from \$109.4 million to \$310.5 million. Losses stem from multiple sources: inability to water post-harvest, direct tree damage, repairs to truck and harvester wiring, drip line replacement, and tree replacement.

The problem extends beyond almond orchards. While these have been the focus, the rodent surge threatens surrounding crops and facilities throughout the state. CDFA is conducting follow-up trapping studies in both almond and pistachio operations, with results expected in early 2026. Effective rodent management is essential

for all Californians as we confront this unprecedented challenge.

Continued access to a variety of effective anticoagulant rodenticides is a critical component of integrated rodent pest management to effectively protect public health and the environment. Management programs that integrate non-chemical rodent control strategies such as trapping, sealing, sanitization, habitat modification, and more must be coupled with targeted use of rodenticides.

DPR Draft Proposed Mitigation Regulations for Anticoagulant Rodenticides

In September 2025, the California Department of Pesticide Regulation (DPR) released draft proposed mitigation regulations for anticoagulant rodenticides. This draft regulation classifies all anticoagulant rodenticides (ARs) as restricted materials, and limits use to those that protect public health, agriculture, and water.

This draft regulation allows use of first-generation anticoagulant rodenticides (FGARs) and second-generation anticoagulant rodenticides (SGARs) in and around permanent food facilities; food processing facilities (any facility operated for the purposes of manufacturing, packing, or holding processed food). Locations with the primary purpose of producing, storing, holding or packing an agricultural commodity, livestock, poultry or fish are also included, and when FGARs are used at any of these they are exempt from the draft regulation's man-made structure and duration restrictions.

Except when exempted (as noted above) the proposed restrictions focus on placement around man-made structures and how many consecutive days applications

may be made. As written, it will be prohibited to place any above ground bait more than 50 feet from a listed man-made structure, unless there is a feature associated with the site that is harboring or attracting the pests targeted on the label between the 50-foot limit and the placement limit specified on the label. Additionally, applications must not exceed 35 consecutive days. The combined application duration of anticoagulant rodenticides at a site must not exceed a total sum of 105 days within a calendar year.

Regardless of the type of anticoagulant rodenticide used, for all allowable uses every person applying or supervising the application of anticoagulant rodenticides must complete a sustainable rodent management course and maintain a written record of training course attendance for two years.

Before using anticoagulant rodenticides, each business location, certified commercial applicator, or operator of the property must have a written general Sustainable Rodent Management Plan and maintain records for all locations where anticoagulant rodenticides (ARs) are used, keeping the plan available for inspection for two years. Pest control businesses and applicators using ARs must follow the relevant portions of the plan when making decisions to apply ARs.

The pest control business, the certified commercial applicator, or the operator of the property shall maintain records for all locations where anticoagulant rodenticides are applied, maintaining records for two years. Pest control businesses and applicators using anticoagulant rodenticides must follow relevant components of the plan when making decisions to apply anticoagulant rodenticides.

Comments on these draft informal regulations were due in November 2025. DPR is expected to complete scientific evaluations on SGARs in late 2026 and finalize rulemaking no later than 2028.

Engagement with State Agencies on This Issue is Critical

With formal rulemaking on the horizon, now is the time for PCAs to engage in discussions with state agencies such as DPR and CDFA. Rigid 35-day duration limits may undermine effective rodent management on farms, particularly when ongoing infestations demonstrate

that such restrictions are insufficient. The challenge is compounded when farms are adjacent to fallowed or unmanaged properties that serve as rodent harboring habitat, or in situations where a storage site adjacent to a field is left unmanaged. These neighboring areas allow rodent populations to proliferate unchecked, creating persistent sources of reinfestation that undermine otherwise effective management efforts.

It will be important that this rule not create situations of under-control in highly sensitive settings (i.e., farms, food handling, processing, food contact materials and storage areas) as that could lead to burgeoning rodent populations and health risks. Flexibility in application timing will be necessary to align management to real-world rodent cycles. Instead of the proposed duration restrictions, we recommend that all outdoor and indoor agricultural settings be excluded from duration restrictions for all types of anticoagulant rodenticides.

Additionally, the proposed regulation reclassifies all anticoagulant rodenticides, both first- and second generation, as restricted materials. Previously, only second-generation rodenticides held this designation. This change alone represents a significant shift, as it extends California's existing restricted material requirements to all anticoagulant rodenticide applications.

The proposed restricted material designation for all anticoagulant rodenticides will sufficiently document the need for their use, ensure consideration of alternative and integrated pest management strategies, and allow for timely deployment of these critical products. A critical question at this time is what DPR's proposed Sustainable Rodent Management Plan requirements are meant to document that would demonstrably improve rodent control outcomes while reducing non-target wildlife exposure, not simply add administrative burden.

For PCAs, the path forward requires advocating for access to safe, effective pesticide options, including rodenticides, and realistic pathways to address an infestation of pests or disease. It is imperative that PCAs, growers, and scientists engage with policymakers to craft regulations that reflect both the realities of agricultural production and the need for robust pest control tools.

Collaboration is key. The complexity of the rodent infestation and its far-reaching impacts require input from diverse stakeholders, including PCAs, growers, scientists, and policymakers.

Recommendations for PCAs and stakeholders to act on this issue include:

- Engage with state agencies and lawmakers to communicate the necessity of science-based pest management tools.
- Participate in advisory panels and stakeholder meetings to ensure that the voices of practitioners, growers, and scientists are heard in policy discussions.
- Support research into alternative pest control methods that can complement rodenticide use or replace materials that are no longer available without compromising effectiveness.

- Advocate for IPM strategies validated by scientific evidence and decades of practical success.
- Educate communities about the risks of infestation and the importance of timely, coordinated pest management responses.

As California grapples with this tremendous challenge, the role of PCAs has never been more critical. By leading the charge for informed, collaborative, and effective pest management, PCAs can help secure the future of impacted acres, protect local communities, and ensure that healthy, affordable food remains accessible for all. ■

Complimentary Bait Stations

Last fall, CAPCA partnered with a manufacturer to develop a bait station that reflects the University of California’s recommended design elements for optimal placement in trees. Thanks to the generous backing of industry partners, we successfully raised \$30,000 to support the design, deployment, and bulk purchase of an initial supply of these bait stations. As a result, we’re pleased to announce that impacted growers are eligible to receive two complimentary bait stations — available on a first-come, first-served basis until funding is depleted. To claim your free bait stations or to place additional orders, simply scan the QR code.



Online Resources

Visit capca.com/rats-in-the-valley for timely updates and resources on the rat infestation.





Mission & Purpose

CAPCA's mission is to facilitate the success of the PCA and to represent our 3,000 members who provide pest management consultation for the production of food, fiber and ornamental industries of California.

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.



Integrated Pest Management is Standard Practice in California Specialty Crops Production

By Jim Farrar, Director, University of California Integrated Pest Management Program

Integrated pest management (IPM) originated in California with publication of “The Integrated Control Concept” in Hilgardia by Stern, Smith, van den Bosch, and Hagen in 1959. And IPM has been part of required coursework and state licensing exams for Pest Control Advisers (PCAs) for several decades. Despite this, there was a question regarding how much IPM was actually being practiced on the farms in California. The answer could inform state regulatory agencies as they implement the Sustainable Pest Management Roadmap.

The U.S. Department of Agriculture National Agricultural Statistics Service (NASS) conducts annual Pest Management Practices Surveys, which provide data to answer the IPM adoption question. NASS surveys a representative national sample of farming operations regarding specific IPM practices employed on a single, randomly selected field in the farm operation. The management practices in that field are assumed to represent the practices in all the fields of that farm. Survey results are organized by the prevention, avoidance, monitoring, and suppression (PAMS) conceptual framework of IPM. Although the surveys are national, I only used California data. The advantages of the NASS data are that farm operations are asked about their practices, are statistically rigorous, ask about specific pest management practices, and are independent of groups with a vested interest in the outcome.

IPM practices are widely adopted on California specialty crop farms (Table 1). In 2022, 11 pest management practices were used on 75% or more of the vegetable crop acreage, and 24 were used on 50% or more. In 2021, seven pest management practices were used on 75% or more of the fruit and nut crop acreage, and 16 were used on 50% or more. Scouting for diseases,

insects and mites, and weeds are the most widely used IPM practices.

Other IPM practices used on more than 75% of acres in vegetable crop production were:

- Cultivating for weed control
- Cleaning equipment and implements
- Managing vegetation near field edges
- Plowing down crop residue
- Water management practices
- Crop rotation
- Keeping records of pests

In fruit and nut production, other practices used on more than 75% of acres were:

- Irrigating the crop
- Cleaning equipment and implements
- Keeping records of pests

Several pest prevention and avoidance practices are used on more than 50% of acres to establish an environment that favors a healthy crop. Examples include:

- Managing crop residues to reduce pest overwintering locations
- Managing irrigation to avoid favoring pests
- Selecting crops or varieties to avoid specific pests
- Adjusting planting or harvest dates to avoid times of high pest pressure
- Adjusting row spacing, plant density or row orientation so the environment is less conducive to pests

Some practices have higher use rates as measured by percent acreage than by percent of operations. For example, field mapping used to assist management decisions is reported for 57% of vegetable crop acres but only 30% of vegetable crop operations. This difference

suggests that farming operations with larger acreage use this practice more frequently than operations with fewer acres. Using a 10% or greater difference between use rates by acres and operations as a cutoff, larger vegetable crop farming operations are more likely to:

- Clean equipment and implements
- Manage vegetation near field edges
- Use no-till or minimum till
- Plow down crop residue
- Use water management practices
- Rotate crops
- Use field mapping
- Scout using established processes
- Scout based on a pest development model
- Use weather data to assist decisions
- Keep records of pest activity
- Release beneficial organisms
- Apply biological pesticides
- Use floral lures, attractants, repellent, or pheromone traps
- Rotate pesticides with different mechanisms of action
- Compare scouting data to published information

Larger fruit and nut crop farming operations are more likely to:

- Cultivate for weed control
- Clean equipment and implements
- Manage vegetation near field edges
- Use water management practices
- Use diagnostic labs for pest detection
- Use field mapping
- Scout using established practices
- Scout based on a pest advisory warning
- Scout based on a pest development model
- Scout for diseases
- Scout for insects and mites
- Scout for weeds
- Use weather data to assist decisions
- Keep records of pests
- Release beneficial organisms
- Use biological pesticides
- Use floral lures, attractants, repellants, pheromone traps or biological pest controls
- Rotate pesticide modes of action
- Compare scouting data to published information

Conversely, some practices have lower use rates as measured by percent acreage than by percent operations. For example, use of ground covers, mulches,

and other physical barriers is reported for 72% of vegetable crop acres but 86% of operations. This difference suggests that farming operations with fewer acres use this practice more frequently than operations with larger acreage. Using a 10% or greater difference between use rates by farming operations and by acres as a cutoff, smaller vegetable crop operations are more likely to:

- Use ground covers, mulches, and other physical barriers
- Conduct scouting by the operator, partner, or family member

NASS Pest Management Practices survey data includes who conducted the scouting for diseases, insects and mites, and weeds as a percentage of total scouting for that pest, but the data is not presented here for clarity of presentation. Smaller fruit and nut crop farming operations are more likely to:

- Scout by conducting general observations while performing other routine tasks
- Conduct scouting by the operator, partner, or family member

Many IPM practices are commonly used on California vegetable and fruit and nut crop farms with scouting for pests occurring on nearly all acres. Larger operations are using more technology (field mapping, pest development models, and weather data) to inform decision-making than smaller operations. Larger operations have also adopted more biologically based pest suppression practices, such as releasing beneficial organisms, applying biological pesticides, and using lures or pheromone traps. The data also suggests that targeted support for smaller farming operations to adopt more decision-support technologically and biologically based pest suppression practices may benefit implementation of the goals of the Sustainable Pest Management Roadmap.

NASS Pest Management Practices survey data documents that IPM is common practice in California vegetable, fruit and nut crop production. The bottom line is that PCAs and farmers are using IPM routinely, and therefore, agriculture is well on the way to achieving a major goal of the state's Sustainable Pest Management Roadmap. ■

See NASS data on page 29

TABLE 1. National Agricultural Statistics Service data from pest management practices surveys for vegetable and fruit and nut crop production in California.

Category	Specific Tactic	Vegetables		Fruits and Nuts		
		Percent Acres	Percent Farms	Percent Acres	Percent Farms	
Prevention	Crop acres cultivated for weed control	94	92	67	51	
	Crop acres irrigated	-	-	99	97	
	Equipment and implements cleaned after fieldwork to reduce spread of pests	93	39	87	68	
	Field edges, ditches, or fence lines were chopped, sprayed, mowed, plowed or burned	88	72	68	57	
	No-till or minimum till used	70	29	-	-	
	Plowed down crop residue using conventional tillage	95	84	-	-	
	Crop residues removed or burned down	-	-	60	52	
	Water management practices used	76	58	71	50	
Avoidance	Crop or plant variety chosen for specific pest resistance	67	60	-	-	
	Planting locations planned to avoid cross infestation of pests	56	60	-	-	
	Planting or harvesting dates adjusted	50	51	-	-	
	Rotated crops during past 3 years	83	63	-	-	
	Row spacing, plant density or row directions adjusted	55	50	-	-	
	Monitoring	Diagnostic laboratory services used for pest detection via soil or plant tissue analysis	50	50	33	21
Field mapping data used to assist decisions		57	30	46	21	
Scouting - established process used		66	45	64	46	
Scouted - for pests due to a pest advisory warning		36	30	31	19	
Scouted - for pests due to a pest development model		34	19	39	24	
Not scouted for pests or beneficial organisms		<1	1	1	9	
Scouted - for pests or beneficial organisms by conducting general observations while performing routine tasks		25	21	11	28	
Scouted - for pests or beneficial organisms by deliberately going to the crop acres or growing areas		75	78	89	63	
Scouted for diseases		100	99	97	83	
Scouted for insects and mites		100	99	97	85	
Scouted for weeds		100	99	97	87	
Weather data used to assist decisions		73	23	65	50	
Written or electronic records kept to track the activity of pests		92	42	85	50	
Suppression		Beneficial organisms applied or released	43	33	26	14
		Biological pesticides applied	38	15	36	15
	Floral lures, attractants, repellants, pheromone traps, or biological pest controls used	59	47	71	42	
	Ground covers, mulches, or other physical barriers maintained	72	86	47	50	
	Pesticides with different mechanisms of action used to keep pest from becoming resistant to pesticides	57	14	62	42	
	Scouting data compared to published information to assist decisions	67	50	52	27	
	Trap crops grown to manage pests	41	43	-	-	



**UC Integrated
Pest Management**

University of California
Agriculture & Natural Resources

The Role of California Ag Commissioners and Sealers of Weights and Measures

Safeguarding California's Agriculture and Ensuring Marketplace Integrity

California's Agricultural Commissioners and Sealers of Weights and Measures play a vital role in protecting the state's agriculture and ensuring fairness in commercial transactions. Appointed at the county level, these officials are responsible for implementing state laws and regulations related to agriculture, environmental protection, and the accuracy of weights and measures. Their offices provide essential services that touch the lives of consumers, businesses, and farmers across California.

What Do Agricultural Commissioners Do?

Agricultural Commissioners serve as the primary local enforcement agents for state and federal agricultural laws. For agriculture, they oversee pest management programs, monitor the use and application of pesticides, and work to prevent the introduction and spread of invasive species that threaten California's crops and natural resources. Their responsibilities include:

- Inspecting and certifying the quality and condition of agricultural products for export and domestic sale.
- Supervising and enforcing pesticide regulations to protect public health and the environment.
- Managing pest detection, eradication, and control programs, including the use of biological and integrated pest management techniques.
- Ensuring compliance with quarantine requirements to prevent the spread of harmful pests and diseases.

Role of Sealers of Weights and Measures

Sealers of Weights and Measures are additionally tasked with ensuring accuracy and fairness in the marketplace. They test and certify commercial weighing and measuring devices — such as grocery store scales, gas pumps, and taxi meters — to verify that consumers receive the correct amount of product for their money. Their offices conduct routine inspections and respond to consumer complaints, maintaining trust and transparency in everyday transactions.

Services Provided by Commissioners and Sealers' Offices

California's Agricultural Commissioners and Sealers of Weights and Measures are essential public servants who protect the state's vast agricultural economy while ensuring that consumers and businesses operate on a level playing field. All Californians — from the farm to the checkout counter — benefit from their commitment to upholding high standards of safety, fairness, and quality. ■



Meet California's New Wave of Agricultural Commissioners

Recent County Ag Commissioner Updates and a New Resource for You

Have you ever wondered who's at the helm of agricultural oversight in your county? Many counties have welcomed newly appointed commissioners in recent years. These leaders bring diverse experiences and a shared commitment to supporting growers, protecting resources, and enforcing regulations that keep our food supply safe.

These commissioners serve as the crucial link between local agriculture and the state's regulatory framework, working with growers, the public, and other agencies to ensure compliance, education, and support for California's diverse farming communities.

- **Juan Hidalgo** (Monterey County) – Appointed in 2023, formerly of Santa Cruz County
- **Angela Godwin** (Mendocino County) – Appointed in 2024 after serving in another county
- **Sean Runyon** (Merced County) – Appointed in 2023
- **Jose Chang** (Santa Barbara) – Appointed in 2023
- **LeeAnne Mila** (El Dorado-Alpine Counties) – Appointed in 2023
- **Linda Pinfold** (Stanislaus County) – Appointed in 2023
- **Jolene Dessert** (Imperial County) – Appointed in 2023
- **David Sanford** (Santa Cruz County) – Appointed in 2023
- **Heather Kelly** (Modoc County) – Appointed in 2023
- **Korinne Bell** (Ventura County, CAC) – Appointed in 2023
- **John Ingram** (Shasta County) – Appointed in 2023
- **Angela Blanchard** (Trinity County) – Appointed in 2024
- **John Beall** (Ventura County, Sealer) – Appointed in 2024
- **Delia Cioc** (Riverside County) – Appointed in 2024
- **Weylan Shaw** (Humboldt County) – Appointed in 2024
- **Tom Moss** (Tehama County) – Appointed in 2024
- **Katharine Quist** (Butte County) – Appointed in 2025
- **Priscilla Yeane** (Santa Clara County) – Appointed in 2025
- **Cody Thompson** (Tuolumne County) – Appointed in 2025



Stay Informed with CACASA's New YouTube Channel

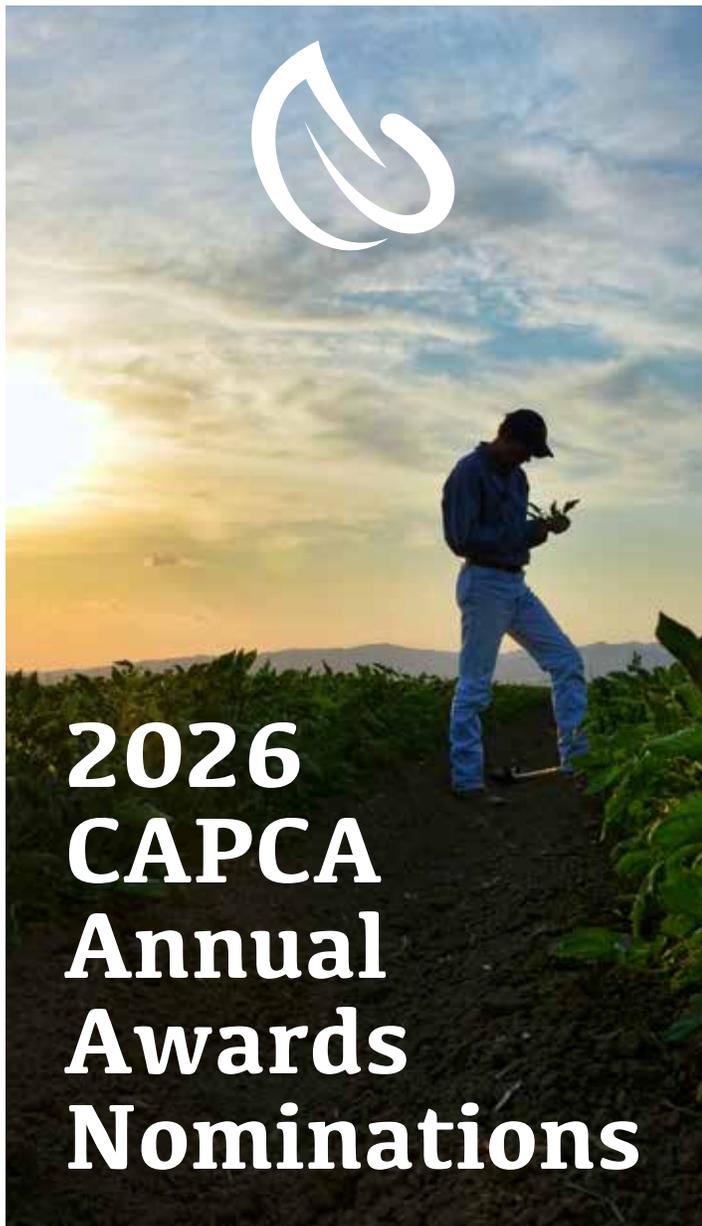
The California Agricultural Commissioners and Sealers Association (CACASA) has launched a YouTube channel — a valuable resource for anyone interested in agriculture, food safety, pesticide enforcement, and weights and measures. This channel offers timely updates, clear explanations of enforcement systems, and spotlights on the services provided by your local offices. Whether you're a PCA, grower, consumer, or simply curious about how your food gets from the field to your table, the channel is a practical way to stay informed and connected. ■



Call to Action: Get to Know Your Commissioner and Tune In!

Do you know who your local Ag Commissioner is? Now is the perfect time to find out. Reach out to your county office, introduce yourself, and learn how they're working to support your community's agricultural future.

And don't forget to subscribe to CACASA's YouTube channel for the latest insights, resources, and news. Your engagement helps strengthen the partnership between local agriculture and the communities it serves.



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 open in February and close on June 5, 2026.
- Visit [CAPCA.com/nominations](https://www.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

This 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!

Impacts on Pest Management Costs of Resistant Diamondback Moth Outbreaks in Central Coast Brassicas

Prepared by the California Department of Food and Agriculture's Office of Pesticide Consultation and Analysis, and the University of California, Davis

Rachael Goodhue¹, Benjamin Lee², Brian Gress², Yanan Zheng¹, and Kevi Mace²

¹University of California, Davis

²California Department of Food and Agriculture



December 8, 2025 Executive Summary

The diamondback moth (DBM), *Plutella xylostella* is the most economically damaging pest of brassica crops in California (Furlong, Wright, and Dosdall, 2013). Management of DBM is particularly challenging because of its demonstrated

ability to rapidly develop resistance to a wide range of insecticides. Recent monitoring has documented extensive resistance among DBM populations in the California Central Coast region (Grettenberger, per. communication), leading to increased control failures and outbreak conditions over time. Reports from industry members indicate that 2024 and 2025 have been particularly problematic for brassica producers in the region.

This analysis quantifies the impacts on pest management costs of the 2024 DBM outbreak by comparing use and costs between 2023 (lower-pressure year) and 2024

(outbreak year) for insecticides used on key brassica crops in Monterey, Ventura and San Luis Obispo counties.

Our results show substantial county- and crop-level variation in changes in pest management costs between 2023 and 2024.

Broccoli and cauliflower in Monterey County and Brussels sprout in Ventura County experienced the largest percentage increases in insecticide use, leading to dramatic per-acre management costs (+61.8%, +54.7%, and +70.6% respectively) and total management costs (+75.8%, +87.8%, and +70.6% respectively) during this time, consistent with the reported severe pest pressure and reduced control efficacy in 2024.

In contrast, Brussels sprout in Monterey, cabbage in Ventura, and broccoli and cauliflower in San Luis Obispo showed relatively minor changes, suggesting localized differences in pest dynamics, management practices, and/or resistance intensity.

Table ES (page 35) reports changes in costs per harvested acre and total costs from 2023 to 2024. While acreage treated for DBM may differ from harvested acreage (some acres may be treated multiple

times and others not at all), this measure controls for changes in harvested acreages and provides a measure of overall importance to the industry.

In this report we do not evaluate yield losses from pest damage, only changes in pesticide product and application costs. Importantly, our results are likely conservative estimates of the impacts of insecticide resistance on long-term DBM management costs because DBM insecticide use has been increasing over the past decade. Increasing pesticide use is both a driver and the result of increasing resistance. If 2024 data were compared to earlier years (e.g. 2014) the impacts on pest management costs would likely be greater.

There are two important considerations that are outside the scope of this analysis. First, there are additional unquantified costs impacts including rejected shipments,

fields left un-harvested, increased labor requirements, restricted nursery exports, and expanded use of non-chemical control practices. Second, given the importance of brassica crops as rotational partners with lettuce for soilborne disease management, the current challenges posed by DBM resistance threaten the economic viability of the lettuce-brassica production system in California's Central Coast. ■

**TO READ THE FULL
STUDY, SCAN THE
QR CODE.**



*Photos on pages 33-35:
Flynn Pehle from
Innovative Produce.*



ES Table: Change in Costs Per-Harvested Acre and Total Costs by Crop and County
(2023-2024)

Crop	County	Cost Type	Change in Costs Per-Harvested Acre		Change in Total Costs	
			\$	%	\$	%
Broccoli	Monterey	Material	85.12	68.4	4,665,258	82.9
		Application	15.47	40.5	908,985	52.6
		Total	100.59	61.8	5,574,242	75.8
	San Luis Obispo	Material	-2.81	-4.9	6,719	2.6
		Application	-1.29	-5.3	2,484	2.2
		Total	-4.10	-5.0	9,203	2.5
Brussels Sprout	Monterey	Material	-14.56	-3.3	-77,285	-2.6
		Application	0.33	0.3	7,663	1.1
		Total	-14.23	-2.6	-69,622	-1.9
	Ventura	Material	198.56	81.3	324,206	64.7
		Application	83.86	108.5	141,764	89.4
		Total	282.42	87.8	465,969	70.6
Cabbage	Ventura	Material	114.96	19.9	-9,639	-0.7
		Application	67.99	33.3	53,522	10.4
		Total	182.95	23.4	43,884	2.2
Cauliflower	Monterey	Material	71.97	59.8	1,342,625	64.5
		Application	14.41	38.3	275,810	42.4
		Total	86.38	54.7	1,618,435	59.2
	San Luis Obispo	Material	-4.77	-6.2	74,462	36.5
		Application	-3.51	-11.8	22,161	28.3
		Total	-8.28	-7.8	96,623	34.2



CAPCA CORPORATE PARTNERSHIP supports the only nonprofit membership association dedicated to advocating for the license holders, applicator professionals and industry leaders shaping California agriculture. When your company invests in CAPCA Corporate Partnerships, events, sponsorships and media, it is really reinvesting in itself. While Corporate Partnership provides invaluable support to CAPCA, your brand receives unmatched visibility in front of your target audience.

2026 CORPORATE PARTNERSHIP LEVELS >>	PLATINUM STEWARD	DIAMOND HARVESTER	CHROME CULTIVATOR	GOLD GROWER	BRONZE PLANTER
BENEFITS	\$24,995	\$9,995	\$5,995	\$3,495	\$995
Website Pop-Up Ad	\$2,500				
Full Page Adviser Ad ¹	\$5,500				
Half Page Adviser Ad ¹	\$2,750	\$2,750			
Website Banner Ad			\$2,000		
Digital Square Ad ²	\$1,250	\$1,250			
Digital Skyscraper Ad ²				\$1,000	
Conference Exhibitor Discount	\$1,000	\$500	\$250	\$100	
Website Job Posting Discount	\$750	\$500	\$500	\$250	\$250
Adviser Ad Discount	40%	30%	20%	10%	5%
Digital Ad Discount	40%	30%	20%	10%	5%
Conference Booth Choice Priority ³	1st	2nd	3rd	4th	5th

¹September is a blackout month for ad comps in The Adviser.

²Digital includes newsletters and website.

³Booth placement follows partnership tier and sign-up order.

CONTACT US: 916.928.1625 OR SALES@CAPCA.COM

DPR: 2025 Brought Major Advances, More to Come in 2026

As we begin 2026, the Department of Pesticide Regulation (DPR) is reflecting on key accomplishments from the past year and preparing for important work ahead.

In 2025, DPR advanced its strategic goals by improving registration review processes for pesticide products, advancing the state's sustainable pest management objectives, bolstering enforcement, and enhancing transparency and opportunities for public participation in DPR's decision making. These steps set the stage for continued regulatory updates and stakeholder engagement in the months ahead.

"I am incredibly proud of our department's achievements, and look forward to continued success in 2026," said DPR Director Karen Morrison. "By equipping pest management professionals, growers, and communities with better tools and knowledge, we are strengthening our commitment to protecting human health and the environment in the context of pest management."

Registration

The department made major advances in improving product registration and evaluation processes over the last year.

In October 2025, DPR introduced updates to the California Pesticide Electronic Submission Tracking (CalPEST) system. Initially launched in 2024, CalPEST modernized DPR's pesticide registration process to move safer alternatives and other pest management tools more swiftly through the department's rigorous evaluation process. The 2025 updates included enhancements that expand access to pesticide registration information.

CalPEST builds on ongoing efforts to improve workflow and reduce delays in product evaluations. In April 2025, DPR published its annual notice on average processing times for scientific reviews and decisions on new and amended pesticide product applications. Thanks to these efficiencies, as of October 2025, backlogs in scientific evaluation stations had dropped by about 40 percent compared to 2023, and queues continue to shrink. For example, the microbiology station now has 22 products awaiting review, down from more than 140 in January 2025.

In November 2025, DPR launched a new pilot program to further reduce backlogs and registration processing time. This pilot leverages new technology through CalPEST and document comparison tools and identifies registration actions that are subject to imminent federal deadlines or require minimal processing. DPR will formally review the pilot after six months, but preliminary findings demonstrate reductions in queues at intake and processing time.

Prioritizing Action on Pesticides

In 2025, DPR launched its first transparent table detailing current actions to continuously evaluate and mitigate pesticides. DPR's continuous evaluation process includes reviewing emerging data and information, tracking pesticide illnesses, ecosystem monitoring, reviewing pesticide use data, collecting and testing the air in four high pesticide use areas for 40 pesticides and their degradants, collecting and testing produce for 500 pesticides and sampling and testing groundwater for 100 pesticides, conducting surface water monitoring for 75 pesticides in urban and agricultural areas and initiating specific studies. This information informs regulatory changes, label changes, and other mitigation measures and actions.

The Department of Pesticide Regulation (DPR) is responsible for statewide enforcement of pesticide use laws and regulations to protect people and the environment. At the local level, County Agricultural Commissioners (CACs) enforce pesticide use laws and regulations including investigating pesticide incidents and issuing violations.

At DPR, we oversee and evaluate CACs' local pesticide use enforcement programs by providing supervision and guidance for consistency and reviewing each CAC's data and workplans to evaluate the effectiveness of these programs.



Statewide

Category	Total Count
Investigations	1,910
Inspections	42,176
Enforcement Response	4,102

Year to Date as of June 30, 2025



*County data displayed is current as of June 30, 2025 and updated annually. Some county data may be missing due to unavailable data at the time of publication.



Updated in July 2025, DPR shared current status of actions on 16 active ingredients or classes of active ingredients with completion dates for work occurring between 2025 and 2029. The update also includes regulatory actions related to eyewash and groundwater protections. AB 2113, which was signed into law in 2024, requires DPR to post an update on its continuous evaluation annually.

In October 2025, DPR also announced it was accepting nominations for the Scientific Prioritization and Review Committee (SPARC). Once established, the committee will meet quarterly starting in 2026 and 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. SPARC will serve in an advisory capacity and support the department's efforts to prioritize pesticides for continuous evaluation and potential regulatory action.

Sustainable Pest Management (SPM) Advisory Committee

To further support DPR's mission to foster Sustainable Pest Management statewide, in November 2025, DPR

announced it is launching an SPM Advisory Committee. The three-year committee will aid the department in tracking progress and implementation of SPM statewide, developing SPM pilot projects, advancing procurement and supply chain opportunities, reviewing urban pesticide use data, identifying and implementing SPM Continuing Education (CE) opportunities, and promoting, developing, and adopting innovative pest management alternatives. Once established, the committee will meet regularly to support California's progress in fostering sustainable pest management.

Enforcement

The department continues to prioritize enforcement actions to protect people and the environment. In early December 2025, DPR announced work to seek monetary and licensing penalties against a Kingsburg-based aerial pesticide applicator, Trinkle Ag Flying, Inc., for drift damage to a non-target almond orchard and multiple alleged worker safety violations.

To add transparency to its enforcement oversight and local enforcement conducted by County Agricultural Commissioners, the department unveiled its Enforcement Data Dashboard in December 2025,

a new online tool to make pesticide enforcement and inspection data more accessible and transparent for Californians. The dashboard presents information in a user-friendly, interactive format, providing data collected by DPR on local enforcement conducted by County Agricultural Commissioners.

DPR also began a public process to gather feedback on regulations focused on enforcement response — specifically focused on consistently aligning penalties with the nature of violations, adjusting minimum fine levels, improving statewide consistency in fine amounts.

Expanding Public Access and Transparency

Advancing transparency and public access to information will continue to be a priority for DPR in 2026.

In March 2025, DPR launched SprayDays California, a first-of-its-kind notification system that provides the public with timely information about planned restricted material pesticide applications before they occur. Since its launch, SprayDays California has drawn more than 88,000 website views and more than 4,100 text and email sign-ups for notification messages, connecting thousands of Californians with real-time pesticide information.

In December, DPR convened the first meeting of its Environmental Justice Advisory Committee (EJAC), to provide recommendations to DPR on ways to integrate environmental justice considerations into the

department's work, and advise the department on how DPR can improve its engagement with communities with the most significant exposure to pesticides.

New Regulations in 2026

Two new regulations developed by DPR took effect on January 1, 2026.

Restrictions on 1,3-Dichloropropene (1,3-D)

New regulations, developed jointly and mutually by DPR and the Office of Environmental Health Hazard Assessment (OEHHA), will restrict the use of the pesticide 1,3-D to address cancer risks to occupational bystanders, including farmworkers. The new regulations establish buffer zones and require ongoing evaluation of potential exposure risks. The regulations build on recent protections for residential bystanders that went into effect in January 2024.

Pesticide Use Near Schoolsites

New regulations update DPR's requirements for pesticide applications near schoolsites to implement requirements in Assembly Bill 1864. For applications within ¼ mile of a schoolsite the regulations now require separate site identification numbers for pesticide use reporting along with the inclusion of application method details in permits and reports. The definition of "schoolsites" will expand to include private schools (K-12) serving six or more students on December 31, 2026. These reporting requirements build on existing restrictions for pesticide use near schoolsites. ■

Save the Date: IPM Achievement Awards



DPR is getting ready for this year's Integrated Pest Management (IPM) Achievement Awards and you're invited! Every year, we host this exciting event to honor the innovations and achievements of individuals and organizations leading in the adoption of sustainable pest management (SPM) practices in agricultural, urban, and wildland settings throughout California.

This year's IPM Achievement Awards will feature a keynote panel, award ceremony and networking session on February 24, 2026 in Sacramento. Please RSVP via the QR code if you would like to attend in-person or virtually. We hope to see you there!

Featured Article

Protecting Growers Through Early Detection and Compliance

The PCA's Role in California's Defense Against Invasive Fruit Flies

By Victoria Hornbaker, Director of the Plant Health and Pest Prevention Services Division, California Department of Food and Agriculture

Among the myriad of agricultural pest pressures facing California growers, invasive fruit fly species have become an increasingly impactful foe for the state's producers, who grow more than 400 different commodities and play a vital role in feeding the world.

Substantial spikes in invasive fruit fly populations since 2023 have had significant impacts, disrupting harvest schedules, marketability, international exports, and ultimately the global food supply.

Combating invasive species requires collaboration and partnership among a long list of agricultural and residential stakeholders. The California Department of Food and Agriculture (CDFA), in cooperation with the United States Department of Agriculture (USDA) and County Agricultural Commissioners statewide, recognize the critical role Pest Control Advisers (PCAs) play on the frontlines of this ongoing battle. By staying informed and working together, we can eradicate these destructive pests, provide valuable services for our growers, and support a thriving agriculture industry.

Understanding Invasive Fruit Flies and the Dangers They Pose

Invasive fruit flies are non-native insects that attack over 300 crops, including citrus and other fruits, nuts, vegetables, and berries. Species of fruit flies are typically named after the regions they were first detected, or by the hosts they prefer, such as Oriental fruit fly, Peach fruit fly, Guava fruit fly, Caribbean fruit fly, Tau fruit fly, Queensland fruit fly, Mediterranean fruit fly, Mexican fruit fly and more. However, these names

often understate the range and host diversity of these problematic pests. While each invasive fruit fly species targets and feeds on a variety set of fruits and vegetables, common hosts often include grapes, avocados, berries, citrus, figs, tomatoes, squashes, pumpkins, almonds and more.

Invasive fruit flies can damage fruits and vegetables when they lay their eggs under the skin of the produce, where the developing larvae (maggots) tunnel and feed, making it unfit for human consumption. Infested produce does not always look damaged from the outside, but may take on a brown, mottled appearance as the larvae feed from the inside.



FIG. 1: Invasive fruit fly larvae (maggots) feeding on host.

The most common pathway these invasive species use to enter California is by “hitchhiking” in fruits and vegetables, often brought back unintentionally by travelers as they visit or return from infested regions

of the world. They may also come in when they are unknowingly shipped in packages from domestic and international locations. While fruit flies and other invasive species are sometimes detected in agricultural areas, the vast majority are found in urban and suburban communities. For PCAs, understanding how and where these pests enter the state underscores the importance of ongoing monitoring, accurate pest identification, and rapid communication with partners when signs of invasive pests appear.

What to Look for in the Field

The first step to combating invasive species is education. Understanding the various species and their preferred hosts can aid in early detection of potential populations. In 2026, CDFA will be offering a complimentary CE course (at CAPCA.com/ce/course-catalog), where PCAs can review the most notable invasive fruit fly species impacting California, including photos of various life stages and other key information.

Free Continuing Education Course: Invasive Fruit Flies in California

The webinar will offer an in-depth look at the critical role PCAs play in early detection and containment. DPR CEUs pending. Look for it soon in the CAPCA Course Catalog at CAPCA.com/ce/course-catalog

When scouting commercial operations, timing is key, as adult flies will be most active when host crops are ripening and aromas peak. PCAs should also be mindful of high-risk situations, such as recent nearby detections or quarantines, production blocks adjacent to backyard or unmanaged host trees, uncleaned bins or equipment coming from other production areas, etc., as these risks can accelerate the spread of pest populations if not proactively managed.

Incorporating visual surveys and fruit cutting samples into regular scouting adds another layer of protection for commercial groves. During regular field walks, PCAs should be looking for any adult fly activity, monitoring for premature fruit drop or mottling, and cutting suspect fruit to inspect for larvae.



FIG. 2: Example of fruit cutting and surveying.

What to Expect in Active Quarantine Areas

CDFA, with support from county partners, maintains a comprehensive network of traps to continuously monitor for invasive pests in residential and agricultural settings. When a certain number of adult fruit flies are captured within three miles of each other and within one life cycle, a quarantine is established to prevent the population from spreading. A single detection of a larva, pupa or mated female will also trigger a quarantine. The number of fruit flies that trigger a quarantine is dependent on the species and proximity to agriculture.

PCAs should be prepared to support growers by providing proper treatment recommendations depending on a grower's distance from a detection site or quarantine area.

Treatment Overview

While quarantine areas are subject to various regulations to ensure the safety of host crops being moved off the properties where they are grown, commercial growers have mitigation options to minimize the impact on their harvests. PCAs and growers are encouraged to contact CDFA or their local County Agricultural Commissioner to determine eligibility before beginning any regulatory-related treatments. Common treatment options may include:

Pre-Harvest Treatments: Operations within the quarantine zone, but outside of the 0.5-mile core area around detections, can implement four or more pre-harvest bait treatments at regular intervals in order to move host fruit and vegetables within or outside of the quarantine boundaries.



Post-Harvest Treatments: Operations within a 0.5-mile core area around detections can perform a post-harvest treatment or processing to move host crops. Pre-harvest bait treatments are not available for produce grown in the core area. However, eligible host commodities that have not undergone pre-harvest bait treatments (and are outside the core area) can also be treated with post-harvest treatments, in accordance with the USDA Treatment Manual.



Pre-Quarantine Treatments: With approval from the local County Agricultural Commissioner, eligible growers within close proximity to quarantine boundaries can elect to begin pre-quarantine treatments voluntarily to minimize potential impact should the quarantine boundaries expand to include their crop growing location. If a grower is interested in pre-quarantine treatment options, have them reach out to their local County Agricultural Commissioner.

In addition to overseeing regulatory compliance for commercial operations, CDFA also administers a

residential response program that includes various activities, including fruit stripping, organic foliar bait applications and male attractant bait stations. For Mediterranean and Mexican fruit fly species, a partnership operated by CDFA and USDA, releases thousands of sterile male fruit flies by aircraft each week to disrupt the natural mating cycle and help reduce populations through the Sterile Insect Technique.

Together Eradication is Possible

With several active invasive fruit fly quarantines throughout the state, safeguarding the future of our state's commercial agricultural industry, backyard produce and natural environment is of the utmost importance. With a strong and coordinated effort from all members of California's agricultural industry — including PCAs and California residents — eradication is possible. In fact, CDFA has successfully eradicated every Oriental and Mediterranean fruit fly outbreak in California history, dating back more than 50 years. Continued vigilance and cooperation are essential to ensure that California produce can continue to thrive. To learn more, visit CAFruitFly.com. ■



FIG. 3: CDFA official treating host tree with the organic foliar bait application.

Cotton Seed Bug

What California PCAs Need to Know About this Emerging Cotton Pest

By Christina D. Hoddle, Theodore Adams, and Mark S. Hoddle.
Department of Entomology, University of California, Riverside

The cotton seed bug (CSB), *Oxycarenus hyalinipennis* (Fig. 1) (Hemiptera: Oxycarenidae), is a small seed-feeding bug that has the potential to become an important pest for California cotton producers. Although the species is native to Africa and nearby Mediterranean regions, it has spread widely through global commerce and now occurs in parts of Asia, the Middle East, Europe, South America, and the Caribbean (Dueñas-López 2022). CSB briefly established in Florida in 2010 (Halbert & Dobbs 2010) before being eradicated in 2014 (USDA-APHIS 2024). Its biology and climatic requirements make U.S. cotton regions in plant hardiness zones 8–11 particularly vulnerable to establishment and proliferation (CAPS 2023).



FIG. 1. Adult cotton seed bug on a cotton seed with lint.
Photo: Mike Lewis, UC Riverside.

Host Plants and Aspects of CSB Biology Relevant to California

CSB is primarily restricted to the plant family Malvaceae, where nymphs develop exclusively on seeds. Important reproductive hosts include cotton, okra, kenaf, numerous *Hibiscus* species, and several weedy mallows, such as cheeseweed, *Malva parviflora*. In southern California, populations have also been found on ornamental *Lagunaria* (cow itch plant) and on seeds of native mallows (e.g., chaparral mallow, *Malacothamnus fasciculatus*), raising conservation as well as agricultural concerns about this pest.



FIG. 2. CSB eggs laid on lint surrounding a cotton seed.
Photo: Mike Lewis, UC Riverside.

In cotton, CSB lay eggs inside cotton bolls, often on the lint surrounding seeds (Fig. 2). CSB have five nymphal instars (Fig. 3) and nymphs and adults cluster inside bolls and use their needle-like mouthparts to feed on embryo and endosperm tissues of seeds. At warm temperatures (~27°C or 80°F), CSB completes development in about a month, allowing multiple generations to occur, and up to seven per year, may be possible in some areas (CAPS 2023). This rapid generation turnover increases the

Cotton Seed Bug Lifecycle

Oxycarenus hyalinipennis (Hemiptera: Oxycarenidae)



FIG. 3. Developmental stages of CSB. Freshly laid eggs are white and turn reddish-orange as the embryo develops. CSB has five nymphal instars and the adult male:female sex ratio is about 50:50. *Photo: Mike Lewis, UC Riverside.*

likelihood of fast population buildup that could lead to economic damage in commercial cotton.

CSB can potentially be confused with other similar looking insects like false chinch bug, *Nysius raphanus* (Hemiptera: Lygaeidae), which feeds on weedy mustards, and nettle ground bug, *Heterogaster urticae*, a non-native species recently established in southern California, which feeds on stinging nettles (Fig. 4). Both of these species form “swarms” or aggregations similar to CSB, which together with similar physical appearances, can lead to misidentifications.



FIG. 4. CSB can be confused with hemipterans of similar size, coloration, and aggregation behaviors. The two smaller insects are CSB and the larger bug closest to the penny is nettle ground bug, *Heterogaster urticae*, which like CSB, forms aggregations. *Photo: Mike Lewis, UC Riverside.*

Economic Impacts: Why CSB Matters for Cotton Growers in California

Internationally, CSB is regarded as a serious pest of cotton. Feeding can reduce seed weight by approximately 15%, and under some conditions germination of damaged seeds may drop dramatically which reduces field establishment rates for newly planted areas (Hoddle & Hoddle 2023). Additional documented impacts from CSB include, lower oil yield and quality of cottonseed, lint staining can result from fecal spots or “reddish” body fluids (Fig. 5) released when insects are crushed at ginning (Irshad et al. 2019), and market access could be restricted as CSB-infested seed lots may be subject to regulatory rejection (Shogren 2023). Given California’s cotton production, even low levels of infestation could have significant economic and regulatory consequences.



FIG. 5. Reddish body fluids released from CSB nymphs that are crushed during ginning can stain cotton lint. *Photo: Mike Lewis, UC Riverside.*

The economic value of cotton grown in California is difficult to estimate as there appear to be no current CDFA or USDA statistics on the cash value of this crop. However, USDA-NASS Statistics for May 2024 (USDA-NASS 2025) indicate that California

produced 454,200 bales of ginned cotton, with each bale weighing 480 lbs. Recent USDA-based data indicates that for U.S. cotton grown across all US cotton producing areas, a price of around US\$0.62 per pound for upland cotton is expected for the 2025-2026 season (Myer and Dew 2025). Given these two estimates, the amount of cotton produced in California, and the estimated nationwide value per pound of ginned cotton, the cotton crop in California in 2024 was worth approximately US\$135.2 million.

CSB status in California: Established in Urban Areas, Not Found in Production Fields

The first California detection of CSB occurred in Los Angeles County in 2019 on Palmer’s Indian mallow, *Abutilon palmeri* (CDFA 2019). CDFA assigned an A-rating for this pest, indicating CSB is viewed as a severe threat to California agriculture, which makes it a target for quarantine, exclusion, and containment actions (CDFA 2019). By 2021–2022, CDFA confirmed multiple additional detections in Orange, Riverside, and San Diego Counties. Unconfirmed reports (including high quality iNaturalist reports with supporting photos) suggest that CSB may also be present in other California counties, including San Bernardino, Santa Barbara, Santa Clara, and Ventura. Despite establishment in urban landscapes, CSB has not been found in commercial cotton fields in the San Joaquin Valley as CDFA surveys in Fresno, Kern, Kings, Tulare, and Merced Counties have failed to detect CSB populations. Similarly, there are no reports of CSB in cotton producing areas of Riverside (urban areas are infested in Riverside) or Imperial Counties. However, with CSB detections in nurseries in San Diego in 2025, long-distance human-mediated movement, particularly through infested ornamental hosts, may result in the inadvertent introduction of CSB into urban areas that are in close proximity to cotton-growing regions.

Field Ecology and Biological Control: Limited Help From Natural Enemies

Surveys of CSB-infested *Lagunaria* sp. pods over a one year period at UC Riverside that resulted in 18,453 adult CSB being counted over July 2024 to July 2025, indicated that the proportion of CSB adults in pods increases over the period October through February and declines March through September (Fig. 6). Predators

occasionally found inside pods include jumping spiders, sac spiders, pirate bugs, lacewing larvae, and assassin bugs. Laboratory work confirms these predators will feed on multiple CSB life stages, but field densities of these natural enemies are too low to provide meaningful population suppression, and predator numbers do not increase proportionally with CSB populations. Consequently, biological control from resident natural enemies, at least in *Lagunaria* sp. pods, appears insufficient to slow CSB population growth and to maintain pest densities at low levels.

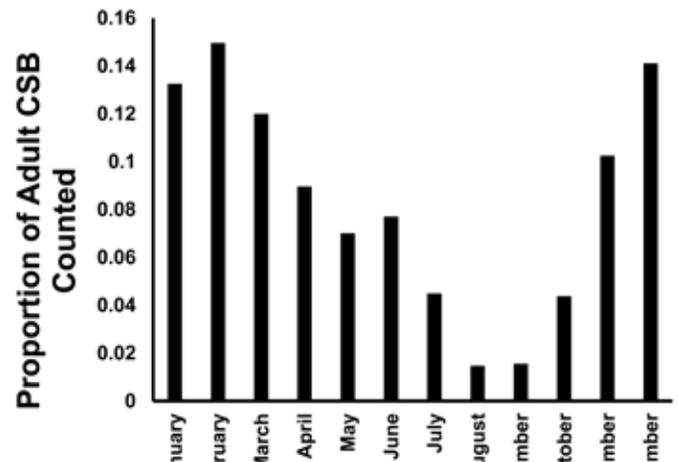


FIG. 6. The proportion of adult CSB found each month inside cow itch (*Lagunaria* sp.) pods on the UC Riverside campus over the period July 2024 to July 2025.

Detecting and Monitoring CSB Populations

CSB is difficult to detect using sticky cards and foliage sampling, even when populations are high on known host plants that are infested. Multiyear and multisite studies in areas of southern California with heavy CSB infestations on preferred host plant species were conducted to assess the attractiveness of different colored sticky cards as a detection and monitoring tool. Sticky cards that were yellow, white, blue, or clear (a control treatment to measure rates of random interceptions) failed to demonstrate consistent and high levels of attraction to adult CSB. Similarly, beat sampling of foliage was often inconclusive when sampling for CSB even when it was known that plants were infested. The most reliable detection method for determining the presence or absence of CSB was to remove and open seed pods from host plants (Fig. 7).



FIG. 7. CSB nymphs and adults hide and feed inside seed pods. The most effective way to determine the presence of this pest on potential host plants is to open pods and examine the contents. *Photo: Mike Lewis, UC Riverside.*

Controlling CSB with Insecticides: Options and Challenges

CSB is inherently difficult to suppress with insecticides because eggs are often laid inside protective structures like seed pods and cotton bolls within which nymphs and adults feed. Consequently, it is very hard to reach these concealed life stages with contact sprays. Additionally, nymphs and adults can overwinter in debris, crop residue, weeds, and inorganic structures (e.g., buildings, fence posts) which are highly unlikely to be treated (Irshad et al. 2019). Insecticides that have shown efficacy against nymphs and adults include pyrethroids, organophosphates, neonicotinoids, carbamates, spinosyns, avermectins, and botanicals such as neem (USDA-APHIS 2021). A recent evaluation of thirteen insecticide formulations against a California-sourced CSB population found acephate, dinotefuran, flupyradifurone, and imidacloprid were among the most effective tested in the laboratory. These products, which are registered for use in U.S. cotton, suggest that a range of chemistries would likely be available for managing field infestations (Zilnik et al. 2025).

Another important issue to keep in mind is control of insect pests that can damage cotton bolls. Insecticide applications targeting boll-feeding pests, like the cotton bollworm, *Helicoverpa zea* (Lepidoptera: Noctuidae), may incidentally reduce CSB exposure risk by limiting entry wounds that permit access by CSB to the boll interior. However, these insecticide applications for control of

boll feeding pests may also increase exposure of active ingredients to CSB populations which could increase the risk of insecticide resistance development.

CSB has developed resistance to multiple insecticides, including: imidacloprid (Ijaz & Shad 2018), fipronil (Wazir & Shad 2022), organophosphates, pyrethroids, spinosad, emamectin benzoate, nitenpyram, and chlorfenapyr (Ullah et al. 2016). Similar to other cotton producing countries, like India and Pakistan, insecticide resistance development could occur quickly in California if CSB management relies heavily on insecticides. Resistance management programs that rotate different classes of insecticide with differing modes of action should be developed and implemented as new IPM programs emerge to control this pest should it become problematic in U.S. cotton.

Cultural Control for CSB Management

Minimizing reliance on insecticides for reducing CSB populations and lowering infestation risk to harvested cotton may be achieved through non-insecticidal practices that aim to reduce CSB pressure. These management approaches, referred to as cultural control practices, can include destruction of post-harvest residue such as cotton stalks, bolls, and leaves that may provide harborage for CSB nymphs and adults. Destruction of these types of post-harvest crop residues could be achieved via tillage or mulching. Weed control, especially weedy mallows, like cheeseweed (*Malva parviflora*), is recommended, and elimination of other malvaceous hosts around fields, like ornamental hibiscus and *Brachychiton* spp. may also be advisable if it is feasible. Post-harvest, it is recommended that cotton seed storage bins are covered to prevent infestation by flying CSB adults that are attracted to bins. Covering bins will minimize the risk of lint being stained during ginning should adult CSB get crushed during processing. Covering bins has another benefit, reducing the risk of accidental transportation of CSB to new areas.

And Here Comes Another One: Cotton Jassid is Moving Towards California

Cotton jassid, *Amrasca biguttula* (Hemiptera: Lygaeidae) (Fig. 8), is a major cotton and okra pest in the Indian subcontinent. This insect recently expanded into West Africa, Puerto Rico, and was detected in Florida in 2024

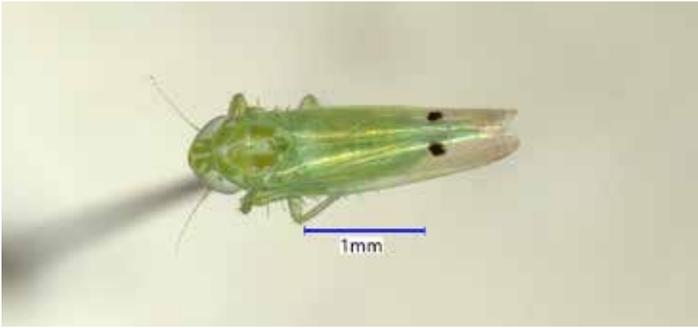


FIG. 8. Adult cotton jassid is a significant new invasive pest of cotton in the U.S. *Photo: Isaac Esquivel, Univ. of Florida.*

(Adachi-Hagimori et al. 2020; Texas Department of Agriculture 2025). By 2025, cotton jassid was reported from Georgia, Alabama, South Carolina, North Carolina, Mississippi, Louisiana, and Texas (Texas Department of Agriculture 2025).

Significant damage to upland cotton grown in Florida by cotton jassid has been observed (Fig. 9). It is likely that most cotton varieties grown in the U.S. will be highly susceptible to this pest.

Additional host plants for cotton jassid include peanuts, soybeans, sunflowers, and several vegetable crops, including eggplant and potato, and some ornamental plants like hibiscus.



FIG. 9. Cotton jassid feeding damage can kill susceptible cotton varieties. *Photo: Isaac Esquivel, Univ. of Florida.*

With both CSB and cotton jassid now present in the U.S., their eventual convergence in cotton-producing regions appears likely. Existing cotton IPM programs will need to evolve quickly to accommodate these new pests, and PCAs will be essential in guiding growers through this disruptive transition. ■

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Navigating Conflict of Interest Perceptions and Advocacy for Pest Control Advisers

Building Trust, Embracing Data, and Shaping the Future of California Agriculture

By Adam Tavares and Gary Silveria

In the December 2025 issue of the *The Adviser*, Dr. Jay Rosenheim's article — "PCAs, Conflicts of Interest and Pesticide Use in California Agriculture" — ignited thoughtful discussion across our industry. As we look ahead, it's clear that the conversation surrounding Pest Control Advisers (PCAs), their professional integrity, and the persistent questions of conflict of interest is more relevant than ever. The recent publication of Rosenheim and Michael Culshaw-Maurer's research in the *Journal of Pest Science* provides invaluable data, but it also challenges us to consider how we, as a community, respond, advocate, and secure the future of our profession.

The History of the PCA License and the Sales Conflict

The legacy of the PCA license is deeply intertwined with the very concerns we continue to address today. Established in 1972, the license was a direct response to growing apprehension about the potential for sales-driven recommendations in pest management. At the heart of the debate was a fear: could PCAs truly act in the best interests of growers and the environment while also being tied to product sales? The creation of the PCA license was a bold step to separate professional advice from commercial incentive, cementing the adviser's role as a trusted resource for California agriculture.

Yet, history shows us that perceptions are not so easily changed. Through the late 1990s, state legislators considered measures that would have stripped PCAs of any compensation connected to pesticide use, under

the assumption that financial ties would inevitably compromise their recommendations. Industry leaders, including CAPCA, rose to defend the integrity of PCAs, emphasizing the rigorous education, licensing, and ongoing training that define our profession. While these attempts to fundamentally alter the compensation model were ultimately defeated, the underlying skepticism has persisted — surfacing in regulatory discussions, activist messaging, and even within our own industry circles.

Insights from Recent Research

Fast forward to 2023: A Department of Pesticide Regulation (DPR)-funded study, conducted by Dr. Jay Rosenheim and Dr. Michael Culshaw-Maurer, sought to directly address the question at the center of decades of debate — does a PCA's employment structure influence their recommendations to growers? This research compared "sales PCAs," who may have a direct or indirect financial interest in product sales, with "independent PCAs," who are separated from the product sales and therefore may not benefit from such transactions.

Initially, the study's findings were not widely disseminated. It wasn't until the Joint Legislative Audit Committee (JLAC) initiated a formal audit in mid-2025 that DPR provided a summary of the results. The outcome was striking: regardless of employment type, PCAs consistently based their recommendations on agronomic risk aversion, not on financial incentives. In other words, PCAs — whether sales-affiliated or

independent — demonstrated a commitment to making decisions rooted in sound integrated pest management and agronomics.

The full study, now published as “Conflicts of Interest, Risk Aversion, and Pesticide Use in California Agriculture” in the *Journal of Pest Science*, offers robust, peer-reviewed evidence debunking the assumption that financial motivation is the primary driver behind PCA recommendations. Dr. Rosenheim’s summary in the December 2025 issue of *The Adviser* further contextualizes these findings, underscoring the professionalism and ethical standards upheld within our community.

The Persistence of Perception: Ongoing Challenges for PCAs

Despite this compelling data, the narrative around PCAs and conflict of interest has proven stubbornly resilient. The public, policymakers, and advocacy groups continue to question whether PCAs can truly act as impartial advisers. This skepticism is not limited to external voices; it can also be found in industry conversations and among newer generations entering the field.

Why does this perception persist? Partly, it is the result of historical baggage and high-profile outlier cases where financial motives did, in fact, influence recommendations. But it is also driven by a lack of visibility into the full scope of PCA responsibilities — the complex decision-making, the integration of non-chemical strategies, and the ongoing adaptation to regulatory, economic, and environmental pressures. In the absence of clear, accessible data and compelling stories from the field, outside observers often default to the simplest explanation, and one that does not reflect the reality of daily PCA practice.

The consequences of unchecked skepticism are tangible. Proposals to restrict or redefine the PCA role, threats to the compensation structure, and public pressure to reduce pesticide use without regard for pest pressure or agronomic realities all jeopardize the future of our profession. These challenges demand a proactive, unified response.

Advocacy in Action

This is where CAPCA’s advocacy becomes indispensable. Over the years, CAPCA has served as

both a watchdog and a champion for PCAs — educating stakeholders, correcting misconceptions, and ensuring that the voice of the profession is heard in legislative, regulatory, and public arenas. Our advocacy is not a passive endeavor; it requires ongoing investment in staff expertise, policy analysis, strategic communications, and political action.

We have seen firsthand that well-organized advocacy can shape outcomes. When legislation threatens to undermine the profession, CAPCA mobilizes members, partners with allied organizations, and brings real-world data and experience to bear on the debate. When agencies or activist groups advance incomplete or misleading narratives, CAPCA provides a corrective that draws on both scientific research and the lived experience of advisers in the field.

This work is not without its challenges. Recent criticism of associations — and the expectation that CAPCA’s value is measured solely by technical services like CE hours tracking — misses the bigger picture. The true value of CAPCA lies in its ability to protect the very existence of the PCA license, to elevate the profession, and to ensure that the voices of PCAs remain central to the future of California agriculture.

The Power of Data

One of the most promising developments in recent years is the commitment to data-driven studies. Through initiatives like the CDFA grant awarded to CAPCA, we are capturing a more complete story of PCA activity, and it’s one that goes far beyond chemical recommendations, which are the narrow focus of DPR. This project documents the non-chemical strategies, scouting, and decision-making that PCAs employ daily. By highlighting these actions, we provide essential context for pesticide use data and demonstrate the depth of professional judgment exercised by advisers.

Preliminary feedback from the field has been overwhelmingly positive. PCAs are taking pride in the opportunity to showcase the “why” behind their recommendations. This transparency is essential; it enables outside stakeholders — regulators, legislators, and the public — to understand that changes in pesticide use are driven by a complex interplay of pest pressure, climate variability, crop economics, and stewardship priorities. Without this perspective, the Pesticide Use

Report (PUR) can be easily misinterpreted, leading to flawed conclusions and misguided policy decisions.

As we continue to gather, analyze, and share this data, we empower PCAs to tell their own story. The Crop Steward app, developed by CAPCA for the CDFA-funded grant project, is designed to help PCAs provide accurate accounts of their work and make data collection easier. CAPCA is currently updating the app to enhance its usability and is offering it free of charge to all California PCAs. With the app, users can record field observations, document pest issues, note gaps in efficacy, and more directly from the field. All information is shared with CDFA anonymously. For more details on Crop Steward, see page 19. Gathering this data can support policy discussions by showing a commitment to evidence-based practices and ongoing improvement within the profession.

Strategies for Engagement, Education, and Professional Protection Moving Forward

So what steps can PCAs take to ensure the continued vitality of our profession?

First and foremost, engagement is key. Renewing your CAPCA membership, encouraging your employer to become a corporate partner, and participating in local chapter events and the annual CAPCA Conference are all tangible ways to support collective advocacy and professional development.

Second, be an ambassador for the profession. Share your experiences, challenges, and successes with colleagues, stakeholders, and the broader public. Participate in outreach efforts that highlight the breadth of PCA responsibilities and the ethical standards that guide your work. When misconceptions arise, respond with data, clarity, and confidence.

Third, invest in your own growth. Take advantage of continuing education opportunities, stay informed about policy developments, and seek out leadership roles within CAPCA and allied organizations. As the industry evolves, adaptability and a commitment to lifelong learning will be essential.

Finally, recognize the value of collective action. The challenges facing PCAs are too complex and too important to tackle alone. Standing together can amplify our impact, safeguard the profession, and shape the future of California agriculture.

The publication of new research on PCA conflict of interest is a turning point, offering both validation and opportunity. It confirms what many in the profession have long known: that PCAs base their recommendations on sound agronomic principles, not financial incentives. But it also reminds us that data alone is not enough to change perceptions or secure the future of the profession.

This is the moment to strengthen our commitment to advocacy, outreach, and professional involvement. Renew your CAPCA membership, encourage your employer to support CAPCA, participate in continuing education, and help share data-driven stories — each of these actions is essential to advancing our profession. By doing so, you help ensure CAPCA continues to invest in you through advocacy and professional resources. No one is better equipped to defend the PCA license than PCAs themselves, and the association dedicated to representing them.

Together, we can connect the dots — building trust, embracing transparency, and ensuring that PCAs remain indispensable to California's agricultural success. The challenges are many, but so are the opportunities. Let's meet them head-on, united, informed, and ready for the future.



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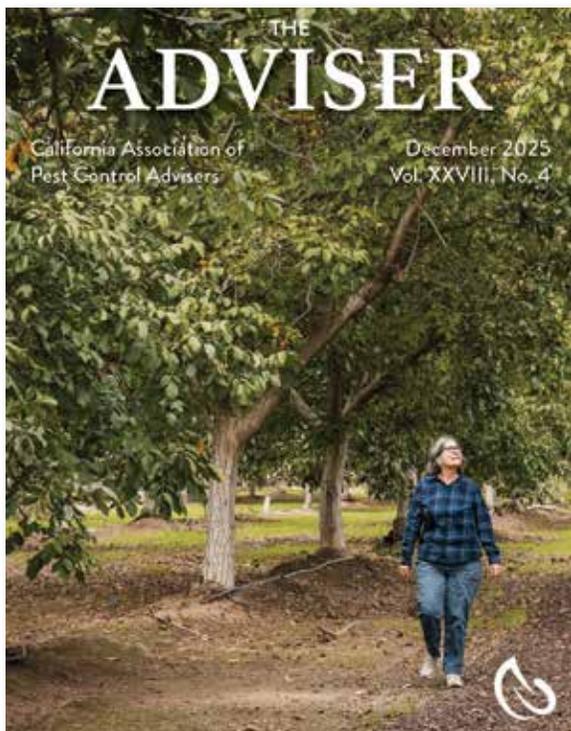
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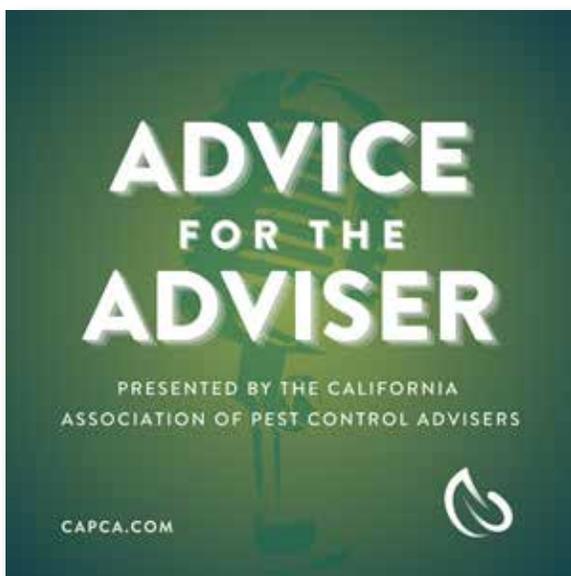
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Steward Stories: California PCAs in Their Own Words

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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/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.com/career-development/#scholarships

In 2026, CAPCA continues its commitment to students with scholarship opportunities that ease the path into the industry. The Stanley W. Strew Trust and select chapters — such as Monterey Bay and Desert Valleys — provide scholarship awards to encourage students pursuing agricultural and horticultural studies.

CAPCA

OUR TEAM



RUTHANN ANDERSON
CEO/President
Ruthann@capca.com



KATRINA SILVER
Dir. of Business Operations
Katrina@capca.com



ASHLEY HINSON
Dir. of Editorial/CE Content
Ashley@capca.com



CARRIE KIHALTHAU
CE & Technology Manager
Carrie@capca.com



BRIANA LOVE
Member & Chapter
Support Specialist
Briana@capca.com



RYAN DANA
Events Coordinator
Ryan@capca.com



KERI FRANK
Sales Manager
Keri@capca.com



MAGDALEN SILVER
Part-Time Bookkeeper
accounting@capca.com

Do you have a specific question?

Accounting Inquiries
accounting@capca.com

Grant Questions
cdfagrant@capca.com

CAPCA State Events
conference@capca.com

Sales Inquiries
sales@capca.com

Chapter Questions
chapter@capca.com

Support Questions
support@capca.com

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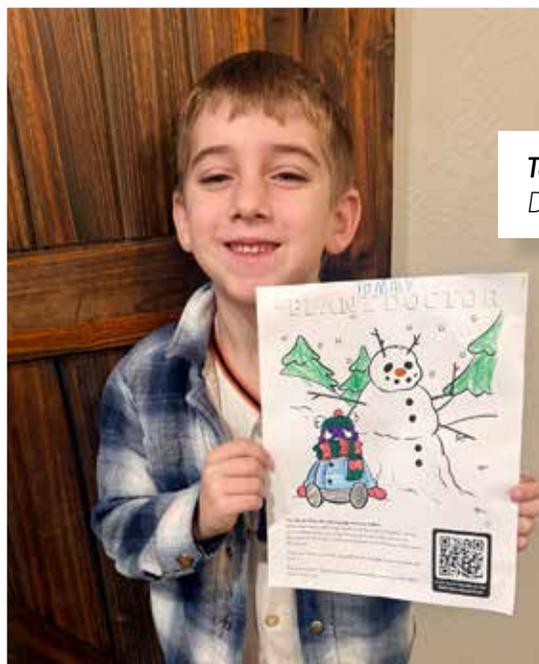


Amelia Rose Coelho is 6 years old and just lost her two front teeth. **Elena Margaret Coelho** is 8 years old and participates in "After School Ag" a program at her elementary school. They both like going out on occasional Saturdays and checking fields with their dad. Elena especially likes the different plants and the types of butterflies like the swallowtails in the basil last season.



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