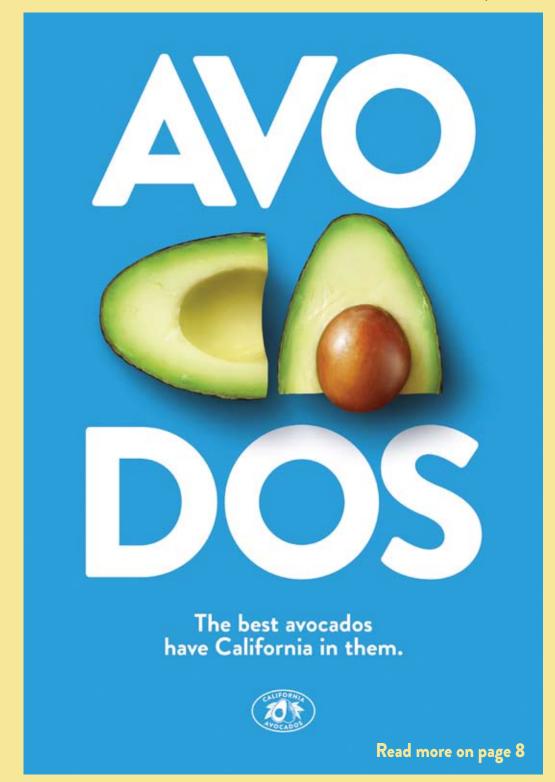


The Latest News from the California Avocado Industry



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From the Grove

Volume 10, Number 1

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The articles, opinions and advertisements presented in this magazine are designed to offer information and provoke thought. Inclusion in this publication does not presume an endorsement or recommendation by the California Avocado Commission for any particular product or cultural practice.

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Message from the President

The California Avocado Industry, Dissected

Recently, the Hass Avocado Board commissioned the France-based Centre de Cooperation International En Recherche Agronomique Pour Le Developpement (CIRAD) to take an in-depth look at the California avocado industry, following similar analyses of the avocado industries in Mexico and Peru. These studies are worth your attention if you expect to be producing avocados for the long haul.

The CIRAD team did an exceptional job of distilling the facts and capturing the essence of the California avocado industry, which it dubbed a pioneering and innovative origin in many fields, both technical and marketing. While it characterizes our production system and structure as mainly traditional, the report notes that oftentimes the technical level of an orchard is proportional to its size. Traditional practices more commonly relied upon by small growers (e.g. low density spacing, limited pruning, variable degrees of fertilization and older tree age) are juxtaposed with high-tech plantings, usually on larger holdings, where investment in cultural practices is greater. You'll find it interesting to consider where your own operation fits into the overall scheme of things.

Constraints to growth and development, however, are largely blind to grove size. Water cost, quality and availability, and labor cost and availability drive production expenses in California that have set record levels for the avocado world, CIRAD finds. Although the effect of steadily increasing costs manifests itself, over time, in stagnant productivity and attrition of cultivated acres, offsetting factors vie to keep the industry strong. CIRAD identified the California avocado industry's major assets as: 1) local and regional markets where the California origin is rated more highly than its competitors and 2) favorable pedoclimatic conditions for growing. The team validated the Commission's long-running strategy of premium positioning in the marketplace by observing that "thanks to the predominance of number 1 fruit, the proximity between production zones and consumption centers, and CAC's marketing strategy focused on freshness and local consumption, California stands out from its competitors due to its top-end positioning, resulting in a price premium (sometimes \$0.30 per pound on average) which is essential to cover the highest avocado production costs in the world."

Toward the end of the CIRAD report, there is a section titled "Prospects." It examines the evolution trend of the California cultivation area (a significant downward trend in acreage is easing somewhat, with new plantings offsetting losses), the evolution of constraints

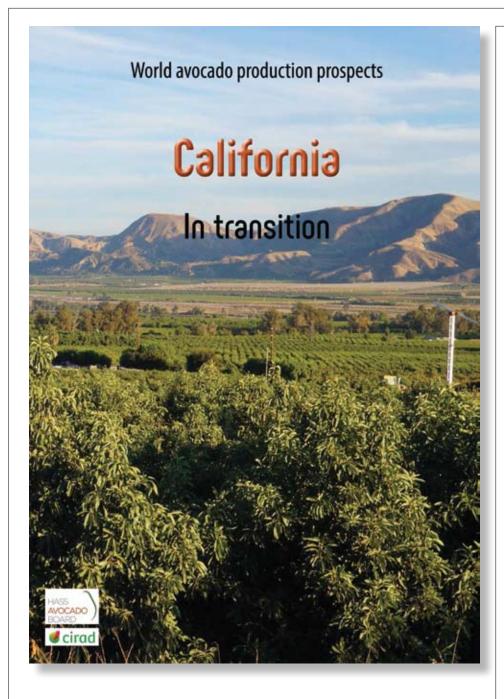


Tom Bellamore

(water, labor and land availability all getting tougher), and the evolution of productivity, which CIRAD considers the hole card. When it comes to yields, there are big margins for improvement, according to the report. The report considers several scenarios that take varying degrees of rainfall into account before settling on a cautiously optimistic hypothesis. The hypothesis posits that productivity picks up over the next five years or so because of a modernization trend in medium to large orchards, rising to about 7,300 pounds per acre. More sobering is the prediction that some of the smallest, fragile operations in the industry will close down, in the face of increasingly tough profitability problems, particularly in the southern part of the growing region.

CIRAD's yield assumptions lead it to predict that by 2024, California avocado production will vary between 287 and 344 million pounds annually. They couch that notion by saying that certain factors in the medium and long-term could impact the numbers, notably structural changes in irrigation practices and the extension of planting to zones in California that are cooler but with better water supply and less expensive land.

CIRAD has undoubtedly done some fine work. Over the years, however, the California avocado industry



has shown itself to be notoriously difficult to fathom. The trends are on point, the constraints loom large, the assumptions are reasonable, and yet the industry singularly outperforms those expecting mediocrity. CIRAD opens that door wider than some of their predecessors, allowing that things might go better than present factors indicate. Perhaps that's because there are two variables that are difficult to put a finger on: the intrepid nature and resiliency of the California avocado grower and the passion and loyalty of the California avocado consumer. We're fond of numbers at the Commission, but we are big on faith, too, and we'd like to think that CIRAD didn't quite know how to take that into account.

The CIRAD reports on California, Mexico and Peru are available from the Hass Avocado Board and are recommended reading for every grower.



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To contact a CAC representative, please visit: CaliforniaAvocadoGrowers.com/Commission/your-representatives

Chairman's Report

Good Start to Season but We Need Rain!



John Lamb

he avocado market is off to a fast and positive start for the California avocado growers. As of this writing in mid-February, larger fruit are more than \$1.50 per pound. Growers that have size are eager to pick and get as much in the barn as possible while these prices hold up. It seems the normal Super Bowl hangover for avocados never occurred this year. Mexico backed off its shipments after sending massive amounts into the pipeline for the Big Game. Sizing seems to be key as small sizes are more prevalent. Now, if we could just get some more rain!

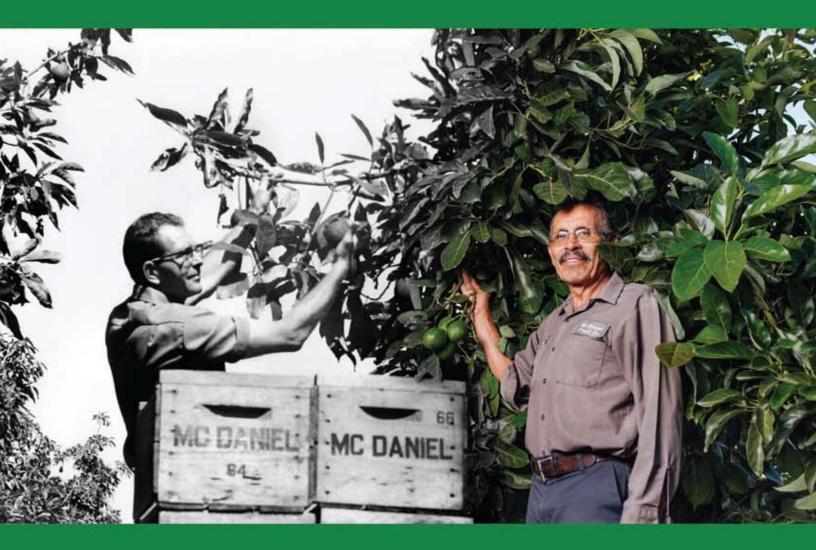
The California Avocado Commission (CAC) Annual Meetings are coming up in late March. I would encourage everyone to attend. The Commission team will be presenting the new marketing campaign for 2020. There are new and improved offerings in many formats to entice would-be avocado buyers to purchase California avocados. Our creative teams have been very busy in the off season and I am sure you will all benefit from their work. The CAC crew also will be available to update you on industry affairs, crop estimates and production research. The meetings will be held in Temecula, Ventura and San Luis Obispo so almost all growers will have a meeting nearby.

CAC Industry Affairs has been working with members of the California Legislature to see if anything can be done about minimizing the effects of the agricultural overtime laws, which are being implemented in California over the next couple of years. Depending on the size of your employment base, the laws are phased in for larger employers (more than 25 employees) in 2019 and will start to be phased in for smaller employers between 2020 and 2025, at which time anything over eight hours per day and forty hours per week will be subject to overtime rules. This will have significant impacts not only on the employers, but also the employees. Many employers now employ hourly workers nine hours a day, six days a week. The combination of the overtime and minimum wage increases will be a tough pill for many farmers to swallow. While pending legislation is potentially being introduced to alleviate some of the pain of the overtime rules, it has a long way to go before it becomes law. Please encourage your representatives to grant relief to agricultural employers trying to get through this difficult requirement.

CAC recently held workshops to discuss the concept of "sustainability". If you are like me, you probably think

that means making a profit. The folks we sell avocados to have made sustainability a much larger issue to include environmental, economic and social development. After attending the workshop, I came away thinking this was not as invasive as I had thought, and that with the regulations we live with every day in California a great many of the requirements for sustainability are already being met. A handout from a buyer of avocados had questions relating to child labor, total fertilizer and pesticide usage, greenhouse gas emissions and labor rights. But after Good Agricultural Practices (GAP) requirements and their ever-tightening rules it is frustrating to think that there is one more thing we will have to endure that does not enhance our production or the value of our crop. I am inclined to think this sustainability process may be much more difficult for other avocado producing countries than the United States. Between the regulations in our state and federal laws and the food safety issues we are already working to be in compliance with, it should not be too much of an extra burden to show that California avocados are sustainable in every way.





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Consumer Ad Campaign Reminds Consumers the Best of California is Inside Every AvoCAdo

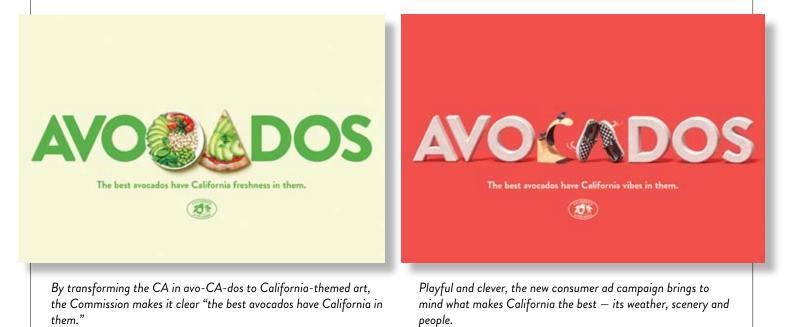
he California Avocado Commission's 2020 consumer advertising campaign is a clever, artful play on "avocado" that evokes what makes California the best: the weather, the scenery and the people.

To differentiate California from increasing competition from countries with similar seasonality – like Peru or Colombia – the Commission's new campaign reminds people that the best of California is inside every avocado. Literally. It's right there in the name: avo-CA-dos. Each consumer ad features the word "avocados" with the "CA" creatively transformed into an iconic representation of the best the Golden State has to offer, making certain no one can un-see California when they look at avocados.

The core of the campaign is the line "The best avocados have California in them." Variations of the new ads fill in the blank in an expanded phrase, "The best avocados have California _____ in them." Since California cannot be defined by just one word, the Commission chose eight words for the blanks, and then partnered with illustrators to create artwork to accompany the line. The words include: freshness, summer, dreams, sunshine, love, vibes, coasts and Zen.

In addition to partnering with illustrators, CAC teamed up with popular shoe and clothing retailer Vans[®] on the vibes artwork to make it authentically California. The Vans brand represents effortless California cool and with their partnership the Commission made the iconic checkerboard slip-on shoe a key element of the California avocado vibes artwork.

The new consumer ad campaign begins in March with a combination of traditional and digital media in the west and a focus on California. The summer 2020 edition of *From the Grove* will have more information about the media plan and share images of the campaign art in action.



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The Commission's Trade Marketing Plan Aligns with Consumer Campaign

alifornia Avocado Commission (CAC) trade marketing is directed to retail and foodservice customers as well as others on the business side of California avocado sales. These customers are the gatekeepers: the decision makers who influence or determine whether California avocados end up in retail stores and on foodservice menus. Communication via trade media is important because it tells the California avocado story to retailers, wholesalers, growers, shippers, wholesale clubs, buying brokers, foodservice distributors, foodservice operators, independent retailers, category buyers, merchandisers, retail and store managers, industry professionals and industry leaders. CAC uses three means of trade communications: advertising, public relations and personal representation. Messaging is targeted separately toward retail and foodservice channels.

Retail Trade Advertising

California avocado retail trade advertising this year runs from February through October (pre-season, season, postseason). The trade advertising campaign integrates with the Commission's consumer advertising campaign, "The best avocados have California in them." CAC's trade ads have a similar look as the consumer campaign with adjustments to meet the ads' target audience.

The CAC trade advertising launched in the February issue of *The Snack* magazine. The Commission's ad featured a twopage spread with a die-cut attached to the ad. The die-cut is the shape of an avocado with the same look and feel as an actual avocado. It is textured so that when "peeled" the reader



CAC launches the season with a two-page spread in The Snack magazine. CAC's ad will be the first to use a textured die-cut for the look and feel of an actual avocado. The bottom ad is what will be visible after the textured die-cut is "peeled" off the avocado.



To break through the clutter in foodservice print magazines, CAC is using eye-catching artwork and visually appealing menu ideas featuring California avocados.

will feel the texture of the avocado. Once the die-cut is removed, the inside of the avocado is revealed. This is the first textured die-cut to be featured in the publication.

The ad campaign features full-page print ads in The Packer, The Produce News, Produce Business, Shelby Report West and The Snack magazine throughout the California avocado season. The digital campaign is a mixture of email ads, trailers, videos, video sponsorships, custom eblasts and a remarketing campaign, which directs a digital California avocado ad to targeted viewers who have previously visited select websites. The digital ads will run in The Packer, The Produce News, Progressive Grocer, Fresh Plaza, AndNowUKnow, Perishable News, Winsight Grocery Business and The Shelby Report.

The retail media plan has broad reach and frequency preseason and during the peak months as well as post-season during the Produce Marketing Association Fresh Summit when CAC will announce the look-ahead to the next year.



California avocado digital ads will run in a variety of trade publications.

The retail plan includes 546 insertions generating more than 28 million impressions.

Foodservice Advertising

The Commission's foodservice advertising campaign, which begins in March and continues through October, encourages foodservice operators to add California avocados to their menus in season. To break through the clutter in foodservice print magazines, CAC is using eye-catching artwork that integrates the consumer ad campaign graphics and tagline "The best avocados have California in them", as well as visually appealing menu ideas featuring California avocados. The ads focus on the ease of adding "California" style with the incorporation of California avocados in any dish.

To reach culinary research and development professionals, menu developers, corporate chefs, foodservice marketers and sourcing/purchasing personnel, the Commission will run 13 print insertions during California avocado peak months (March through October 2020). The ads will appear in four magazines that reach different targets: FSR (chain operators - culinary, marketing and sourcing), culinary-focused Plate (independents and chain operators), Restaurant Business (chain operators – culinary, marketing and sourcing), and FoodService Director (college/university and business/industry operators - culinary, marketing and sourcing). Three creative executions will rotate in each magazine to reach the target audiences in the following foodservice segments: Casual Theme, Fast Casual, White Tablecloth/Hotel/Resort and Colleges/ Universities. Digital ads also will be used throughout the year to maintain awareness and messaging.



The full-page ad will run throughout the California avocade season in The Packer, Produce News, Produce Business, Fresh Digest and The Snack magazine.

Trade Public Relations

Public relations activities complement advertising in business-to-business (B2B) marketing and are a combination of proactive outreach to media and responses to press inquiries. Throughout the year, CAC spokespersons respond to trade media requests and grant interviews when appropriate. Commission spokespersons are trained in media relations and integrate messages to showcase what makes California avocados special.

Retail and Commission Public Relations (PR)

Retail and Commission news inquiries are on-going, with produce and grocery news organizations frequently asking for contributions to their editorial content. This season, CAC also plans to issue at least eight press releases to trade print and digital publications, mainly during peak California avocado season. These releases may include topics such as crop updates, promotion activity, advertising highlights and other Commission news. The season kick-off press release was distributed on February 4, 2020. Over the past three years, trade PR activities have resulted in more than 7 million impressions each year.

Foodservice Public Relations

CAC's foodservice PR focus is on influencing trade editors to think of local, California-grown avocados and the unique California cuisine and lifestyle that built the trend for delicious, health-conscious meals that diners count on restaurants to provide, now more than ever. CAC's goal is to exceed last year's performance with more than 48 product release pick-ups and story pitches reaching more than 3.4 million impressions.

Personal Representation

Advertising and public relations are efficient at reaching a broad audience with California avocado trade messages that encourage CAC's target audience to purchase and merchandise or promote California avocados in season. In addition, a very effective aspect of the Commission's B2B marketing is personal contact with targeted customers. CAC's retail marketing directors (RMDs) and foodservice team are fundamental in communicating with retailers and foodservice operators about the California avocado crop and the benefits of carrying the fruit in season. The RMDs and foodservice team help develop and secure promotions, and they coordinate with avocado handlers on program execution.

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APPLY 2 WEEKS LATER - 2 LBS/ACRE OF 7.5-1-25 THEN REPEAT IN 2 WEEKS



2 WEEKS BEFORE HARVEST 2 LBS/ACRE 7.5-1-25; CAN APPLY EXICUTE WITH FERTILIZERS FOR PEST CONTROL



AFTER HARVEST APPLY 2 LBS/ACRE 15-1-1 THEN REPEAT IN 2 WEEKS

Issues Watch

By Ken Melban Vice President of Industry Affairs

Farm Workforce Modernization Act & China Trade Addressed

House Passes Farm Workforce Modernization Act

In December 2019, the House of Representatives passed the Farm Workforce Modernization Act. This was very significant, considering the last time the House passed legislation containing affirmative agriculture labor reforms was in 1986 – 33 years ago.

The California Avocado Commission (CAC) has remained vigilant in working with Congressional members directly on the critical need for workable solutions to the ag workforce situation. In addition, the Commission is an active member of the Agriculture Coalition for Immigration Reform (ACIR). ACIR is a large coalition made up of agricultural members who, together, provide a formidable voice and a constant presence in Washington, D.C.

The House bill includes reforms to the visa program, stabilization of the current ag workforce, and enforcement modernization pillars. Because of our involvement with ACIR, the Commission was able to help secure a House bill that addressed not only the need to stabilize our current workforce but to ensure a stable workforce in the future. While the House bill falls short of perfection, we believe it is a significant improvement over the status quo. Again, the accomplishment was nothing short of historic.

Our focus now turns to the U.S.

Senate, where efforts are well underway to get a Senate process started. While Senate Democrats might prefer to simply take up the House bill, that's not a realistic expectation of the current Republican majority. A group of senators is forming to lead a bipartisan process that we hope results in a bill we can support, and that will secure the bipartisan support necessary to be passed. Stating the obvious, with a somewhat different balance of power and political dynamics in the Senate, we hope and intend to gain some ground on a few important issues where the House bill falls short.

In this presidential election year, the likelihood of a bipartisan effort remains uncertain. It's expected that Senator Thom Tillis (R-NC) and Senator Dianne Feinstein (D-CA) will be at the center of the process. We will continue our work to ensure agriculture is well positioned should a potential window open and will keep you updated as the situation develops.

The China Phase I Trade Agreement Includes Avocados

On January 15, 2020, the United States and China signed a Phase I trade agreement. As part of the deal, China has agreed to finalize market access for California avocados. As we've previously reported, CAC began the process to gain market access to China in 2005 – 15 years ago. The Commission worked diligently with the administration to ensure California avocados were included in the Phase I agreement. California avocados were one of only four products listed in the agreement, so this was no easy feat. The others were blueberries, nectarines and potatoes. The agreement calls for the process to be completed within 90 days (May 15, 2020).

Commission representatives were planning to participate in a quickly scheduled bilateral meeting in Beijing the first week of February. However, due to the potential health concerns surrounding coronavirus, and the need for China to focus its resources on controlling the outbreak, the bilateral meeting was postponed. The Commission remains in close contact with the administration on next steps.

As part of the final process, California packers interested in shipping to China will need to become certified. CAC is preparing for this step, and 12 California handlers have indicated they would like to be certified. Although, at present, California avocados would have a high tariff (as do all produce items), the Commission hopes that as the negotiations between the U.S. and China continue both sides will work to reduce the tariffs imposed over the last year and a half. While the potential for California avocados in China seems great, until market access is granted it remains an unknown. Strategically, it is better to have access to a market and not exercise it than to miss out on an opportunity because access has not been granted.

The Commission remains committed to and focused on our core market in the United States. However, as we have seen in the South Korean market, China may provide a valuable option for smaller size fruit, especially in heavy volume years. We will continue to explore every option to secure the highest possible returns for California growers.

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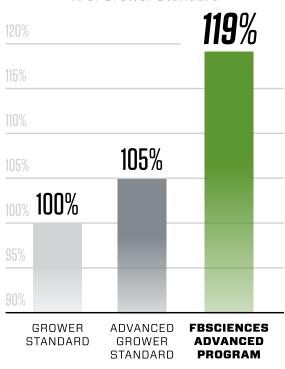
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California AvoTech

By Philippe Rolshausen and Vanessa Ashworth Department of Botany and Plant Sciences, University of California, Riverside

Leveraging the Genomic Landscape of Avocado for Breeding Purposes

dvances in molecular tools already have led to the development of large numbers of genetic markers distributed across the avocado genome. These markers are being put to good use, many forming the basis for projects to inventory avocado germplasm repositories and, in our own case, to create a pathway toward marker-assisted selection (a selection process where a trait of interest is selected based on a marker).

Most recently, the first avocado genome was sequenced, marking the beginning of a new era. Genome annotation entails adding functional information about genes and other compartments of the genome. The challenge is that the avocado occupies a highly divergent position on the evolutionary tree of life, close to such plants as laurel and magnolia, near the base of the flowering plants lineage and far removed from convenient model organisms (such as arabidopsis) for which annotations are most advanced and comprehensive. Therefore, genome annotation in avocado is likely to be slower. While there is great potential for exploring the genome for interesting gene regions,

the procedures will not be insignificant and will require bioinformatics and experimental verification before breeding targets can be identified. Additionally, quantitative traits such as yield-related traits are not controlled by a single gene but, instead, by many genes distributed across the entire genome. Even when the genome becomes thoroughly annotated, it is still only one genome and will not include all the variation present in the large pool of avocado germplasm. Annotating additional avocado genomes will allow broader comparisons and will lead to an acceleration and broadened scope of breeding efforts.

A major goal of molecular breeding is to pinpoint which genes are responsible for a trait of interest and to make this relationship accessible for experimental manipulation. In avocado, many genetic markers¹ have been developed in recent years and used widely to characterize scion and rootstock germplasm collections. However, few studies have attempted to examine how genetic markers are related to specific traits and how they can be used to improve breeding material using marker-assisted selection. With the sequencing of the avocado genome, this situation stands to change. In a recent scientific article, we reported our findings from a genetic study to identify genes and markers controlling various yield-related and nutritional traits in avocado. It centered on a procedure called Quantitative Trait Locus (QTL) analysis² and presents a high-density linkage map³ for avocado useful for molecular breeding. Our study included quantitative (tree height, canopy diameter, trunk diameter, and contents of vitamin E, beta-sitosterol and carotenoids in the fruit flesh) and qualitative (flowering type) traits.

Flowering Type

Avocado flowers exhibit either Aor B-type flowering, a mechanism designed to prevent self-pollination and that increases fruit set. We found that a tight cluster of markers on chromosome 10 showed a very strong signal for flowering type. It appeared that a single gene on that chromosome is likely responsible for controlling which flowering type a tree will have when it reaches maturity.

In orchards devoted to Hass, with A-type flowering, inter-planting with

B-type pollinizer cultivars is the norm to boost pollination and fruit set. Currently, most pollinizers are green-skin cultivars (especially Bacon, Fuerte, and Zutano) whose fruit do not fetch a good price compared to Hass, reducing overall market value of the orchard yield. Therefore, when breeding new cultivars for Hass-like taste and appearance, it would be advantageous to be able to include an early screen for Btype flowering: this would ensure that any promising breeding material with Hass-like attributes also would be usable as B-type pollinizers that produce marketable fruit.

The screen would involve a routine lab procedure performed on DNA extracted from young leaves of the seedlings in a breeding program: the strategy would be to keep only those seedlings that have the particular marker that coincides with B-type flowering and to discard the rest. All seedlings progressing through subsequent tiers of the breeding program would have B-type flowering and there would be no wastage of time and resources by having to cull mature trees once they have been revealed as A-type flowerers.

Nutrient Content of the Fruit Flesh

We also found that the content of alpha-tocopherol, a form of vitamin E, is strongly associated with a group of markers on chromosome 3. This finding opens up the possibility of breeding avocado for enhanced vitamin E concentrations and to further elevate its status as a nutritious fruit. Selection for a suitable marker in young seedlings would avoid the long wait until the seedlings have produced fruit, which can take many years.

Though weaker, a signal for marker association with beta-sitosterol also was detected on a short section on chromosome 1. This plant sterol has been



Diversity of fruit shape, size, skin color and surface texture found in the progeny of the same maternal parent. Some of these fruit were assayed in the QTL analysis for fruit nutrient content.





Tree height—a quantitative trait—at different locations in identical genotypes (clonally replicated). The white stick in each photo measures one meter in length.

shown to have antioxidative properties and to reduce blood cholesterol levels in humans. The fact that vitamin E and beta-sitosterol are controlled by genes on different chromosomes is a practical advantage because it means that breeding for one nutrient can be performed independently of the other nutrient. It is noteworthy that both vitamin E and beta-sitosterol have been cited as targets for biofortification in other crops.

Avocado production in California, the main avocado-producing state in the United States, cannot keep pace with consumption, and the market is supplemented by imports from Mexico and many other countries. For now, almost all fruits imported are of Hass or Hass-like cultivars, yet taste panels at UC Riverside suggest that consumers are open to new tastes and visuals. Supermarket offerings in the form of a startling abundance of different apple and pear cultivars are in stark contrast to those for avocado, which is essentially synonymous with Hass alone. The time for customized breeding may be ripe. As a nutritious and tasty fruit crop, avocado has acquired a strong culinary following and is prized for its healthy attributes. Having shown that vitamin E content is amenable to marker-assisted selection, future breeding could focus on generating cultivars with enhanced nutrient content, and future elucidation of similar trait-marker associations could create opportunities to generate high-value avocados that would coexist alongside the mainstream crop. Currently, health-conscious consumers and avocado fans are being short changed, and molecular breeding can play a role

in developing new and interesting material.

Definitions

¹ Genetic markers: specific locations on the DNA sequence that can be readily identified by molecular methods. They also are known as molecular markers.

² QTL analysis: infers which markers on a linkage map influence a trait of interest. Results are shown in a chart with all markers on the map plotted against their (statistical) contribution to the trait.

³Linkage map: a map showing the order of markers and genes along each of an organism's chromosomes (i.e., how they are linked). It also is called a genetic map.



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CAC Consumer Public Relations Kicks Off 2020

alifornia Avocado Commission (CAC) public relations (PR) activities are a valuable component of its consumer marketing program.

In 2019, the Commission kicked off its PR outreach with a season opening event at Hawk's Provisions and Public House in Sacramento, where Chef Mike Fagnoni prepared a fourcourse meal, incorporating California avocados in each dish. For California Avocado Month, CAC established a monthlong partnership with Little Italy Food Hall, led by spokesperson Chef Sam Zien, and hosted a celebration launch event with 30 media and influencer attendees. Throughout the 2019 season, CAC built relationships with eight blogger advocates creating unique, original recipes each month starring California avocados, and three additional blogger partners created content for The Scoop blog. CAC's consumer PR programs garnered more than **797 million impressions** by securing media coverage with print, broadcast and online media outlets.

In 2020, CAC's public relations activities are designed to



Chef Sam Zien hosting a live demonstration of his two California avocado dishes and how to safely cut an avocado at Little Italy Food Hall.



Chef Mike Fagnoni plating a California Avocado Beet Salad during his live demonstration at the 2019 Season Opener Event at Hawks Provisions and Public House.

encourage consumers to purchase California avocados in-season. There will be six campaigns starting with the announcement of availability at the James Beard Foundation's Taste America[®] series presented by Capital One[®] in March and the Pebble Beach Food & Wine Festival in April in Monterey, CA. California avocados are the title sponsor of the inaugural Gran Fundo Cycle Ride at the Pebble Beach Food & Wine Festival - one of the country's most premium and recognizable events. In celebration of California Avocado Month, the Commission will promote a variety of unique California avocado dishes and preparation techniques developed by some of the West Coast's top-tier chefs. Then in June CAC will communicate how California avocados fit into the overall California lifestyle with "the best of California grove tour" in San Diego County, hosting media and influencers with immersive and engaging activities. Blogger advocate communications and programs with The Scoop blog also are key components of CAC's consumer PR activities from season's opening to close, and beyond. 🥑

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Grower Profile

From Musician to Physician to Grower – Norm Kachuck's Not-So-Linear Journey

By Tim Linden

orm Kachuck has approached his current career as an avocado grower with both a scientific and an artistic perspective, which is fitting considering his previous work in the music and medical fields.

His artistic appetite was the first he fed as Kachuck headed to UCSD in the early 1970s to study music after high school. He earned a degree in musical composition, played keyboards in the Los Angeles area, toured the country with various bands and did graduate work at the prestigious music conservatory in New York City, The Julliard School.

By now, the '70s were coming to a close and the scientific side of Kachuck's personality asked for equal time. He headed back to California did post-graduate work at UCLA and then entered USC's Keck School of Medicine, doing his neurology residency and fellowship there as well. That took care of the '80s. "I joined the USC faculty in 1991, and during my 20year tenure there served as clinical chief of the neuroimmunology division, and founded and headed the Multiple Sclerosis Comprehensive Care and Research Center."

He served USC in many different capacities in those years as well as serving as a principal investigator in dozens of multicenter studies on multiple sclerosis (MS). Kachuck published 35 papers, wrote six book chapters, and lectured worldwide on MS, as well as on ethical issues in medical practice and clinical research, the philosophy and psychology of medicine, and the evolutionary neuroscience of consciousness. In 2010, he left USC to help his father run the family business of growing avocados in Valley Center, CA. "It became obvious that my dad needed help," Kachuck said, adding that the first signs of dementia appeared in 2008. "I had a moment of reprioritizing and epiphany and knew I had to do this to steward this marvelous legacy for the family."

He transitioned away from USC clinical practice and research as quickly as he could, which he admits was not that easy. "Actually, it was horrible. It took about a year and half," he said, noting that he had a full slate of patients who he had developed relationships with for many years, and they relied on him.

Over the years, he has kept a foot in the medical arena, serving as medical director for Kepler Diagnostics, which is developing ways to identify and validate the use of serum biomarkers in MS decision-making.

But his main pursuit for this past decade has been running Kachuck Enterprises, the avocado growing operation founded by his father, Israel Kachuck. The company's founder grew up in Brooklyn, joined the Navy, received a degree in electrical engineering from NYU and married Rhoda Silver, a scholar of English and American literature. In 1960, the couple and their two sons moved to Southern California, where he worked in electronics, including as chief engineer for the ground support electronics of the Stage II booster of the NASA Apollo Project.

But like his son who would follow his lead, Israel was not

content with one career. He received a master's in business administration from UCLA in 1968, left the engineering field and entered the world of real estate development. Kachuck Enterprises was incorporated and built three furniture stores and two chain restaurants. In 1969, the company purchased 110 acres of land in north Escondido with the goal of creating a residential development. Kaywood Forest was built and sold, through the mid-1970s into the early '80s, featuring 65 houses, based on three designs created by Israel.

The acreage also included an avocado orchard that was managed by Henry Avocado. In discussions with avocado experts Gil and Warren Henry, Israel believed

investments in avocado ranching offered a great opportunity. He liked the tax breaks associated with farming and thought avocados had a bright future as a profitable enterprise.

According to Norm, his father also believed that some of the traditional ideas about optimal growing techniques could be improved upon. He advocated for using lower cost hilly land, decreasing acreage density and encouraging lateral growth.

Israel Kachuck joined with the Henrys and others in purchasing 460 contiguous acres in the Valley Center region, called the Double Canyon property as it is on the road of the same name. The hilly acreage was bought at a bargain price and the development into avocado groves began in the early '70s. Today the majority of the acreage is farmed under the umbrella organization called Avocado Corporation of America (ACA). The acreage was originally split into separate ranches with the ownership of these various ranches changing several times over the years – they are now six in number, three owned by the Kachucks, and others by partnerships for which they are general manager. What hasn't changed is the business management of the farming operations by Kachuck Enterprises with the CEO being Norman Kachuck, and the packing and selling of the fruit by Henry Avocado Corp. under the current direction of Phil Henry, president of that company.

What also hasn't changed is the site supervisor and foreman, Serafin Michel. He has been on the property since the different ranches were first planted almost 50 years ago. Serafin was hired as an irrigator by his uncle Ramon in 1973 at the age of 18. "These are my babies," he says of the 18,000 trees spread over about 400 acres currently managed under the

ACA umbrella. "I'd say I personally planted about 60 percent of these trees."

And while he hasn't named each tree, he knows them very well. He and Kachuck agree that Serafin can walk through the groves and recall the production results of most sections, if not individual trees.

Kachuck said Serafin has been key to virtually every important decision since he took over. "I hear voices - Serafin mostly - when it comes to making decisions about every aspect of the grove," Norm quipped.

Kachuck liberally uses science to aid in the decision making. Every three months, their agronomist takes soil and leaf samples and Kachuck comes to this interview armed with a briefcase full of production information and other pertinent papers chronicling the life of the groves.

Serafin and Kachuck acknowledge that their tree per acre ratio of about 50 to 1 is much less dense than most groves and flies in the face of the current trend to have more trees on each acre growing to a smaller height to facilitate easier picking. The ACA acreage utilizes large lateral growth and limb supports, which Serafin said was pioneered at this ranch. "Other growers use that technique," he said, "but they copied us."

As the veteran pair talk about the trees with their majestic height and limb-supported lateral growth, they clearly paint an artist's picture of their groves. They have not been designed to maximize space with cookie cutter trees but rather to encourage free-flowing sprawl, with each limb maximizing its own capabilities. Serafin believes encouraging the lateral

Spring 2020 / From the Grove / 23

front of the new solar installation at ACA ranches.



growth is superior and more efficient than planting new trees and having to wait several years for production.

Kachuck says the ACA grove structure has resulted in "a wonderfully robust 14,500 pounds per acre per year harvest size average since 2012. We believe that reduced competition between trees results in concentrated and optimized root growth and nutrient delivery, water retention, fertilizing and pest control, pollination, tree access for maintenance and harvesting, and sun exposure with wind protection."

Serafin and his crew try to keep the tree heights limited to 30 feet, and stump about 350 trees annually to re-establish productivity. In addition, they replace a couple of hundred dying or underperforming trees each year.

The duo also credits the geography for some of the great results they have achieved. "Geographically, it is in the main microenvironment defined by the north-south Double Canyon," wrote Kachuck in explaining the advantage. "Over the years, this location, while complex in terms of terrain, soil types, and wind and temperature exposure, has turned out to be wonderfully protective of the trees and their fruit. As avocado agronomy has been better understood, it turns out that the decision to plant this area was prescient in optimizing how the trees manage water, nutrients, salt and temperature."

While there is a high salinity in the soil, Kachuck has hypothesized that the high concentration of zinc, magnesium and other elements has lessened the negative impact that salt usually has on avocado trees and their fruit. He notes that the science involved in avocado production and tree health is not that dissimilar to the immunology research he performed in trying to understand human diseases and potential cures.

Kachuck said when his father was running the operation, he did so more as a one-man show. Norm takes a team approach, which was evident on this day as he brought his packer Phil Henry, solar engineer Larry Slominski of LTS Solar Energy, agronomist Connor McClelland of San Diego Ag Lab, and grove manager Serafin Michel to the interview and photo shoot. Team member Jim Davis, the entomologist, was not available.

Through good and bad years, Norm Kachuck said the ranch has proved his father accurate when he projected that the crop had a bright future. However, he is aware of the challenges that all growers are facing including water quality and price, labor availability and retention, pests and pesticide safety, and technology innovations for grove monitoring.

ACA is determined to be on the cutting edge of new technology and to continue to address these issues. With the help of cost-sharing programs sponsored by the Farm Services Agency, the local Mission Resource Conservation District, and work by the Stehly Brothers Drillling, the company has looked into moisture sensing technologies, and recently tapped and connected to two additional wells to help take care



The new solar installation on the ranch is expected to yield 875 kilowatts annually.

of its water needs.

In addition, this past year Kachuck Enterprises worked with 40-year solar industry veteran Slominski to convert its electrical sourcing from San Diego Gas and Electric to a solar installation. Removing some low yielding trees uncovered three-fourths of an acre for the 472-panel solar development. The yield of about 875 kilowatts is expected to handle the groves' annual power needs. Slominski said the panels are made by Hyundai, as he wanted to buy panels from a company that was sure to outlast the life of the panels. He said panel efficiency has improved exponentially since he got into the business decades ago, allowing the installation to pencil out engineering-wise as well as economically. Kachuck revealed that the biggest financial issue was the upfront cost of such a large system. However, that is being defrayed by generous state tax credits and depreciation allowances, and the recouping of the out-of-pocket cost is estimated to take about 2 $\frac{1}{2}$ years for a system that should last about 25 years.

Toward the future, Kachuck is exploring other technologies for their efficiencies, and is hopeful that the recent sequencing of the avocado genome, and advances in understanding plant immunology and the mechanisms of disease resistance, will improve care practices, productivity and economic success. And he emphasizes the need for an immigration policy that allows farmworkers to safely and successfully come to help work the land. Mostly, he notes, "the success of our operation depends on the people who care for the land, the trees, the fruit, and most importantly, each other. And that is the bottom line of our business plan."

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Organic California avocados on display in Southern California.

Organic Avocado Sales on the Rise

rganic food is not a new phenomenon, but its growth is causing many to take notice. Nationwide, 65 percent of retail stores carried organic avocados in 2018, which is an increase of nine points versus 2014. The growth in organics is being driven largely by Millennial households, many of whom are among those pushing for transparency and integrity in the U.S. food supply. Wider distribution and demand boosted sales of all organic foods to \$47.9 billion in 2018, an increase of nearly 6 percent compared to about 2 percent for total food sales, according to the Organic Trade Association (OTA). So how do sales of organic avocados com-

pare, and what is the California Avocado Commission (CAC) doing to support them?

OTA has reported that sales of organic fruits and vegetables reached nearly \$17.5 billion in 2018, an increase of 5.6 percent. The avocado category ranks fifth among all organic fruit categories following berries, apples, bananas and grapes. While avocados ranked #1 on the Environmental Working Groups List of "Clean 15" fruit and vegetables, there is significant demand for organic avocados; retail sales surpassed \$115 million in 2017. Comparing 2017 to 2015, organic avocado retail sales grew at nearly twice the rate of all other organic fruits. Unit sales of all other organic fruit increased 45 percent while organic avocados grew by 76 percent. Dollar sales of all other organic fruit increased 41 percent during that two-year period and sales of organic avocados nearly doubled with 91 percent growth, according to IRI/Freshlook 2017 vs. 2015.

Organic California avocado volume has fluctuated with overall California avocado crop size in the last five years, peaking at 26 million pounds in 2017-18. California avocado organic production reached about 10 percent of the 2019 California Hass avocado crop. Organics' share of the California crop had been in the 8 to 9 percent range for the two years prior, and in the 5 to 7 percent range the three years prior to that. While the year-over-year growth in share of crop has been relatively small, it has nearly doubled in the six-year period since 2013-14. The best resource for organic avocado acreage in California is the 2016 United States Department of Agriculture Organic Survey, which can be found at: https:// www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Organic_Production/2016_State_Publications/CA.pdf. The survey is being updated for 2019 and the Commission hopes to have results by the end of 2020.

The Commission's overall marketing campaign promotes all California avocados, both conventional and organic, and works closely with individual retailers interested in specific varieties such as GEMs and Lamb Hass and/or organics. CAC retail marketing directors (RMDs) include organics as an item of discussion in their meetings with retailers, including data and information to highlight the state of organics and opportunities with California avocados. CAC selling material includes charts showing that sales per store of organic avocados are higher when and where California avocados are widely available. Commission representatives attend the Organic Produce Summit, engaging with customers and encouraging California avocado merchandising and support programs. Bristol Farms, Gelson's, New Season's Market, PCC Markets, Sprouts and Whole Foods are key supporters of organic avocados and CAC RMDs have set up organic California avocado promotions with all of them.



CAC worked with New Season's Produce Buyer Jeff Fairchild, right, to develop organic California avocado merchandising programs.







CAC Vice President Marketing Jan DeLyser moderating a discussion panel at the 2019 Organic Produce Summit in Monterey, California.

"Demand for organic avocados is strong among specialty and natural foods retailers, and major retailers all have a combination program of conventional and organic avocados," said Carolyn Becker, California Avocado Commission retail marketing director. "Bagged avocados continue to be a delineator for retailers to evaluate sales of each, and they offer the opportunity for CAC to promote organics specifically."

Organic produce is also a key part of some foodservice operators' purchasing strategy. Organic Arugula Salad with Tem-

Robert Seegmiller of Harmon's meeting with Jan DeLyser at the 2019 Organic Produce Summit.

pura California Avocado, shown below, is a concept developed by CAC's foodservice team to encourage targeted operators to include California avocados on their menus.

Conventional avocados continue to make up the lion's share of the avocado category, and organics meet the demand for a growing niche in the market. California avocado growers who are interested in learning about organic farming can find information here: CaliforniaAvocadoGrowers.com/growing/ become-certified-organic-avocado-grower.



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Better Growing

By Tim Spann, PhD Research Program Director

A Disease of Many Names: Botryosphaeria, Avocado Branch Canker, Dothiorella Canker

any growers have observed a significant increase in branch dieback in their avocado trees over the past several years, especially during California's historic drought. The cause of this dieback is a group of fungi called *Botryosphaeria*. The disease is commonly referred to as avocado branch canker (ABC) and was formerly known as *Dothiorella* canker.

The Rise of Botryosphaeria

The *Botryosphaeria* family, Botryosphaeriaceae, is a diverse group of fungi composed of 17 genera and 110 species, which represent plant pathogens (primarily of woody plants), endophytes (fungi that live synergistically within plants), and saprobes (decomposers). They are found everywhere in the world, except the polar regions.

Over the past decade or so, the Botryosphaeriaceae has risen as an important group of plant pathogens. Fungi in this family are now major pathogens of walnuts, almonds, pistachios, grapes and olives, as well avocados, in California.

No one is certain why this group of pathogens has apparently become more aggressive or abundant. However, it is likely related to climate change. The pathogenic members of the Botryosphaeriaceae are opportunists that typically attack stressed plants. Droughts, extreme temperature events, and even invasive pest outbreaks all have created a more stressful environment for our orchard crops, which may be contributing to the increase in this group of diseases.

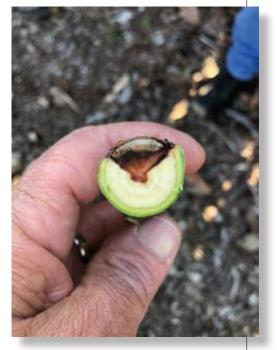
For avocados specifically, the decreasing water quality — primarily increased salinity — that most avocado growers are now struggling with, is a major stress factor that cannot be over emphasized.

Current Situation in Avocados

In 2018, the California Avocado Commission (CAC) gathered a group of experts to assess the situation in California avocado groves and develop recommendations for the industry (see "Understanding Avocado Branch Canker" in the Summer 2018 issue of From the Grove). As a result of that meeting, CAC solicited proposals for research projects to understand exactly which species of fungi were causing ABC and to develop management tools for the industry. In the 2018-19 fiscal year, CAC began funding a project with Dr. Themis Michailides, University of California Kearney Agricultural Center and the world's top Botryosphaeria researcher, who has worked extensively on this disease in California's nut crops.

Dr. Michailides and his team have been working diligently on this project, focusing on six objectives during the first year of research:

- Determine the extent of ABC problems in avocado groves
- Identify the most aggressive species of fungi



A cross section of an avocado branch showing the classic V-shaped necrosis associated with avocado branch canker.

- Study the life cycle and disease cycle of these fungi in avocado groves
- Determine when and how avocado shoots are infected
- Determine what factors influence disease expression
- Determine whether infections remain latent (dormant) and then lead to disease expression

<u>The extent of the problem.</u> Surveys performed by the research team throughout California's avocado growing region found the **pathogens causing ABC were present in every grove sampled**, ranging from young groves

— newly planted to four years old — to old mature groves. In addition, these surveys found that the pathogens are present on woody tissue, flowers, fruit stems (peduncles), leaves, and young and mature fruit. In other words, these pathogens are everywhere and simply looking for an opportunity to attack your trees, young or old.

Causal agents. The specific pathogens found in avocado groves were six species in the Botryosphaeriaceae as well as three species of *Colletotrichum*, the causal agent of anthracnose disease. All of the six species of the Botryosphaeriaceae were found to be pathogenic to avocados. They also were found to be more aggressive than the *Colletotrichum* species. These studies confirm the role of the Botryosphaeriaceae pathogens as the primary causal agents of ABC; however, there may be some synergistic relationship with *Colletotrichum* that is yet to be discovered.

<u>Disease infection in avocados.</u> Detailed studies of the pathogens in controlled laboratory environments found that the pathogens differed in their ability to grow under different temperature regimes. Pathogen growth rates generally increased from 68 °F to 86 °F, and only one species continued growing above 95 °F.

Controlled field inoculation studies with the various pathogens that were conducted at CAC's Pine Tree Ranch grove in Santa Paula found that wounds and high humidity increase the risk of infection and disease incidence. Additionally, these studies found that at least one of the Botryosphaeriaceae species and one of the Colletotrichum species can be recovered from infected but symptomless avocado tissues (flowers, twigs, leaves and fruit), suggesting the existence of latent infections in avocado. A latent infection is defined as an equilibrium state between the pathogen and host plant when the pathogen

causes little, if any, physical symptoms on the host.

Infectious, over wintering fruiting structures that produce asexual and sexual spores of both Botryosphaeriaceae and *Colletotrichum* species were found on both living and dead tissues in orchards. This further indicates how entrenched these pathogens are in groves and the difficulty growers will have in trying to eliminate all infections.

Lastly, controlled studies using potted trees found that trees subjected to drought stress had larger disease lesions than trees receiving adequate irrigation. This suggests that drought stress is one environmental factor that predisposes avocados to infection by ABC pathogens or may trigger latent infections to become active infections.

Current Management Recommendations

A search of the registered fungicides in California for use on avocados shows no products registered for use against Botryosphaeria; however, there are a number of products registered for use against anthracnose (Colletotrichum species). For a current list of these products, growers are encouraged to use the free Agrian database (https://home. agrian.com/). Go to "Label Lookup" at the top of the page, then click on "Advanced" in the pop-up window. This allows a search by crop and pest. Be sure to carefully read all pesticide labels before use and, remember, the label is the law.

Based on the Dr. Michailides team's research, the following are current recommended best management practices for managing ABC in avocado groves.

• Avoid pruning during or immediately after rain, dew or heavy fog. The moisture causes the fungi to release spores, which easily can cause infection. Spores are still present in



An avocado tree showing symptoms of avocado branch canker.

the grove during dry weather, but at much lower levels.

• Prune out dead limbs and twigs that house the pathogen fruiting structures and remove them from the grove to the extent practical to reduce inoculum levels in the grove.

• Prune dense canopies to increase air flow and reduce humidity. Be sure to make proper pruning cuts that will heal quickly (for a pruning primer see "Pruning 101: Pruning Dos and Don'ts for Healthy Trees" in the Winter 2017 issue of *From the Grove*).

• Reduce tree stress and maximize tree health with proper irrigation and fertilization practices. Make every effort to source good quality water and manage rootzone salinity, especially for new plantings.

• Reduce planting stress of new trees by ensuring new trees are properly planted and irrigated. Avoid planting during periods that will cause tree stress — heatwaves, Santa Ana winds, etc.

Commission Receives Marketing Excellence Awards from Produce Business Magazine for Eight Consecutive Years



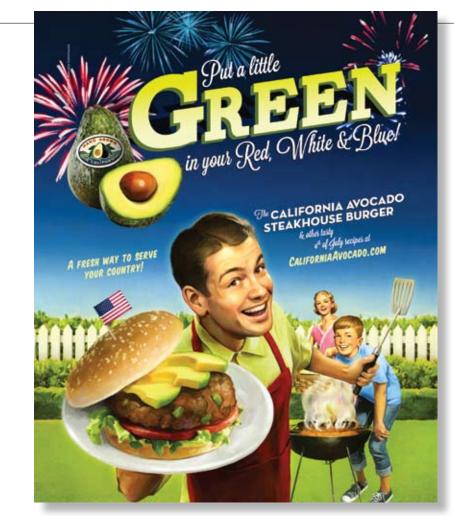
CAC's 2019 award was for its influencer marketing programs. Shown here from a 2018 grove tour are influencers including bloggers, dietitians and media. Current California Avocado Commission Board Public Member Daniella Malfitano, left in the second row, participated in the event.

he California Avocado Commission (CAC) has been presented with a *Produce Business* magazine Marketing Excellence award every year from 2012 through 2019. Each year the publication and its online communications, which are estimated to reach more than 80,000 people affiliated with the produce industry, recognizes the award winners in a fall edition of the magazine as well as online.

The honors are awarded for a marketing period spanning June through May of the prior year. A variety of CAC marketing initiatives have been selected for the awards, ranging from a one-day promotion to broad advertising campaigns. The Marketing Excellence awards have recognized the following Commission programs:

2011-12 California Avocado Grower Campaign

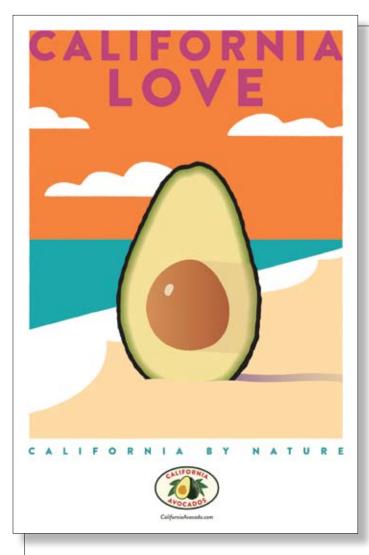
- 2012-13 July 4th/American Summer Holiday Promotion & Downtown Disney Event
- 2013-14 California Avocado Season Foodservice Chain Program
- 2014-15 California Avocado Breakfast Promotion
- 2015-16 #BigGameAdd (a one-day social media program on Twitter that piggy-backed on brands who advertised during the national football championship)
- 2016-17 California Avocado Made of California Campaign
- 2017-18 Made of California Campaign "Close to Perfect" Creative
- 2018-19 Influencer Marketing



In 2012 CAC was recognized for its American Summer Holidays campaign.



The Produce Business Marketing Excellence Awards honor broad marketing campaigns as well as specific, short-term programs. In 2016, CAC received the award for an innovative Twitter promotion titled #Big-GameAdd, that took place only during the televised national football championship.



CAC's Made of California campaign was recognized by Produce Business in 2017.

The evolution of CAC's Made of California advertising campaign using "Close to Perfect"-themed creative, received the award in 2018.

"The Commission's marketing team and agencies are charged with developing advertising and promotions for California avocados that are innovative, break through advertising clutter and motivate the trade and consumers to purchase California avocados in season," said Jan DeLyser, CAC vice president marketing. "Receiving recognition and awards for these programs is icing on the cake."

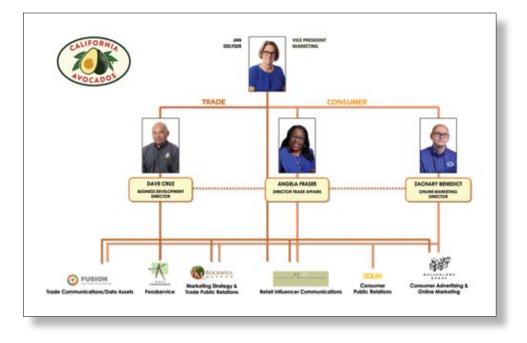
The recognition the Commission has received in a major

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produce publication reinforces to trade customers that CAC marketing is innovative and impactful. *Produce Business* magazine has a circulation of nearly 31,000, plus a digital audience of 19,000 for total circulation of nearly 50,000 and about 81,000 impressions. *Perishable News*, a produce e-newsletter in the same publishing group as *Produce Business* with an audience of 19,000, often includes coverage of the Produce Business Marketing Excellence Award as well.

Meet Your Agencies -

Partnering to Build the California Avocado Brand



he overall marketing objective of the California Avocado Commission (CAC) is to increase the perceived value of California avocados, build brand preference and loyalty with targeted customers and consumers, while achieving a price premium for our growers. To achieve this objective, and optimize efficiencies, the Commission works with several agencies each of which has specific fields of expertise. Each year, the Commission's marketing staff collaborates with these agencies to develop supporting strategies and action plans that are combined into the marketing section of CAC's Annual Business Plan. Commission staff provide direction to agencies and oversee agency projects on an ongoing basis.

Jan DeLyser, CAC vice president marketing, serves as the lead consumer advertising liaison with the MullenLowe Group, an integrated agency that includes the Mediahub and Profero organizations. The Commission's Online Marketing Director Zac Benedict oversees the digital, social and website initiatives of MullenLowe.

MULLENLOWE

GROUP

The MullenLowe and Mediahub teams have served as the Commission's consumer advertising and media agency of record since 2015. Each year, the Commission and MullenLowe outline brand strategy, creative development, advertising analytics, and social and digital marketing opportunities that will help CAC realize its goal of making California avocados the most-desired avocado in the world. This year, for example, MullenLowe is evolving the Made of California creative campaign into "The best avocados have California in them" campaign to further differentiate the California Avocado brand from the category (see article on page 8). The new campaign, which uses visual text cues ("CA") and California imagery, was designed to enhance premium brand positioning and cement the connection between California and avocados.

Built specifically for challenger brands (brands that set themselves apart with bold actions), Mediahub plans, negotiates and buys media placement or time and provides recommendations designed specifically around CAC's goals. Because the organization is aligned with IPG Media brands, a global provider of marketing solutions, the Commission benefits from cost efficiencies created by this partnership. Working together from the same office, the MullenLowe ad team and the Mediahub media placement team combine strategic thinking and targeted consumer insights into powerful ad creative and ad buys that meet the Commission's goals.

MullenLowe Profero, which is tasked with rebuilding the CAC consumer website in 2020, specializes in utilizing data, consumer research and technology to create on-brand digital experiences that engage consumers.



Public relations agency Golin has represented the Commission for 14 years, executing a variety of strategic campaigns that helped build the California Avocado brand. DeLyser oversees consumer public relations activities that include developing partnerships with top-tier media and influencers who showcase the California avocado's unique journey from grove to market and its numerous nutritional benefits.

As the Commission's online presence continues to grow, Golin helps to identify the most suitable third-party influencers, such as artisan chefs and bloggers, who develop unique recipes, beautiful photography and social media and blog posts that illustrate their preference for California avocados. Benedict serves as the Commission liaison for the blogger program, which has become an important facet of The Scoop blog. In addition, Golin monitors media and digital trends and shares its insights to ensure the Commission can take advantage of the most effective tactics and keep California avocados topof-mind with consumers. PUBLIC RELATIONS & MARKETING COMMUNICATIONS

Public relations veterans Laura Paden and Kathleen Johnson of PJ/PR utilize their talents and expertise to develop creative ideas and specific programs for CAC including influencer marketing, content creation and retail communications. This year, PJ/PR is spearheading a new program, in collaboration with CAC's Director Trade Affairs Angela Fraser, called *Living Well with California Avocados*. PJ/PR works with CAC's chosen partners — dietitians, culinary experts and wellness professionals — developing content that provides targeted consumers with expert advice and nutritional insights concerning how they can integrate California avocados into their lifestyle.

PJ/PR, with guidance from Dave Cruz, CAC business development director, also oversees the Commission's retail dietitians' program. This program provides targeted retail customers with content and ideas to reach and engage shoppers via multiple touch points — cooking classes, community events, social media posts and retail dietitian blogs and posts.



For more than two decades, Fusion Marketing has worked with the CAC marketing team providing specialized businessto-business (B2B) services not available from many traditional agencies. Fusion launched its collaboration with CAC by bringing fact- and data-based information and retail category management programs to the merchandising department. Today, working closely with Cruz and CAC's retail marketing directors, Fusion provides shopper and category research and analysis, retail advertising and sales reports, retail trade advertising, internal sales tools and materials, B2B strategic planning and retail outreach marketing materials.

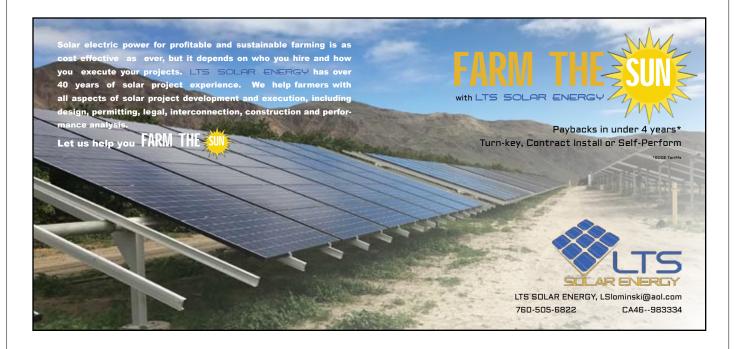


Cruz also manages the work of Kurata Communications, a full-service agency specializing in effective and efficient strategic planning for foodservice marketing programs. Kurata utilizes the restaurant chain relationships it has developed during the past 30 years to secure annual promotions with loyal foodservice partners when California avocados are in season. The team develops communications, creates culinary ideation sessions with foodservice operators and markets chain menu promotions that increase awareness and usage of California avocados within the foodservice channel.



Rockwell Morrow principal Marji Morrow has 26 years' experience in fresh produce marketing and contributes a wealth of knowledge and insight to the Commission's marketing activities. Morrow works hand-in-hand with DeLyser and the CAC team on strategic initiatives, trade public relations, communications research, recipe management and other activities that contribute to the strength of the California Avocado brand and achievement of the Commission's marketing objective.

By working collaboratively with these agencies, who contribute diverse and specialized skills and experience to the Commission's marketing initiatives, CAC can tap into the talents of dozens of marketers at a fraction of the cost it would take to employ CAC staff for these same tasks. In addition, these partnerships provide the Commission with flexibility – accessing specialists for limited time marketing projects or coordinating, for longer periods of time, with experts on initiatives that require on-going contributions, such as the development of advertising creative, negotiating media purchases, public relations and data analysis.



By Tim Linden

Handlers' **Report**

Good Early Movement Beneficial for California Avocados

better than expected field price in early February for California avocados led to increased picking and more fruit sent to the market than predicted, which should bode well as the season moves on.

At least that was the view of three handlers who commented on the situation for *From the Grove* during the second week of February. Rob Wedin of Calavo Growers Inc., Gahl Crane of Eco Farms and Ross Wileman of Mission Produce all noted field prices near the \$1.50 per pound mark for 48s and larger deserved the credit for motivating some growers to get an early start on their groves. There was both size and strip picking depending on the grove's specific situation.

"We shipped about 300,000 pounds of California fruit in January and have already shipped 1 million pounds in February," Wedin said on Feb. 13. "That's about double what we had expected."

He said the attractive price stimulated activity, and so did increased production from some young trees that are back in the game after sitting out a year because of the Thomas Fire of 2017. Wedin said there are young trees with a good, heavy crop and some growers are picking those trees to lessen the load and avoid limb breaks. "We're buying as much as we can," he said.

Wedin noted that following the heavy shipments of Mexican fruit in January in anticipation of the many retail avocado promotions that run during the weekend of the Big Game, Mexican shippers took their collective foot off the gas and shipped less than 27 million pounds for the week ending February 9. As a point of reference that was 47 million pounds fewer than were sent to the United States during the heaviest mid-January week.

Wileman said that created a good opportunity for California growers and a number of them jumped on it. He added that in early February Mexico's fruit was running heavy to number 2s and peaking on 60s and smaller, which created an additional opportunity for larger California fruit.

The Mission Produce sales and marketing executive said the strong start to the California deal is a good sign. He believes the final pre-season estimate of about 370 million pounds for the California crop is a good strong crop and it will help if the season is stretched out a bit because of strong early movement. Mission expects to be selling California avocados into September, meaning a solid season of seven to eight months.

Crane of Eco Farms echoed those same sentiments. He noted on February 13 that the field price for California fruit increased significantly that week and he was anticipating further increases for the larger fruit. "We need the supply and growers are giving it to us," he said, adding that the quality of California fruit was excellent.

He did note that while February supplies are greater than expected, they will jump significantly in March so he believes there is a good possibility that the strong f.o.b. price will continue for a few weeks. "For 48s, we crossed the \$50 plateau and we should stay there for a while," he said, adding that all sizes of California fruit were commanding good prices during the early part of the season.

The California Avocado Commission pre-season projections, developed through handler surveys in December 2019, projected that California shipments would hit about 6 million pounds for the first week of March and rise to more than 9 million pounds per week by the end of that month.

Wedin said that while the early volume is good and creates a great situation for those growers able to take advantage, he wasn't sure it will have a significant impact on the expected trajectory of shipments of California fruit. While California might very well ship 4 or 5 million more pounds in February than anticipated, that will still only account for a little more than 1 percent of total volume. The Calavo expert does expect the season to last longer, but he said the bulk of the crop will still be marketed in the April through July time frame.

As always, one of the big keys will be Mexico and how long it sustains shipping weeks in excess of 50 million pounds. Currently, on average weekly shipments of almost 60 million pounds are projected through April, with May shipments averaging just under 45 million pounds per week.



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