

Summer 2016

*From the*  
**Grove**



The Latest News from the California Avocado Industry

**Native Bees in the  
Avocado Orchards**

Read more on Page 18



*The native California Sweat Bee (Halictus ligatus). Photo by Dr. Rollin Coville*





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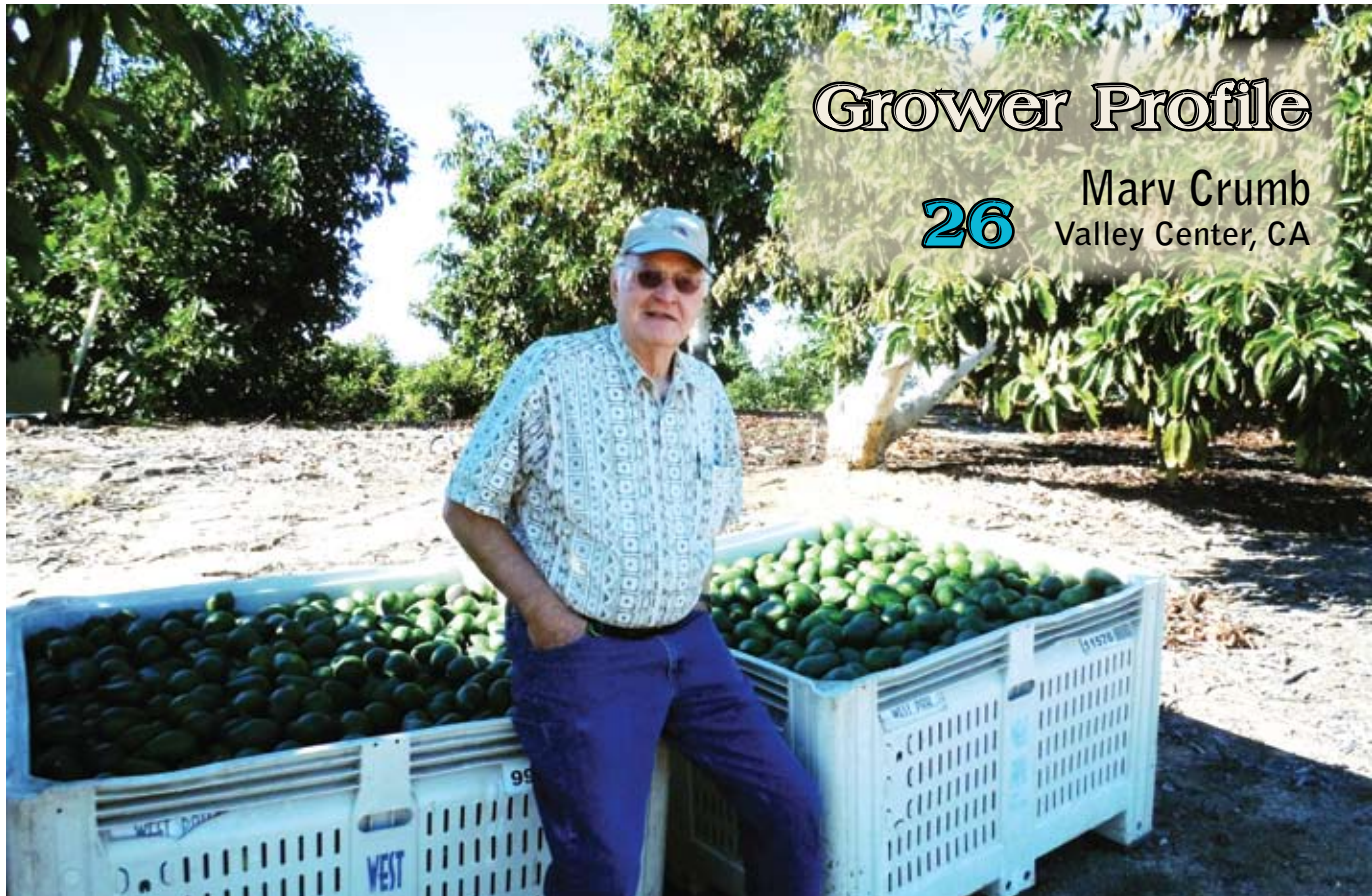
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# Grower Profile

**26** Marv Crumb  
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## From the Grove

Volume 6  
Number 2

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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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## Defining the “Commercial” Grower

To state the obvious, the California avocado industry has changed dramatically in the last two decades. In 1994, when the U.S. Department of Agriculture was just beginning, in earnest, to consider allowing importation of Hass avocados from Michoacán, Mexico, the industry was 6,500 growers strong, producing on 68,000 acres. Today, the number of growers has nearly halved, there are 52,000 bearing acres, and everyone is feeling the pinch of rising costs. Profitability — which always seems fleeting to a farmer regardless of location or the crop grown — is cast into sharp relief when the market falters, which it has done this season, buckling from the weight of an overabundance of imports. An increasing number of growers are saying that they will not be growing avocados much longer.

The duress that results from steadily rising water prices, labor costs and other inputs engenders a question that has been asked multiple times in the industry’s history: *Should the California Avocado Commission (CAC) consider defining the “commercial” grower, and treat “non-commercial” growers differently?* The rationale used by those who would advocate for such a distinction has varied over the years, but the underlying reason today seems purely economic. A look at the numbers is surprisingly telling.

Of the roughly 3,400 California avocados growers in business today, nearly 1,600 (or 47 percent) produce less than 10,000 pounds per year. Collectively, these 1,600 growers accounted for just 2 percent of the total crop volume in 2015. Although one must be cautious when making

generalizations, quite likely many of these small-scale operations are having economic difficulties and questioning what the future holds in store for them. The Commission board is pondering that too, and there is considerable empathy for the grower who is marginally producing. This leads some to say that certain growers should be exempt from payment of the state-mandated Commission assessment, or at least given the option to decide for themselves.

If the Commission were to decide that growers producing less than 10,000 pounds annually should be exempt from the payment of the CAC assessment (currently 2.30 percent of the first wholesale value of the fruit), revenue implications are nominal. On the farm, exempted growers would have one less cost — probably not enough to make a big difference in the bottom line, but relief nonetheless. Exemption-eligible growers could be given the choice of voluntarily paying the CAC assessment, or opting-out and becoming “free riders.” The work of the Commission would continue, and demand-building activities and research would still inure to the benefit of all. The Commission would have done the one thing fully within its power and authority to alleviate the burden on the small grower.

The Commission board voted in May to pursue exploration of such relief, reserving the right to declare it unfeasible if the implementation hurdles are found to be too lofty or expensive. Consider, as a thought-exercise, the myriad details associated with an exemption plan. Many growers sell to multiple packers. Some smaller operations produce



Tom Bellamore

less than 10,000 pounds one year and more than 10,000 pounds the next. Some growers might welcome being exempt, others not. While there is no simple solution, neither is it rocket science. The Commission’s database of growers is vastly improved and nearly every packinghouse, too, has a fairly sophisticated accounting system, made necessary by the realities of global food sourcing in an era when food safety compliance is paramount. Further, exemption mechanisms are already in place, at least with regard to the federal Hass Avocado Board assessment, for California Hass avocados sold into export markets or as organic. Still, the benefit of proceeding should outweigh the anticipated costs, and this will have to be examined closely.

As with most things in life, the analysis of whether it is prudent and worthwhile to offer an exemption to certain growers will take some time. Redefining what it means to be a California avocado grower under the law will also require legislative change, the timetable for which is dictated by Sacramento and the slow-moving wheels of government. This leaves growers with ample time to participate in the discourse and speak to their CAC commissioners, which is as it should be for a matter of this importance. For or against, let your opinion be known. 🥑



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*Abel Galvez (805-798-7404)*

*Connor Huser (805-836-9659)*

## Tough Marketing Issues; No Easy Solutions

**W**e all know the old saying, “What a difference a day makes.” In the case of the avocado market, what a difference three weeks make!

As of the writing of this article in late-May, the California avocado prices have risen almost 50 percent on size 60 and higher and continue to be strong. I realize this late surge will not benefit growers that have already stripped their groves, but it does show the value of our product and will continue to help all growers in the future. I think the two questions that still resonate, especially after listening to growers at the recent annual meetings, are: “Why did this happen?” and “How do we avoid it in the future?” The answer to the first question is relatively easy to answer; the answer to the second question is somewhat more difficult.

The obvious answer to why the market was so low is volume. From February until the last week of April, total inventories – imports and domestic – were in a range of 50 million to 60 million pounds per week. Avocados from Mexico were a big percentage of the total inventory, but as California started to harvest fruit that needed to come off the tree the total inventories stayed high. Since there was a large amount of less expensive import fruit in the market and a much smaller supply of California fruit, large retailers couldn't switch and our price stayed down. Smaller retailers had strategic rea-

sons for merchandising California fruit and many switched – and we did see a small increase in prices – but the increase was not as high as we normally expect.

Another reason was the size curve. The fruit that was being imported was larger than it had been in the past, 48s and up. California growers were mostly picking smaller sizes because of exposed fruit, weak trees, etc. These two factors caused high inventories in all sizes, which depressed prices across the board. In a normal season the imported fruit would be 60s and smaller and California would have larger fruit, thus the high price for bigger fruit and lower prices for smaller fruit.

The returns for exported fruit to other countries were also a concern. A portion of the fruit that came into the United States this year would normally have been shipped to other countries, but because of economic factors and the cost to ship, the returns were lower than expected. Because of this and the proximity to the United States, the fruit was sent here and inventories rose because the market could not adjust.

In the last three weeks, things have changed dramatically. Not only have the imported fruit inventories decreased more than 30 percent, but California harvests have increased and the demand for our fruit is very strong. I commend Jan DeLyser and her marketing team for their hard work during a very tough time. They



*Doug O'Hara*

were very careful about when to promote and where to spend our money, waiting for the perfect opportunities and helping drive demand for our California fruit, quickly getting growers out of a frustrating situation.

Now the big question: how do we avoid this in the future? There is no easy answer to this question since there are so many outside forces that influence our market. Spending money fighting these forces is not the solution; we could drain our entire budget and not even scratch the surface in solving the problem. This subject has been a topic of discussion among Tom Bellamore, the Board and staff since the beginning of the season and it remains one of our primary areas of focus. Many new ideas have come out of these discussions, as well as how to increase the effectiveness of current programs.

One of the most obvious ways of approaching the problem is marketing; we need to continue to market our brand and push the California avocado identity. Jan, her team and MullenLowe have worked overtime this year on programs that were scheduled for the most opportune time. They will continue their strong market presence and utilize all tools available to give us the biggest bang for our buck. I think they have done, and continue to do, a very effective job and believe this is critical to our





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success.

We must continue to find new markets for California avocados. There are many countries that have demand for good, quality avocados, and they are willing to pay a premium price for them. Tom and Ken Melban have been working for many years trying to gain access to China's markets and it looks like we are close. This would give us the opportunity to send fruit to China when our domestic market is saturated and benefit us by providing higher returns. Tom and Ken will continue to explore this avenue as there are many other countries that would be great export markets for the California industry.

We are in the process of planning a worldwide grower roundtable discussion. Tom has been in discussion with Emiliano Escobedo, the Hass Avocado Board executive director, and they are in the process of contacting large growers from Peru, Mexico and Chile so we can all have discussions on how to prevent market conditions like we experienced this season and strengthen the future of the worldwide avocado industry. It is important to keep the lines of

communication open with all importers of avocados to the USA, and this roundtable discussion will give us important information that will assist us with planning our marketing strategy. I appreciate Tom and Emiliano's efforts in organizing this group and hope it is just the beginning of a positive dialogue among all countries.

As I close out my second year as Chairman, I would like to thank Tom and all his staff at the Commission. It has been a pleasure working with all of them and I appreciate all that they have done to make my job that much easier. Most of us don't realize how hard these people work for our industry, and I firmly believe we would not be where we are without them. I also want to thank the entire Board for their hard work and dedication to our industry. Even though they are volunteers, they fight traffic to put in long days to represent their growers and give staff valuable feedback and direction on activities. Thank you all for your hard work and let's continue to make the California industry strong. 🥑



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To contact a CAC representative, please visit:  
[CaliforniaAvocadoGrowers.com/Commission/your-representatives](http://CaliforniaAvocadoGrowers.com/Commission/your-representatives)

The 2016 CAC General Election will kick-off on July 15 with election announcements sent to all producers and handlers on record. Below is a summary of seats slated to be filled during the 2016 General Election:

District	Member	Alternate
1	One 2-Year Term	None
2	One 2-Year Term	None
3	One 1-Year Term One 2-Year Term	One 1-Year Term
4	One 1-Year Term One 2-Year Term	One 1-Year Term
5	One 2-Year Term	None
Handler	Two 2-Year Term	None

Please note that due to redistricting (see article on page 46), some growing areas will be assigned to a new district for the purposes of the upcoming election. If you have any questions regarding the election process, please contact April Aymami at the Commission at 949.341.1955 or [cac.iaf@avocado.org](mailto:cac.iaf@avocado.org).

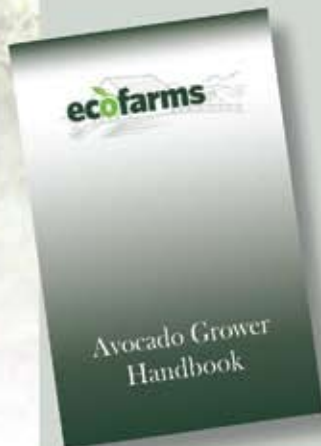


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# Trade with China One Step Closer

By Ken Melban

*Vice President of Industry Affairs*

**T**he California Avocado Commission (CAC) began the process for gaining trade access to China in 2005 by submitting an access request with the United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS). During the first 10 years, the effort remained significantly stalled due to trade politics, but the Commission's ongoing pressure generated some positive movement in early 2015 with a visit from Director General Li of the Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) of the People's Republic of China. Following that visit, the process began to move forward and an AQSIQ technical visit was scheduled.

The Commission hosted three AQSIQ officials for one week in early May. Funds for the visit were secured through a USDA Technical Assistance for Specialty Crops grant. The visit was an official government-to-government func-

tion and the next significant step toward gaining access to China. AQSIQ personnel included the lead official for the Shanghai Port, an official from the Dalian Port and an entomologist. The purpose of this visit was to provide the AQSIQ officials with the opportunity to conduct a technical audit of a handful of groves and packing facilities, representative of the industry, for sanitary and phytosanitary risk. The AQSIQ officials spent hours inspecting groves and packing facilities for insects and disease. No stone, or in this case, leaf, was left unturned.

Overall, the visit was very positive and we anticipate the next step will be the development of a "draft work plan." The next bilateral meeting between APHIS and AQSIQ is planned for late this fall in California, and our goal is for the two government agencies to complete the initial work plan by then. The best-case scenario for finalization of a trade agreement is sometime next season. But, as we've ex-



perienced during the last 11 years, it's impossible to fully anticipate issues that may arise surrounding international trade, so there are no guarantees.

On the last day of the technical visit, an exit meeting was held. From this debrief with AQSIQ, it appears the following items will be part of their review and determination before the work plan is developed:

1. A few pest samples were collected during the technical audit in both the field and in facilities. APHIS is conducting analyses to identify the pests. Once those identifications are completed, AQSIQ will discuss the findings with their pest risk analysis experts and determine if they believe those pests should be included in the final pest list.
2. Once the pest list is agreed on by both AQSIQ and APHIS, the work plan will identify appropriate risk management actions to be taken in groves and/or packing-houses.
3. During the technical visit AQSIQ keyed in on the variation of length of stem on packed fruit. They are going to "scientifically" determine the acceptable range and include that range in the draft work plan.
4. AQSIQ was also puzzled that there were no permanent inspection stations at packing facilities for individual companies' quality control and APHIS inspectors to use. It is likely that the work plan will address the need for each facility to house a work station. Stations would consist of a table, adequate lighting, and a hand lens for inspecting fruit.

It's important to stress that the California avocado industry will have an opportunity to provide input on the draft work plan prior to its adoption. Once the work plan is finalized, a pre-certification audit of those packing facilities interested in shipping to China will be necessary.

The Commission continues to focus our marketing resources on the western United States, long considered our core market. Forecasts for U.S. avocado consumption suggest demand will continue to keep pace with supply, a reality we've seen over the last few years as U.S. annual consumption now exceeds 2.5 billion pounds. However, as evidenced this season, as offshore supplies increase some U.S. market instability can occur and cause a drop in pricing. We know that California growers must have a premium return for their supply in order to compete with the low offshore production costs. It's imperative that all possible premium markets are pursued and, if necessary, developed. In addition, when the California crop is heavy, additional market options would be a positive outlet to relieve some of the pressure on the U.S. market.

As the U.S. market continues to be very competitive, nor dare I say "under siege," the Commission remains determined to find markets for California avocados that provide the best return to growers. 🥑



By Tim Linden

## Asia Could be Big Market For California Fruit

The California Avocado Commission (CAC) is working overtime to open up China to California avocado imports. And for good reason.

“That could be a huge market for us,” said Tommy Padilla, Asian sales manager for Mission Produce Inc., Oxnard, CA. “Asia is by far the fastest growing market for avocados.”

He said China, which is currently open to avocados from Mexico, Peru and Chile, is experiencing triple-figure growth in year-over-year-sales. Padilla added that Korea is registering sales gains in the 30 percent range, while even the established Japanese market is seeing 10 percent growth per year.

Mission and many other California distributors are selling avocados to the Asian market throughout the year sourcing from the various countries of origin based on timing. Padilla said each of these Asian countries offer opportunities for California, but he said China is truly an untapped market with almost unlimited potential. He reasoned that each year many more Chinese are moving from their rural communities to much larger cities. They are moving into the middle class and changing from grain-based diets to a diet that has many more elements of protein as well as fruits and vegetables.

He said in China they tend to cut the avocado in half, remove the pit and eat the fruit directly from the skin. “The biggest challenge is edu-



cation around ripening the fruit,” he said. “It may cost \$4 for a piece of fruit and they are reluctant to buy that when they don’t know how to ripen it or how to eat it.”

Padilla said there are also infrastructure challenges in getting the product from the ports and delivered throughout the country. “China is a lot like we were in the United States 20 years ago before much fruit went east of the Mississippi.”

But just as increased supplies in the United States have resulted in much better distribution throughout the country, Padilla believes that the same will occur in China. He said once China is open to California avocados, he expects the California Avocado

Commission to greatly expand the market in that huge population of potential consumers.

Ron Araiza, vice president of market development for Del Rey Avocado Company, Fallbrook, CA, is equally bullish about the sale of California avocados to Asia. He said Chinese consumers have reacted favorably to avocados from Mexico as well as Peru. Del Rey does expect to ship some Peruvian fruit to China this year. The firm already sells California fruit to other Asian countries. He said South Korea has become a growing market for California fruit. “It’s very viable; it’s a good market,” he said, willing to pay a premium for the California fruit. South Koreans



view avocados as a “super food” and the higher end consumers will pay the relatively high prices.

In Asia the fruit tends to retail for \$2-\$4 per avocado, according to the Del Rey executive.

Araiza said Asian consumers often eat avocados on bread as a spread, though they are also consumed in smoothies and increasingly in salads. “When California fruit is in season, it’s a nice niche for us.”

Araiza explained that during the late spring/summer season when California fruit is at its peak, Mexican fruit has a high level of maturity and it’s more difficult to get good arrivals after a long ocean voyage.

Padilla said Japan and the other Asian markets were opened with smaller sized fruit allowing for lower price points at retail, but as those markets mature they are accepting a more diverse size profile. “They used to only take 60s and smaller but now we see some activity for 48s as well,” he said.

Kellen Newhouse, vice president of sourcing and international development for West Pak Avocado, Murrieta, CA, said that California is perfectly positioned to capitalize on the Chinese market once it is open to avocados from the Golden State. “China’s quality requirements are very strict,” he said, noting that when California is at its peak in quality, Mexican avocados are moving toward the end of their season and it is a bit more difficult to produce the quality that China is looking for. “California fruit grades out very high at the packing shed. We have a high percentage of number ones and so you can make a container (for export) very quickly.”

An export container of fruit carries about 40,000 pounds. Currently China is taking about 20-30 containers per week, meaning about 800,000 to 1.2 million pounds. While that is a drop in the bucket compared to U.S. consumption, it’s much greater than



it was just a couple of years ago.

The West Pak executive added that the size profile and the emerald green color of the California fruit during the state’s peak shipping months – April through July – are very well suited to the Chinese market. That market is in the early stages of its development and it favors fruit in the 60s and 70s size range. Those smaller sizes are easier to find in U.S. packing houses in that late spring/early summer time than they are in the late season Mexican crop.

He also noted that the percent of dry matter in California fruit means it ships very well and can withstand the long ocean voyage it must take to reach Asia.

Newhouse also pointed out that the California brand and United States point of origin designation play very well in China and the other Asian markets. “The market image of California is very good in China,” he said.

Because the Chinese market is fairly new to avocados, Newhouse said it is difficult to predict just how great the potential is. But the sheer size of the population and the growing buying power of that population make it a logical target. He could easily see it growing to about the same potential of the much more mature Japanese market over the next five

years. After that, Newhouse said it is anybody’s guess. But he does believe that the world market for avocados is undeniably growing at a relatively fast clip. Europe’s consumption has grown tremendously and Asia is moving in the same direction. Newhouse believes this bodes well for all producers, including those in California. “The more we can diversify the markets we are selling to, the better opportunity we have to get a good price for our growers.”

He noted that while Mexico has also made some positive movement in selling to the world market, Michoacán producers are largely focused on the U.S. market. When volume shipments to the United States lower the market price, the presence of export markets for California’s fruit can impact the supply-demand curve in a positive direction. Newhouse supports the effort to open China and sees the opportunity in the Asian theater, but he also believes that California producers should not forget Europe. Europe’s consumption of avocados also is increasing rapidly. Currently, Israel, Spain, South Africa, and Peru are the primary suppliers of avocados to Europe, but there are times of the year when demand exceeds supply and there are opportunities for California shippers, according to West Pak’s top export salesman. 🥑

# Consumer Marketing Campaign Taps into California Lifestyle

The California by Nature marketing campaign — like the California avocado season — is in full swing with eye-catching artwork, online video ads and custom web, email, social media and blog content that taps into California-style food, art and culture.

The “look” of the California Avocado Commission’s (CAC’s) campaign was brought to life by Michael Schwab, an award-winning designer who has created logos and posters for clients such as Apple, the Golden Gate National Parks Association, Robert Mondavi, Sundance, the U.S. Postal Service and the 2002 Winter Olympics. Schwab, who lives in Northern California, designed the original *Hand Grown in California* logo and recently crafted a series of posters and prints for the Commission that incorporate California avocados into California lifestyle imagery.



A social media share of CAC’s wild posting ads from @foodtrition on Instagram

This season, CAC is using a guerilla marketing tactic known as “wild postings”. Wild postings are a relatively inexpensive and efficient form of advertising using a large number of the same or related posters placed together, usually in urban locations, to attract attention and gain added exposure. California avocado posters have been placed in high-traffic areas within CAC’s targeted markets – Los Angeles, Sacramento, San Diego and San Francisco – to encourage consumers to photograph themselves in front of the signs and share those images on social media. This strategy is called “show and share”.



An avocado fan on Instagram sharing one of the Commission’s wild posting ads

The show and share strategy is being used on social media as well. The same art used for these California avocado posters and prints are being featured on social media channels. YouTube, a video streaming service, is popular with consumers looking for new recipe ideas and the Commission’s campaign art is used in animated pre-roll ads that appear on screen when a user searches for avocado recipes on YouTube.



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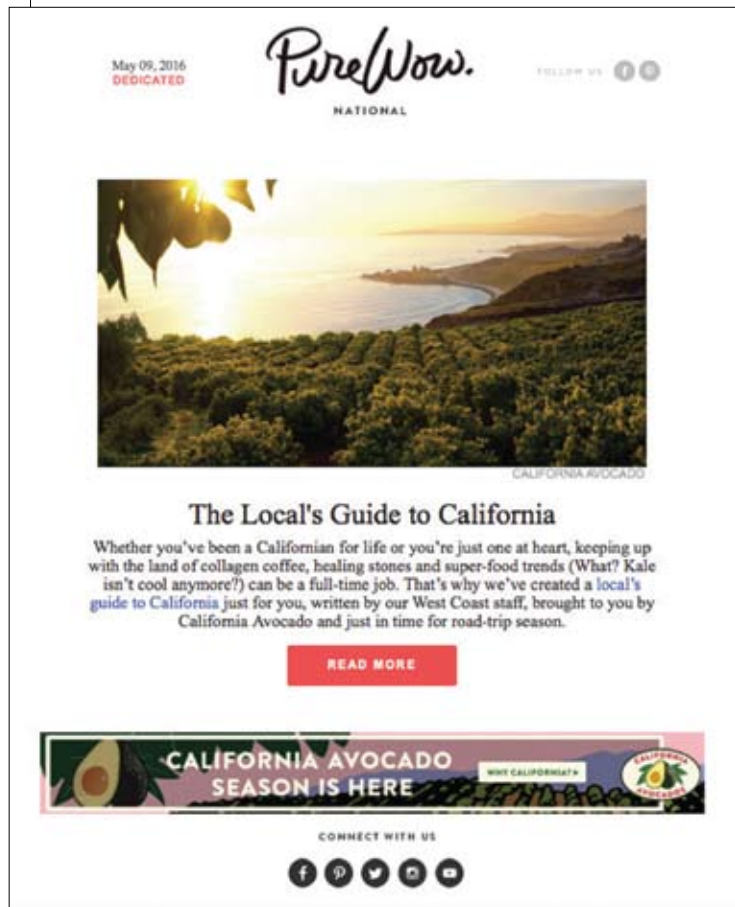
An example of CAC's pre-roll video ad on YouTube

These custom overlay ads provide California avocado recipes and encourage the viewers to visit their nearest store (using their zip code) to find California avocados. To further promote California avocados, the Commission designed cover photos for its Facebook, Twitter and YouTube channels featuring the artwork created by Schwab.

With California avocados in peak season and distribution, the marketing campaign is focused on providing consumers with new California avocado recipes that showcase the fruit's premium quality and versatility and the various ways in which it can be incorporated into snacks and meals. The Commission sponsored "The Local's Guide to California, brought to you by California avocados" found on the popular PureWow.com website. The TastingTable.com website includes California avocados on a list of the best California-made artisanal products. In addition, the site showcases two recipes that incorporate California avocados — chocolate mousse and avocado toast. As part of its Memorial Day promotions, the Commission showcased California Avocado Toast on the PopSugar.com website.

To engage with the Premium Californian audience, the Commission is creating a series of blog posts and emails showcasing California avocado recipes from its blogger partners and fans. Rather than simply posting the fan-favorite recipes, CAC also provides consumers with ideas to incorporate these recipes into a larger meal plan and offers summer party planning advice. CAC will continue to engage with its fans throughout the California avocado season by participating in real-time trending social media conversations.

By cultivating a premium image of the brand through media placements and social content, the Commission is encouraging demand and value for California avocados throughout the season. 🥑



Custom California avocado content featured on PureWow.com







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The native California Sweat Bee (*Halictus ligatus*).  
Photo by Dr. Rollin Coville.



A native California female Ultra Green Sweat Bee (*Agapostomen texanus*). Photo by Dr. Rollin Coville.

## Native Bees in the Avocado Orchards

### New Research Studies the Potential of Native Bees as Key Avocado Pollinators

By Mary Schindler, Dr. Gordon W. Frankie, Sara Leon Guerrero, Jaime Pawelek, Dr. Robbin Thorp, Dr. Rollin Coville, Dr. Ben Faber, Chris Jadallah, Marylee Guinon

Everybody has heard about the drastic decline of honey bees. In recent years, it has been making headlines across the United States and Europe. This decline is of grave concern to avocado growers, as avocados depend on bees for their reproduction. The University of California (UC) Berkeley Urban Bee Lab has begun a new study in Southern California avocado orchards to determine if California native bees can be a cost-effective supplement to honey bee pollination in the event that honey bees continue to decline.

It all started with news in 2007 of Colony Collapse Disorder, a strange Pied Piper phenomenon in which large numbers of bees

abandon their hives without a trace. Pesticides, poor nutrition, parasites and stress may be part of the lethal combination of factors that are causing the problem, but scientists are still stumped. Meanwhile, honey bee populations continue to decline by 30 percent per year.

This is bad news for avocado farmers. Avocados are among the many specialty crops that rely almost entirely on bee pollination to produce healthy, high quality fruit. In the short term, failing honey bee colonies mean increasing costs to import and/or manage honey bee hives.

The truth is that these costs have been gradually increasing for years, and farmers have thus far been

able to take these increases in stride. However, the future of avocado farming is pretty dim if honey bee populations continue to decline. Without bee pollination, crops fail. Period. Given the fact that researchers are still working to understand honey bee decline, a viable solution to this growing problem is anything but guaranteed.

Many creative and innovative people have attempted to devise solutions for this grim future scenario. Some farmers have tried hand-pollination, or even spraying their fields with pollen from helicopters. These kinds of solutions might prevent all-out crop failure in the event that honey bees vanish completely (although



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Newly installed native bee habitat at the Jim-Lloyd Butler Ranch in Saticoy.

most have not been thoroughly tested for effectiveness), but high costs make them inaccessible to most farmers.

With 1,600 bee species native to California, it seems as though native bees would be the obvious solution to the honey bee crisis, not just for fruit trees, but for many different kinds of crops. Scientists have begun evaluating the ability of other bee species to get the job done in an efficient, cost-effective manner. This idea is nothing new. The Blue Orchard Bee (BOB) has been used successfully for years to pollinate fruit trees.

Research is demonstrating that many native species are actually more effective pollinators than honey bees. When wild bees are diverse and abundant, they enhance the pollination efficiency of honey bees, provide services that honey bees are not adequately delivering, improve productivity of self-fertilizing crops that are not typically managed for pollination and can even substitute managed honey bees (Garibaldi et al. 2013). In fact, researchers estimate that 35-39 percent of the pollination services required by California crops, equivalent to \$2 billion annually, already are provided by native bees visiting from nearby wild areas (Chaplin-Kramer, et al 2011).

You might wonder, then, why the use of native bees as crop pollinators is not widespread in California agriculture. The main reasons may simply be that farmers have been

using honey bees for decades, have long-standing relationships with beekeepers, and have structures and systems in place to manage crop pollination. Since native bees differ substantially from honey bees in their life cycles and habits, managing for them requires adopting new practices and systems, many of which are still being developed.

For example, while honey bees may not be the most efficient pollinators, they are *generalists*, which means they will visit just about any flower that offers nectar and/or pollen rewards. Native bees range widely in shape, size and structure — many are literally built to collect resources from specific flower types. Honey bees are also on the wing year round, while many native bee species have shorter life cycles and are only present during certain months of the year.

Another important difference is that honey bees are *social* and live in hives that can be transported easily, while most native bees are *solitary*, building individual nests in the ground or in cavities, such as holes in trees, fence posts and pithy stems. Transported from one crop/farm/state to the next, honey bees can get their pollen and nectar needs met throughout the year (although scientists are now finding that this kind of “crop-hopping” puts tremendous stress on honey bee colonies, and may be contributing to their decline).


Native bees, on the other hand, must be supplied with enough floral resources to sustain them throughout their lifecycle, which is often longer than the flowering period of any one particular crop. Hedgerows and wild flower mixes have been offered as one solution to this management issue. But more work needs to be done to determine how effective these habitats are, and whether they can bring in the right kinds of bees in large enough quantities to supplement or replace honey bee pollinators.

This is exactly what the UC

Berkeley Urban Bee Lab is working on in Southern California avocado orchards: identifying the best bee pollinators for avocados and then building habitats that work specifically to attract them. This work is based on 15 years of research on ornamental flowering plants throughout California. We have recorded more than 400 species of native bees visiting flowers in developed landscapes and 500 bee-attractive plants.

This work has helped us determine what bee species are emerging when, and to what flowers they are most attracted. We are now applying this knowledge on three farms in Ventura and Santa Barbara Counties, comparing “treatment” sites in which we have installed high quality bee-attractive habitats with “control” sites to identify target bee pollinators for avocados. Each farm is different, with a unique approach to management, and we are working closely with farmers to understand how native bee habitats can best be integrated into their operations. Our goal is to develop a prescriptive treatment that will allow interested farmers to build their own habitats in a way that best fits their farm.

It can be hard to change your approach and try something totally new when the current system seems to be working. And for many farms, honey bee decline hasn't reached the point where it feels like a threat. But there are numerous reasons to consider integrating native bees into your production system. Research has found that native bee pollination actually improves quality of product and some researchers have called native bees a good “insurance policy” against honey bee decline. Finally, it makes sense to plan ahead before a crisis hits to ensure you have time to integrate new systems at your own pace.

To learn more about the Urban Bee Lab's research, please visit [www.helpabee.org](http://www.helpabee.org). 





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# California Avocado Menu Promotions Continue to Drive Seasonal Usage of the Fruit

The California Avocado Commission (CAC) partners with targeted foodservice chains to develop customized California avocado menu items, support materials and promotions to increase the purchase of California avocados in season.

The foodservice chain promotions also play a critical role in the Commission's efforts to increase awareness of fresh California avocados, provide more opportunities for consumers to enjoy fresh California avocados when dining out and inspire them to incorporate the fruit in meals and snacks at home. In fact, in 2015 the Commission's foodservice chain promotions resulted in a 39 percent increase in fresh California avocado usage at participating restaurants. Overall, the foodservice industry is experiencing a surge in avocado inclusion on menus. According to the 2015 Datassential Menu Trends report, avocado penetration has increased 48 percent among total U.S. restaurants

since 2005. During that same time span, avocado menu incidence has risen by 58 percent leading to a 134 percent increase in avocado menu mentions.

In an effort to encourage foodservice chains to showcase California avocados in limited-time-offers (LTOs) on the menu, the Commission's foodservice team works closely with the chains' culinary R&D, marketing and purchasing personnel on menu ideation and customized promotions. In particular, CAC reinforces the "local" and California-grown positions as differentiators the chains can leverage by prominently displaying the California avocado logo. As Jim Cottle, manager of Food and Beverage/R&D of Marie Callender's noted, "We use fresh California avocados for the color and flavor. California avocados are synonymous with California and are considered a 'premium ingredient' when used on salads, tacos, entrees, etc."

Marie Callender's LTO menu features eye-catching California avocado menu items and the new California avocado logo.

Marie Callender's has partnered with the Commission this season to offer seasonal California avocado promotions. All 65 Marie Callender's locations showcased a "Southwest Flavor Fest" from April 1 through June 23. The promotion consisted of five LTO menu items featuring the fresh fruit:

Kickin' Chicken Salad, Carnitas Philly Melt, Southwest Chicken Enchiladas, Ultimate Southwest Combo and Pulled Pork Street Tacos. Other promotions are being planned and implemented throughout the fresh California avocado season.



Each of the foodservice chain partners utilizes a variety of point-of-sale (POS) pieces such as tray liners, table tents, cash register wraps, menu boards, T-stands, posters and free-standing insert coupons to drive awareness of the seasonal campaigns. In addition, the chains promote the LTO menu items with cable network tags, e-blasts to club members, website callouts and social media posts on Twitter, Facebook and Instagram.

The new California avocado logo is featured prominently on both POS materials and the digital platforms to reinforce the local and premium messaging that helps the foodservice chains differentiate their menus from the competition.

“At Rubio’s, we use fresh California Hass avocados in our handmade guacamole and in dishes throughout our menu, whenever possible,” adds Ralph Rubio, co-founder of Rubio’s Coastal Grill. “Our food quality comes from being selective, and we source fresh California Hass avocados seasonally because of their delicious, rich flavor and creamy texture.”

The Rubio’s promotion, which ran from March 30 to May 31, featured a *California Bowl with Guacamole* and a *Chipotle Orange Salad with Fresh California Avocado Slices* in 193 units.



The Rubio’s table tent informs customers that the avocados they are enjoying are “grown on small family farms in California.”



Ruby’s Diner featured a Food Network tag in the Los Angeles cable market that showcased fresh slices of California avocado on a Cobb Burger.

Ruby’s Diner launched the California avocado season on February 15 with an “It’s a Wrap” promotion. Twenty-nine locations featured California avocados on the *Cobb Burger*, *Turkey Cobb Wrap* and *Crispy Baja Fish Wrap*.



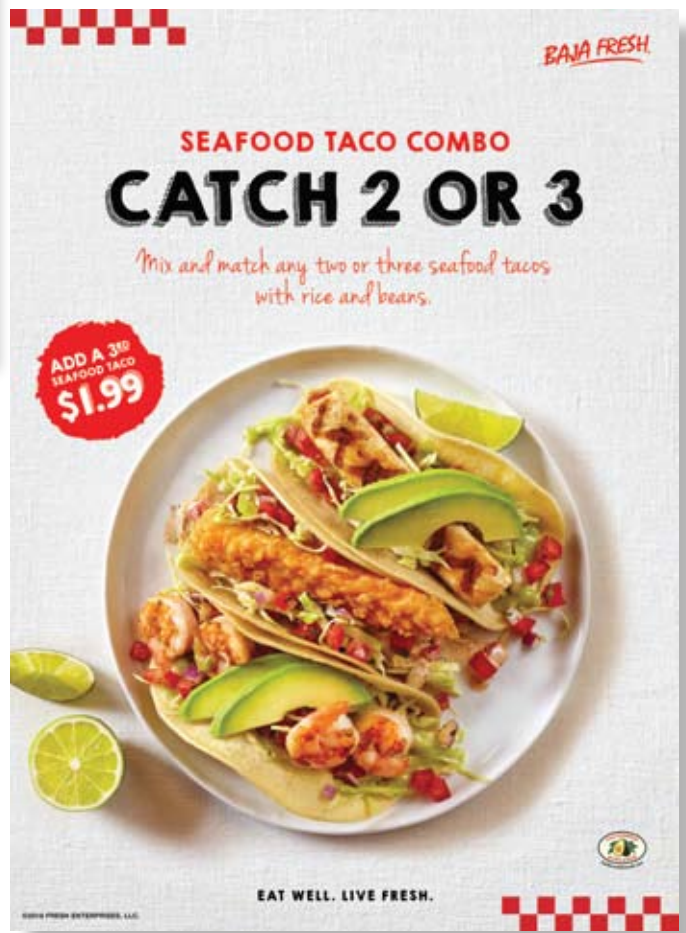
The new California avocado logo is featured on El Pollo Loco's "Signature Avocado Tostadas" free standing insert.

El Pollo Loco also celebrated the early California avocado season. From March 12 to April 22, 436 locations ran a "Signature Avocado Tostadas" promotion that included *Chicken and Shrimp Avocado*, *Southwest Chicken Avocado*, *Chicken Mango Avocado* and *Ultimate Double Chicken* tostadas.

The Egg & I's "Spring Fresh: New Season. New Flavors." LTO menu provided customers with the opportunity to begin their day with *California Avocado Toast*. One-hundred-sixteen locations featured the breakfast item from March 28 to May 29.



La Salsa's Grilled Wahoo and Baja-style Shrimp Taco menu boards were placed in 40 locations.



The Baja Fresh/La Salsa foodservice chain combined fresh California avocados with seafood for their "Seafood Combo" and "Taste the Flavors of Baja Mexico" LTO promotions. In addition to the *Seafood Taco*, *Baja Grilled Wahoo Taco* and *Baja-style Shrimp Taco*, customers can enjoy fresh guacamole with every item on the menu. The LTO menu items will be available to customers through August. 🥑



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# Grower Profile



## Investment Morphs To Project Then Passion

By Tim Linden

**I**n the late 1970s, Marv Crumb was fully ensconced in the burgeoning electronics field when he bought a 44-acre avocado ranch in Valley Center in north San Diego County. The trees had been planted only four years earlier, and the mostly Hass acreage initially included seven acres of Zutanos and four acres of kiwifruit.

As a former farm boy from Kansas, the idea of being an investor in an agricultural pursuit was alluring. But Crumb was in the sweet spot of his career serving as general manager of the NCR computer division in Rancho Bernardo and traveling around the world. He hired a grove manager to take care of the place.

Over the years, he said the investment was a very good one as the “grove totally paid for itself,” but his career, which went in several different directions, took precedence. In fact, it included a move to Seattle in 1980, which is where he lives today with his wife, Luann, who is his grove partner. He stayed in the electronics business until 2000 and then spent the next decade running his own company, which monitored and recorded earthquakes. Being involved in an executive or ownership position of these various pursuits for the first 30-plus years of avocado ownership limited his participation in the grove. He loved walking the ranch and communing with the trees, but his visits were few and far between.







But upon retirement a handful of years ago, Crumb became much more involved and enlisted his own analytic background to monitor his grove with the goal of improving production and lowering costs. “We had root rot and I saw we were removing about 3 percent of our trees every year. I set out to figure out what I could do to stop that.”

He began by trying to figure out what he didn’t know. Just as gathering data about earthquake activity is considered the key to increased knowledge, Crumb “instrumented the grove” to provide him with data. The instruments communicated with his computer in Seattle, continually dumping data about wind direction, soil moisture and ionic levels in the soil. “It gave me a lot of statistical data to work with,” he said.

Armed with the information, he began to study the agronomy of the avocado focusing on soil science. He was looking at the physiology of avocado trees and the cycles they went through. “My brother, who has a PhD, says I now have a PhD in avocado agronomy,” he quipped.

Much like in the field of electronics research, Crumb said the key “is to eliminate the unknowns.” The avocado, he said, was ripe for this approach because there was an incredible amount of unknowns about what helps a tree produce a large quantity of good quality fruit.

One of his early discoveries was that the decomposed granite on which his ranch was located did not hold water very well because of the lack of organic material. “We had a tremendous problem with wilting,” he said.

Working with avocado tree researchers, he determined that the best way to address this was with more frequent watering, while using less water. Initially, he was running the irrigation system 8-24 hours at a time once a week. His current protocol calls for watering three times a week for just three to four hours at a time. He uses less water but the trees are exposed to stress much less.

Water is the area in which Crumb has devoted the most attention and for good reason. He calls it the key to profitability. Several years back, he looked at his water bill that was around \$150,000 annually and rising, and realized “we

have to change that or get out of the business.”

He hired a well locator, found a spot that would yield sufficient water and drilled a well equipped with a reverse osmosis system. Counting everything, including amortizing the cost of installation and annual pumping costs, Crumb said he has reduced his water bill to about \$120,000 per year. Without the well, he said the cost would now be at about \$180,000 per year.

For 2016, Crumb is anticipating the ranch yielding about 400,000 pound of fruit. Over the past few years, the yields have ranged from 10,000 to 15,000 pounds per acre.

Because the trees are more than 40 years old, he is in the process of what he calls “rejuvenating” his ranch. About a decade ago, he added 1,000 new trees and each year he continues on a replacement schedule. Recently he put in a



*Luann and Marv Crumb*

high density planting in a six-by-six foot spacing pattern to test its effectiveness. He is committed to a “data-driven and science-driven” approach to managing the ranch and improving the grove. Because he is getting what he calls “long in the tooth,” Crumb and Luann have added their daughter and her husband to the family business team. The younger generation is involved in the latest capital improvements with the goal of taking over the ranch in the not-so-distant future.

Crumb remains bullish on the California avocado industry, which has made his investment of 40 years ago a winner by any objective measure.

And also by a more subjective bellwether. “I absolutely love walking the grove,” he said from his Seattle home. “I come down once a quarter and spend two weeks at the ranch each time.”

With equal parts data and the old-fashioned eye test, he is making sure his avocados are top notch. 🥑

## Research Reviewed An Investment in the Future

In an ongoing effort to make sure that growers' resources are being spent wisely, the California Avocado Commission's (CAC) Production Research Committee (PRC) recommended to the Board that the two largest research programs — rootstock breeding and shot hole borer (SHB) — be reviewed by external experts. These two programs alone account for two-thirds of CAC's annual research budget so outside experts were asked to review these two programs to ensure they are meeting their goals and generating research results that benefit growers.

### Rootstock Breeding Review

The rootstock breeding program was reviewed during the week of April 18. CAC invited Drs. David Kuhn, Jose Chaparro and Tom Gradziel to spend three days visiting with the UC Riverside (UCR) research team (Drs. Patricia Manosalva, Peggy Mauk and Mary Lu Arpaia) and the PRC. Kuhn is a molecular biologist and curator of the avocado germplasm collection with the USDA Agricultural Research Service lab in Miami, Florida. Chaparro is a plant breeder in the Horticultural Sciences Department at the University of Florida work-



**David Kuhn**  
Molecular Biologist  
USDA Agricultural  
Research Service

ing on peaches, citrus and avocado. And Gradziel is the almond and peach rootstock breeder in the Plant Sciences Department at UC Davis. These three individuals were chosen for their expertise in avocado molecular biology and genetics, and traditional plant breeding.

Patricia Manosalva took over the lead on the avocado rootstock breeding program at UCR in January 2015, after her predecessor was not granted tenure at the University. Manosalva has a strong background in molecular biology and plant pathology and was involved in rice and tomato breeding programs for disease resistance in her previous positions. However, she does not have training in classical plant breeding. Thus, the review panel was assembled with the intention of serving as both a review panel and as future mentors to help her be successful.





**Jose Chaparro**  
Associate Professor  
University of Florida

The panel did a great job of reviewing the work proposed by the UCR team and providing them with very constructive criticism. Importantly, the reviewers also helped to educate the PRC about the intricacies of being successful in the university system and how that differs from our industry's definition of success. To us, Manosalva will be successful if

she produces rootstocks that are tolerant to *Phytophthora* and salinity. However, in the University's eyes she will be successful if she brings in nationally competitive grants, such as United States Department of Agriculture or National Science Foundation, and publishes peer-reviewed papers in leading scientific journals. Thus, it is important for us to recognize these two, somewhat opposing, views of success and support her so she can be successful in both systems — lest we find ourselves looking for another rootstock breeder in a few years.

The three UCR researchers are to be complimented for their participation in the review process and their openness to the reviewers' comments. The best suggestion the reviewers had was to reduce the breadth of the project proposal and focus on a few key elements early on to get the program on sound footing,

rather than trying to do too much too quickly. One of these key elements was rescreening material that has been lingering in the program for many years and has never been fully tested against



**Tom Gradziel**  
Professor  
University of California  
Davis

*Phytophthora* and salinity. Another was to develop plans to restructure the seed source blocks to include only the most *Phytophthora* and salinity tolerant mother trees to ensure that the seeds generated from those mother trees have the greatest likelihood of having the genetic combinations that will result in improved tolerance. I am happy to say that these comments were taken to heart and Manosalva and her team are working on a revised proposal for the PRC to review at an upcoming meeting.

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## Shot Hole Borer Review

The SHB research was reviewed during the week of April 25. CAC invited four researchers with expertise in bark and ambrosia beetle biology, beetle ecology, plant pathology and plant physiology to visit with the research team at UCR who have been the backbone of our research on SHB. The reviewers were Drs. Rich Hofstetter, Jiri Hulcr, Randy Ploetz and Mike Mickelbart.



**Rich Hofstetter**  
Associate Professor  
Northern Arizona  
University

Hofstetter is in the School of Forestry at Northern Arizona University and is an expert on understanding beetle ecology by looking at things such as acoustics, forest health, and chemical attractants. He is also co-editor of the recent book “Bark Beetles: Biology and Ecology of Native and Invasive Species.”

Hulcr is a forest entomologist in the School of Forestry at the University of Florida who, in his words, studies “the ambrosia symbiotic complex — beetles, fungi,

bacteria. I address the most fundamental questions about the evolutionary origin of this fungus-farming symbiosis, and the chemistry that makes it function, but also how the tree-killing symbiosis is impacting trees, forests, and people.” He has been heavily involved with research on the red bay ambrosia beetle, the vector of laurel wilt disease of avocados and its relatives, and maintains the website [www.ambrosiasymbiosis.org/](http://www.ambrosiasymbiosis.org/).

Ploetz is a plant pathology professor at the University of Florida’s Tropical Research and Education Center who has been working extensively on laurel wilt disease during the past several years. His research focuses on soil-borne and foliar diseases of tropical crops, including avocado.

Mickelbart is a plant physiologist in the Botany and Horticulture Department at Purdue University who works on understanding plant stress responses. He is a native of Southern California and received his B.S. degree from UCR. He also completed a post-doc at UCR where he gained experience working with avocado.



**Randy Ploetz**  
Professor  
University of Florida

and were also supportive of the review process, spending a couple of hours with each researcher. The review team also had the opportunity to visit an infested avocado grove near Bonsall. The group wrapped up their visit at the CAC office in Irvine for a PRC meeting.

Overall, the reviewers were supportive of the work that CAC has funded to date and the progress that has been made. Some of their suggestions for future research included focusing CAC-funded research to applied projects with immediate application to growers and helping the researchers find other funding sources to support more basic work. They also suggested a prioritized list of questions to have addressed in the next round of research. The PRC will be meeting on June 29 to consider all of these suggestions and make recommendations to the CAC Board.

The timing of this review was very good. Except for two projects, all of CAC’s SHB research projects are set to end on October 31 at the end of the 2015-16 fiscal year. In addition, at that time CAC will have spent more than \$2.5 million on this one issue since 2012. Thus, this is a very good time at which to pause and assess the situation and carefully plan our course forward to maximize our research returns to the grower. 🥑



**Mike Mickelbart**  
Associate Professor  
Purdue University



**Jiri Hulcr**  
Assistant Professor  
University of Florida





## CAC Consumer PR Activities 2016

**T**he California Avocado Commission (CAC) public relations (PR) and nutrition communications team works with key media and nutrition experts to secure media stories and develop content that increases demand for and drives awareness of California avocados in key markets during the season.

To celebrate and announce the start of the 2016 California avocado season, the Commission coordinated a number of season-opener media outreach activities. For starters,

CAC distributed a press release featuring recipes from artisan chef partners. In addition, CAC sent avocado shipments to media, coordinated blogger ambassador posts and initiated media efforts with Registered Dietitian (RD) partners. These outreach activities helped set the tone and build momentum for the fruit for the rest of the season by communicating the availability of California avocados, differentiating them from other countries of origin and highlighting their premium quality.

On March 22, CAC distributed a press release nationally that featured recipes from artisan chef partners Josef Centeno (Orsa & Winston, Los Angeles), Eric Tanaka (Tanakasan, Seattle) and Ivy Stark (Dos Caminos, New York City). Each chef created an innovative grain bowl recipe featuring California avocados. Josef Centeno developed a delicious bowl featuring seasoned farro, burrata, nori, marinated cucumbers and California avocado. Chef Ivy Stark created a delicious Latin-inspired chimichurri steak and grilled California avocado ancient grain bowl. Eric Tanaka's salmon and brown rice bowl with California avocado hollandaise, shiitake relish and ginger kale was a showstopper. The recipes, images and release also were posted on the CAC website.

blogger posts one monthly recipe featuring California avocados to inspire usage by their readers and educate consumers about the versatility of the premium fruit. To date in 2016, the blogger ambassador program has garnered more than two million consumer impressions and is on target to achieve more than 10 million impressions by season's end.

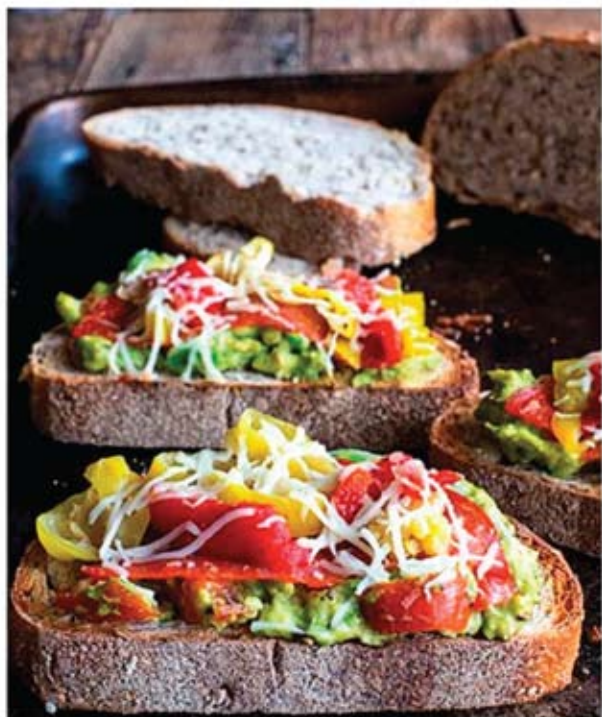
To further educate consumers about the nutritional benefits of California avocados, CAC coordinates a multi-pronged nutrition communications program. As part of these efforts this season, CAC has continued working with key registered dietitian nutritionists (RDNs) to have them serve as third-party spokespeople. These RDN Ambassadors (RDAs) promote the nutritional aspects of California avocados in a variety of ways. The RDAs reach consumers nationally through their digital and social presence, and also focus on reaching consumers regionally in their home markets through media appearances. This year, the program was expanded with incorporation of Manuel Villacorta, based in San Francisco; Lisa Samuel, based in Los Angeles; and McKenzie Hall, based in Seattle.



LUNCHTIME CALIFORNIA AVOCADO TOAST

MARCH 18, 2016 BY KRISTEN — 8 COMMENTS

Avocado Toast doesn't have to be something to only enjoy at breakfast! Give this Lunchtime Avocado Toast recipe a try. Topped with fresh, California Avocados, tomatoes, pepperoni, banana peppers, roasted red peppers and cheese, it's sure to be a lunchtime hit!



Manuel Villacorta, who is serving as a spokesperson within the Hispanic market on behalf of CAC, recently appeared on Spanish language television channel Univision in honor of National Nutrition Month. The segment featured the culinary versatility of California avocados and highlighted the fruit's nutritional attributes. He also appeared in a second segment in May for the outlet, which focused on seasonal produce and highlighted California avocados. Villacorta also was featured in an article and accompanying video on Fox News Latino Online, where he promoted the arrival of the California avocado season and prepared his new recipe *Stuffed California Avocado with Jicama Salad*.

In March, CAC kicked off the 2016 Blogger Ambassador program which features six food bloggers (Dine and Dish; A Southern Fairytale; Yummy Healthy Easy; I Wash You Dry; Cookin' Canuck and Soufflé Bombay) and two wellness bloggers (Running to the Kitchen, Shrinking Kitchen). Each



Also in April, the NourishRDs (Lisa Samuel and McKenzie Hall) began their work to promote California avocados. Through their social media channels they promoted the season's first nutrition infographic, *California Avocados Nature's Superfood: They've Got What You Want...Not What You Don't*.

**CALIFORNIA AVOCADOS  
NATURE'S SUPERFOOD**

**THEY'VE GOT WHAT YOU WANT\*... NOT WHAT YOU DON'T\***

✓ NEARLY 20 VITAMINS & MINERALS	ZERO CHOLESTEROL
✓ GOOD-FOR-YOU UNSATURATED FAT	TRANS FAT FREE
✓ DIETARY FIBER (6% DV)**	SUGAR FREE
✓ 30 NUTRIENT DENSE CALORIES	SODIUM FREE
✓ ANTIOXIDANTS: VITAMINS C & E (4% DV)**	LOW IN SATURATED FAT

\*PER 1-OUNCE SERVING OF AVOCADO  
\*\*PERCENT DAILY VALUES (DV) ARE BASED ON A 2,000 CALORIE DIET

TO LEARN MORE ABOUT CALIFORNIA AVOCADO NUTRITION, VISIT [CALIFORNIAAVOCADO.COM/WHYITRITION](http://CALIFORNIAAVOCADO.COM/WHYITRITION)

Finally, in May, Bonnie Taub-Dix brought the concept of *California Avocados as a Superfood* to life in her Scoop blog contribution detailing the many nutrition and culinary attributes that make California avocados the super food we all know and love.

Promotion of the nutritional benefits via the RDNAs will continue throughout the remainder of the season. Key upcoming activities include the Meal Makeover Moms (Liz Weiss and Janice Newell-Bissex), longstanding CAC RDNAs, promoting their California avocado-inspired recipe *Avocado Key Lime Pie Smoothie Bowl* on The Scoop blog, the Meal Makeover Mom's Kitchen blog and newsletter, and through their social media channels. Additionally, CAC's second nutrition infographic *#MashOnAvocado*, is currently being created by chef and RDNA Michelle Durdash, who will promote the infographic on her social media channels.



The communication activities have helped set the tone for a successful California avocado season by leveraging our chef partners, bloggers and RDNAs to share the California avocado story with consumers and inspire them to enjoy the fruit in their meals.

To date, the consumer and nutrition communications program has garnered more than 200 million impressions. These media impressions are a valuable metric to CAC and its stakeholders, giving them a quantifiable number of consumers that are being reached with CAC's messages around California avocados through editorial (non-paid) story placements.

With CAC PR outreach efforts throughout the season, the industry is sure to see continued results as we moved into activations for California Avocado Month in June and American Summer Holidays throughout the summer. 🥑

# MWD Urges Growers to Cut Costs and Water Use with Water Savings Incentive Program

By Gary Tilkian

*Resource Specialist,  
Metropolitan Water District*

**T**he Metropolitan Water District (MWD) of Southern California wants to help avocado growers save water and money, without seeing their yields drop. Through Metropolitan's Water Savings Incentive Program (WSIP), avocado growers in the agency's service area can receive cash incentives for improving their water-use efficiency. Growers are paid based on the amount of water they save by installing more efficient equipment or changing agricultural processes to reduce water use.

Being more water efficient should not mean growers have to settle for diminished yields, stressed California Avocado Commission (CAC) President Tom Bellamore at the May 17 Water Savings Incentive Program for Avocado Growers seminar.

"We see big water-saving potential among Southern California's agricultural and commercial water users. That savings can come from efficiency, not through decreased production," agreed Brandon Goshi, water policy and strategy manager for Metropolitan.

So far that sentiment has rung true for one avocado grower in north San Diego County. In January the grower started modifying irrigation schedules based on soil moisture data. According to CAC Research Program Director Tim Spann, initial data indicates the grower has reduced water use, but not reduced yields.

Metropolitan has been working closely with CAC to streamline the WSIP process by certifying relevant technologies that reduce water use, such as soil moisture sensors. CAC also is working with Metropolitan to provide growers with guidance concerning complete soil moisture sensor systems — including sensors, data logging, transmission equipment and computer software — that growers can consider for installation.

In general, WSIP incentives are available to agricultural, commercial and industrial customers for the installation of high-efficiency equipment, process improvements, agricultural and landscape water efficiency improvements and contracted water management services. The amount customers are paid depends on how much water they save:

- The maximum incentive is \$0.60/1,000 gallons of water saved per year over a project's life, up to 10 years. Projects are monitored for 12 months after they are operational to verify the anticipated savings. If projects save more than expected, growers can receive an additional incentive of up to 10 percent of the estimated savings.
- Incentives are limited to 50 percent of the projects' eligible costs, not including the 10 percent additional incentive. Eligible costs may include audits, design, engineering, construction, equipment and materials, shipping, third-party labor and contract water manage-



ment services.

- Incentives are usually provided in two payments. An initial payment of 20 to 50 percent of the total estimated incentive is usually made once the project is operational and the balance is paid when the savings are verified after the monitoring period.

“We want to work with avocado growers across our service area to cut water use without hurting their bottom line,” said Gary Tilkian, a resource specialist with Metropolitan’s Water Efficiency Team and the current WSIP manager. “Saving water saves them money, plus we provide these incentives.”

Metropolitan Water District is a cooperative of 26 member cities and water agencies, serving more than 19 million people in Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties. The district imports water from the Colorado River and Northern California to supplement local supplies and helps its member agencies develop water recycling, storage and conservation programs to provide additional supplies to reduce regional demands.

In addition to WSIP, Metropolitan also offers several other programs aimed at promoting water use efficiency.

- **Landscape Irrigation Surveys:** Metropolitan will provide, at no cost, a certified landscape irrigation auditor who will survey qualifying irrigated landscapes (one acre minimum) and provide written recommendations to the customer. The free reviews include checking irrigation system pressure; evaluating irrigation controllers, valves and scheduling; noting general site conditions; and providing a written report documenting findings and general recommendations. The survey is a good first step for customers seeking to identify potential upgrades to more water-efficient equipment.

- **SoCal Water\$mart Rebate Program:** The Water\$mart program offers cash rebates for a wide variety of water-saving technologies, including outdoor irrigation equipment. Rebates are offered for

a variety of devices, including “smart,” weather-based irrigation controllers, central computer-controlled irrigation systems, and installation of soil moisture sensors that connect to new or existing irrigation controllers. Controller-based rebates are currently \$35/station, up to the actual device costs.

More information about Metropolitan’s water savings incentive programs is available at [bewaterwise.com](http://bewaterwise.com). Applications for the WSIP program are available at [www.bewaterwise.com/water-savings-incentive-program.html](http://www.bewaterwise.com/water-savings-incentive-program.html). 🍌

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West Pak employs the world’s most advanced, fully automated avocado grading and sorting technology.

The innovative **Inspectra** system is our safe, non-invasive, near-infrared (NIR) technology used for testing the internal properties of produce. It sorts fruit by dry matter, firmness and internal quality. Combined with our **Compac 9000IR** infrared sorter, offers the most automated packing line in the avocado industry with unparalleled labor savings. The **Inspectra** and **Invision** systems, working in unison, bring world class consistency and accuracy of sorted product.

We continue our commitment to California and our investments in technology and material handling. If you are interested in our latest technology and efficiency, please call us at **1-800-266-4414** or visit us at [westpakavocado.com](http://westpakavocado.com).

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AVOCADO, INC.

<b>FIELD REPRESENTATIVES</b>	<b>SOUTH</b>	<b>NORTH</b>
	Galen Newhouse Andrew Gabryszak Robert Salaski David Chol	Ralph Gonzalez Mike Harberson

By April Aymami  
Industry Affairs Manager

## 2015-16 Mid-Season California Avocado Crop Update

The California Avocado Commission (CAC) would like to thank all of the growers who participated in the recently concluded Crop Estimate Survey. Survey forms were mailed out in mid-April with a return date of early-May. Due to early-season market dynamics, the response rate of 46 percent of bearing California avocado acreage came in slightly lower than the previous years' surveys, however the surveys received represented a wide range of grove size and location and therefore should capture a fairly accurate snapshot of the industry and the crop currently being harvested.

Responses to the grower crop survey are applied against a calculated bearing acreage by area, compiled using satellite imagery (see following page for 2015 Acreage Inventory Update), to produce the Commission's mid-season crop update. Despite early reports from the field indicating a smaller-sized fruit profile this season, the mid-season crop update has estimated the 2015-16 California total crop to be 390.9 million pounds — 2 million pounds less than the December 2015 pre-season estimate of 392.5 million pounds.

While the Commission remains optimistic that year-end harvest will meet mid-season projections, management will continually monitor

crop and market conditions throughout the season to anticipate any potential revenue shortfalls, and is prepared to adjust spending plans, by up to \$1 million, if necessary.

Included are details of the 2015-16 mid-season California crop update, which contain variety break-

downs and production by county. Additional details can be found on the Commission's grower website at [CaliforniaAvocadoGrowers.com/industry/crop-projections-and-estimates/2015-16-mid-season-crop-estimate](http://CaliforniaAvocadoGrowers.com/industry/crop-projections-and-estimates/2015-16-mid-season-crop-estimate). 🥑

Variety	Bearing Acres	Estimated Yield		Response %
		Lbs/Acre	Lbs (MM)	
Hass	49,453	7,630	377.3	46%
Lamb-Hass	1,623	6,197	10.1	46%
Other	826	4,277	3.5	36%
<b>Total</b>	<b>51,902</b>	<b>7,532</b>	<b>390.9</b>	<b>46%</b>

County	Hass Only			All Varieties		
	Bearing Acres	Estimated Yield		Bearing Acres	Estimated Yield	
		Lbs Per Acre	Lbs (MM)		Lbs Per Acre	Lbs (MM)
San Diego	17,330	7,687	133.2	18,344	7,515	137.9
Riverside	5,444	5,766	31.4	5,536	5,722	31.7
Orange	1,198	9,213	11.0	1,250	8,836	11.0
Ventura	16,287	8,239	134.2	17,331	8,163	141.5
Santa Barbara	4,922	6,883	33.9	5,013	6,803	34.1
San Luis Obispo	3,662	8,584	31.4	3,720	8,587	31.9
Minor Counties	610	3,571	2.2	708	3,958	2.8



# 2015 California Avocado Acreage Inventory Update

In an effort to continually keep our finger on the pulse of the California avocado industry, the California Avocado Commission (CAC) conducts an annual acreage inventory survey to analyze and classify planted avocado acreage throughout the state. The acreage survey uses remote sensing techniques, applied against aerial and satellite imagery collected in the spring, to delineate avocado acreage into producing versus non-producing acreage and classified into categories including producing, topped/stumped, and new/young. The annual acreage inventory is conducted for San Diego, Riverside, Ventura, Santa Barbara, and San Luis Obispo counties. Other minor counties' acreage is estimated based on ancillary data from county agricultural commissioners and our grower community.

The results of the 2015 California avocado acreage inventory have been compiled and show a slight increase in bearing acreage, approximately 400 acres, but a decrease in total planted acres by about 500 acres. The increase in bearing acres is largely attributed to young and topped trees coming into production. The total California bearing acreage, which includes producing and topped/stumped acreage, continues to remain just shy of 52,000 acres.

Details of the 2015 acreage update are included with this article, while archived acreage inventory updates can be found on the grower website

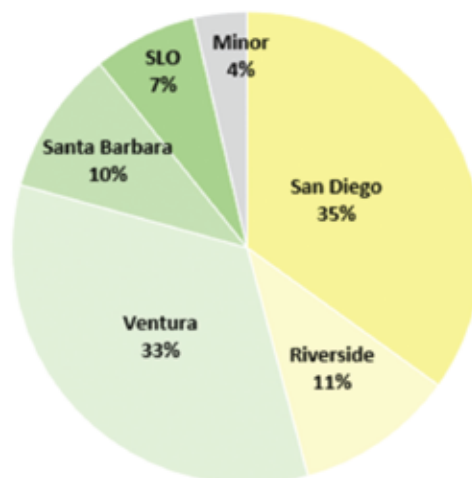
at [CaliforniaAvocadoGrowers.com/industry/acreage-inventory-summaries](http://CaliforniaAvocadoGrowers.com/industry/acreage-inventory-summaries). 🥑

**2015 California Avocado Acreage Inventory Summary by County**

County	Producing Acres	Topped/Stumped Acres	New/Young Acres	Total Planted Acres	CAC Bearing Acres (Pro+Top)
San Diego	16,870	1,474	430	18,774	18,344
Riverside	5,056	479	354	5,890	5,536
Ventura	16,732	598	670	18,000	17,331
Santa Barbara	4,819	194	327	5,340	5,013
San Luis Obispo	3,500	220	124	3,844	3,720
<b>Total 5 Counties</b>	<b>46,978</b>	<b>2,966</b>	<b>1,905</b>	<b>51,848</b>	<b>49,944</b>
Total Minor Counties*				1,958	1,958
<b>Grand Total</b>				<b>53,806</b>	<b>51,902</b>

\* Orange, Los Angeles, San Bernardino, San Joaquin Valley, Monterey

**2015 Planted Avocado Acres by County**



**2015 Varietal Distribution**

Variety	Acres
Hass	49,453
Lamb	1,623
Other	826
<b>Total</b>	<b>51,902</b>

# U.S. Market Potentially Opened To All Mexican Avocados

By Tim Linden

**O**n Friday, May 27, the United States Department of Agriculture Animal and Plant Health Inspection Service (APHIS) published a notice in the Federal Register establishing a systems approach that will potentially allow avocados from any state in Mexico to be shipped into the United States. The final rule will take effect on June 27, 2016, with packers able to apply for certification after that date.

Practically speaking, APHIS has indicated that it will use a piecemeal approach to granting access, meaning it will be an evolutionary process occurring over many years. And in reality, experts say the initial impact will be minimal as this ruling does not put more fruit in the market, but rather opens up a new market for some Mexican fruit. Aside from Michoacán, which is the source of all Mexican imports at this time, it is clear that the state of Jalisco has the most mature distribution of any Mexican state. Any fruit that would qualify for certification in the near term is already being exported from Jalisco to other world markets.

In an email to the industry, California Avocado Commission President Tom Bellamore noted that it is not anticipated that Jalisco will be a factor in the U.S. market this year. And even, in the future, the impact should not be overwhelming. In the USDA APHIS notice, Jalisco is estimated to be able to put about 30-60 million pounds of Hass avocados into the world market. CAC believes those figures are low and Jalisco's true potential is in the neighborhood of 110 million pounds.



*Ciudad Guzmán, Jalisco*





*Ciudad Guzmán, Jalisco*

Even so, that still only represents about 5 percent of Mexico's total Hass volume. Handlers do not think Jalisco will have much of an impact, though this does continue the three-decade effort by Mexico to gain access to the U.S. market. After many years of rejecting those efforts, on February 5, 1997, the U.S. Department of Agriculture first allowed limited shipments of Mexican avocados into the United States. Initially, those shipments had to be from the state of Michoacán and were limited to 19 Northeastern states during a very limited time period in the winter. In addition, each grove, packing shed and shipment had to be certified as being in compliance with the rules established by APHIS. Over the years, Michoacán gained more and more access to the U.S. market to the point where today it enjoys total access. But again, each shipment must be certified as pest free and that it is following the protocol. The new rule establishes this same protocol for all avocado production from any Mexican state.

While this is expected to allow a greater volume of Mexican avocados the opportunity to come into the U.S. market, Michoacán is where the great majority of Mexican avocados are produced.

Mission Produce Inc., Oxnard, CA, which does have partnerships with Jalisco producers, does not expect this to have a major impact on the global marketing of avocados. Vice President of Marketing Robb Bertels said: "This ruling won't magically increase the supply of avocados. What it does is give Jalisco producers another market for their fruit. We expect them to follow the money and sell that

fruit where it is most profitable."

He said Mission already sources fruit from Jalisco and sells it to buyers around the world. Bertels did agree that over time there may be some avocado supplies currently sold in the national market that find their way to the generally more-lucrative global arena. But he said the price differential between those two markets has been narrowing in recent years.

Bellamore agreed, noting that Jalisco fruit has been shipped to Canada, Japan and Europe and there is no reason to think those relationships won't be continued. While Jalisco does ship fruit at the same time as California, its season is said to last through the fall and into January. Certainly fruit shipped during the second half of the Jalisco season would not impact California, which typically sees its supplies dwindling in late summer. Even this year's projected larger crop should see close to 90 percent of California's fruit marketed by September 1.

Kellen Newhouse, vice president of sourcing and international development for West Pak Avocado, Murrieta, CA, agreed with the others interviewed that the ruling potentially opening up all of Mexico to the United States market will have a minimal impact, especially in the short run. He reiterated that Jalisco is the only state with any production that could be certified in the short term. He does expect that to happen fairly quickly for some packers, possibly in the one to three month time frame after the new APHIS rule becomes final. But even that would put the first Jalisco shipments to the United States in the August to October time frame when California production numbers are falling quickly.

Newhouse said it should take packing houses in other states at least several years before gaining entry to the U.S. market. The West Pak executive estimated that Jalisco has about 17,000 hectares of Hass avocados, which could produce in the neighborhood of 100 million pounds available for export to the United States. Those packers, he said, are already exporting that fruit to Asia and Europe. While Jalisco does not yet have access to the China market, as do producers in the neighboring state of Michoacán, Newhouse said that access is typically granted after groves are certified into the United States. So if that access is granted, Jalisco producers will have another market for their crop as well. And Newhouse said avocados grown in Jalisco would be well suited for shipment to China. They are produced at a favorable time – April to January – and, like California fruit, it travels very well.

But Newhouse does not expect Jalisco shippers to abandon their current markets for new ones. He said that in the last two years, Jalisco fruit has been building its reputation in Europe and Japan. He expects shippers of Jalisco avocados to play the "which-market-is-best game." 🥑

# CAC Annual Meetings

## Premium Positioning Remains Focus of Avocado Marketing Plan

By Tim Linden

**W**ith an oversupply of imported fruit in the marketplace when the California Avocado Commission (CAC) held its April annual growers meetings in three locations throughout the state, the effort to create a premium position for California avocados took center stage.

Commission President Tom Bellamore reminded the growers in attendance that creating this position is a long-term goal and requires buy-in from the growers and the packers. "This cannot just be the Commission's strategy," he said. "This has to be backed up by the growers and the packers. This has to be an industry strategy."

Growers up and down the state were understandably disappointed by the marketing conditions on the front end of the California deal. An inordinate amount of fruit from Mexico in January created a supply-exceeds-demand marketing situation as California fruit was coming on line. Inventories backed up and prices were dismally weak. However, volume did continue to move and there was light at the end of the tunnel as Mexico's volume was expected to decline as the spring wore on.

Acknowledging that the general market price was far too low, Bellamore insisted that the best way to fight that in the future is to produce a superior product and allow the Commission to exploit the natural advantages of a locally-grown avocado. "Premium positioning has to be supported by consistently providing a high-quality product delivered to the consumer as soon as possible following harvest. We have the best shot at doing that, particularly if we continue to sell more and more fruit in California," he said.

He said if the industry can do this virtually 100 percent of the time, it should be able to command a return to the California grower substantially above the industry average.



He added that one way to emphasize that premium fruit is by becoming a GAP-certified grower. Bellamore noted that more and more of the off-shore producers are GAP-certified and that designation is quickly becoming a must for all California producers.

With California producing only about 15-20 percent of annual U.S. consumption, Bellamore said the Commission's effort and that of the marketers is focused on western markets where California more consistently enjoys a natural marketing advantage. He revealed that in 2015 more than half of California's avocado production was sold within the state. With a per capita consumption of 16 pounds per person, simple math shows that the entire crop could be consumed within the borders at some not-so-distant time in the future.

While it is a difficult case to make when the market is low, Bellamore said California's fruit did sell at a premium in 2015 and it also is returning a premium this year, though



still below the cost of production at the time of the meetings. Besides natural advantages, Bellamore said it is a fact that retailers get a higher ring and return a higher margin from the avocado category when California is in the marketplace. Avocados are simply priced higher at retail during the California season. "Retailers do well when California is in the market. Retailers make more money and the imports do better as well."

He said it is in everyone's best interest to support California's premium position and both the avocado importers and retailers know that.

Bellamore said several different factors combined to create the poor marketing conditions in early 2016. Mexico imported more fruit; some California windfall fruit, which is of lower quality, found its way to the market; and, maybe most importantly, many new importers/sellers have entered the avocado marketing arena in the last several years. These people are inexperienced "and are learning on the job," he said. That lack of knowledge, Bellamore said, led to "supply mismanagement" especially around size allocation.

This led some California growers and packers to keep the state's fruit off the market, which worked against the desires of some retailers to transition to California fruit. "Only now, in mid-April, are we seeing promotable volume from California."

Many retailers are reluctant to make the transition from imports to the domestic crop until the volume is sufficient to fill their needs. Bellamore said CAC's tiered account approach, which aligns Commission dollars spent with distribution of California avocados, does work to reward those retailers that do shine the premium light on California avocados. He reminded the crowd that one size doesn't fit all. Some retailers, for example, position themselves as low-price leaders in their market and are not looking to feature a premium product. "We analyze each account in each market to determine our participation," he said. "We spend our time and money with the best performers."

Jan DeLyser, vice president of marketing for CAC, also spoke during the annual meetings giving the growers a snapshot of this year's marketing plan. She noted that the current campaign is building on the hand-grown concept that has

been touted for the past eight years. The new tag line is "California By Nature" which accentuates the positive attributes that differentiate California from the rest of the nation and associates these traits to the consumption of California avocados.

DeLyser explained that the hand-grown message was designed to give consumers a "rational reason" to purchase California avocados, such as they are domestically grown by your neighborhood farmer. "In the new campaign, we are now trying to tap into emotional reasons to consume California avocados."

California has many iconic images from the beaches to the mountains to the farmlands. These images are being utilized to correlate avocados with other quintessential California images that appeal to consumer's emotions.

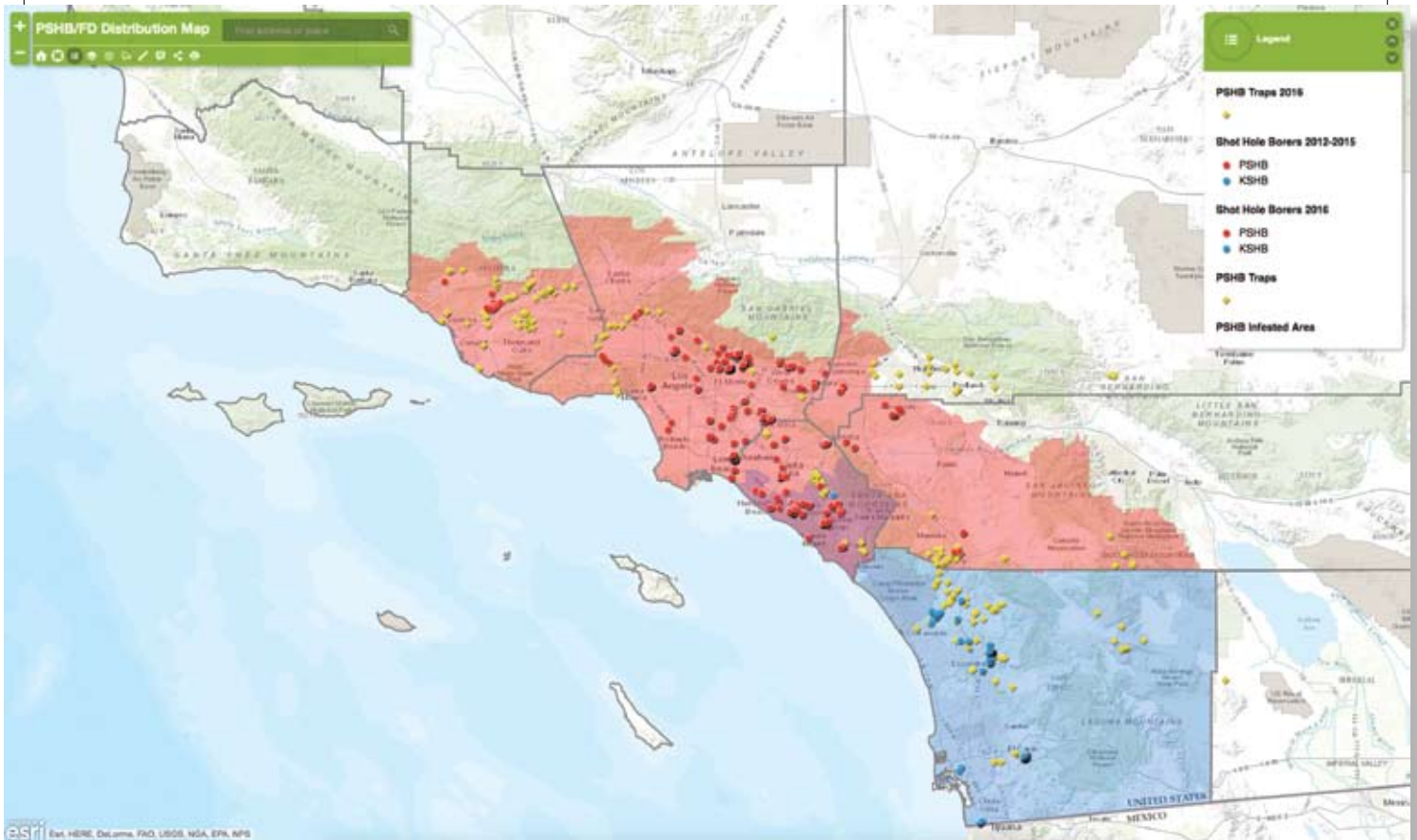
DeLyser went over the various media being used to market the fruit including radio advertising, in store promotions, trade advertising, outdoor billboards, murals in the state's top cities and through the use of social media. She briefly outlined some of the more modern digital efforts of the Commission and its advertising agency and said the power of mobile marketing should not be minimized. Through modern technology, promotional messages can be sent to shoppers even as they are roaming the aisles looking for an avocado to buy. 🥑

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# Shot Hole Borer Update

By Tim Spann  
*Research Program Director*

**T**here has not been significant movement of the shot hole borer (SHB) since the infestation was discovered near Santa Paula (Ventura County) in late 2015. The first week of March, the Commission learned that a single beetle specimen captured in a trap in San Luis Obispo (SLO) County on February 25, was identified as a Kuroshio SHB. The Commission immediately contacted the nearby avocado growers and arranged to meet with them and SLO County Ag Commissioner and UC Cooperative Extension representatives. Additional traps were provided to the

county and we discussed where to place the traps to serve as an early warning to our growers.

Since that time, no additional specimens have been captured in SLO County and we do not have any evidence that the beetle has become established there. However, the Commission would encourage all growers to be vigilant and pay close attention to their trees for any signs of beetle activity. Harvest season is a good opportunity to look at each tree. The Commission has numerous resources available to growers on our website ([www.californiaavocadogrowers.com/growing/pshbkshb](http://www.californiaavocadogrowers.com/growing/pshbkshb)) and on Dr. Akif Eskalen's lab website ([eskalenlab.ucr.edu/avocado.html](http://eskalenlab.ucr.edu/avocado.html)).



## Hero® Insecticide Available

The California Department of Pesticide Regulation (DPR) issued a Section 18 Emergency Exemption for the use of Hero® EW Insecticide against the SHB on Monday April 11, 2016. This section 18 is effective for one year and expires on April 8, 2017. Our application was originally submitted to DPR on September 1, 2015 and, although the review took longer than we anticipated, the outcome is favorable for growers. The section 18 label can be downloaded from the DPR website or the Commission's grower website, and a copy must be in the possession of the user at the time of application.

While not a panacea, the section 18 for Hero® EW is intended to provide those growers fighting infestations with a tool to help reduce beetle populations and prevent nearby trees from becoming infested. Hero® EW is to be applied as a surface spray to the trunk and main branches of a tree. It is not systemic.

We believe that there are three ways that Hero® EW will target SHBs. First is by direct contact with the females guarding galleries at the time of application. After building the gallery and laying eggs, the female is frequently found guarding the gallery with her posterior protruding from the entrance. Second is residual contact with newly emerged beetles. It is believed that when a new beetle emerges from a gallery she walks on the tree surface for some time, presumably determining if the tree is suitable to continue the next generation of beetles, which will bring her into contact with spray residues. Third is residual contact with new fly ins. As with newly emerged beetles, when beetles travel to a new host tree they spend some time walking on the surface before deciding to build a gallery or find another potential host tree.

Under the section 18, growers are allowed to make up to five applications to their trees per year, with applications spaced no less than 15 days apart. Since this registration allows for Hero® EW only to be applied as a trunk and main branch surface spray, all applications must be made with a hand held sprayer so that the spray is directed only at the target surfaces.

To use Hero® EW under this section 18 emergency exemption, you must obtain a permit from your County Agricultural Commissioner prior to application. This is critically important to ensure that all of the use restrictions governing the section 18 are followed and to properly record and report usage statistics as required by the section 18. The Commission has discussed the section 18 with the San Diego and Ventura County Ag Commissioners and they are supportive of our efforts to provide growers with this tool. They want to cooperate with growers on ensuring that all of the section 18 rules are followed and that growers can use this product in a practical manner.

The Commission is working with UC Riverside researchers to compile usage recommendations for Hero® EW. If you are planning to make an application of Hero® EW we would appreciate your contacting us so that we can observe some of the early applications and use this information to help educate all growers. Because of the cost and labor involved with application, and to prevent undue disruption of existing Integrated Pest Management (IPM) programs, the Commission does not recommend the prophylactic use of Hero® EW to try to prevent infestation, except on trees surrounding a known infested area. 🍌



Photos provided by Akif Eskalen

# CAC & PBH Partnership Reaps Rewards & Benefits

By Tim Linden

**W**ith a shared goal of increasing consumption of fresh fruits and vegetables, the California Avocado Commission (CAC) has long forged a partnership with the Produce for Better Health Foundation (PBH).

PBH is a nonprofit organization established by the produce industry with the main goal of achieving increased daily consumption of fruits and vegetables. It was the organization behind the “5 A Day” program and the current “Fruits & Veggies - More Matters” effort. CAC’s Vice President Marketing Jan DeLyster represents the Commission on the PBH Board of Trustees and CAC’s Marketing Manager Angela Fraser serves as a PBH Ambassador and on the Marketing and Communications Committee.

With both public sector and private funding, PBH has been able to support many programs that have a direct benefit to CAC and avocado growers. For example, by participating on the PBH board, the California Avocado Commission provides direct input on PBH programs and in support of that organization’s efforts toward targeting Supermarket Registered Dietitians (SRDs), which is also a target group for CAC. Through its involvement in PBH’s SRD program, the Commission is able to expand its push well beyond the dollars allocated. CAC sponsors the PBH SRD event at the Produce Marketing Association’s Fresh Summit and as such is able to present to this group of important influencers. Of course, SRDs play an important role in communicating the nutrition messaging and usage ideas for California avocados to their stores’ shoppers.

CAC also is able to interact with many Supermarket Registered Dietitians at PBH’s annual conference, which was held in April of this year. The 2016 event was held in Scottsdale, AZ, and attracted more than 200 produce professionals including many important decision-makers from the retail produce sector. CAC’s involvement allowed for important connections with some of those participants including representatives from Albertsons-Safeway, Giant Eagle, Hannaford Supermarkets, Hy-Vee, Kroger, Meijer, Roundy’s, Sam’s Club, Schnucks, Wakefern, Wal-Mart, and Wegmans.



*Connie Stukenberg accepts the PBH Role Model Award on behalf of the California avocado Industry and Angela Fraser accepts a PBH Ambassador Award*

Also in attendance were trade publication representatives and officials from health organizations. CAC’s Retail Marketing Director Connie Stukenberg and Marketing Manager Angela Fraser represented the Commission at the event. Among the highlights of the conference was a presentation on PBH’s effort to increase produce consumption, including the top accomplishments from 2015 as well as a look at the goals and initiatives for 2016. One initiative that will be beneficial to CAC is research and development of Function



Structure Claims by commodity that may result in new avocado health messages.

The Commission was recognized with the 2015 PBH Role Model Award, which Stukenberg received on behalf of CAC. The award recognizes organizations within the fruit and vegetable industry who help to increase fruit and vegetable consumption. Fraser also was recognized for her role as a PBH Ambassador (individuals who actively share their passion and personal testimonial about the importance of PBH).



Angela Fraser, Dan Johnson of Kroger and Connie Stukenberg

The CAC/PBH partnership also affords some very tangible results in recipe development and dissemination to keep fruit and vegetable consumption top of mind among consumers. CAC's content is included in PBH online toolkits used by health professionals and consumers. California avocados have been featured in PBH's Recipe of the Week e-newsletter and CAC has utilized the "More Matters" designation in more than 50 of its recipes. That's an important connection as research shows that almost 50 percent of moms say the logo and its messaging motivates them to eat more fruits and vegetables. Inclusion of this logo also increases use by the many retailers who support the PBH program.

As part of its connection to PBH, CAC sponsors the group's "Half Your Plate" effort, which advocates that for each meal half the plate should be utilized for fruits and vegetables. In 2015, the sponsorship resulted in the California Avocado Super Summer Wrap recipe and educational sheet being posted on the PBH website and promoted on social media channels reaching more than 250,000 people.

In addition, the USDA MyPlate program promotes the recipes on its website MyPlate.gov, which has received more than 72 million page views to date. CAC's "plate" is a regular feature on "What's Cooking? USDA Mixing Bowl," the USDA's interactive recipe website. USDA also regularly features the plates on their social media channels reaching 629,000 people.

PBH's reach has an impact; on average, every American has been reached 336 times since the launch of the Fruits & Veggies – More Matters program in 2009. It has been estimated that the program has resulted in more than 110 billion consumer impressions. 🥑

### California Avocado Super Summer Wrap

Preparation Time: 15 minutes

Fresh California avocado doubles for dressing and filling complementing blueberries, carrots, arugula and chicken in this appetizing summer wrap.

**Cooking Tip:** Mash a ripe fresh California Avocado to create a satisfying dip, or use it as a spread on sandwiches and toast. Substituted as a spread in place of many other popular foods, avocados may help reduce dietary intake of calories, fat, saturated fat, sodium and cholesterol while adding good fats to your diet.





**Ingredients**

<p>1 ripe, fresh California Avocado, pitted, seeded, and cut into chunks*</p> <p>1/2 cup plain nonfat Greek yogurt</p> <p>1 tsp. lime juice</p> <p>1/2 cup blueberries</p> <p>1/2 cup grated carrots</p> <p>1/2 cup chopped red onion</p>	<p>2 cups chopped fresh arugula</p> <p>12 oz. cooked chicken breast, cubed</p> <p>4-8" whole wheat tortillas</p>
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Mash half the avocado chunks with yogurt and lime juice in a medium bowl. Add remaining filling ingredients, including the rest of the avocado chunks; mix gently. Top each tortilla with 1/2 of filling mixture. Roll, tuck in ends. Slice in half diagonally, securing with toothpicks, if needed. Serves 4.

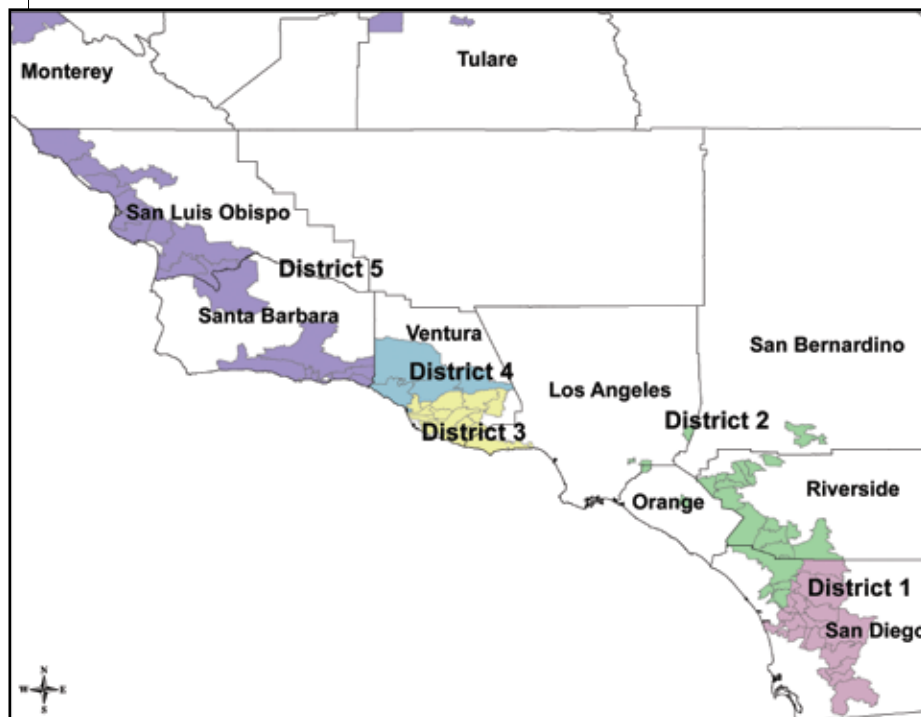
\*Large avocados recommended for this recipe. A large avocado averages about 8 ounces. For easy instructions on how to choose and use avocado, visit [CaliforniaAvocado.com](http://CaliforniaAvocado.com).

2015 PBH California Avocado Super Summer Wrap recipe educational sheet

# CAC Districts Reapportioned

## A look at new district lines effective November 1, 2016

By April Aymami  
Industry Affairs Manager



ies to determine if reapportionment was necessary. Using Board-approved redistricting procedures, if reapportionment was deemed necessary, the committee was directed to utilize the most relevant production and industry statistical data available when proposing new district lines. CAC law allows the committee the flexibility to consider a Commission district composition of no fewer than three and no more than five districts.

During the March 2016 CAC Board meeting,, the committee reported that a review of the previous five years' worth of production data indicated, in all cases, that the current district boundary lines deviated by more than 10 percent from a calculated pro-rata poundage, and that reapportionment was necessary. The committee explored three, four and five district scenarios using the previous three years' production data (2013, 2014 and

2015), which was deemed by the committee to be the most equitable representation of the industry. After careful consideration of all factors, a five-district composition was recommended, as it continues to be the most equitable way to represent the California avocado industry and its constituents.

The CAC Board approved the committee's recommended reapportionment proposal, resulting in new district boundaries that will become effective November 1, 2016, and be used to determine eligibility for the upcoming 2016 CAC General Election. Because the recommendation was to continue with a five-district composition, existing districts will remain largely intact with minimal disruption throughout the industry. However, the following areas of note will be impacted through the redistricting process:

- All of Riverside County will now be in District 2, instead of split between District 2 and 3
- Orange County, currently in District 3, will be moved to District 2
- Ventura (zip code 93001) will move from District 5 to District 4
- Fillmore will move from District 3 to District 4

**A**s required by California Avocado Commission (CAC) law, every five years the Commission reviews the boundaries of the existing districts to determine if reapportionment of those districts is necessary.

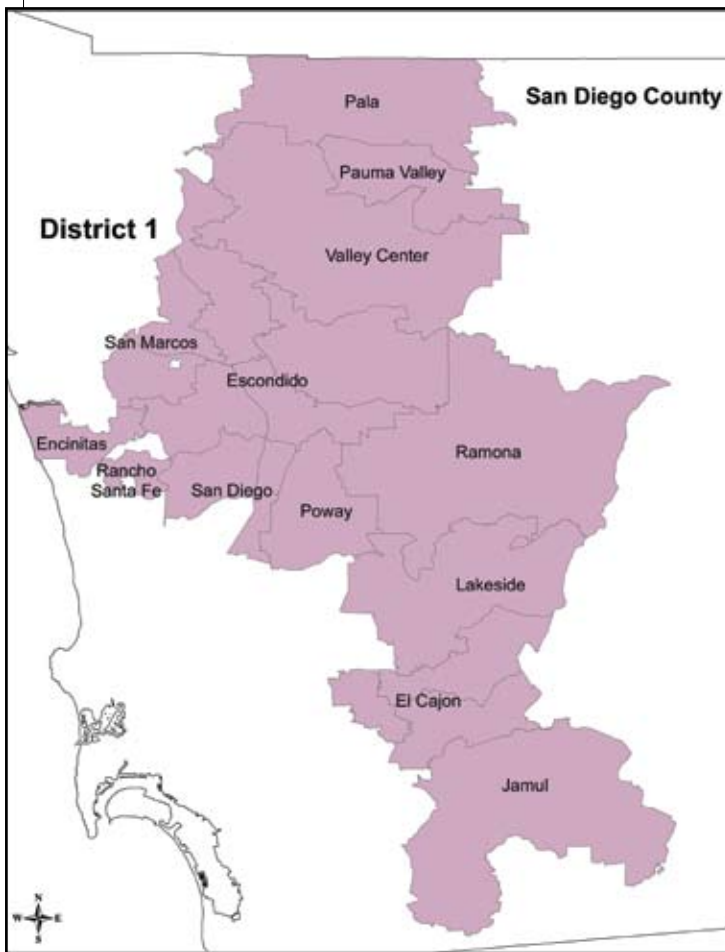
In order to determine the necessity of reapportionment, the Commission appoints a committee of industry members to review production statistics to determine whether each of the Commission's districts represents a relatively-equal percentage of avocado production and continues to equitably represent the constituents throughout the state of California. Beyond the goal of relatively-equal production, the committee strives to compose districts that consist of: producing areas that are geographically close in proximity and as contiguous as practicable; producers who are likeminded with similar industry issues (i.e. water, pests); and districts that provide adequate opportunity for representation on the CAC Board of Directors.

With the last reapportionment occurring in 2011, in January of this year the CAC Board tasked the Governance Committee with the responsibility of reviewing current boundar-



- Somis will move from District 4 to District 3

While the Commission will continue with five districts, the industry has evolved and the demographics of the producers and acreage within those five districts has changed dramatically. For example, in 2011 CAC's database consisted of just under 5,000 producers, but now it stands at approximately 4,000 growers who have reported pounds in the last two marketing seasons. Likewise, California planted acreage has seen a decrease of more than 9,000 acres during this same period - from 63,000 in 2011 to 54,000 in 2015. Below is a snapshot of each of the new districts, along with basic producer, production and acreage demographics:

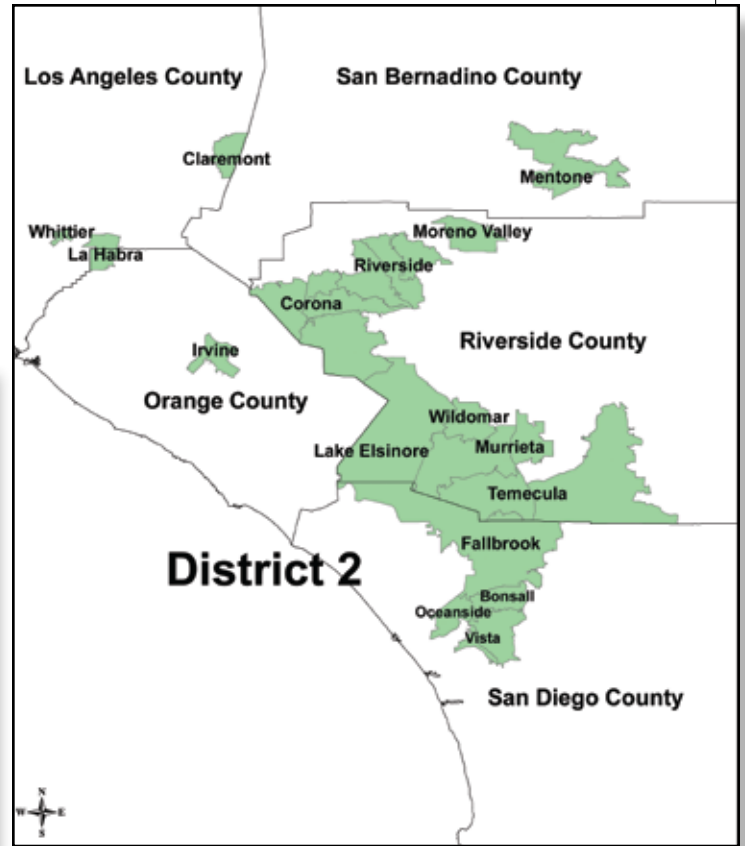


## District 1

**Producer count: 877**

**Average Production, Based on Prior 3-Years: 77,629,413**

**Planted Avocado Acreage: 11,910**

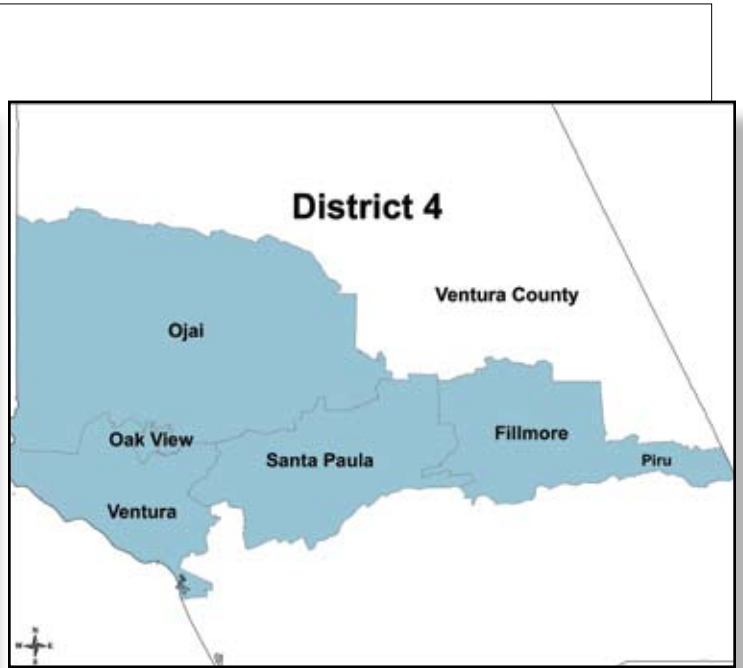
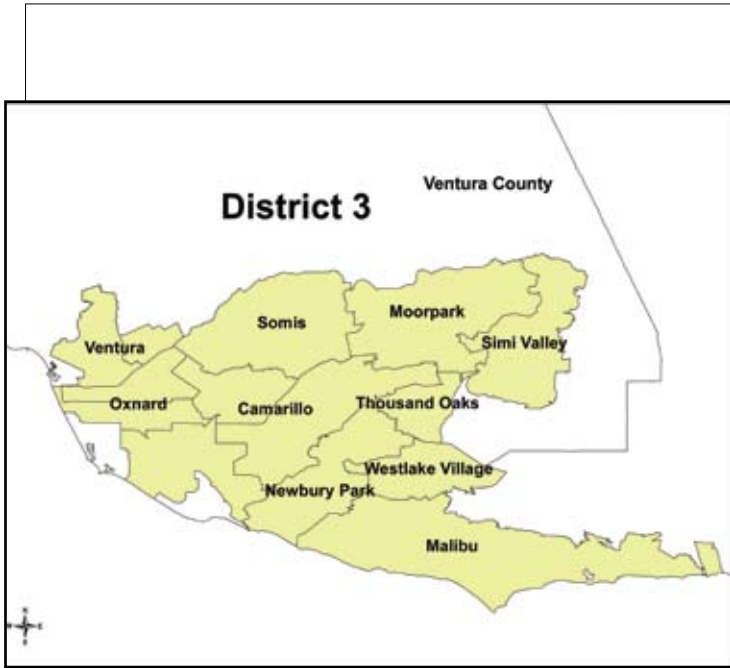


## District 2

**Producer count: 1,663**

**Average Production, Based on Prior 3-Years: 73,085,910**

**Planted Avocado Acreage: 14,295**

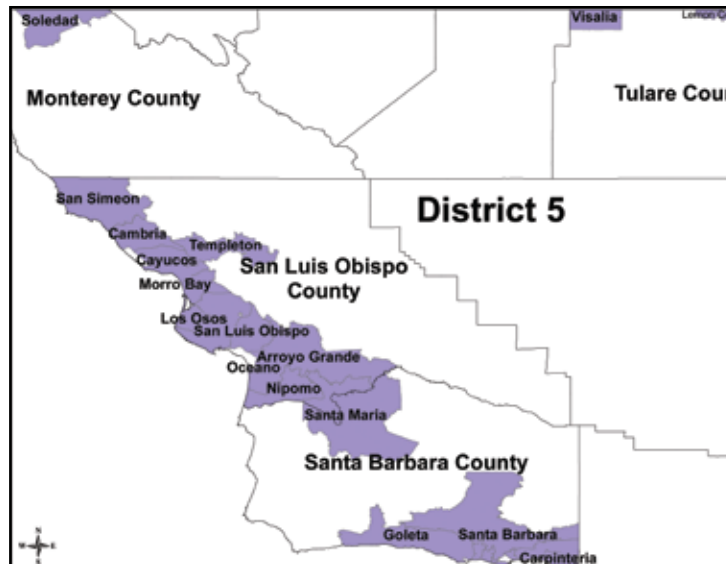


## District 3

**Producer count: 581**  
**Average Production, Based on Prior 3-Years: 69,364,945**  
**Planted Avocado Acreage: 9,648**

## District 4

**Producer count: 406**  
**Average Production, Based on Prior 3-Years: 64,938,817**  
**Planted Avocado Acreage: 8,352**



## District 5

**Producer count: 485**  
**Average Production, Based on Prior 3-Years: 72,071,314**  
**Planted Avocado Acreage: 9,601**





## Demand for California Avocados Should be Strong All Summer

**T**he demand in May for California avocados was very strong resulting in greater-than-expected volume and setting the stage for good demand throughout the summer.

There is no doubt that a huge number of imported avocados from Mexico in January caused a supply-exceeds-demand situation that ran through the first third of 2016. Currently, it is generally accepted that the United States can consume around 45 million pounds of avocados dur-

ing an average week. Expecting a boost from the Big Game weekend, which featured an Avocados from Mexico television commercial during the game, around 55 million pounds of fruit was shipped into the United States from Mexico during one January week. The market crashed and didn't get on strong footing again until late April prior to Cinco de Mayo when Mexican volume started to wind down. By late May, the market was very strong and handlers were predicting an even stronger June

when California would be at the peak of its production.

Rob Wedin, vice president of sales and marketing for Calavo Growers Inc., Santa Paula, CA, told *From the Grove* during the last full week of May that shipments from California might hit 19 million pounds that week and could peak at close to 20 million pounds in the next week or two. He anticipated about six weeks in May and June of 18 million pounds per week or more. If that materializes, it means that more than 25 percent

of the crop would be shipped when the market is expected to be stellar. He projected July volume to be closer to 15 million pounds per week with 10 million pounds per week being the estimate from California for August.

With two-thirds of May gone, California had shipped about 40 percent of its crop, the first 25 percent under very difficult market conditions. If Calavo's calculations prove to be accurate, about 65 percent will be sold by July 1, with 90 percent of production expected to be completed by September 1.

Because Mexico had far less rain than anticipated this spring, there was also speculation that the typical July 1 start date for their new crop might be delayed this year. Instead, it could take much of July for the volume to ramp up. Robb Bertels, vice president of marketing at Mission Produce Inc., Oxnard, CA, said with less than 30 million pounds per week expected from Mexico through June, it appeared as if the demand-exceeds-supply situation will last well into the summer and maybe through the entire summer.

After all, it has been estimated that Peru will send less than 100 million pounds to the U.S. market this year, and the vast majority of that will be sold on the East Coast. Though several handlers did indicate that the very strong market for California fruit could impact Peruvian imports. It has been generally acknowledged that the strong market in Europe has caused Peru to look in that direction primarily. But if they can get a very good return coming to a hot U.S. market that might alter some marketing strategies.

Bob Lucy, president of Del Rey Avocado Co., Fallbrook, was a bit more cautious about the strong avocado market when he spoke to *From the Grove* on May 28. "I'm worried that it (the market) is getting too high, too fast. So far, so good. But if you push it up too fast, demand can

suffer."

It is the age-old situation of trying to nurse a strong market along rather than kill it with prices that are too high. But like the others interviewed, Lucy said it did appear that the volume for the next six weeks – through the 4<sup>th</sup> of July – would have a difficult time keeping up with demand. He believes U.S. demand is around the 45 million per week number. He added that the flora loca crop (Mexico's first crop of the new season) is the wild card. If it's late, as is currently being predicted, the California avocado market could remain very strong and active through July and August.

Still another handler, Rankin McDaniel Sr. of McDaniel Fruit Co., Fallbrook, CA, said the demand for California fruit has been coming from all corners of the country. With Mexico's production waning and Peru sending most of its volume to other overseas markets – most notably Europe – there are simply not enough avocados to fill all the pipelines in this late spring/early summer period. While the vast majority of California fruit is marketed in the western half of the country, McDaniel said he is shipping some of his production to East Coast customers.

Lucy articulated the basic sentiments of the handler community when discussing the new rules opening up all Mexican states as potential suppliers of avocados to the United States. On May 27, the U.S. Department of Agriculture Animal and Plant Health Inspection Service (APHIS) published the new rule in the Federal Register making it effective on June 27. He said packing facilities in Jalisco will be the first to pass the U.S. protocol and be able to ship to their northern neighbor. "But I don't think it is going to be a problem," he said.

Lucy explained that the Jalisco fruit is already being sold in the market and is part of the global avocado

community. This is not new fruit being sold.

Bertels of Mission Produce agreed, noting that the Jalisco fruit is not new fruit on the market but a new market for the Jalisco fruit. It is reasonable to expect some of that fruit will come to the United States but only if the market is strong as most of it is already being sold to other foreign markets, most notably Europe or Asia.

McDaniel agreed that Jalisco "won't be much of a factor in the short term." While he expects Jalisco to meet the APHIS certification protocol fairly quickly, he does not expect that to happen until after August 1. At that point, California shipments will be winding down and should not be materially affected.

McDaniel Fruit already handles avocados produced in Jalisco and sells them in the international market. Like all the others, McDaniel said, even when the fruit is certified for shipment to the U.S., it will not represent new production.

The impact the production from Jalisco or any other Mexican state will have on the global marketplace will always be dwarfed by what is happening in Michoacán. Experts say that avocado production from Michoacán makes up about 85 percent of Mexico's potential export volume. Bertels said Michoacán already has more than two billion pounds that can be certified for shipment to the United States. Some have estimated Jalisco's potential export production to be in the 100 million pound neighborhood with it typically being marketed from late spring through the fall. If marketed orderly that only means an additional 15-20 million pounds per month at the peak of its season. Compare that to Michoacán. This season, Michoacán's U.S. shipments varied by about 30 million pounds per week, from their high point in January to their low point in June. 🥑



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