

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., Mar. 11 through Mon., Mar. 18, 2024*

| No. | County | Region | Anthracnose (date, value, level)^ | Green fruit rot (date, precipitation, level)^ | Bacterial blast (date, value, level)^ | Bacterial spot (date, value, level)^ | Alternaria leaf spot (date, value, level)^ |
|-----|------------|---------|---|---|---|--|--|
| 1 | Butte | West | 0 | 0 | 0 | 0 | 0 |
| 2 | Colusa | East | 0 | 0 | 0 | 0 | 0 |
| 3 | Fresno | East | 0 | 0 | 0 | 0 | 0 |
| 4 | Fresno | Central | 0 | 0 | 0 | 0 | 0 |
| 5 | Fresno | West | 0 | 0 | 0 | 0 | 0 |
| 6 | Kern | Central | 0 | 0 | 0 | 0 | 0 |
| 7 | Kern | West | 0 | 0 | 0 | 0 | 0 |
| 8 | Kern | East | 0 | 0 | 0 | 0 | 0 |
| 9 | Madera | Central | 0 | 0 | 0 | 0 | 0 |
| 10 | Merced | Central | 0 | 0 | 0 | 0 | 0 |
| 11 | Stanislaus | East | 0 | 0 | 0 | 0 | 0 |
| 12 | Stanislaus | Central | 0 | 0 | 0 | 0 | 0 |
| 13 | Stanislaus | West | 0 | 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.

^ - 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

Precipitation occurred in Butte-W, Colusa-E (3-6 & 3-10), and Kern-E (3-6 & 3-7) last week with 9.1, 6.4, and 8.8 mm (0.36, 0.25, and 0.34 in), respectively. Maximum temperatures of 19.0°-23.2°C (66°-73.4°F) and average temperatures of 10.9°-11.8°C (51.6°-53.2°F) occurred across all regions. Average leaf wetness hours were 14.7-Butte-W, 8-Colusa-E, 9.6-Fresno-C, 13.7-East, 11-West, 10.3-Kern-E, 10.4-W, 15.6-Madera-C, 7.9-Merced-C, and 11.0-Stanislaus-C, 10.3-E, 13.4-W with max. temperatures of 19.0°-23.2°C (66°-73.4°F). Therefore, these regions had a high risk for brown rot blossom blight and Botrytis potentially causing jacket rot/green fruit rot with flowers in petal fall stages. Fungicide applications that were called for in the last two weeks' forecasts should protect the blossoms. Additionally, due to warm maximum temperatures of 19.0°-23.2°C (66°-73.4°F), rainfall, and extended leaf wetness in Butte-W, Colusa-E, Fresno-C, -E, -W Kern-E, -W, Merced, Madera, and Stanislaus-C, -E, -W last week, shot hole risk was moderate, and bacterial spot risk was moderate for the Fritz cultivar. Monitoring for shot hole especially if there was an outbreak last fall.

For the coming week, forecasted precipitation and leaf wetness are low for all regions. Thus, the risks for brown rot blossom blight and infection of flowers by other fungi including *Botrytis cinerea* are low, resulting in low risk for jacket/green fruit rot. Still, areas that had high rainfall and leaf wetness last week (see above paragraph) should be scouted for brown rot and gray mold blossom blight, especially in cultivars with high flower density. Temperatures are forecasted to be below threshold levels for bacterial spot and anthracnose and above threshold levels (-1°C) for bacterial blast and therefore, the risk is low for these diseases (Table 1). The predicted range of average temperatures and average leaf wetness (<4.5 h/day Stanislaus -C, -E, and Merced-C) (Table 2) indicates a low potential for jacket rot/green fruit rot. With low to moderate temperatures and low leaf wetness hours, Alternaria leaf spot risk is low risk for all regions.

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>).

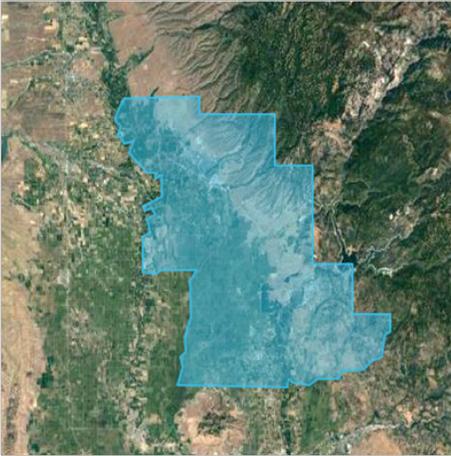
Table 2. Forecasted weather for Mon., Mar. 11 through Mon., Mar. 18, 2024*

| No. | County | Region | Date | Avg Temp (in canopy) (Avg)°C | Avg Humidity (Avg)(%) | Total Precip. (mm) | Leaf Wetness (hours/day) |
|-----|------------|---------|--------------|---------------------------------|--------------------------|-----------------------|-----------------------------|
| 1 | Butte | West | 3-11 to 3-18 | 9.9 – 15.8 (12.7) | 45.3 – 86.7 (62.1) | 5.47 | 4 |
| 2 | Colusa | East | 3-11 to 3-18 | 9.7 – 16.7 (13.8) | 37.4 – 76.5 (57.0) | 2.86 | 3 |
| 3 | Fresno | Central | 3-11 to 3-18 | 12.5 – 17.5 (14.2) | 51.1 – 70.4 (59.8) | 1.16 | 1.4 |
| 4 | Fresno | East | 3-11 to 3-18 | 12.0 – 17.5 (13.9) | 55.9 – 74.7 (63.5) | 1.13 | 2.9 |
| 5 | Fresno | West | 3-11 to 3-18 | 13.0 – 17.4 (14.3) | 41.0 – 69.5 (54.0) | 0.72 | 1.1 |
| 6 | Kern | Central | 3-11 to 3-18 | 11.2 – 17.1 (13.5) | 50.7 – 74.8 (59.9) | 0 | 2.5 |
| 7 | Kern | East | 3-11 to 3-18 | 12.3 – 18.5 (14.7) | 52.3 – 75.2 (60.5) | 0 | 1.9 |
| 8 | Kern | West | 3-11 to 3-18 | 12.0 – 17.7 (14.5) | 50.9 – 69.1 (57.4) | 0 | 1.5 |
| 9 | Madera | Central | 3-11 to 3-18 | 12.0 – 16.8 (13.8) | 53.5 – 71.8 (61.1) | 1.69 | 1.8 |
| 10 | Merced | Central | 3-11 to 3-18 | 12.6 – 16.7 (13.8) | 49.5 – 69.4 (61.8) | 1.5 | 3.0 |
| 11 | Stanislaus | Central | 3-11 to 3-18 | 12.3 – 16.3 (13.7) | 42.4 – 67.9 (60.9) | 1.23 | 4.4 |
| 12 | Stanislaus | East | 3-11 to 3-18 | 11.5 – 16.4 (13.5) | 42.6 – 81.4 (63.3) | 1.84 | 4.5 |
| 13 | Stanislaus | West | 3-11 to 3-18 | 12.8 – 17.1 (14.2) | 41.9 – 74.1 (58.5) | 1 | 1.9 |

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

