

Almond Board of California Disease Forecasts 2023
in cooperation with the University of California and Semios

Table 1. Daily risk assessment disease forecasts for Thur., May. 4 through Thur., May 11, 2023*

No.	County	Region	Alternaria leaf spot (value, date, level)^	Anthracnose (value, date, level)^	Bacterial spot (value, date, level)^
1	Butte	West	0	0	0.31-0.34 (5-5 to 5-11), low
2	Colusa	East	0	0	0.1 (5-6 to 5-11), low
3	Fresno	East	2 (5-4 to 5-6), low	0	0
4	Fresno	Central	0	0	0
5	Fresno	West	0	0	0.03 (5-5 to 5-11), low
6	Kern	Central	0	0	0
7	Kern	West	0	0	0.03 (5-5 to 5-8), low
8	Kern	East	0	0	0
9	Madera	Central	0	0.05 (5-4 to 5-8), low	0.07 (5-4 to 5-10), low
10	Merced	Central	0	0	0
11	Stanislaus	East	0	0.15 (5-6 to 5-10), low	0.17-0.34) 5-5 to 5-11), low
12	Stanislaus	Central	0	0.05 (5-6 to 5-10), low	0.17 (5-6 to 5-11), low
13	Stanislaus	West	0	0	0.19 (5-6 to 5-11), low

* - 7-day forecasts are based on temperature (inside- and outside-canopy measurements), precipitation, and leaf wetness which are powered by the Semios® precision farming platform.

^ - Numerical risk is scaled as follows: 0 = no risk, 1 = action threshold (Note: values may exceed 1 due to hourly accumulations).

Industry Advisory - Summary for Selected Almond Growing Regions

Low precipitation occurred in most regions except Fresno-Central, Kern-Central, and Madera-Central last week. For 4/28 to 5/3, precipitation totals were highest for Colusa-East (4.5 mm), Fresno-West (7 mm), Stanislaus Central (4.1 mm), Stanislaus-East (5.6 mm), and Stanislaus-West (8.6 mm). Average in-canopy temperatures ranged from 11.1-13.9°C (later in the week) to 20.9-23.8°C (earlier in the week). Although these conditions are partially favorable for *Botrytis cinerea*, jacket rot/green fruit rot is not of concern at the current developmental stage of almond fruit development.

Early in the coming week, low to moderate rainfall is predicted, but low to moderate temperatures will result in a zero risk for Alternaria leaf spot in all regions, except for Fresno-East where a risk level of 2 is predicted (see Table 1). The risk for anthracnose is zero in most regions and low for Madera-Central, Stanislaus-East, and Stanislaus-Central. Anthracnose is favored by warm and wet environments, and these conditions are not forecasted to be provided in any of the regions. The risk for bacterial spot is zero (i.e., Fresno-East, Fresno-Central, Kern-Central, Kern-East, Merced-Central) or low (i.e., for the remaining regions). This latter disease develops during warmer temperatures, and wetness is required for dissemination and infection. Bacterial blast samples (i.e., twig dieback), brown rot blossom blight (spur and shoot dieback), and green fruit rot that are still being submitted to my lab are positively identified for these three diseases. These diseases that resulted during the cold wet weather events in Feb. - March during bloom are developing symptoms with the warmer conditions experienced in the last several weeks.

In addition to Alternaria leaf spot, scab is a disease where critical in-season fungicide application timings need to be started in mid-late spring if orchards are at risk for the disease. A forecasting model for scab is currently being developed, and regional risk assessments will be included in our future advisories.

The website <https://www.ag-radar.com> (password: Almondboard2022) displays actual and forecasted disease risk assessments for each region. Because these are regional forecasts, actual and predicted precipitation may vary among locations within each region. Additionally, historical records and experience for specific locations should be considered. This advisory will be updated weekly. The website "2022 Fungicide Efficacy Tables" is available to optimize fungicide selection and applications (<http://ipm.ucanr.edu/PDF/PMG/fungicideefficacytiming.pdf>).

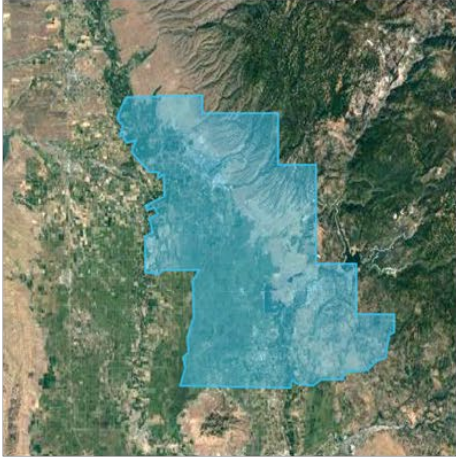
Table 2. Forecasted weather for Thur., May 4 through Thur., May 11, 2023*

No.	County	Region	Date	Avg Temp (in canopy) °C	Avg Humidity (%)	Precip. (mm)	Leaf Wetness (hours/day)
1	Butte	West	5-4 to 5-11	12.3 to 19.7	47.4 to 81.5	0.39 (5-4), 0.8 (5-5), 7.1 (5-6), 4.7 (5-8)	6 (5-4), 1 (5-5), 3 (5-6), 2 (5-7)
2	Colusa	East	5-4 to 5-11	12.1 to 19.5	50.9 to 86.7	18.8 (5-4), 0.4 (5-5), 3 (5-6), 0.3 (5-8)	19 (5-4), 1 (5-5)
3	Fresno	Central	5-4 to 5-11	13.4 to 18.5	52.8 to 74.3	2.8 (5-4), 0.3 (5-5)	9 (5-4)
4	Fresno	East	5-4 to 5-11	12.7 to 18.8	56.4 to 76.9	8 (5-4), 1.7 (5-5), 0.1 (5-6)	12 (5-4), 1 (5-5), 1 (5-6), 3 (5-9)
5	Fresno	West	5-4 to 5-11	11.6 to 17.4	54.2 to 80.1	11.7 (5-4)	13 (5-4)
6	Kern	Central	5-4 to 5-11	13.6 to 17.9	51.3 to 72.8	3.2 (5-4), 0.4 (5-5)	7 (5-4)
7	Kern	East	5-4 to 5-11	14.5 to 19.0	54.0 to 67.9	1.3 (5-4)	2 (5-4)
8	Kern	West	5-4 to 5-11	13.1 to 18.5	50.2 to 77.3	4.4 (5-4), 0.2 (5-5)	9 (5-4)
9	Madera	Central	5-4 to 5-11	13.1 to 18.4	56.5 to 75.3	9.2 (5-4), 2.9 (5-5), 0.4 (5-6)	12 (5-4), 1 (5-6)
10	Merced	Central	5-4 to 5-11	12.6 to 18	58.1 to 78.1	6.1 (5-4), 0.4 (5-5), 0.2 (5-6)	12 (5-4), 3 (5-5), 3 (5-6), 1 (5-9)
11	Stanislaus	Central	5-4 to 5-11	12.7 to 17.6	58.3 to 75.4	0.2 (5-5), 3.3 (5-6)	6 (5-4), 4 (5-5), 3 (5-6)
12	Stanislaus	East	5-4 to 5-11	12.1 to 17.6	60.5 to 81.5	1.1 (5-4), 0.4 (5-5), 4.5 (5-6)	2 (5-4), 5 (5-5), 6 (5-6), 2 (5-8), 3 (5-9)
13	Stanislaus	West	5-4 to 5-11	12.8 to 17.5	55.9 to 83.1	4.9 (5-4), 0.9 (5-5), 3.5 (5-6)	13 (5-4), 5 (5-5)

Note: In this table, the order of some regions is the same as table 1 and was generated using the RADAR on-line forecasted report powered by the Semios® precision farming platform.

Fig. 1. Maps of counties and regions.

Butte West



Colusa East



Fresno Central



Fresno East



Fresno West



Fig. 2. Maps of counties and regions.

Kern West



Kern East



Kern Central



Stanislaus Central



Stanislaus East



Stanislaus West

