



## IN THIS ISSUE, YOU'LL FIND:

[Reminder: Pine Tree Ranch Field Day This Week Focusing on Identifying and Managing Stressed Avocado Trees](#)

[Handler Alternate Member Seat Vacancy on CAC Board](#)

[Avocado Researchers Examine Possibility that Nocturnal Insects Pollinate Avocado Trees at Night](#)

[Invasive Tree Pests Workshop to be Held in San Diego](#)

[New Survey Seeks Grower Input Concerning Integrated Weed Management](#)

[Registration for Ventura County Agricultural Technology Fair Open](#)

[Celebrate California Avocados at Avo Fest](#)

[Frozen California Avocado Pops Were A Big Hit This Summer](#)

[Commission Leverages the Power of Third-party Retail Advocates](#)

[Commission Showcases California Avocado Menu Applications for High-profile Foodservice Executives](#)

[Market Trends](#)

[Weather Outlook](#)

## Calendar

*For a listing of industry events and dates for the coming year, please visit:*

<http://www.californiaavocadogrowers.com/commission/industry-calendar>

## Ventura County Agricultural Technology Fair

The Ventura County Agricultural Technology Fair will showcase innovative agricultural technologies and feature presentations concerning the latest agricultural management practices. Registration required. [More information available here.](#)

### September 18

#### September 18

**Time:** 8:00 a.m. – 12:00 p.m.

**Location:** Ventura County Fairgrounds, Santa Rosa Hall, 10 West Harbor Boulevard, Ventura, CA

## Pine Tree Ranch Field Day: Managing and Recovering from Plant Stress

Dr. Ben Faber, University of California Cooperative Extension, will lead attendees on a grove walk, looking for subtle — and not so subtle — indicators of stress on avocado trees. He'll talk about grove management principles for managing stress in your groves. Dr. Holly Little, Director of Global Commercial Science for Acadian Seaplants, Ltd., and Dr. Danny Klittich, Agronomist with Redox, will present research on managing and helping trees recover from stress events. [More information available here.](#)

### September 19

#### September 19

**Time:** 9:00 a.m. – 11:00 a.m.

**Location:** Pine Tree Ranch, 19455 E. Telegraph Rd., Santa Paula, CA

## California Avocado Society Annual Meeting

The two-day event will begin Thursday with morning and afternoon field tours of Krnich Ranch and ACW Farms followed by the President's BBQ Reception. On Friday, keynote speaker Jorge Enrique Restrepo, Executive Director of CorpoHass, Colombia, will share information concerning the Colombian avocado industry. Registration required. [More information available here.](#)

**October 4**

**Time:** Field Tour Check-in from 9:30 a.m. – 10:30 a.m.

**Location:** Krnich Ranch and ACW Farms, Fallbrook, CA

**October 5**

**Time:** (Registration from 7:30 a.m. – 8:30 a.m.) 8:30 a.m. – 1:15 p.m.

**Location:** Embassy Suites, 29345 Rancho California Road, Temecula, CA

**32nd Annual California Avocado Festival**

California avocado fans are encouraged to celebrate at the 32nd Annual California Avocado Fest, one of the largest free festivals in California. Avo Fest will play host to more than 75 live music acts on four stages, feature the world’s largest vat of guacamole and showcase a wide variety of California avocado dishes. [More information available here.](#)

**October 5**

**Time:** 1:00 p.m. – 10:00 p.m.

**Location:** Linden Avenue, Carpinteria, CA

**October 6**

**Time:** 10:00 a.m. – 10:00 p.m.

**Location:** Linden Avenue, Carpinteria, CA

**October 7**

**Time:** 10:00 a.m. – 6:00 p.m.

**Location:** Linden Avenue, Carpinteria, CA

**Reminder: Pine Tree Ranch Field Day This Week Focusing on Identifying and Managing Stressed Avocado Trees**

The California Avocado Commission (CAC) will host a Pine Tree Ranch Field Day entitled, "Managing and Recovering from Plant Stress." Dr. Ben Faber, University of California Cooperative Extension, will lead attendees on a grove walk, looking for subtle — and not so subtle — indicators of stress on avocado trees. He'll discuss grove management principles for managing stress in your groves.

In addition, Dr. Holly Little, Director of Global Commercial Science for Acadian Seaplants, Ltd., and Dr. Danny Klittich, Agronomist with Redox, will present research on managing and helping trees recover from stress events. Acadian Seaplants is the world leader in seaweed-based plant biostimulants. Through their product development program, they have amassed huge datasets from world-wide research on plant stress. Redox is a chemistry company focused on root development, plant stress, yield, salinity management, soil moisture management and crop quality. They believe that managing plant health and mitigating stress allows the plant to perform optimally.

The seminar will take place Wednesday September 19, 2018 from 9:00 a.m. – 11:00 a.m. at Pine Tree Ranch, located at 19455 E. Telegraph Rd., Santa Paula, CA 93060.

**Handler Alternate Member Seat Vacancy on CAC Board**

The California Avocado Commission (CAC) seeks interested candidates to fill a handler alternate member seat vacancy on the Commission Board of Directors. The person appointed to the position will serve for the unexpired portion of the term through October 31, 2019.

To be eligible for the position, the person must:

- Certify that he or she has a financial interest in handling avocados
- Be actively and directly engaged in the handling of California avocados
- Submit a qualification form, disclosure form and any other documents required by CAC

The vacancy will be filled by a majority vote of the CAC Board at a meeting Thursday, October 11, 2018.

Interested candidates must submit all relevant documents no later than Monday, October 1, 2018. Materials may be mailed to 12 Mauchly, Suite L, Irvine, CA, 92618-6305, faxed to 949.341.1970 or emailed to [aaymami@avocado.org](mailto:aaymami@avocado.org).

For more information, contact April Aymami at 949.341.1955, ext. 118 or [aaymami@avocado.org](mailto:aaymami@avocado.org).

## **Avocado Researchers Examine Possibility that Nocturnal Insects Pollinate Avocado Trees at Night**

A new research paper explores nocturnal pollination of ‘Hass’ avocado trees and the presence of nocturnal insects that may play a role in pollination. The paper, entitled “Low Overnight Temperatures Associated with a Delay in ‘Hass’ Avocado (*Persea americana*) Female Flower Opening, Leading to Nocturnal Flowering,” is based on observations by researchers in New Zealand.

As avocado growers are aware, avocado flowers open first as female flowers, then close and open the following day as male flowers. ‘Hass’ avocado flowers, which are categorized as type A cultivars, typically open as female in the morning and as male in the afternoon of the next day. However, low temperatures have been shown to affect the timing of the opening of the flowers. Because New Zealand is subject to cold spring weather, the researchers set out to examine how cool overnight temperatures affected the timing of when ‘Hass’ avocado female flowers opened. Because avocados have sticky pollen and must rely primarily on insects, not wind, for pollination, the researchers also sought to determine if nocturnal insects played a role in pollination.

Researchers collected data from 2011 – 2013 in three avocado orchards using time-lapse images of the ‘Hass’ avocado flowers during the flowering stages. Observations were drawn only from “complete sequences of flower opening and closing in either male or female phase.” Temperature also was recorded.

In addition, the researchers collected nocturnal insects on evenings when both female- and male-phase flowers remained open after dark. The insects were examined under a stereomicroscope to identify and count adhered avocado pollen.

According to the researchers, “low overnight minimum temperatures are associated with the delay in the female flower phase in ‘Hass’ avocados such that the flowers remain open overnight.” Further, a greater proportion of female-phase flowers remained open overnight as the temperatures decreased in prior nights. They also observed that male-phase flowers remained open “almost every night,” which means that on cooler evenings there is a greater occurrence of male-female phase overlap at night. They noted that while cold overnight temperatures triggered nocturnal flowering, the following evening when the female flower remained open was generally more mild in temperature.

Of the active insects collected, the largest diversity was seen in Coleoptera, Diptera and Lepidoptera orders, with Coleoptera, Diptera and Neuroptera insects carrying more pollen grains at greater frequencies. The possibility of a new set of nocturnal pollinators — moths, flies and beetles — could be of interest to avocado growers.

Based on this data, the researchers determined that nocturnal pollination could be important in regions with strong fluctuations in temperature during the flowering period. However, they note that it has yet to be determined whether the nocturnal female-phase flowers can be pollinated, fertilized and produce viable seeds or fruit because data from other food crops has shown that these processes can be vulnerable to temperature stress.

The researchers also suggested that further studies be conducted to better understand the activity patterns of nocturnal insects and whether nocturnal conditions could inhibit fertilization. Because avocado growers primarily rely on honey bees for pollination, the researchers also note it's worth examining whether nocturnal flowers can set fruit without honey bee visitation.

Interested California avocado growers can review the entire paper, which has been published in the [Journal of Pollination Ecology](#).

### **Invasive Tree Pests Workshop to be Held in San Diego**

The UCCE San Diego is hosting an [Invasive Tree Pests Workshop](#) on Friday, October 19 from 9:30 a.m. – 2:45 p.m. The seminar will focus on three invasive pests that have killed hundreds of thousands of trees in Southern California — Goldspotted Oak Borer, Invasive Shot Hole Borers/Fusarium Dieback Disease and South American Palm Weevils. The event will include presentations concerning:

- The history, biology, impacts and current status of these pests
- Infestations, management and sanitation
- Pesticide laws and regulations
- Preparing for the dispersion of these invasive pests

Presenters include:

- Andrea Araujo, Agricultural/Standards Inspector with County of San Diego Department of Agriculture, Weights & Measures
- Dr. Tracy Ellis, Agricultural Scientist with the County of San Diego Department of Agriculture, Weights & Measures
- Dr. Stacy Hishinuma, Forest Entomologist with the US Forest Service
- Dr. Mark Hoddle, Biological Control Specialist with the University of California, Riverside

Registration can be completed [online](#); the registration fee is \$30. Lunch will be served.

The seminar will take place at the Point Event Center, 1010 Santa Clara Place, San Diego, CA, 92109.

For more information, contact Abby Barraza at [afbarraza@ucanr.edu](mailto:afbarraza@ucanr.edu).

### **New Survey Seeks Grower Input Concerning Integrated Weed Management**

A new [online survey](#) seeks to better understand how farmers and growers utilize integrated weed management (IWM) strategies. As herbicide-resistant weeds continue to spread across the U.S., researchers are working on integrated weed management strategies that use multiple techniques to effectively combat the weeds.

The IMW survey was developed by weed scientists from 14 universities with funding from the United States Department of Agriculture's Agricultural Research Service. Survey responses will remain anonymous.

California avocado growers are encouraged to participate in the survey and aid IMW researchers in their efforts. Interested parties can take the 20-question online survey by clicking [here](#).

## Registration for Ventura County Agricultural Technology Fair Open

The Ventura County Agricultural Technology Fair will showcase innovative agricultural technologies and feature presentations concerning the latest agricultural management practices. The free event takes place on September 18 from 8:00 a.m. – 12:00 p.m. at the Ventura County Fairgrounds, Santa Rosa Hall located at 10 West Harbor Boulevard.

Presentations will cover irrigation efficiency and nutrient management. In addition, vendors will be on site showcasing the latest products and services related to irrigation and pump controls, filtration systems, irrigation system design, specialty fertilizers and nutrient management solutions.

Coffee and refreshments will be available.

Interested growers can register for the event [online](#).

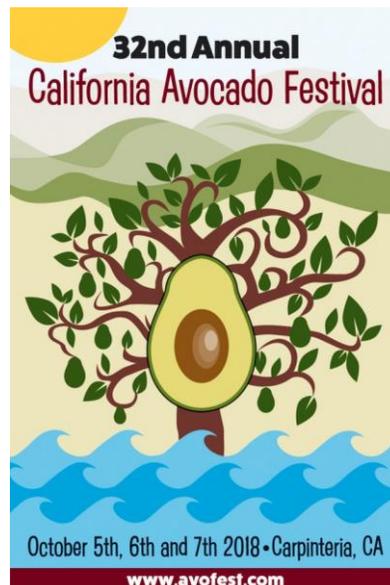
## Celebrate California Avocados at Avo Fest

California avocado fans are encouraged to celebrate at the [32nd Annual California Avocado Fest](#), which will take place on Linden Avenue in Carpinteria, CA, October 5 – 7, 2018. Recognized as one of the largest free festivals in California, Avo Fest will play host to more than 75 live music acts on four stages, feature the world’s largest vat of guacamole and showcase a wide variety of California avocado dishes. The AvoEXPO Tent will feature California avocado agricultural photos, lessons in avocado grafting, antique tractors and the Largest Avocado Contest. Attendees also can participate in the [2018 Guacamole Contest and the Strong Arm Competition](#) (in which participants must hold a 10-pound bag of avocados).

California avocado growers Ed and Nadia VanWingerden will serve as the 2018 Honorary Festival Chairs. Respected members of the Carpinteria community, they first started growing avocados in 1980 and now have 50 acres of commercial avocados, including 45 acres of certified organic avocados.

Avo Fest is expected to gather more than 100,000 California avocado fans this year. Funds generated by the festival are donated to worthy causes and support [scholarships](#) for youth in the areas of music, culinary arts, fine arts and agriculture. Avo Fest is a Zero Waste festival and is committed to reducing its carbon footprint. Avo Fest also has a free doggie day care for attendees.

California avocado fans are encouraged to participate in the [online “Avo-licious” contest](#). A complete list of Avo Fest entertainment can be found [online](#).



*The 32nd Annual California Avocado Festival will take place in Carpinteria October 5 - 7, 2018.*

## Frozen California Avocado Pops Were A Big Hit This Summer

What better way to enjoy a California summer than snacking on a Frozen California Avocado Pop while strolling through a farmers' market along the beach? Thanks to the California Avocado Commission (CAC), in July consumers at the Newport Beach and Hermosa Beach Farmers Markets were invited to enjoy the refreshing frozen treats while learning more about the seasonality, availability and premium quality of the locally grown fruit.

The Commission partnered with Chef Christoph Bader of Florentino Ice Cream to develop 1,200 samples of the Avocado Pops, which were a fan favorite at the Disney California Adventure Food & Wine Festival that CAC participated in earlier this year. Visitors to both local farmers' markets flocked to the Commission's Frozen California Avocado Pops pushcart, swiftly devouring the frozen treats. While there, they inquired about California avocado recipes, asked questions about the fruit and praised the Commission's event. Fans eagerly snapped photos of the California avocado-branded pop-up cart, which featured a custom umbrella and artwork from this year's California avocado campaign. Using a Snapchat filter created by the Commission, fans broadcast their love of the fruit on their favorite social media channels.

The pop-up events were a huge success on the ground and throughout social media channels. Social posts were launched on [Facebook](#), Twitter and Instagram in advance of the events and then shared on location in real-time generating more than 70,000 impressions that helped drive awareness of the California avocado season and boost brand recall when shopping for the fruit.



*By promoting the Frozen California Avocado Pops event on Facebook, the Commission helped drive event attendance while expanding brand awareness.*

## Commission Leverages the Power of Third-party Retail Advocates

Throughout the California avocado season, the California Avocado Commission (CAC) works closely with select top-tier retailers to develop customized assets, in-store programs and outreach initiatives that showcase the nutritional benefits of avocados and feature the California Avocado brand. In doing so, the Commission helps support retailers with California avocado messaging tailored to their customers that can help drive sales, while also encouraging consumers to enjoy the fruit as part of a healthful lifestyle. Because retailers' in-store, print, online and social media promotional programs are

integrated across all channels, the Commission’s key messages gain traction with an expansive targeted audience, ultimately growing awareness of the California Avocado brand.

To raise awareness of California avocados’ healthful benefits, the Commission created a Superfood Spotlight showcasing how California avocados can benefit gut health. The printed material was distributed to more than 200 retail registered dietitians (RDs) who shared the informational piece with more than 5,000 consumers.

Seven Albertsons stores in California and other mountain states conducted California avocado samplings. More than 3,200 samples and 1,000 California avocado cutters were distributed, as were customized handouts featuring California avocado messaging and four California avocado recipes developed by Albertsons. As part of the partnership, CAC Retail Marketing Director Connie Stukenberg, joined Albertsons’ Wellness Services Coordinator at a Pavilion’s Newport Coast California avocado demo. To round out the promotion, the Albertsons and Safeway Facebook pages hosted a Facebook Live event and shared an Albertsons’ blog post entitled, “Seafood and Avocados: Summer Staples.” The social media campaign earned 360,000 impressions with an average engagement rate of 49 percent and more than 58,000 10-second video views.

As part of Hy-Vee’s newly launched “Healthy You Mobile” program, the Commission sponsored 100 PSA screenings. In addition, CAC joined the retailer’s “Men’s Health” initiative, which included 35 tour stops. The promotion kicked off with a video showcased in front of a California avocado display and included more than 7,000 copies of CAC-produced recipe brochures and Superfood Spotlights. As a result of the customized promotions, the retailer reported a nearly 37 percent increase in California avocado sales over June 2017. The campaign also garnered more than 4.6 million news segment impressions and more than 1 million social media impressions.

California avocados were a central part of Raley’s month-long wellness promotion that focused on the nutritional benefits of California avocados, their importance as a good source of fiber and the role they play in gut health. As part of the initiative, California avocado tote bags filled with a variety of California avocado-branded promotional items were included in a raffle. As part of the chain’s “Bike to Work” day, California avocados, recipe booklets and cutters were given away.

The Commission also hosted a Grove Media Tour for key influencers including retail dietitians from Gelson’s, Raley’s, Schnucks and PCC Community Markets. Attendees shared their California avocado grove experiences on retail blogs, Facebook and Instagram platforms with Gelson’s coverage garnering more than 56,000 impressions and Raley’s coverage reaching more than 60,000.



*The Commission’s Retail Marketing Director Connie Stukenberg joined Albertsons’ Wellness Services Coordinator Elaine Magee, MPH, RD at a Newport Coast California avocado demo.*

## Commission Showcases California Avocado Menu Applications for High-profile Foodservice Executives

Two foodservice industry events provided the California Avocado Commission (CAC) with the opportunity to showcase unique, trend-setting California avocado dishes and beverages while demonstrating the benefit and value of adding the fresh fruit to menus.

The first event — the California Avocado Foodservice Grove Tour — was hosted by the Commission from August 12 – 13. R&D/product innovation, corporate and executive chefs, purchasing/supply chain and marketing personnel from targeted restaurants across the nation joined the Commission foodservice team to learn more about how California avocados are grown. They also sampled unique California avocado dishes meant to inspire the culinarians with fresh ideas. Commission staff helped propose and plan menu items featuring fresh California avocados designed to optimize operator and chain usage, and discussed best practices for avocado handling and distribution.

The event kicked off with light refreshments at the Manchester Grand Hyatt Brew 30 where the mixologist prepared a special Cucumber, Mint, Avocado Puree, Lime Juice and Agave beverage and a side of house-special guacamole. Prior to being served dinner at Solare Ristorante in Liberty Station, guests were treated to a demo by Solare’s Chef Accursio Lola and CAC’s Chef Dave Woolley as they prepared Stuffed Squash Blossoms Filled with California Avocado and other California avocado dishes.

To further demonstrate the versatility of California avocados, the Commission shared appetizers, including Semolina Bread Bruschetta, California Avocado, Grilled Calamari and Mint Amoglio. Guests then dined on California Avocado Risotto Served with Pescatora Guazetto and Filet of Beef with Sliced California Avocado, Balsamic Cipollini, Braised Endive. The evening ended with a delicious California Avocado Chocolate Mousse with Beignets.

The Commission also sponsored and participated in the Flavor Experience Conference that took place in Newport Beach from August 13 – 16. Commission staff met and networked with a variety of foodservice chain decision-makers, highlighting new menu planning opportunities featuring fresh California avocados in 2019. Throughout the event, attendees sampled California avocado-centric dishes that were created by the Commission, as well as other event sponsors. Some of California avocado-centric meals included, California Avocado Indiachanga and California Avocado-lime Creamy Paleta.

Ultimately, CAC’s presence accompanied by the California avocado dishes provided an impactful means of demonstrating the versatility and quality of the fruit, assisting contacts with menu planning and supply chain strategies and broadening awareness of the California avocado brand. As a result, the Commission secured 40 new chain contacts and discussed returning and new California avocado menu items with current partners.



*Chef Dave Woolley discusses the pairing of California avocados with seafood as he demonstrates how to prepare California Avocado Relish with Tuna Crudo.*

## California Market Trends

To view all market trend graphs, including “Weekly Volume Summary,” “Weekly Avocado Prices” and “U.S. Avocado Supply,” please visit: <http://www.californiaavocadogrowers.com/industry/market-statistics>.

### California Avocado Commission Weekly Volume Summary (Pounds)

	Week Ending 9/09/2018	Season-to-Date (since 11/01/2017)	2018 Year to Date
Hass	2,774,428	300,169,534	299,519,547
Lamb	502,469	10,663,693	10,663,693
Other (Greens)	2,359	2,003,445	1,717,566
<b>California Total</b>	<b>3,279,256</b>	<b>312,836,672</b>	<b>311,900,806</b>
Florida	1,301,080	12,464,030	12,231,875
Chile	1,505,202	16,013,284	5,887,033
Mexico	30,089,386	1,728,800,269	1,377,657,505
Peru	10,382,290	156,051,418	156,051,418
Other (Imports)	500,000	32,070,000	22,730,000
<b>Import Total</b>	<b>41,976,878</b>	<b>1,894,533,590</b>	<b>1,567,852,966</b>
<b>USA Total</b>	<b>47,057,213</b>	<b>2,257,874,874</b>	<b>1,861,695,647</b>

Sources:

California = CAC (AMRIC)

Florida = Florida Avocado Admin Committee

Chile = Comite de Paltas, Chile

Mexico = APEAM

Peru = ProHass

Other Imports = USDA AMS website

### California Avocado Society Weekly Newslines\* Avocado Prices – September 11, 2018

	Organic #1	Conventional #1	Conventional #1
<b>California Hass</b>	(Field Price Per Lb)	(Field Price Per Lb)	(Carton Price)
#32's	\$1.94-\$2.00	\$1.45-\$1.55	\$41.50-\$44.00
36's	\$1.94-\$2.00	\$1.45-\$1.55	\$41.50-\$44.00
40's	\$1.94-\$2.00	\$1.14-\$1.40	\$33.75-\$40.25
48's	\$2.00-\$2.06	\$1.14-\$1.35	\$33.75-\$39.00
60's	\$2.00-\$2.06	\$1.08-\$1.15	\$32.25-\$34.00
70's	\$1.68-\$1.74	\$.84-\$.95	\$26.25-\$29.00
84's	\$1.04-\$1.10	\$.68-\$.75	\$20.21-\$21.75

\*To subscribe to the Weekly Newslines, please contact the California Avocado Society at (949) 940-8869 or [www.CaliforniaAvocadoSociety.org](http://www.CaliforniaAvocadoSociety.org).

## Weather: 30-Day Outlook For California's Coastal & Valley Areas

Summary- A longwave trough continues to bring mild or cool conditions across N and central California from Sept 13-22nd.

Strong upper high pressure over the southern Rockies and SW Great Plains will maintain the hot conditions into S and SE California. High pressure will tend to build or rebuild westward into central California and the SierraNV.

Warmer than normal sea surface will continue near the coast of central and S California and western Mexico. Sea surface temperature on the evening of Sep 10 was 68 to 72 in the inner SOCAL Bight, and 63-64 off Pt Arguello.

Dry, or mainly dry, conditions continue through the end of Sept. Our cfsdailyAI system is showing rains from the beginning of Oct through about the 12th in mostly the SierraNV and S California. Heaviest and most widespread rains occur Oct 10-12. These are preceded by another rain during Oct 1-4th, focusing in S California.

For temperatures, CFSDailyAI system suggests hottest days around Sept 29-30, and a warm period from Oct 8-9. Mild nights and clouds with some showers occur most of the period from Oct 1-10. The 11-12th is sharply colder at night but continued mild days, suggesting a dry and mild early fall period, with a distinct trend into clear cold nights and sunny dry warm days of fall.

The *El Niño* (warmer than normal sea surface) along the equatorial central and east Pacific, continues to be moderate through the fall. The time of normal maximum intensity of *El Niño* is generally Dec through Feb. Sea surface temperature anomalies (SSTA) remain high through the fall and into early winter. The fall and early winter correspondingly are also warm, per CFSv2 model guidance.

The sea surface temperature anomaly pattern off South America at 30-45S supports a possibly aggressive frost period this early to mid-spring in Chile's viticultural areas, from Santiago south. This includes Vicuna, Elke Valley Valparaiso and the intermediate valleys (Bernardo-O-Higgins area). This risk includes the more critical period...spring blooms for winegrapes in late Sept and all of October.

**In the Near Term – Sept 15-29...**Salinas Valley-San Luis Obispo Co...Troughing and a cool period continue through Sept 17, then it turns warmer from the 18-22nd. The hottest days occur from the 28-30th. Other than coastal drizzle at the beaches, and coastal foothills, rain is not indicated.

...S Calif Avocado Area, San Luis Obispo Co to San Diego Co...Sea surface temperatures along the SOCAL coast have continued to be unusually warm. This will tend to maintain the mild nights in SOCAL, even if days near the coast are less warm, with 70s for the most part near San Diego, and upper 60s in Ventura Co. This will tend to maintain warm and humid nights. Leftover moisture from tropical cyclones is still possible, but not currently indicated until Oct 1-11.

**Summary – Sept 30 – October 15...** In the southern California avocado growing areas, from San Luis Obispo south, hot days are possible on Sept 29-30. On Oct 1-2, there appears an increased chance for showers as an upper low draws tropical moisture north into SOCAL, appearing as a deep marine layer type pattern with a drizzly tropical rain, similar to a period of Hawaiian trade-wind showery rains with embedded drizzle. A deeper frontal zone with tropical moisture comes N into SOCAL mountains, and possibly the desert areas, to the Tehachapi's and S Sierra on Oct 3rd and 4th. A similar rainy period arrives on the 10-13th with some periods of showers (per current scenario). The rains appear most likely on the 9-10th, and into the SierraNV on 11-12th.

**Seasonal Outlook / *El Niño* Update...Oct 15 – Dec 31...** It appears that the winter rains may be slow to arrive in Nov – Dec in central and N California. Above normal temperatures will be predominant, suggesting continued high snow levels. This makes logical sense due to the expected warmer than normal sea surface off to the southwest of NORCAL.

*El Niño*-associated warming of the equatorial sea surface in the central and east Pacific to near Peru/Ecuador is occurring and will continue. However, despite the occurrence of *El Niño*, it will be difficult to realize significant winter-type rains until after the middle of January 2019.

For November, there continues the trend to the return of warm and dry conditions, per the latest CFSv2 guidance. December continues similarly dry, except for the last week of Dec around the holidays.

For S California, from Oct 15– Dec 31...Near normal rainfall is currently suggested for the latter part of Oct as high pressure returns for a period. For Nov and Dec, it appears mostly dry as high pressure continues to dominate, as upper lows remain further to the west. Fronts approaching from the west will intensify upon approaching the coast, then lose energy upon arrival at the coast.

After Nov 1, the next opportunity for rains in SOCAL is often during Dec 12-20th. Currently, it appears mostly dry in SOCAL. NORCAL also appears dry and warmer than usual, but with rains during the holidays.

...Alan Fox, Fox Weather LLC...