

Almond Board of California Disease Forecasts 2024
in cooperation with the University of California and Semios

Table 1. 7-day disease risk forecasts for Mon., May 6, through Mon., May 13, 2024*

No.	County	Region	Anthraco-nose (value, date, color code)^	Bacterial spot (value, date, color code)^	Alternaria leaf spot (value, date, color code)^	Almond scab sporulation level (date, T, LW value, Precip.)^
1	Butte	West	0	0	0; 7-DI high = 11 on 5/6 decreasing	0
2	Colusa	East	0	0	0	0
3	Fresno	Central	0	0	0	0
4	Fresno	East	0	0	0	0
5	Fresno	West	0	0	0	0
6	Kern	Central	0	0	0	0
7	Kern	East	0	0	0	0
8	Kern	West	0	0	0	0
9	Madera	Central	0	0	0	0
10	Merced	Central	0	0	0	0
11	Stanislaus	Central	0	0	0	0
12	Stanislaus	East	0	0	0	0
13	Stanislaus	West	0	0	0	0

* - 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. 5-, 7-, and 21-day disease indices (DI) are also shown that provide the previous risk for a region.

^ - Numerical risk is scaled as follows: 0 = no risk, 1 = action threshold (Note: values may exceed 1 due to hourly accumulations). Color code risk: **yellow** = low, **orange** = moderate, **red** = high.

Industry Advisory - Summary for Selected Almond Growing Regions

Low (0 mm) to unpredicted high precipitation (37.1 mm) and moderate temperatures with averages of 10.7 to 13.6°C during rainfall periods occurred across the regions last week (Table 3). Average daily leaf wetness durations ranged from 9 to 22 h with 37.1 mm rainfall (Butte-W), 19-21.0 h with 11.3-11.7 mm of rainfall (Fresno-C and Fresno-E), 17.0-16.0 h with 2.0-4.57 mm rainfall (Fresno-W and Kern-C), 21-22 h with 11.8 to 12.9 mm rainfall (Madera-C and Merced-E), 24, 18, 17 h with 17.4-20.3 mm of rainfall (Stanislaus C-, -E), or 15-13 h with 1.9-4.4 mm of rainfall (Kern-E, -W). With low temperatures, the risk for anthracnose was low. The risk for Alternaria leaf spot reached 11 with a seasonal risk of 13 and 10 in Butte-W and Madera-C, respectively, whereas a seasonal DSV of 2 was reached in Fresno-E and of 1 in Kern-C, -E. Other regions still have a 0 seasonal DSV. Last week, bacterial spot risk was high for Kern-W (7-DI 1.5), moderate for Butte-W (7-DI 0.49), and low for Fresno-C (7-DI 0.1), Kern-W (7 DI 0.23), and Stanislaus-C (7-DI 0.19); whereas other regions had zero risk. Due to cool to moderate temperatures (<13°C) during leaf wetness events, there was a low risk for scab sporulation in most regions.

For the coming week, no precipitation and low numbers of daily leaf wetness hours (i.e., ≤1.6 h/day) are forecasted for all regions (Table 2). High daily leaf wetness (e.g., 7-11 h) is forecasted for May 6 for Fresno-C, -E, Madera-C, Merced-C, and Stanislaus-C, -E, -W. Temperatures are still moderate (daily averages between 19.3° and 21.2°C) with daily maximum values increasing to highs of up to 35°C. Therefore, anthracnose and bacterial spot (on cv. Fritz) are potential diseases that can cause problems if precipitation or extended irrigation events with extended leaf wetness occurs. With no rainfall and low leaf wetness forecasted in the coming week, however, zero to low risk is predicted for anthracnose, Alternaria, bacterial spot, and almond scab sporulation as shown in Tables 1, 2. Relative humidity is decreasing in many regions in the coming week that will also reduce scab sporulation.

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 Mon., May 6, through Mon., May 13, 2024*

No.	County	Region	Avg Temp (in canopy) (Avg)°C	Avg Humidity (Avg) (%)	Total Precip. (mm)	Leaf Wetness (hours/day)
1	Butte	West	13.4 – 24.1 (20.6)	30.2 – 61.5 (42.3)	0	0
2	Colusa	East	13.5 – 24.8 (21.2)	26.5 – 61.5 (40.5)	0	0.4 (3 on 5/6)
3	Fresno	Central	14.0 – 24.5 (20.6)	37.5 – 60.6 (45.3)	0.03	0.9 (7 on 5/6)
4	Fresno	East	13.6 – 24.7 (20.5)	40.5 – 61.4 (49.5)	0	1.3 (8, 3 on 5/6-5/7)
5	Fresno	West	14.9 – 23.5 (20.3)	31.6 – 52.2 (36.9)	0	0
6	Kern	Central	13.2 – 23.9 (20.1)	31.2 – 61.3 (41.4)	0	0.6 (5 on 5/6)
7	Kern	East	14.4 – 24.8 (21.2)	30.8 – 61.1 (42.0)	0	0
8	Kern	West	13.7 – 24.4 (20.7)	33.3 – 55.7 (40.0)	0	0
9	Madera	Central	13.7 – 23.9 (20.1)	41.5 – 63.7 (48.6)	0	1 (8 on 5/6)
10	Merced	Central	14.6 – 23.9 (20.3)	41.3 – 62.2 (48.2)	0	1 (8 on 5/6)
11	Stanislaus	Central	13.2 – 23.7 (19.8)	40.9 – 61.4 (47.1)	0	1 (8 on 5/6)
12	Stanislaus	East	12.8 – 23.3 (19.3)	44.7 – 68.9 (52.9)	0	1.6 (11, 2 on 5/6-5/7)
13	Stanislaus	West	13.2 – 24.2 (20.5)	31.6 – 60.2 (41.9)	0	1 (8 on 5/6)

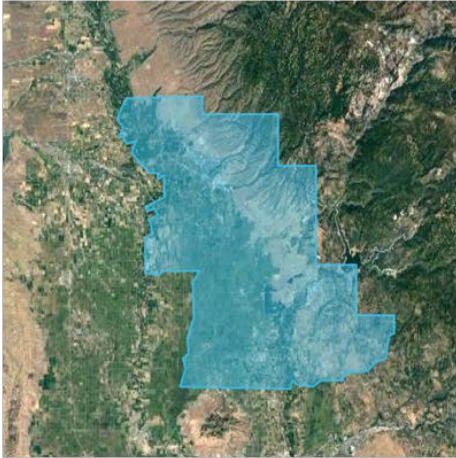
Table 3. Previous week’s actual weather for Mon., Apr. 29, through Sun., May 5, 2024*

No.	County	Region	Avg Temp (in canopy) (Avg)°C	Avg Humidity (Avg) (%)	Total Precip. (mm)	Leaf Wetness (hours/day)
1	Butte	West	10.7 – 19.3 (15.7)	34.5 – 83.7 (54.5)	37.1	18.1
2	Colusa	East	11.2 – 18.4 (15.5)	27.3 – 66.6 (46.1)	6.8	5.3
3	Fresno	Central	11.2 – 19.3 (15.9)	50.4 – 73.2 (60.3)	11.7	3
4	Fresno	East	11.5 – 19.6 (16.5)	49.7 – 70.3 (57.6)	11.3	10.3
5	Fresno	West	11.8 – 20.9 (17.9)	28.8 – 67.7 (45.8)	2.0	2.4
6	Kern	Central	11.6 – 18.7 (16.2)	55.8 – 72.4 (61.6)	4.6	2.7
7	Kern	East	12.5 – 19.4 (17.2)	50.8 – 69.8 (59.2)	4.4	3.4
8	Kern	West	12.1 – 19.1 (16.5)	47.5 – 65.5 (55.5)	1.9	2.4
9	Madera	Central	11.4 – 19.0 (15.7)	51.4 – 69.0 (61.5)	11.7	8.8
10	Merced	Central	11.3 – 19.2 (15.9)	48.5 – 81.1 (61.7)	12.9	4.0
11	Stanislaus	Central	10.8 – 18.8 (15.6)	36.7 – 85.2 (54.8)	17.4	8.0
12	Stanislaus	East	10.7 – 18.3 (15.1)	50.0 – 86.4 (64.0)	20.3	3.1
13	Stanislaus	West	11.1 – 20.2 (16.4)	29.7 – 75.8 (50.0)	3.3	4.6

Note: Data in these tables were 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

