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., April. 27 through Thur., May 4, 2023*

No.	County	Region	Alternaria leaf spot (date, value, level)^	Anthracnose (date, value, level)^	Bacterial blast (date, value, level)^	Bacterial spot (date, value, level)^	Green fruit rot (date, precipitation, level)^
1	Butte	West	0	5-4: 0.56; mod.	0	5-4: 2.15; low	5-2 to 5-4: 2.3 mm; low
2	Colusa	East	0	5-4: 0.08; low	0	5-4: 2.33; low	5-2 to 5-4: 0.3 mm; low
3	Fresno	Central	0	0	0	0	5-4: 0.72 mm; low
4	Fresno	East	0	5-4: 0.4; low-mod.	0	5-4: 2.49; low	5-2 to 5-4: 1.7 mm; low
5	Fresno	West	0	0	0	5-2 to 5-4: 0.13; low	5-2 to 5-4; 1.3 mm; low
6	Kern	Central	4-26 to 5-4: 0 (Seasonal DSV=2); low	0	0	0	5-4: 0.51 mm; low
7	Kern	East	4-26 to 4-29: 7-day Index=1; low	0	0	0	0: 16 h wetness last week; low
8	Kern	West	0	0	0	0	5-2 to 5-4: 1.68 mm; low
9	Madera	Central	0	0	0	0	5-4: 1.49 mm; low
10	Merced	Central	0	0	0	0	5-1 to 5-4: 2.45 mm; low
11	Stanislaus	Central	0	5-4: 0.25; low-mod.	0	5-4: 0.7; low	5-2 to 5-4: 2.19 mm; low
12	Stanislaus	East	0	5-4: 0.55; mod.	0	5-2 to 5-4: 2.08; low	5-1 to 5-4: 3.89 mm; low
13	Stanislaus	West	0	0	0	5-4: 1.97; low	0: 10 h wetness last week; 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

No precipitation and low accumulated hours of leaf wetness in all regions last week resulted in zero risk for disease. Average in-canopy temperatures were warming across all of the regions. In the coming week, low rainfall and moderate temperatures are predicted that will result in a low risk for Alternaria leaf spot in Kern-Central and Kern-Eastern regions. The 7-day-index is at 1 or 2 , and an action threshold is generally at 6 to 8 (*see* Table 1). With warm rain forecasted, anthracnose is forecasted to be at a low to moderate risk with small amounts of rain forecasted for Butte-West, Colusa-East, Fresno-East, Stanislaus-Central, and Stanislaus-East (Table 1). Similarly, as temperatures warm in the coming week and precipitation is forecasted, bacterial spot could be a problem in Butte-West, Colusa-East, Fresno-East, Fresno-West, Stanislaus-Central, Stanislaus-East, and Stanislaus-West on the cultivar Fritz. Again, the risk is low and repeated rains and and warm temperatures are needed to initiate a disease epidemic. Twig dieback from bacterial blast is being commonly observed in many regions although the disease is not forecasted in the coming week due to warm temperatures. Green fruit rot is forecasted with warm rains forecasted in the coming week across all regions but the disease risk is low (Table 1). Repeated rains, warm temperatures, and the presence of senescent flower parts caught between developing fruit could lead to green fruit rot. A summary of selected forecasted environment conditions in the coming week are shown in Table 2.

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., April 27 through Thursday, May 4, 2023*

No.	County	Region	Date	Avg Temp (in canopy) °C	Avg Humidity (%)	Precip. (mm)	Leaf Wetness (hours/day)
1	Butte	West	4-27 to 5-4	14.8 to 24.8	38.8 to 56.4	2.3 (5-2 to 5-4)	0
2	Colusa	East	4-27 to 5-4	14.5 to 24.4	41.5 to 59.5	0.7 (5-2 to 5-4)	0
3	Fresno	Central	4-27 to 5-4	15.0 to 25.8	34.3 to 60.1	0.7 (5-4)	0
4	Fresno	East	4-27 to 5-4	15.3 to 25.2	41.4 to 64.0	1.7 (5-4)	0
5	Fresno	West	4-27 to 5-4	13.6 to 24.2	32.9 to 65.5	1.3 (5-3 to 5-4)	<1 (5-4: 2h)
6	Kern	Central	4-27 to 5-4	14.7 to 25.4	38.3 to 56.9	0.5 (5-4)	0
7	Kern	East	4-27 to 5-4	16.2 to 27.5	36.8 to 58.3	0	0
8	Kern	West	4-27 to 5-4	14.6 to 26.6	36.7 to 62.3	1.68 (5-3 to 5-4)	0
9	Madera	Central	4-27 to 5-4	14.5 to 24.7	39.0 to 62.6	1.5(5-4)	0
10	Merced	Central	4-27 to 5-4	14.7 to 24.8	39.8 to 63.1	2.5 (5-1 to 5-4)	0
11	Stanislaus	Central	4-27 to 5-4	14.5 to 24.2	44.1 to 64.1	2.2 (5-4)	0
12	Stanislaus	East	4-27 to 5-4	14.3 to 24.0	42.7 to 645	3.9 (5-1 to 5-4)	<1 (5-3: 2 h)
13	Stanislaus	West	4-27 to 5-4	14.0 to 24.4	40.8 to 65.2	2.6 (5-4)	<1 (5-4: 2 h)

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