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## Calendar

For a listing of industry events and dates for the coming year, please visit: http://www.californiaavocadogrowers.com/commission/industry-calendar

## **Outdoor Wildfire Prevention Workshops**

The Ventura County Resource Conservation District is hosting a series of private, small-group Outdoor Wildfire Prevention Workshops focused on helping attendees better prepare for wildfires. Registration required. <u>More information here</u>.

September 25

<u>September 25</u> Time: 9:00am – 3:00pm Location: Ventura RCD Office, 3380 Somis Road, Somis, CA

#### **CAC Board Meeting**

September 27

September 27 Time: 10:30am – 12:00pm Location: Web/Teleconference

## **CAC Board Meeting**

October 13

October 13 Time: TBD Location: TBD

## Ventura County RCD Fire Preparedness and Recovery Virtual Seminars

The Ventura County Fire Resource Conservation District is offering a series of free wildfire prevention virtual workshops. The series will discuss wildfire prevention and tips, how to prepare for potential wildfires and allow participants to ask questions of a variety of wildfire personnel and professionals. Registration required. <u>More information here</u>.

November 2

November 2 ("Understanding Insurance and Wildfire") Time: 6:00pm – 7:00pm Location: Webinar

# **CAC Launches Sustainability Webpage**

The California Avocado Commission has launched a webpage to showcase the sustainability practices of California avocado growers. The information illustrates how California avocado growers are good stewards of the land as well as contributing members of their communities. The Commission's consumer website, CaliforniaAvocado.com, now includes a section called "<u>California Avocado Sustainability</u>" where website visitors can learn about the four pillars of California avocado sustainability: environmentally friendly farming, worker well-being, healthy communities and economic viability.



The website explains that California avocado growers farm under robust federal and state requirements and follow Good Agricultural Practices and the Food Safety Modernization Act. It highlights that tilling is not used in California avocado production and that California avocado farmers help to generate healthy soils. Regenerative agriculture practices that are already part of what California avocado growers do are noted as well.

In the worker well-being section several California laws and regulations that set the state apart both from other states and other countries are noted building awareness that workers in the California avocado industry are treated well. The healthy communities section showcases both the physical benefits of avocado groves in a community as well as the contributions by California growers who participate in making their communities better.

Economic viability is a key part of sustainability. Clearly, if California avocado growers can't survive financially then the business cannot be sustained. This pillar of the sustainability initiative puts a spotlight on the economic value of the California avocado industry and encourages purchasers to support their communities and choose locally grown when available.

One of the ways of communicating this sustainability information and making it more relatable to key purchasers, is by tying it back to California avocado grower stories. If you have a story you would like to share about your environmentally friendly growing practices, the well-being of your employees or your involvement in your community, please contact Ken Melban at <u>kmelban@avocado.org</u>.

# Recording of CAC Avocado Nitrogen and Fertility Webinar Available Online

Recently, the California Avocado Commission hosted the "Avocado Nitrogen and Fertility Considerations Webinar" for members of the industry. A recording of the webinar is now available on the Commission's YouTube page.

The webinar includes presentations from the following avocado experts.

- Dr. Jonathan Dixon, avocado consultant, discusses how new regulations on nitrogen limits for agriculture in New Zealand are impacting avocado nitrogen usage and grower reporting requirements.
- Dr. Carol Lovatt, Emeritus Professor of Plant Physiology at UC Riverside, covers nitrogen application timing and amounts for maximum productivity in California avocado groves.

A list of upcoming seminars of interest to California avocado growers is available on the California avocado grower website.

## Ventura County Hosting Small-group Outdoor Wildfire Prevention Workshops

The Ventura County Resource Conservation District is hosting a series of private, small-group <u>Outdoor Wildfire Prevention</u> <u>Workshops</u> focused on helping attendees better prepare for wildfires. The 30-minute workshops will take place September 25 from 9:00 a.m. – 3:00 p.m. at the Ventura RCD Offices at 3380 Somis Road, Somis, CA.

The workshops are intended to be brief personalized sessions that allow attendees to discuss their own needs. Therefore, attendees are encouraged to walk around their home or agricultural enterprise and take note of the layout, plants and debris in the area so they can provide this information to presenters who will then customize the workshop to answer the attendees' questions and concerns. Attendees also are encouraged to bring a notebook to take notes. These workshops will be held as private workshops/tours, rather than in a standard group style.

If the workshop times do not fit with your schedule, people are encouraged to email <u>andyspyrka.vcrcd@gmail.com</u> to discuss special accommodations. For more information, <u>visit the workshop event listing online</u>. For more complete information about fire preparedness and prevention, <u>visit the VCRCD wildfire website</u>.

# Pandemic Response and Safety Grant Program to Begin Accepting Applications

The U.S. Department of Agriculture has made \$650 million in funds available for the <u>Pandemic Response and Safety Grant</u> <u>program</u>. This program will provide financial assistance to small businesses in certain commodity areas, including specialty crop producers, as well as distributors. The minimum funding request is \$1,500 and the maximum is \$20,000. Applications will be accepted beginning September 23, 2021 and will end November 8, 2021.

The funds are designated for businesses significantly impacted by COVID-19 who may not have received significant federal support for the costs incurred to keep workers safe during the pandemic. Funds will be issued for COVID-19-related costs incurred between January 27, 2020 and December 31, 2021. Grants will cover activities associated with:

- Workplace safety measures includes personal protective equipment, thermometers, cleaning supplies, sanitizer, hand washing stations, installation and purchase of air filters and new signage
- Market pivots includes developing and implementing online platforms and print materials to communicate
- Retrofitting facilities includes installation and purchase of protective barriers, walk up windows, heat lamps/heaters, fans, propane, tents, tables, chairs, lighting, weights
- Transportation includes costs to secure additional transportation for workers and new delivery routes/distribution services
- Worker housing includes securing additional housing resources/services to maintain social distancing and quarantining

 Medical costs — includes costs associated with offering or enabling vaccinations, testing or treatment of infected employees, including paid leave due to COVID infection

Applicants will need to obtain a DUNS Number for Dun & Bradstreet prior to applying for the program. Interested applicants should visit <u>https://usda-prs.grantsolutions.gov/usda</u> for complete information and to check their eligibility, secure a DUNS number and apply.

## USDA Risk Management Agency Improves Whole-Farm Revenue Protection Plan

The Whole-Farm Revenue Protection plan provides risk management safety for all commodities on a farm with up to \$8.5 million in insured revenue. To improve the flexibility of the plan and farmers' access to it, the U.S. Department of Agriculture's <u>Risk Management Agency</u> has revised the plan beginning with crop year 2022.

Improvements to the plan include:

- Increasing the expansion limits for organic producers to the higher of \$500,000 or 35%.
- Providing more flexibility for organic producers who have requested organic certification by the acreage reporting date, allowing them to report acreage as either certified organic or as acreage in transition to organic.
- Allowing producers to report a partial yield history by allowing them to record zero yields for years in which they are missing records.

For more information, producers should contact crop insurance agents. A list of agents is available online using the <u>RMA</u> <u>Agent Locator</u>.

# California-based Restaurant Chains Leverage California Avocado Season to Promote Freshness on the Menu

Promoting California avocados on the menu during California avocado season provides a halo effect for restaurant chains that partner with the California Avocado Commission and showcase the fruit during its peak availability. In fact, according to Menu Matters, almost 90% of consumers believe restaurants with California avocados on the menu feature fresh and high-quality ingredients. To help increase awareness of fresh California avocados and their unique seasonality and availability in meals away from home, from June through August the Commission partnered with seven California-based chains to celebrate peak California avocado season with a variety of menu applications.

This year, keeping in mind the COVID-19 crisis, the Commission shifted away from requiring the returning chain partners to use the California Avocado brand logo on in-store promotional materials, instead permitting chains to showcase the logo on their websites and social media posts. San Francisco-based MIXT, a healthy lifestyle fast casual restaurant brand, and their sister concept Split both promoted fresh California avocados on their websites, enewsletters and Facebook and Instagram social channels. To drive engagement and interest with their consumers, MIXT also featured a giveaway of California avocado merchandise. Twelve units located around the state celebrated California avocado season from June 15 — September 1.

Habit Burger Grill locations across Arizona, California and Nevada leveraged patrons' favorite burger — the Santa Barbara Char Burger — to promote the availability of California avocados at 238 units. The Irvine-based chain ran the promotion throughout the month of July. During the same timeframe, 160 units of the Carlsbad-based Rubio's Coastal Grill featured fresh California avocados on their menus in Arizona, California and Nevada. Their promotions wrapped up with targeted social media support on National Avocado Day, July 31. Two other returning chain partners — Jimboy's Tacos and Flame Broiler — ran their summer California avocado promotions from July 1 – August 15. Jimboy's Tacos featured fresh California avocado Guacamole and Chips, as well as fresh slices of the fruit on Stuffed Quesadillas, the Taco Salad, Taquito-M-G and Avocado Salad at 41 units in California and Nevada. Flame Broiler encouraged customers to embrace fresh local ingredients by adding California avocados to any dish at 160 locations throughout California and Nevada.

San Francisco-based Ike's Love & Sandwiches celebrated California avocado season, summer and baseball with a promotion in 69 Arizona, California and Nevada units from July 12 – August 9. The chain's Hunter Pence sandwich featured fresh California avocados piled high on the popular sandwich. The chain also celebrated National Avocado Day with an email blast to fans promoting the Adam Richman sandwich, another popular menu item dressed up with slices of the Golden State fruit.

By showcasing California avocados on restaurant chain partners' menus, the Commission broadened awareness of the fruit's availability and created a sense of urgency among consumers who are eager to enjoy the fruit in meals away from home during peak season. Further, the diversity of California avocado menu applications inspire consumers to incorporate the fruit in meals at home, which may increase overall demand for the fruit in season.



\*Source: Menu Matters, "Patron preference for 'California' and 'California Avocados', 2020"

MIXT showcased a California avocado merchandise giveaway as part of its summer menu promotions.

# Retail Partnerships Help Commission Share the California Avocado Experience

To show support for retailers carrying California avocados and help them promote the availability of the fruit during peak season, the California Avocado Commission reached out to select retail dietitians, retail cooking school directors and retailers to help them align their promotions with California Avocado brand messaging that would pique the interest of their customers. From March into August, the Commission collaborated with chosen retail partners to raise awareness of the versatility and premium quality of California avocados using a variety of digital, social and in-store promotional assets.

At the start of the season, CAC sent California avocado-branded packages with relevant and engaging information to six key retail accounts to encourage Retail Dietitians and Cooking School Directors to share "why California avocado" messages with their customers and help drive retail purchases of the fruit. During a July month-long partnership with a network of Hy-Vee's 30 corporate dietitians, the retail chain showcased a "Bump to Babe" promotion on store social media platforms. In addition, California avocados were chosen as the Hy-Vee Dietitian "Pick of the Month," featured in store tours and classes, showcased on regional television segments and in the Des Moines Register.

Sharing the California avocado experience has proven successful in engaging and educating retail consumers about the California avocado industry and the fruit it produces. Because COVID-19 limited opportunities to host retail partners for inperson grove tours, the Commission created customized virtual immersive experiences for key retail accounts that were designed to highlight what makes California avocados so special. The Commission hosted a Season Opener Online Cooking Class and invited key contacts from Albertsons-Vons-Pavilions, Hy-Vee and Bristol Farms along with media and other influencers. The virtual event allowed direct interaction between a CAC chef partner and the influential retail personnel while sharing messaging about the fruit's seasonal availability and its premium quality.

The Commission also partnered with PCC Community Markets to host mutually beneficial activities designed to help consumers "Get to Know Your California Avocados." The Golden State fruit was featured at a members-only virtual event, in organic and paid social media posts, as a Weekly Specials headline and in the PCC enewsletter. The retailer also showcased California avocados with in-store displays, banners, recipe cards and custom pricing signs and rounded out promotions with a members-only California avocado offer.

In June, Mollie Stone's Markets featured California avocados as its Monthly Pick and in its Meet the Farmer program. This multi-pronged promotion included a two-page spread featuring California avocado growers Dorcas McFarlane and Gordon Kimball on Mollie Stone's website, as well as social posts on the retailer's social platforms and California avocado-centric features in the chain's ebooklet. Mollie Stone's also provided five giveaways for its enewsletter subscribers that included a box of avocados and an item from the online California Avocado Merch Shop.

By supporting retailers who display and promote California avocados, the Commission was able to leverage the communication power of third-party advocates who share California Avocado brand messaging. Through these partnerships, consumers received recipes, usage and versatility ideas in the store and via digital channels including retailer websites, social media platforms and enewsletters, securing three million impressions to date.



Jessica Hunter, CAC Board Member, appeared in a video presented at a virtual members-only event for PCC Community Markets.

# **California Market Trends**

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

	Conventional #1	Organic #1				
California Hass	(Field Price Per Lb)	(Field Price Per Lb)				
#32's	\$1.98 - \$2.04	\$2.00 - \$2.06				
36's	\$1.98 - \$2.04	\$2.00 - \$2.06				
40's	\$1.98 - \$2.04	\$2.00 - \$2.06				
48's	\$1.98 - \$2.04	\$2.22 - \$2.28				
60's	\$1.40 - \$1.46	\$1.86 - \$1.92				
70's	\$0.84 - \$1.00	\$1.50 - \$1.56				
84's	\$0.64 - \$0.70	\$0.60 - \$0.66				
*To subscribe to the Weekly Newsline, please contact the California Avocado Society at (949) 940-8869 or						

California Avocado Society Weekly Newsline\* Avocado Prices – September 8, 2021

Avocado Society at (949) 940-8869 or www.CaliforniaAvocadoSociety.org.

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

	Week Ending 9/12/2021	Season-to-Date (since 11/01/2020)	2021 Year to Date
Hass	2,483,456	248,978,424	240,288,042
Lamb	40,893	10,353,589	10,203,537
Other (Greens)	0	669,106	601,259
California Total	2,524,349	260,001,119	251,092,838
Florida	955,240	19,165,880	15,262,640
Chile	0	0	0
Mexico	33,601,641	2,072,170,653	1,683,325,435
Peru	4,150,010	180,036,869	180,036,869
Other (Imports)	1,620,000	65,470,000	57,770,000
Import Total	39,371,651	2,317,677,522	1,921,132,304
USA Total	42,851,240	2,596,844,521	2,187,487,782

Sources:

California = CAC (AMRIC) Florida = Florida Avocado Admin Committee Chile = Comite de Paltas, Chile Mexico = APEAM Peru = ProHass Other Imports = USDA AMS website

# **Crop Statistics**

As of week ending 9/12/2021 California harvest has exceeded the late-season volume estimates of 250 million pounds. As seen in the table below, if weekly projections for the duration of the season hold true, we may see close to 260 million pounds of fruit harvested before the season wraps up. As the current season is coming to a close, CAC is working with industry stakeholders to assess the volume of the 2022 crop and using this information to assist the Board in establishing budgets and assessment rates at their October Board meeting. Official 2022 crop estimates and weekly projections will be finalized and distributed to the industry in December.

2021 California Crop Weekly Harvest Projection								
Weekly Crop Movement vs. Distribution Projections All Varieties								
	Forecast	Forecast						
Week Ending	July 2021		AMRIC	AMRIC				
(CAC Week)	Update		Harvest	Shipments				
1st QTR Subtotal	26,470,000	25,915,479	25,915,478	16,367,912				
2nd QTR Subtotal	130,536,100	143,600,075	143,600,074	142,205,510				
Jul 4 - <mark>(</mark> 35)	10,530,000	8,622,491	8,622,491	11,210,570	250,404,898			
Jul 11 - <mark>(</mark> 36)	10,841,500	6,701,284	6,701,284	7,227,526	247,597,679			
Jul 18 - <mark>(</mark> 37)	10,227,800	9,777,812	9,777,812	9,215,907	249,600,687			
Jul 25 - <mark>(</mark> 38)	9,668,500	7,731,800	10,993,612	10,469,183	253,519,299			
Aug 1 - (39)	7,295,800	7,538,200	10,389,872	10,289,754	257,281,871			
Aug 8 - <mark>(</mark> 40)	5,784,100	6,997,500	9,077,298	11,073,472	259,444,286			
Aug 15 - (41)	5,120,700	6,906,400	7,522,684	10,261,210	259,841,286			
Aug 22 - (42)	5,124,200	6,928,100	7,016,279	9,406,953	259,641,317			
Aug 29 - (43)	4,874,100	6,167,200	6,523,397	<mark>6</mark> ,693,740	259,766,227			
Sep 5 - (44)	4,250,900	3,413,371	4,926 <mark>,</mark> 040	<mark>6,406,652</mark>	261,201,233			
Sep 12 - (45)	3,430,600	2,813,200	2,524,349	3,929,591	260,774,583			
Sep 19 - (46)	2,750,000	2,204,000	-	-				
Sep 26 - (47)	2,258,900	1,701,788	-	-				
3rd QTR Subtotal	82,157,100	77,503,146	84,075,118	96,184,558				
4th QTR Subtotal	10,836,800	2,981,300		-				
Season-to-Date	234,154,300	243,112,912	253,590,673	254,890,349				
% of Crop	94%	97%	101%	102%				
Crop Size	250,000,000	250,000,000	Left to Harvest	Left to Ship				
Crop Variance	19,436,373	10,477,761	(3,590,673)	<mark>(</mark> 4,890,349)				

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

(Sept. 16 – Oct. 8)

### **BASIC PATTERN:**

Large Scale Pattern –

- A. A warm sea surface temperature anomaly continues to support tropical cyclone developments near southern Baja California. Only weak troughs are along the California coast, alternating with hot offshore flow for brief periods, or just plain dry and warm for most periods.
- B. Upper high pressure continues at about 35N in the eastern Pacific from about 150-135W. Troughing is intermittent over California, and may occasionally draw tropical moisture northward into Arizona and SE California. However, for SOCAL it continues very dry with significant deficit in late summer-early autumn rainfall.
- C. Sea surface temperatures (SSTAs) along northern California continue colder than normal. SSTs in southern California through Baja are warmer than normal, and provide fuel for tropical cyclones near S Baja California, and some showers/thunderstorms (TSTMS) along Colorado River and in southern Arizona. Arizona has a rain deficit now that the monsoonal rains are near to the end.
- D. There is a trend towards recurrent dry and occasionally hot weather for the remainder of Sep in northern and central California. Hot weather is short lived. The bottom line is dry, breezy, and continued a little below normal rainfall, overall in Sep and Oct.
- E. There continues a trend for cyclogenesis (development of troughs and lows) in the central Pacific around 175-145W. This may assist development of occasional showery troughs near the N California coast and N California.
- F. The dry conditions are continuing the moisture deficit in soils as well as fuels (vegetation) throughout California during this historically dry early fall season so far.
- G. During periods in late Oct and in Dec, we have the best chance for above normal rainfall in NW California coastal counties, and near normal in central California coast. November is just plain dismal for rain prospects, according to the CFSv2 model for California. The NMME model is a little more optimistic about rain in NW California, but with below normal rainfall in SOCAL.
- H. As La Nina slowly redevelops in late fall-early winter, the best chance for above normal rainfall is in the Pacific Northwest coast, and NW California coast. La Nina begins wet for N and Central California, with a chance for above normal rainfall in SOCAL/Ventura Co.
- I. As La Nina continues to intensify in Dec Jan, the pattern turns unusually dry for all of California from late Dec through Jan, and Feb.

## FORECASTS FOR CALIFORNIA

- A. Troughs and lows bring the possibility of rains and showers into N and central California during Oct and again in Dec, according to model guidance from NMME and CFSv2. A stronger La Nina pattern is expected to regenerate in late Dec-Jan 2022. This suggests dry for SOCAL and wet for far NW California and Pacific Northwest. For late Dec-Jan, near or below normal precipitation is expected in N California, but dry across central Calif.
- B. For September in S California, dry conditions are expected. Some showers could still occur in NW Mexico and S Arizona due to remnant tropical lows. These usually cease by mid Oct.

- C. Precipitation Trend Sep 16 Oct 25. Rain dates are: Sep 18-19 (N Calif showers), Oct 13-17 (N and central Calif), Oct 20-21 (N and central Calif). Rains are unlikely in S Calif unless tropical cyclone remnants arrive (late Sep).
- D. Troughs and cold fronts become more active in late Sep thru Oct with some rain into N Calif and the N parts of central Calif on the dates listed in c) above. Oct is a transition month. Temperatures will generally be above normal but with more cool periods, especially by mid Oct.
- E. In S California Sep 16- Oct 25... SOCAL Warm Spells, from models GFS and CFSv2 through CFSDailyAI: Overall, high pressure continues strong across most of California through 17th. Warmest 16-17. A trough will bring cooling across N and central California 18-19. High pressure and warm to very warm 20-21. Cooling with a weak trough 22-24. High pressure builds with very warm to hot 25-29. Some Santa Ana winds are possible 20-21.
- F. Sierra Nevada: Sep 16- Oct 25... Precipitation Trend: The Sierras remain very dry through Sep 17. A deep trough with decent moisture will bring light rain Sep 18-19 with rain across N areas. Dry N-NE winds and cool Sep 19-20. Downslope dry winds Sep 20-21 occur on Sierra west slope. Dry but averaging warmer than normal Sep 26- Oct 12. Cooler with a trough bringing a chance of rain Oct 13-17. Some snow is possible above 8,000'. Another trough will bring more rain Oct 20-21. Dry and warmer Oct 22-25.
- G. N and Central California Fire Risk Sep 16- Oct 25... Best chances for enhanced fire risk would be from increased instability in a predominantly dry airmass. Fire risk and potential fire severity continue unusually high through mid Sep. Some decrease in fire risk occurs as rains develop into N and central Calif Sep 18-19. Santa Ana type winds develop 20-21 which will increase fire danger and spread. A trough and windy cold front without rain occurs Sep 25. Some increase in N winds 26-27. A dry and warm period will bring a higher risk for fires Sep 26- Oct 12. Another trough with cooling and showers may reduce the fire risk a bit Oct 13-17 and 20-21.
- H. An increase in TSTMS may contribute to higher fire risk through ignition but TSTMS appear to be below normal across the region through Sep. Less chance late Sep through the middle of Oct for thunderstorms than normal as a very dry pattern continues across most of the state.

The listing of dates normally included for hot and cold spells, and precipitation are based on our CFSDaily and CFSDailyAI forecast products, and present generally expected trends in precipitation (both products) and temperature (CFSDailyAI) to 4km. Our system gives some consideration of terrain and coastal influence. We consider the CFSv2 as one of the better ways to represent basic weather down in the sub-monthly time scale beyond the 15 day GFS or monthly maps from CFSv2 or NMME.

# Southern California Deserts Outlook for Sep 16-Oct 25:

## Highlights:

Conditions will con't very dry through the rest of Sep with most areas seeing very dry conditions through the 1st half of Oct. The models just aren't showing any rain for the desert region! The warmer than normal sea surface in the Gulf of California and near the SOCAL coast could bring other shower events into S California mountains as remnant lows pull moisture from former tropical systems into the area through the start of Oct. But again, the models are showing less activity this year than normal. By Oct 10, it becomes less likely to get remnant lows from former tropical systems into the region.

# \*\*\*Looking Ahead – Long Range Outlook Oct 25 – Dec 31... N and Central California.:

Both the latest versions of CFSv2 and NMME (North American Multi Model Ensemble) monthly guidance suggest near normal rainfall in early to mid October, but seasonable to above normal late Oct into the start of Nov. Turning much drier Nov 10 through the end of the month with Dec and Jan staying well below normal for precipitation across N and Central

California. La Nina definitely looks to have a dry influence across the region mid Nov through Jan as it strengthens across the region.

**For SOCAL Oct 14-Dec 31:** It will continue difficult to realize rains in S Calif from the middle of Oct through the end of the year. Much below normal precipitation is expected with a very dry pattern for most of the region. Jan and Feb will likely continue drier than normal. Some deeper troughs will bring cold fronts with gusty NW or N winds at times. These bring minimal showers to SOCAL, but cold fronts are followed by Santa Ana winds. The Santa Anas usually start around mid Oct.

**Fire Risk...... Oct 14 – Dec 31...:** Southern and central California could remain unusually dry with high fire risk through Oct until some rain starts in early Dec (per CFSv2 guidance). After cold fronts with meager rainfall, watch for Santa Anas possibly about during the first few days of Nov and again the Thanksgiving holiday period. The current models do not show much rain into S California with limited rain into central Calif late Oct through the end of Nov. This dry pattern with increased Santa Ana winds will keep a high fire risk through the region. Rains of consequence are most likely in early Dec with a very dry pattern late Dec through all of Jan expected.

**Frost Risk....Oct 25 – Dec 31...**: As mentioned for N California, there are indications in the monthly guidance for warmer than normal conditions in Nov-Dec. Keep in mind that warmer than normal with dry weather does not necessarily mean lower frost risk. We suspect that the worst periods for frost would be late Dec and early to mid Jan 2022 as cold lows and windy cold fronts alternate with Santa Anas. Winter time Santa Anas dry out the airmass, and contribute to wetbulb Freeze on the colder nights, and possibly even some hard freezes during the intervals between the cessation of Santa Ana winds, and increase of clouds ahead of the next front. Winter inversions increase with cold pockets of air getting trapped on dry nights through valleys from late Dec through Jan.

(Terms and Definitions Used In This Weather Outlook)

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