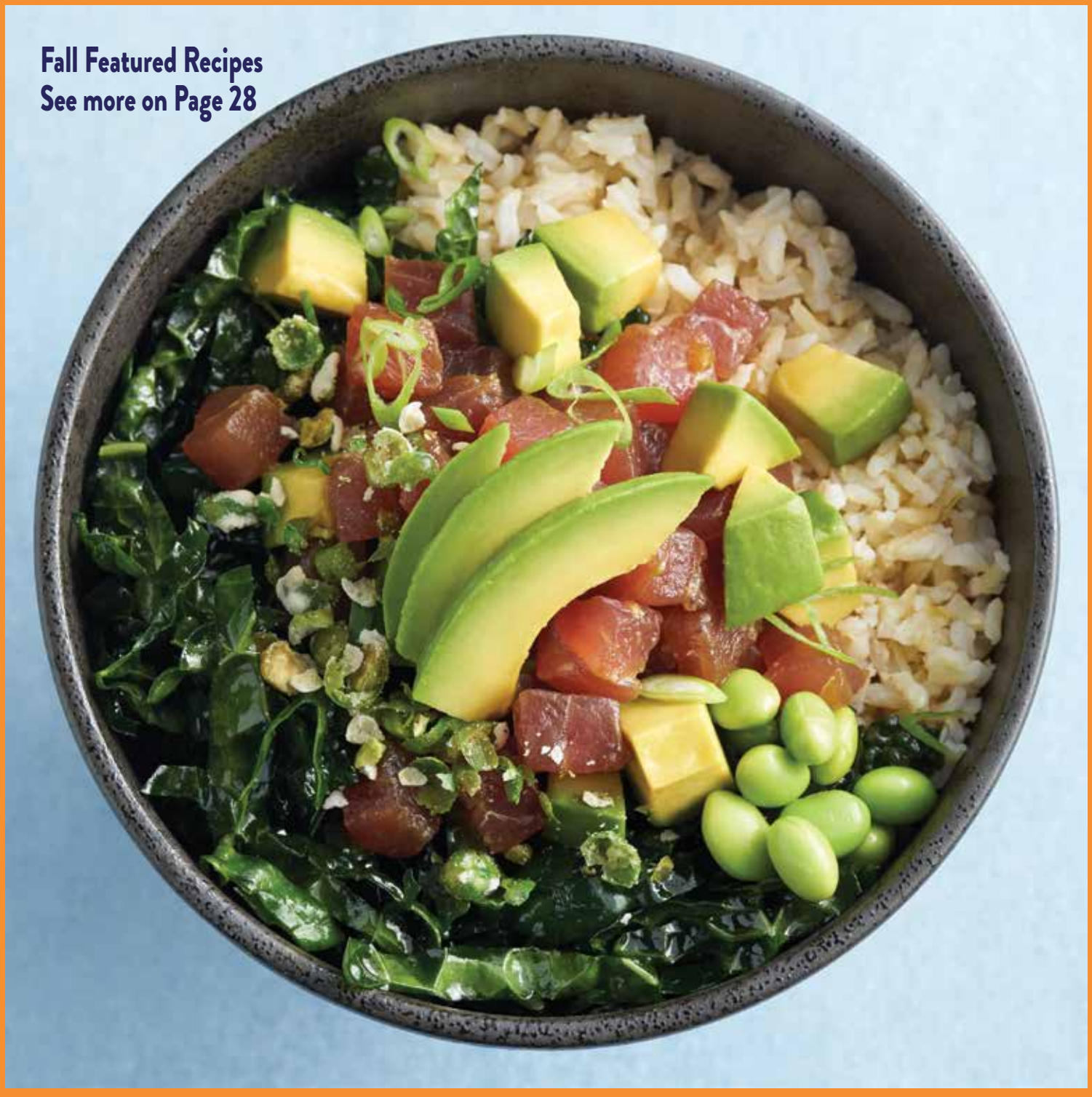
From the Grove

Fall 2024

The Latest News from the California Avocado Industry



Fall Featured Recipes
See more on Page 28

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Behind the Scenes: In-Season Grower Photography & Videography Story on Page 14

From the **Grove**

Volume 14, Number 3

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Fall 2024

In This Issue

Departments

Volume 14, Number 3 Fall 2024

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Chair's Report

By Jason Cole
Chair of the Board

Critical Grower Inputs Informs CAC Board Decisions

Based on the insights provided by California avocado growers, the California Avocado Commission Board of Directors finalized the 2024-25 Commission budget and set a half-cent per pound fixed assessment rate at the October 10, 2024, Board meeting. The path that led the CAC Board to this decision is a testament to the importance of grower meetings and the thoughtful discussions that take place across our growing regions.

Because of the prior year's larger than projected crop and the resulting increase in reserves, in August the Commission initially proposed a preliminary budget based on no CAC assessment for the 2024-25 season. The Board then met with industry members during a series of grower meetings in Fallbrook, Ventura and San Luis Obispo. Discussions at the meetings were extensive and as the meetings unfolded, growers voiced concern over not having an assessment in 2024-25, which could potentially lead to large upswings in future year assessments. Instead, growers proposed a 1 cent per pound assessment rate for the upcoming season, which was widely supported by growers in attendance at the final two meetings.

At its October meeting, the Board split the difference between no assessment and the 1 cent per pound grower-proposed rate, settling on a modest one-half cent per pound fixed assessment rate coupled with the estimated 400-million-pound crop volume. The Board believes this move will provide more long-term stability for growers and the Commission in their annual budgeting. By simplifying the process, growers can budget for the year ahead based on the pre-determined half-cent per pound rate and focus instead on predicting their yield.

On behalf of the Commission, I would like to thank all the growers who provided valuable input concerning the assessment rate and/or took the time to attend our September grower meetings. As a grower myself, I certainly appreciate how busy you are. And as CAC Chairman, I also am aware of how critical your input is. As a follow up, I welcome you to visit CaliforniaAvocadoGrowers.com and review the 2024-25 Business Plan, which provides an overview of the topline budget numbers as well as the marketing, industry affairs and research teams' initiatives.

Board of Directors

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Member/Robert Jackson
Alternate/Vacant Seat

District 2

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Member/Ohannes Karaoghlanian-**Vice Chair**
Alternate/Tina Wolferd

District 3

Member/ Maureen Cottingham-**Treasurer**
Member/Robert Grether
Alternate/John Berns

District 4

Member/Rachael Laenen
Member/Jason Cole-**Chair**
Alternate/Hayden McIntyre

District 5

Member/James Johnson
Member/Daryn Miller
Alternate/Vacant Seat

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Member/Peter Shore
Member/John Dmytriw
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To contact a CAC representative, please visit: CaliforniaAvocadoGrowers.com/Commission/your-representatives

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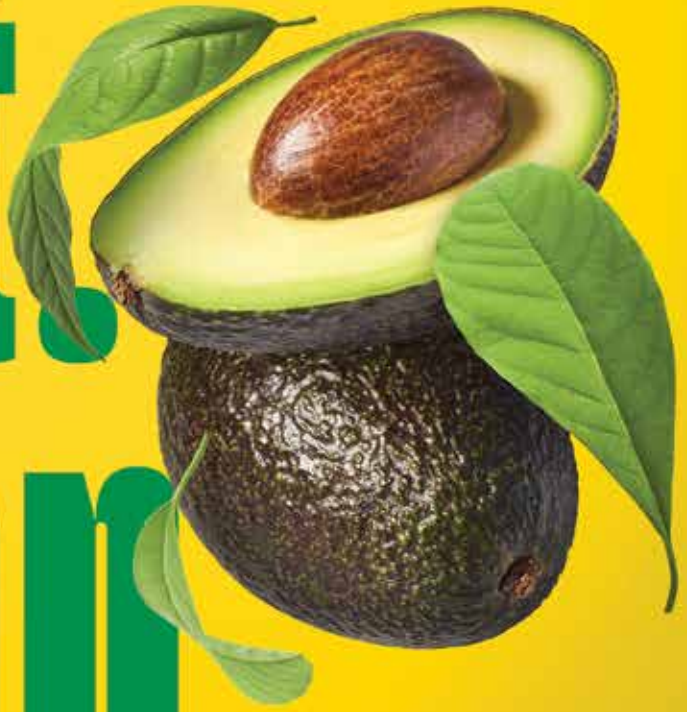

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Executive Notes

By Ken Melban
Vice President of Industry Affairs & Operations

Ken Melban

Situation Brief:

USDA Mexico avocado inspection program

Hopefully you receive the California Avocado Commission's GreenSheet updates and have read our recent reporting on unilateral actions by the United States Department of Agriculture (USDA). These actions greatly diminish USDA's Animal and Plant Health Inspection Service's (APHIS) inspection program in Mexico for avocados exported to the United States. At the Commission's November meeting, the Board was provided the following information.

Your Board and management are exploring every possible strategy to restore full USDA inspections in Mexico. Clearly, we have work to do on this issue and others. Please stay engaged and talk with your District Board members, or me if you like. We need your input. My email is kmelban@avocado.org.

Background:

2001 – USDA and Mexico finalized the Operational Work Plan (OWP) for the import of avocados from Mexico to the United States. The OWP is to mitigate phytosanitary risks to U.S. growers. Under the OWP, USDA-APHIS is responsible for excluding, eradicating, and/or controlling plant pests, including pests known to follow the pathway of Hass avocados imported from Michoacan and Jalisco, Mexico. Since implementation of the OWP in 2001, USDA has utilized employees in Mexico to conduct bi-annual grove inspections and packing facility inspections.

February 12, 2022 – USDA temporarily suspends phytosanitary export inspections of avocados in Mexico due to safety concerns for USDA inspectors.

April 5, 2024 – Commission management talks with USDA regarding deforestation concerns in Mexico and is informed the U.S. State Department is recommending transferring phytosanitary export inspections to the Mexico government. Commission management responds that this will result in an outcry from California avocado growers and the Commission.

June 17, 2024 – USDA temporarily suspends phytosanitary export inspections of avocados in Mexico due to safety concerns for USDA inspectors.

June 24, 2024 – *New York Times* contacts the Commission following a press conference with U.S. and Mexico officials where it is announced that "Mexico would progressively start replacing APHIS inspectors with Mexican inspectors to avoid stopping exports whenever there's a security concern."

June 26, 2024 – Commission issues a press release: "California Avocado Commission Calls on USDA to Maintain Direct Oversight of Mexico Avocado Export Program."

September 17, 2024 – Mexico News Daily reports "US agrees to Mexico's agricultural inspectors supervising avocado exports," removing USDA employed inspectors from grove inspections.

September 23, 2024 – Commission submits a letter to USDA Secretary Vilsack calling for administration of the OWP to remain unchanged and requesting a meeting with Secretary Vilsack. The Commission also issues a press release, which is picked up by more than 250 media outlets.

September 29, 2024 – Commission management receives a communication from a USDA inspector (unverified) in Mexico expressing concern with the transfer of oversight to the Mexican government.

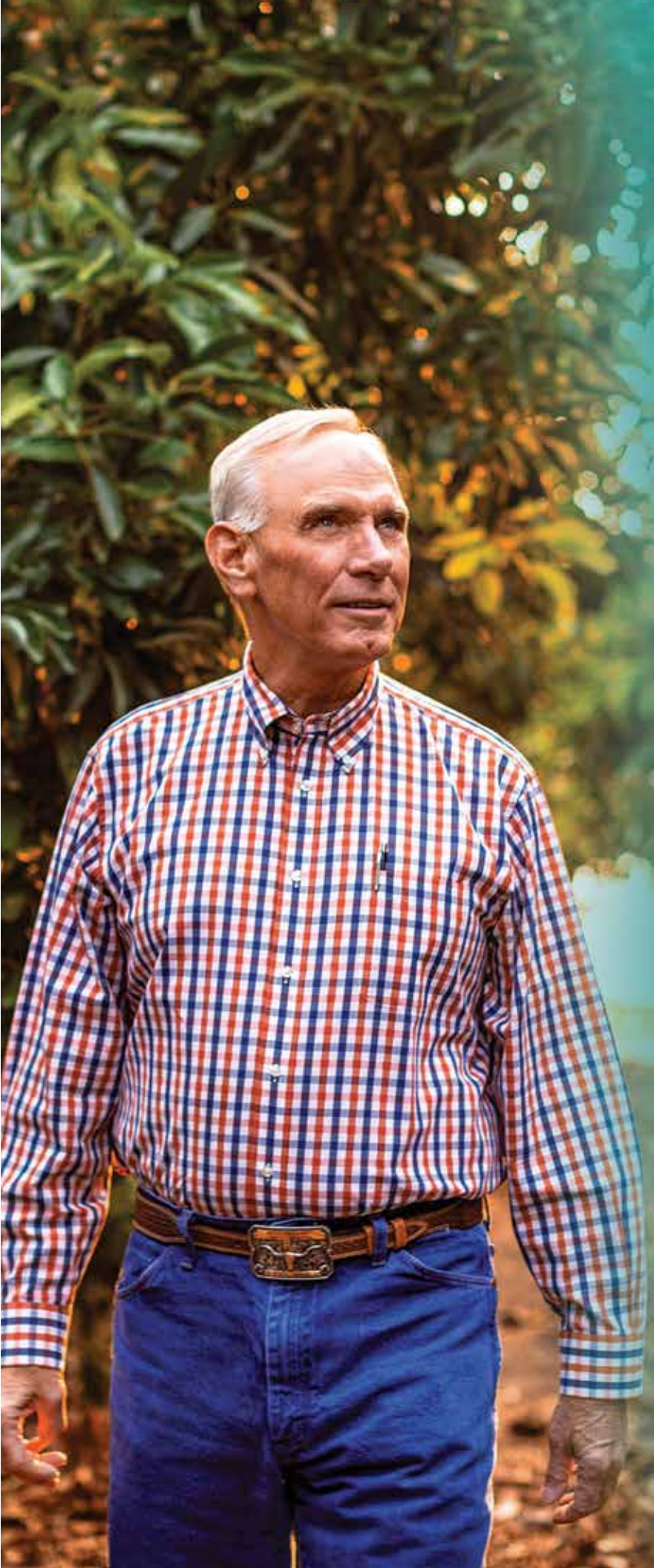
October 9, 2024 – A Congressional letter requested by the Commission is submitted to Secretary Vilsack requesting an explanation of USDA's decision.

October 11, 2024 – Commission chair and management meets with Dr. Mark Davidson, APHIS Deputy Administrator for Plant Protection and Quarantine, and Ethan Holmes, APHIS Senior Policy Advisor. USDA does not provide a science-based explanation for changes in the inspections and states these changes are due to USDA's inability to ensure the safety of their employees.

October 28, 2024 – Commission management receives a second communication from the USDA inspector (unverified) in Mexico, indicating pest detections in packing plants. Information on packing locations, inspectors, dates, and pest pictures is included.

November 7, 2024 – APHIS publishes the Final Rule allowing Guatemala avocados U.S. market access.

November 8, 2024 – Commission submits letter to Dr. Davidson asking when a response from Secretary Vilsack can be expected and requesting USDA Mexico avocado inspection reports since August 1, 2024.



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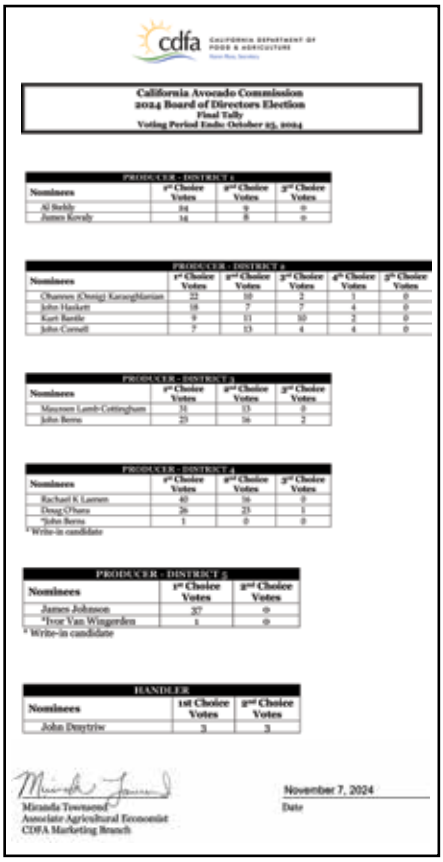
By April Aymami
Director of Industry Affairs and Operations

CAC 2024 General Election Results

On November 7, 2024, the California Department of Food and Agriculture released the final vote tally of the recently concluded 2024 CAC General Election; below is a summary of the results. As a reminder, the 2024 CAC Election was conducted using a ranked voting method, with candidates receiving the highest number of 1st Choice Votes offered the available member seat. The newly elected CAC board members were seated at the CAC Board meeting on Thursday, November 14, 2024, and executive officers for the new fiscal year were elected at that time.



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California Avocado Commission
2024 Board of Directors Election
Final Tally
Voting Period Ends: October 25, 2024

PRODUCER - DISTRICT 1

Nominees	1st Choice Votes	2nd Choice Votes	3rd Choice Votes
Al Stehly	34	9	0
James Kovaly	34	8	0

PRODUCER - DISTRICT 2

Nominees	1st Choice Votes	2nd Choice Votes	3rd Choice Votes	4th Choice Votes	5th Choice Votes
Ohannes (Onnig) Karaoghlanian	22	10	7	1	0
John Hazlett	18	7	7	4	0
Kurt Bardle	9	11	10	2	0
John Connell	7	13	4	4	0

PRODUCER - DISTRICT 3

Nominees	1st Choice Votes	2nd Choice Votes	3rd Choice Votes
Maureen Lamb-Cottingham	34	13	0
John Berra	23	16	2

PRODUCER - DISTRICT 4

Nominees	1st Choice Votes	2nd Choice Votes	3rd Choice Votes
Rachael K Laenen	40	16	0
Doug O'hara	26	23	1
*John Berra	1	0	0

* Write-in candidate

PRODUCER - DISTRICT 5

Nominees	1st Choice Votes	2nd Choice Votes
James Johnson	37	0
*Fyse Van Wingerden	1	0

* Write-in candidate

HANDLER

Nominees	1st Choice Votes	2nd Choice Votes
John Dmytriw	3	3

Miranda Townsend
Associate Agricultural Economist
CDFA Marketing Branch

November 7, 2024
Date

District 1 Member: Al Stehly
District 2 Member: Ohannes (Onnig) Karaoghlanian
District 3 Member: Maureen Lamb Cottingham
District 4 Member: Rachael K Laenen
District 5 Member: James Johnson
Handler Member: John Dmytriw, Index Fresh

There currently exist three vacancies on the CAC Board for District 1, District 5 and Handler alternate member seats. Vacancy announcements with information on how interested parties can apply will be mailed and posted on the grower website, CaliforniaAvocadoGrowers.com.

CAC Executive Officers

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Jason Cole,
District 4 Producer

Vice-Chair
Ohannes Karaoghlanian,
District 2 Producer

Treasurer
Maureen Cottingham,
District 3 Producer

Secretary
Victor Araiza,
District 2 Producer


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Executive Notes

By Terry Splane
Vice President of Marketing

Terry Splane

Supporting Unexpected Volume:

The Importance of Being Nimble

It is the role of the California Avocado Commission to balance proactive strategic planning with reactive tactical adaptation when market situations turn out to be different than expected. This season, our ability to react quickly and adjust pre-season plans benefitted California avocado growers when it became evident the crop volume was going to exceed expectations. That said, we learned a few things along the way and found areas for improvement. But I'll get to that a bit later.

Pre-season planning called for fiscal conservatism

Initially, California avocado growers' and handlers' crop forecasts were quite conservative for this season, indicating a somewhat smaller crop than in 2023. As a result, the California Avocado Commission's marketing budget was significantly reduced, right-sizing investment to ensure we didn't spend beyond the expected income. Our overall objective was to do more with less and maximize marketing results with lower investment levels.

In that same vein, we worked with our partner marketing agencies to fine-tune investments with customer-specific early season programs and core market awareness-building campaigns. Working within a limited budget, we also focused consumer media promotions on peak season availability.

Nimble mid-season adjustments

By May, mid-season forecasts indicated a trend toward increasing availability of California avocados. By the June meeting of CAC's Board of Directors, it was clear the harvest would be significantly higher than early estimates. With a higher volume of fruit to move, we faced a critical juncture. The laws of supply and demand suggest that if supply increases without an increase in demand, price decreases will follow. To avoid a precipitous decrease in the rate of grower returns, the Board asked the marketing team to adjust its retail support and consumer communications and provided incremental funds to do so.

Having a team ready to jump on opportunities quickly is paramount to success. The marketing team promptly took steps to encourage incremental demand, including retail marketing directors immediately contacting handlers for supply coordination and working with targeted retailers to delay their planned transitions to other sources of supply. Programs were set up with retailers in the West as well as outside of the West with H.E.B. and The Fresh Market. In the West, incremental programs were executed with Albertsons Southwest, Kroger West, Raley's, Safeway Northern California, Sprouts Farmers Market and Supermercado Mi Tierra. Promotions including digital offers, coupons, ad flyers and a magazine ad program encouraged demand for California avocados in the latter part of the season.

Equally nimble, the consumer communication team put into place additional media coverage, expanded social media support and developed additional influencer content. Ultimately, the majority of CAC's media partner campaigns outperformed

each partner's benchmarks, some by more than 100%. And high-impact interactive display ads and custom social content remained consistent top performers. Overall, the results of this year's advertising creative and strategic media plan indicate the California Avocados brand has a well-rounded media presence that engages audiences with both the brand story and appealing California avocado content.

What Ifs

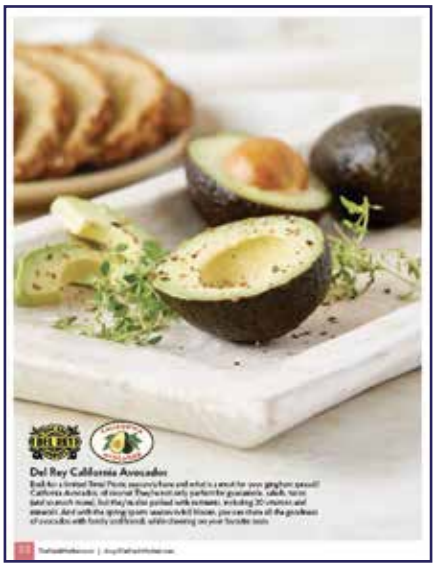
There is little doubt your marketing team's ability to quickly react helped buoy demand and prices despite the unexpected robust crop volume. And to be frank, some market supply disruptions contributed to strong market pricing in the latter half of the season. But honestly, it would have been better to have earlier notification the harvest was going to be so much larger. In the grocery industry, retailers make plans well in advance. Shelf stable item planning can begin up to two years prior and while perishable item planning tends to be more flexible, it doesn't erase the fact that grocers have plans firmly in place early. Because the crop projections were available so late in the game, the programs we were able to execute were limited and California avocado growers could have benefited if we could have taken advantage of other consumer communication opportunities earlier.

Rather than dwell on the "what ifs", we have learned from them. With those lessons under our belts, CAC is looking into possible improvements in crop estimation. And next season, your marketing team will continue to be both proactive and reactive to support your harvest.

California Avocado Retail Highlights this Season

The 2024 California avocado season retail program featured a range of marketing activations including in-store activity, digital advertising and social media support. Here are some highlights. Check out additional retail highlights in the early November issue of the *GreenSheet*.

Gelson's, California: August California avocado and Hatch chile display content

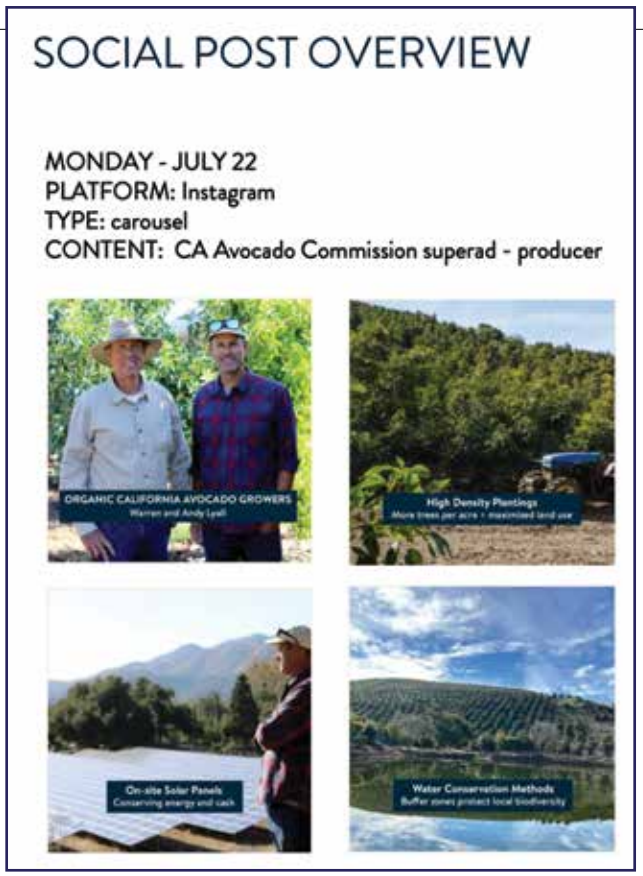


The Fresh Market magazine feature

Lunds and Byerly's, Minnesota: banner including key brand messaging

Schnucks, Midwest locations: California avocado signage with QR code for usage ideas

Costco: prominent California Avocados brand logo on display boxes



PCC Community Markets, Seattle: digital online ad and social media campaign featuring California avocado growers and sustainability messaging

Target, West locations: California avocado bins displayed in-store

Raley's, California: avocado bag rack with "Peak Produce" and California avocado signage

California avocado grower Andy Sheaffer and his sons, Augie and Eli, kneel next to new plantings. The new plantings help to show diversity in the grove shots captured throughout the shoots, and closeups of the father and his sons help spotlight the authenticity that the campaign aims to share.

Behind the Scenes:

In-Season Grower Photography and Videography

In August, industry trade magazine Produce Business *honored the California Avocado Commission's "What's Inside a California Avocado?" campaign in its prestigious "2024 Marketing Excellence Awards." One key reason: the campaign's stunning visuals of California avocado groves and the stories of the growers behind them.*

Capturing this storytelling is due not only in large part to the meticulous planning from CAC and its agency partners, but the tremendous cooperation of California avocado growers who opened their groves and offered their valuable time and resources. It was no simple feat to bring this campaign to life. Here's a behind-the-scenes look at how the Commission and its partners captured the in-season grower photography and videography.

A Tour of California's Avocado Groves

From February through July, the CAC team, in collaboration with their consumer marketing agency Curious Plot, traveled across California avocado growing regions to capture images for this and next year's advertising campaigns. Visiting six avocado groves, the team worked closely with growers to create compelling video and photography for the "What's Inside a California Avocado?" campaign.

The photography and videography shoots began in February with:

- Jaime and Ricardo Serrato at Jackson Ranch in Escondido
- Maureen Lamb Cottingham, John Lamb, David Lamb and Robert Lamb at Camlam Farms Inc. in Camarillo

In May, the team visited Michael Craviotto, his family and employees at their grove in Moorpark.

By July, the Commission worked with:

- Daryn Miller's family at Villa Pacifica Ranch in Cayucos
- Hayden McIntyre at Morro Ranch in Morro Bay
- Andy Sheaffer and his sons, Augie and Eli, at his grove in Ventura County

CAC team members Terry Splane, Zac Benedict, David Cruz and Lori Small played key roles in the project, alongside the Rockwell Morrow and Curious Plot teams.

Capturing the California Difference

Based on consumer research, the Commission recognized early in the year that highlighting local and sustainable growing practices would have the most impact on consumers. To do so, CAC needed to highlight growers using fresh, authentic visuals. With that in mind, they prioritized visiting groves that represented diverse regions and offered visually striking settings.

Before filming, team members scouted each location, assessing which parts of the groves would provide the best opportunities for photography and videography. Once they finalized the locations for the shoots, the team spent one full day at each site, bringing together a crew of up to 10 people. This included a producer, still photographers, art directors, food stylists, lighting specialists, video camera operators and a director of photography.

Ahead of the shoot, the team:

- Worked with the growers on all logistics: dates and times, who could be on site and who was willing to be in the shoot
- Ordered crates of fruit that would be on set for cutting open i.e., the "hero" fruit of the shoots
- Created a detailed pre-production document shared with the growers. It included the campaign objectives, mood boards, shot lists and logistical overview

The video crew wore special stabilizer backpacks to capture beautiful smooth shots of grove details.

How the Shoots Unfolded

Each day was different, some beginning in the early hours of the morning while others took the crew to sunset. The crew started the shoots by meeting with the growers and conducting a review of the planned shooting locations. Each shooting location was carefully selected to craft a mix of stories and highlight diverse aspects of the groves. As the video crew set up, a drone operator captured breathtaking vistas from high above these groves, highlighting the beauty of the avocado farms from overhead as well as scouting for any additional shooting opportunities.

Once the ideal spots were identified, the team got to work. Throughout the day, they staged various shots of growers walking through their groves, interacting with their families and crews, and inspecting and harvesting the fruit. Using a predetermined shot list, the video crew captured a balance of the growers in action, as well as b-roll (supplemental video) and behind-the-scenes footage from different angles to edit together in post-production.

Throughout the day, the crew was meticulous with logistical details, careful to avoid shooting logos and labels, ensuring release forms were signed by anyone featured in the footage and moving power cables, lighting and cameras throughout the grove.

By the end of each day, the crew had collected a wealth of content, including still images and video footage, that would bring the California growers and their fruit to life.

California avocado grower Daryn Miller and CAC Vice President of Marketing Terry Splane are captured in discussion. To help soften the direct sunlight, the crew set up overhead diffusion screens.

Growers Daryn Miller and Jim Miller were captured walking the groves. The crew directed them to walk back and forth, talk casually and joke around to capture their natural chemistry on camera.

From the Groves to Consumers

Post-shoot, all photos and videos were reviewed and labeled. The team then selected the most compelling shots to carefully edit into the campaign videos and visuals.

The February photography and videography content formed the foundation of the California avocado core advertising campaign, which launched April 1 and ran throughout the summer. In addition, the July content played a significant role in next year's advertising campaign.

The photography and videography session with the Craviotto family in May followed a different path due to urgent retail needs. A retail customer required specific grower images for an event and consumer promotion, and the timeline was tight. In response, the Commission quickly organized a smaller scale shoot with just one photographer and one CAC representative. The images from that day have already seen extensive use in marketing communications outside the core campaign.

Why This Effort Matters for Growers

These photography and videography efforts help consumers connect with California avocado growers in an authentic way, encouraging awareness and preference for California-grown avocados. By reminding shoppers that California avocados are locally grown and sustainably farmed, the campaign strengthens consumer loyalty and builds long-term demand.

"We are incredibly grateful to all the California avocado growers, their families and employees for being a crucial part of this promotion," said Terry Splane, vice president of marketing, CAC. "The growers are the heart of the brand, and they are what truly sets California avocados – and the 'What's Inside a California Avocado?' campaign – apart."

Better Growing

By Ali Montazar,
UCCE Irrigation and Water Management Advisor
in San Diego, Riverside and Imperial Counties
&
Ben Faber,
UCCE Subtropical Crops Advisor
in Ventura & Santa Barbara Counties

Optimizing Avocado Irrigation Management Practices Using Soil Moisture Sensing

Introduction. Irrigation scheduling is one of the most critical management decisions that affects avocado tree growth, fruit yields and profitability. It is an effective tool to enhance water use efficiency and productivity which not only may result in water and cost savings but also may assist in sustainable future expansion of the avocado industry. Importantly, avocados are very sensitive to overwatering and underwatering and long-term tree health is affected by proper irrigation management. Avocados for the most part are grown in coastal California where weather patterns are erratic, and a fixed irrigation schedule can easily lead to improper irrigation management.

Understanding the effects of irrigation events on soil water content provides critical insight for farmers about the present growing environment, the frequency and duration of irrigation events needed, and to maintain adequate soil moisture for avocado trees. There are instances where irrigation events occur too often and for far longer periods than required to reach field capacity (the amount of soil water content held in the soil after excess water has drained away following an irrigation event) in avocado orchards. There are also instances where irrigation events occur improperly, and more frequent irrigations or a greater amount of water in some events could improve soil water conditions for healthy tree growth. A soil moisture sensor is a proven and useful irrigation tool that can provide answers to the following critical questions:

- What is the water status of the soil early in the irrigation season?
- When is the right time for the first and subsequent irrigation events?
- Is the soil profile full after each irrigation event?
- What is the length of irrigation time?
- Should the irrigation practice be changed?

Soil moisture sensors appear to be the most adopted irrigation scheduling tool in California avocados. Nearly 46% of growers who responded to our recent avocado irrigation management survey reported using soil moisture sensors as the key decision-making irrigation tool (Fig. 1). It needs to be noted that avocado growers also use plant observations and calendars in combination with other irrigation tools including soil moisture, CIMIS (California Irrigation Management Information System; https://cimis.water.ca.gov/), and the avocado irrigation scheduling calculator (http://avocadosource.com/tools/irrigationcalculator.asp).

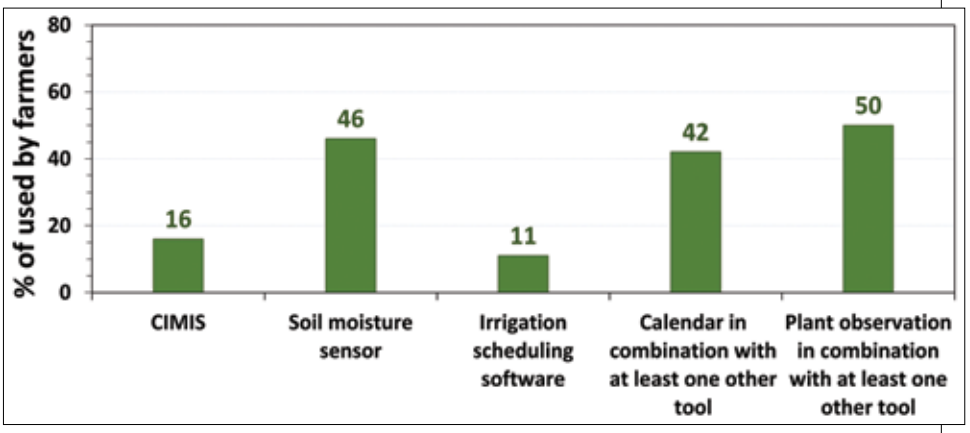


Fig. 1. The percentage of farmers who use different irrigation scheduling tools in their avocado orchards. Results are obtained from our recent avocado irrigation management survey completed by 62 California avocado farmers.

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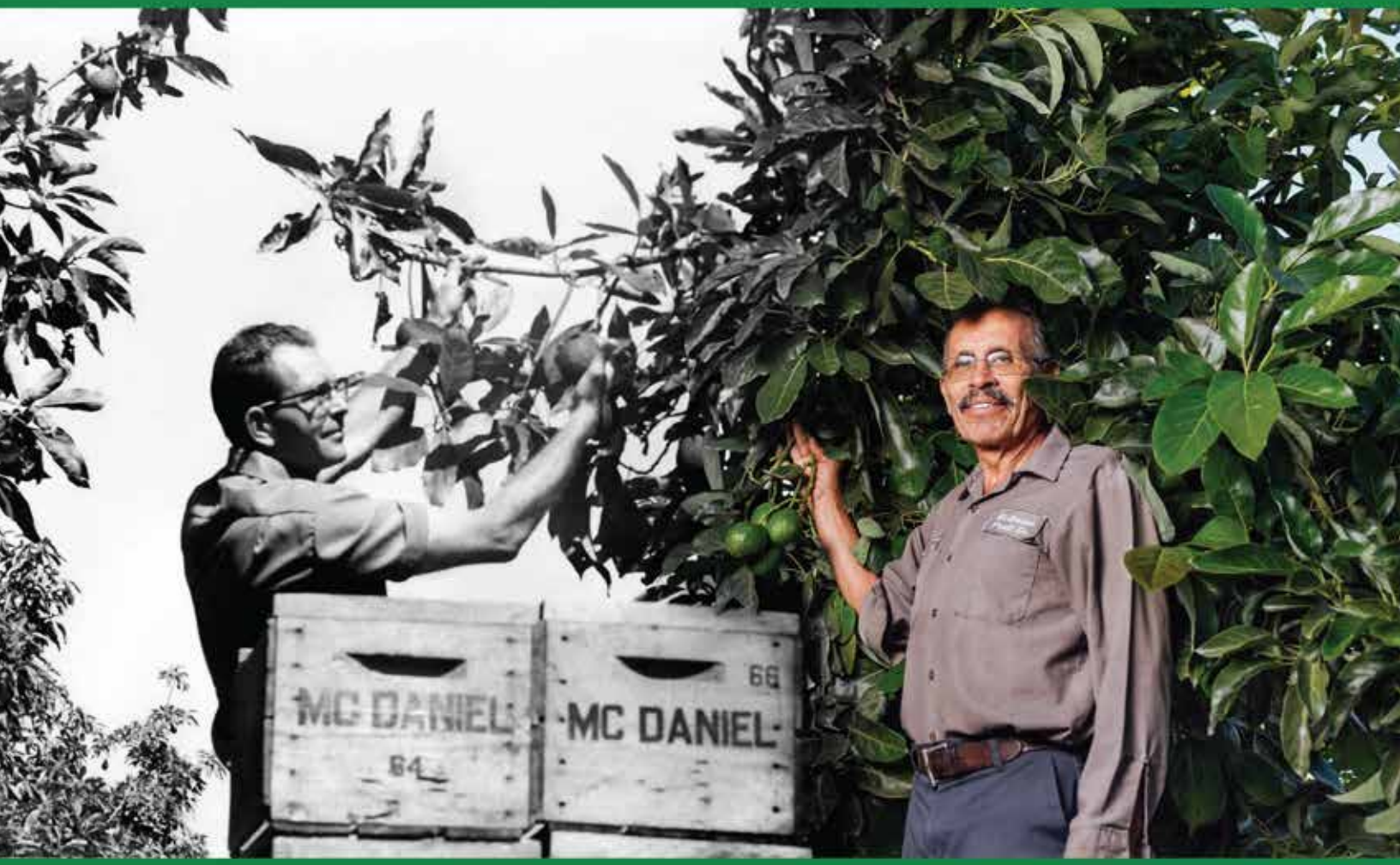
FRUIT COMPANY



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Soil moisture sensor selection. An extensive range of soil moisture sensors/probes have already been commercialized and are available to use in avocado orchards. They determine the real-time soil water potential (tension) or volumetric water content and are dominated by a small number of technologies including granular matrix or gypsum block sensors, tensiometers, time domain reflectometry (TDR) sensors, and Frequency Domain Reflectometry (FDR) or capacitance sensors (Table 1 and Fig. 2). Some commonly used soil moisture sensors can be combined with various telemetry devices to access the data through cloud-based data storage applications. Data is automatically uploaded by radio or cell phone communications to cloud-based computer servers and is accessible through apps on smartphones and tablets. These communication advancements greatly improve the convenience of accessing data and can be configured to provide timely alerts when trees require irrigation.

The results of our avocado irrigation management survey demonstrated that avocado farmers dominantly adopted tensiometer and watermark soil moisture sensors. However, some other sensors such as AquaSpy, Sentek, CropX, Hortau, Meter, and GroundWorx are also used in avocados (Fig. 3). Different types of soil moisture sensors have different accuracies, depending on the sensing technology used and

Fig. 2. A demonstration of commercialized soil moisture sensors.

Table 1. A summary of commercialized soil moisture sensors.

Technology	Measurement (key parameters)	Manufacture
Granular matrix	Soil water potential	Metergroup, Irrometer
Tensiometer	Soil water potential	Hortau, Irrometer, Metergroup
TDR	Volumetric moisture content (and soil temperature and salinity)	Acclima, Campbell Scientific, Metergroup, Environmental Sensors, Spectrum Technologies
FDR or Capacitance	Volumetric moisture content (and soil temperature and salinity)	AquaCheck, AquaSpy, Metergroup, Sentek Technologies, Spectrum Technologies, CropX

Table 1. A summary of commercialized soil moisture sensors.

Fig. 3. Various soil moisture sensors used in California avocado orchards (Acclima, Watermark, and tensiometer soil moisture sensors and telemetry devices (a & b), CropX soil moisture probe (c), and Metergroup Teros 54 soil moisture probe (d)).

the property of the soil. For instance, the readings of electromagnetic sensors tend to have larger errors in soil with higher clay content. The salinity of soil and/or irrigation water is another factor that can increase sensor error.

While considering the sensors that might work best for your own orchard depending on soil properties and cost (a wide range of less than $100 to more than $300 per sensor plus datalogger/telemetry components and yearly data subscription costs), it is also critical to learn where and how to install and maintain the sensors, and how to interpret and use the data of soil moisture sensors for irrigation management. Most soil moisture sensors have sufficient accuracy, and if properly installed in the right place, they may provide high quality useful data to answer the critical questions mentioned before.

Location of soil moisture sensors. The proper location of a soil moisture instrument within the active root zone is quite important. Given the high spatial variability of soils in avocado orchards on hillsides and seasonal changes in root distribution and – frequency, both within the orchard and around the trees, – the accuracy and representativeness of soil water measurements can be strongly affected.

In selecting the best location for placing a soil moisture instrument, one must consider at least two factors: first, the representativeness of its placement within the orchard, and second, the location around the avocado tree itself. Within the avocado orchard, the ideal situation for instruments is in a homogeneous area that is representative of the orchard as a whole, considering both trees and soil (use soil sampling and/or soil survey tools such as http://websoilsurvey.sc.egov.usda.gov to map you soils on the orchard). Having one soil moisture probe per irrigation block could be very beneficial for the effective monitoring of the entire avocado orchard. In addition, around the selected trees, the sensor should be placed at a soil depth and distance from the tree trunk where the highest concentration of root activity is located. The direction, as in-the-row or between-the-rows, should also be considered, particularly as it relates to the irrigation method being used. Drip irrigation tends to concentrate roots within as many soil wet bulbs as there are emitters, and micro-sprinklers (usually one per avocado tree)

California Avocado Commission 2025 Meeting Schedule

The California Avocado Commission encourages growers to engage with Commission Board members and staff by attending meetings throughout the year. Below is the current Commission meeting schedule for 2025, which is subject to change. As indicated below, some Commission meetings are in-person only. Please visit the grower website, CaliforniaAvocadoGrowers.com, for the most up-to-date information.

February 20, 2025 – CAC BOARD MEETING
- Location: Hilton Garden Inn, Temecula

March 25-27, 2025 - CAC ANNUAL MEETINGS (IN-PERSON ONLY)
- March 25, 2025 – South Coast Winery
- March 26, 2025 – Museum of Ventura County
- March 27, 2025 – SLO Farm Bureau

June 4-5, 2025: CAC BOARD MEETING (IN-PERSON ONLY)
- Location: Pasadena

August 14, 2025 – CAC BOARD MEETING
- Location: Ventura County

September 2025 – CAC FALL GROWER MEETINGS (IN-PERSON ONLY)
- Dates TBD – Three separate meeting dates with locations in Riverside/San Diego County, Ventura County and San Luis Obispo County

October 9, 2025 – CAC BOARD MEETING
- Location: Orange County

November 20, 2025 – CAC BOARD MEETING
- Location: Orange County

concentrate roots in a larger wet bulb, often located between the trees and within the row. The soil moisture sensor should be set up somewhere between the tree and micro-sprinkler, not very close to the tree nor very close to the micro-sprinkler.

Soil moisture data triggers irrigation events. The major pitfall of the soil-based irrigation norms using soil moisture probes is that irrigation scheduling is carried out according to the properties of the soil, while the water status of the plant is not taken into consideration. An assumption is made that the plant would not stress if soil water content at the effective root zone is kept within the recommended ranges of soil water content, usually field capacity and 50% depletion of easily available water. If the sensor is not in the right place or the avocado root system is not healthy, the measured soil moisture will not truly assess the tree moisture status.

Avocado growers who schedule irrigation based on soil water balance could use a depth of up to 24 in. (called irrigation depth and is recommended to monitor water drained below effective crop root zone of avocado trees), where more than 70% of roots are found. Data from the sensor installed at 8 - 12 in. depths could be considered as a good indicator for irrigation management. For instance, those who read the in-field soil water potential from tensiometer and/or watermark sensors may trigger irrigation when soil water potential reaches between – 20 (20 if it is called soil water tension) and – 40 centibar (cb) at the shallow depth. In order to provide adequate water, irrigation is normally started when the soil dries to -25 cb for sandy soils, or to 40 cb for clay soils. These numbers could be considered greater in late fall through winter when temperature is low, and the water and heat stress are not likely potential issues. This provides optimal water availability that does not restrict plant growth. The amount of available water remaining in the soil profile at this given time determines the need for irrigation.

An interpretation of soil moisture data from avocado orchard case studies. Half-hourly soil water tension (potential) at 12 in. depth was measured using watermark sensors in two avocado sites, site A with a sandy loam soil texture and site B with a silty loam soil texture (Fig. 4). The data demonstrates that the soil water was maintained within the optimal range in both sites A and B due to the frequent irrigation events, while there was room to optimize irrigation management practices in these avocado sites. For instance, a moderate water stress could have occurred in mid-June 2022 at site A, when the soil water tension exceeded 70 cb, due to a late irrigation event. Also, scheduling a light irrigation event in mid-February 2023 at site A could benefit avocado trees. Even though considerable precipitation occurred in winter 2023, there was no rain event between late January through February 20, 2023, at this site, and consequently, the soil water tension exceeded 100 cb for a short period of time until new precipitation occurred in late February.

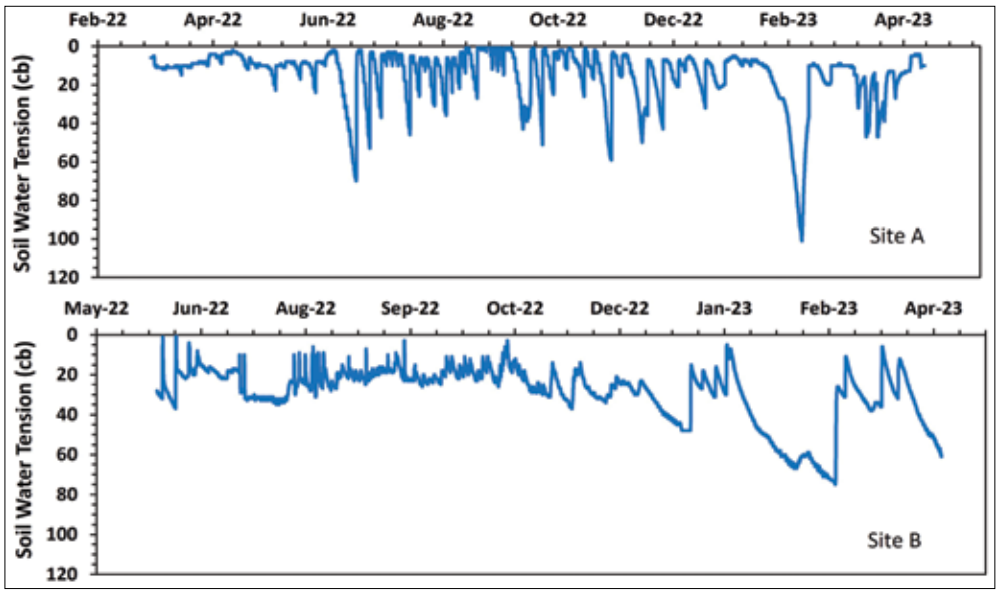

Fig. 4. Half-hourly soil water tension (centibar) measured using watermarks at 12 in. depth in two different avocado orchards over nearly a 12-month period. Sites A and B have sandy loam and silty loam soil textures, respectively. Soil water tension at field capacity (FC) at site A and B is approximately 12 and 20 cb, respectively. Both sites have micro-sprinkler irrigation systems with a flowrate of 9.5 and 7.4 gallons per hour (per tree).

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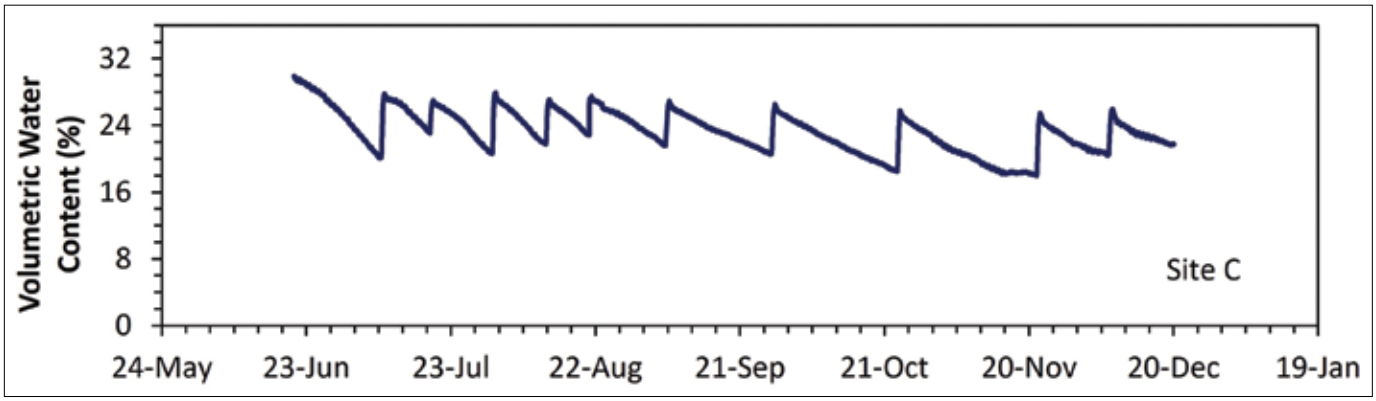

Fig. 5. Half-hourly soil volumetric water content (%) measured using CropX soil moisture sensor at 8 in. depth in an avocado orchard over a six-month period. The site has a loamy soil texture. Soil water content at field capacity (FC) at site C is approximately 28%. The site has a micro-sprinkler irrigation system with a flowrate of 7.9 gallons per hour (per tree).

Site B was occasionally overirrigated during the summer but again one irrigation event in mid-February 2023 could have been recommended for this avocado site as well, to maintain soil water status at a desired level in the late flower bud development growing phase. The soil moisture data indicates that less frequent irrigation events at site B and shorter irrigation runs at site A could be considered in the summer period to improve irrigation efficiency.

A good example of proper irrigation scheduling in avocado orchards is what happened in a 6-month period at site C (Fig. 5). The loamy soil of this site has high water holding capacity and the grower scheduled 10 irrigation events between mid-July and mid-December in the 2023 season. As a result of proper irrigation management at this site, the volumetric soil water content at the effective root zone was maintained at an average of 23.5% over the period. No considerable overirrigation or potential water stress was observed, as soil moisture was adequately maintained throughout the study period.

A few last comments. We need to keep in mind that adopting soil moisture sensors and effectively using them to fully obtain the benefits and optimize irrigation scheduling in avocado groves could be time consuming. Making a habit of having them in avocado groves and looking at their data is likely the most critical step of the adoption process. One might be disappointed about the accuracy and the effectiveness of this tool in the beginning, or even find soil moisture data redundant. A learning curve and good approach to effectively adopt soil moisture sensing in avocados could be to track the data for good quality over a period with several irrigations and/or rain events, accurately interpret the data for the period, implement changes needed in the irrigation practice accordingly, and track the impact for a following short period. Ensure good quality data, learn to interpret the data, and take action(s) for improving irrigation practices if needed!

By Tim Spann, PhD
Spann Ag Research & Consulting

Rely® 280 Herbicide Update

In May 2024, we alerted the industry that the California Department of Pesticide Regulation (DPR) had finally approved the herbicide Rely® 280 (glufosinate-ammonium) for use in avocado groves in California. The process to get Rely® registered had taken about five years and was a much-needed tool for California avocado growers to manage glyphosate (Roundup®) resistant weeds.

Unfortunately, in late August we received word that BASF, the manufacturer of Rely®, had "chosen to discontinue production of Rely Herbicide." This was shocking information to receive given the time that had been invested in obtaining this registration. And as we learned, it was a decision that was just as surprising to our contacts at BASF who had worked closely with us on the registration process.

What Happened to Rely®?

According to our contacts within BASF two primary factors contributed to BASF's decision to stop producing Rely®. The first factor was a federal court decision in February 2024 that revoked the registration of dicamba herbicide for use on cotton and soybeans. This led to more farmers growing LibertyLink® soybeans, which have been genetically modified to be resistant to BASF's Liberty® herbicide. Liberty® just happens to have the same active ingredient, glufosinate-ammonium, as Rely®.

The second factor that influenced BASF's decision is the availability of generic glufosinate-ammonium herbicides in the horticulture and specialty crops industries (avocados are a specialty crop). The availability of these generics greatly reduced the price of glufosinate-ammonium herbicides, presumably reducing BASF's profits from Rely®.

These two factors led BASF to shift their glufosinate-ammonium supply to their Liberty® product and discontinue production of Rely®.

Where Does This Leave Avocado Growers?

Rely® is still registered for use on avocados and is legal for use as long as supplies last. Importantly, Rely® is the only glufosinate-ammonium herbicide legal for use on avocados in California. No generic glufosinate-ammonium herbicides can be used. Also, it is unlikely that growers will find Rely® with an updated label that has avocados listed. Thus, growers must have a copy of the DPR approved supplemental label in their possession when using Rely®. The DPR approved label has a stamp on it with the wording "LABELING ACCEPTABLE State of California Department of Pesticide Regulation Pesticide Registration" and can be found on the CAC grower website here: (https://www.californiaavocadogrowers.com/sites/default/files/Rely-280-NVA-2022-04-0598-0238-avocado.pdf).

Our understanding is that the supply of Rely® in the marketplace is good, but as it is used up growers may find it is out of stock at their local ag chemical dealer and may need to look elsewhere to find it. If able, growers are encouraged to purchase a supply of Rely® to carry them through at least the next six months.

Weed management had become a struggle for many growers dealing with glyphosate resistant weeds, such as hairy fleabane. Glufosinate-ammonium was a much needed tool in situations like this. Photo credit: Danny Klittich.

Will Glufosinate-ammonium Be Available Again?

Currently, it is unknown what BASF's long-term plans are for Rely®. They could resume production in the future, they could choose to sell the label to another manufacturer, or they could do nothing. In the interim, the California Avocado Commission has had a conversation with DPR and explained the situation. DPR is open to considering a 24(c) special local needs (SLN) registration for a generic glufosinate-ammonium product. CAC has reached out to a number of manufacturers to try to find one who is willing to support the SLN registration. Once we have their support, we will submit a packet to DPR for review and are hopeful we will have a replacement for Rely® available in early 2025.

While an SLN registration is not a permanent solution, it will buy us time so we can learn what BASF's long-term plans are and, based on BASF's plans, plot a course forward to another full registration.

Digital ads delivered via GumGum achieved engagement rates 150% above average.

Seven Superstar Key Performance Indicators

From the California Consumer Advertising Campaign

A key component of the California Avocado Commission marketing program is tracking performance to learn what tactics are performing well and which need improvement or adjustment.

To determine the metrics of performance, CAC looks to established benchmarks for comparison. The benchmarks can be industry wide, channel- or media-specific or measures versus prior period performance. With a small crop initially forecasted for 2024, this season's advertising budget was significantly smaller than in past years, which resulted in overall lower advertising impressions. This was expected. What was not expected was how many media and social media Key Performance Indicators would significantly exceed targeted benchmarks. In this first year with a new advertising agency, Curious Plot, and a new advertising campaign emphasizing California avocado growers and key messaging about locally grown and sustainably farmed, the Commission is very encouraged about the changes in marketing direction and the response of targeted consumers.

Here are seven "Superstar KPIs" from this season*:

1. YouTube overall view rate of California avocado ads is 92.7%, more than three times the benchmark of 30%

2. Video ads on streaming/connected TV (CTV) services overall view rate is more than 98%, exceeding the general benchmark of 93-95%

3. CAC's overall Yelp campaign has driven more than 237,000 store visits

4. Mobile and desktop "skins" (which are ads that surround targeted content on the web) delivered via the service GumGum achieved engagement rates more than 150% higher than GumGum's average

5. Select content on The Kitchn and Tastemade has exceeded their benchmarks by up to 400%

6. Website traffic-driving content on social media Meta channels achieved a 280% website traffic increase year over year

7. CaliforniaAvocado.com website engagement rate increased from 24% last year to 33% this year, and on the website sessions, page views and new users all are up more than 70%

**Results measured from May-July 2024*

Facebook and Instagram ads promoting clicks to the website achieved a 280% website traffic increase versus prior year.

Featured California Avocado Recipes

In this edition of *From the Grove*, the California Avocado Commission features two recipes that go beyond traditional guacamole and Mexican cuisine to showcase the versatility of California avocados and encourage expanded usage. Chef Todd Chang developed *California Avocado and Ahi Poke Bowl* and Chef Josiah Citrin created *Linguine with California Avocado Pesto and Cherry Tomatoes*. Both California chef recipes were crafted for consumer use and are highly rated on CaliforniaAvocado.com. The recipes have been utilized in multiple consumer programs and public relations activities.

(Growers: please call 949.341.1955 if you have a California avocado recipe to share in CAC marketing communications.)

California Avocado & Ahi Poke Bowl

Serves: 4
Time: 45 minutes, including 30 minutes chill time

Ingredients

- 1 lb. ahi tuna sashimi
- ¼ cup ponzu
- 2 Tbsp. reduced-sodium soy sauce
- 2 Tbsp. extra virgin olive oil
- 2 cups shredded kale (leafy parts only, no stems)
- 2 ripe, Fresh California Avocados, peeled and seeded
- 2 Tbsp. finely chopped green onions
- 2 Tbsp. sriracha mayonnaise, optional
- 3 cups cooked brown rice, hot
- ½ cup edamame beans (thawed if frozen)
- 2 Tbsp. crushed wasabi peas

Instructions

1. Cut tuna into ½" cubes. Combine with ponzu and soy sauce.
2. Cover and refrigerate for 30 minutes.
3. Meanwhile, massage oil into shredded kale; reserve.
4. Dice one avocado and slice the other.
5. Mix marinated tuna, green onions and the diced avocado.
6. For a spicy tuna version mix in sriracha mayonnaise.
7. To assemble the poke bowls, divide the hot rice and kale among 4 individual large bowls. Top with tuna mixture and garnish with sliced avocado, edamame beans and crushed wasabi peas.

Linguine with California Avocado Pesto and Cherry Tomatoes

Serves: 4
Time: 35 minutes

Ingredients

- 1 lb. linguine, cooked al dente, reserving 1 cup of pasta water
- 2 ripe, Fresh California Avocados, seeded, peeled and halved
- 1 cup baby arugula leaves
- 1 cup baby spinach leaves
- 1 cup fresh basil leaves, packed
- ¼ cup toasted pumpkin seeds
- ¼ cup toasted cashews
- 2 cloves garlic, peeled and smashed
- 3 Tbsp. lemon juice
- 3 Tbsp. extra virgin olive oil
- 1 tsp. sea salt
- 2 tsp. freshly ground black pepper
- 1 cup grated parmesan cheese
- 1 cup halved cherry tomatoes
- 2 Tbsp. julienned basil leaves, for serving

Instructions

1. Place cooked linguine and reserved pasta water to the side.
2. Add the halved avocados, baby arugula, baby spinach, basil leaves, pumpkin seeds, cashews, garlic, lemon juice, extra virgin olive oil, sea salt and pepper to a blender or food processor and then blend until smooth.
3. Once the pesto is smooth, add the grated parmesan and pulse a few more times to combine.
4. Place the pasta in a large serving bowl and top with the California Avocado Pesto.
5. Toss the pasta together with the pesto until coated.
6. Add the halved cherry tomatoes.
7. A small amount of reserved pasta water can be added to the pasta, as needed, to create a loose, silky pesto that coats the linguine evenly.
8. Sprinkle pasta with the julienned basil leaves and serve.

Serving Suggestion: *In addition to the julienned basil, you can top the dish with any remaining toasted pumpkin seeds or cashews for added texture.*

***Large avocados are recommended for these recipes. A large avocado averages about 8 ounces. If using smaller or larger size avocados adjust the quantity accordingly. As with all fruits and vegetables, wash avocados before cutting.*

By Tim Linden

Large Crop on Tap for 2025

The rains for the past two years resulted in healthy trees and a very good bloom this spring, which could result in California's largest crop in almost a decade.

"Our field team thinks that a 400-million-pound crop is definitely reachable," said Patrick Lucy, president of Del Rey Avocado Company, Fallbrook, CA.

In fact, Lucy said while a 500–600-million-pound crop doesn't yet appear to be in play, that reality might not be too far off. The optimistic outlook is based on new plantings with better trees and rootstock, as well as higher density configurations. He said the traditional way of refurbishing an older grove by grafting trees is no longer considered to be the optimum approach. Using new trees and salt-tolerant rootstock that are better suited to each geographical situation tends to produce greater yields.

In fact, the Del Rey executive said that same dynamic played a big role in the underestimating of the 2024 crop. "The field teams could see some groves were loaded with fruit but they previously would cap an estimate at about 20,000 pounds per acre," he said. "This summer we saw groves or parts of groves that were producing 30,000 to 35,000 pounds per acre."

He also reminded that predicting yield is not an exact science. What remains to be seen is what extent will these huge producing groves with their newer and improved rootstock experience the alternate bearing effect that has defined avocado production for generations. The goal has always been to develop trees that do not follow that tendency. Lucy said 2025 will provide a great data point for estimators.

Assuming the predictions are accurate and the 400-million-pound crop does materialize, Lucy believes it will face good marketing conditions. He reasoned that in the April through July time frame, which is when the vast majority of that crop will be marketed, California growers produce an avocado that yields an eating experience far superior to the competition from any of the other production regions. "History shows that demand for domestically grown avocados is very good at that time of the year and growers can get the premium that they need and deserve," he said, relating that growing costs are higher domestically.

He also believes with such a large crop there will be more fruit marketed at the front end of the season and that shippers will use more California fruit than ever before for their export programs. "That great green color that the California fruit has travels well and is very appealing to importers in the South Pacific region."

Peter Shore, vice president of production management for Calavo Growers Inc., and a member of the California Avocado Commission board, talked to From the Grove immediately after attending the October board meeting. "It is still preliminary and we still have to get through the winter, but 400 million pounds seems very doable," he said.

He said there was a late summer heat wave but it doesn't seem to have resulted in a major reduction in the crop estimate. "There was fruit drop and it's hard to tell at this point, but it doesn't appear to have changed the estimate."

Like Lucy, Shore believes annual crops in the 400-million-pound range will be commonplace from here on out, with a crop size below 300 million pounds being the outlier. This prediction, of course, is based on Mother Nature cooperating with good rainfall and no devastating natural disasters. He based his predictions on the increased acreage and tree counts in the northern districts of the California avocado growing map and the performance of those trees in 2024. He believes higher yields per acre is the new normal based on the factors articulated by Lucy.

He agrees that 2025 will offer great information about the alternate bearing performance of these newer groves.

Shore also expects the California fruit to come to market under good selling conditions. He said the avocado market has remained very strong for most of 2024 even with California's larger than anticipated crop and a solid crop from Mexico. Mexico is expecting to export about 2.5 million pounds to the U.S. market during its 2024/25 fiscal year, which is very similar to 2023/24. "We are expecting a more consistent fruit flow with a good market," he said of the next six months, leading into the marketing of California's crop.

(Editor's Note: This article was written prior to the Santa Ana winds event and Mountain Fire that occurred in early November of 2024.)

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