

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.

EDWARD A. BEALS, METEOROLOGIST.

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GENERAL SUMMARY.

Temperatures were about normal along the coast of California during November, but they were below normal in the interior valleys and plateau regions. Freezing temperatures occurred almost daily in the mountains and foothills, and frost formed frequently in the agricultural regions. Precipitation was extremely heavy in the northern portion of the State, moderately heavy in the central portion, and light in the southern. No rain fell in the Imperial Valley or in the Mojave Desert.

The first week of the month was practically rainless throughout the State. However, the weather changed abruptly about the 7th, and showery weather prevailed during the remainder of the month in the northern half of the State. Extremely heavy precipitation occurred during the middle decade. Moderately heavy snow fell in the Sierra Nevada Mountains, and light snow fell in the elevated portions of southern California. At Helen Mine, Lake County, 10.15 inches of rain fell in 24 hours on November 17-18. At Kennett, Shasta County, 19.78 inches of rain fell in four days, November 15-19. Following these downpours the Sacramento River rose rapidly to the highest stages attained in many months. Overcast skies kept the daily maximum temperatures low, and sunshine was deficient. At the close of the month there was 15 inches of well-packed snow on the ground at Summit, Placer County, altitude 7,017 feet, and more than twice that amount in the adjacent mountains. There was much more snow on the ground in the Sierra Nevada than on the same date of the previous year.

Agriculturally, the timely rains were of great benefit. The moisture was well absorbed by the soil, which was in good condition for plowing. However, the persistent showers prevented much plowing from being accomplished in northern California. In nearly all regions there was sufficient green feed for grazing stock, and in the northern counties there was abundant pasturage. However, tender garden vegetation was nipped by frost. Moreover, the rains in the Sacramento Valley seriously damaged rice and beans, which, on account of unfavorable weather during the preceding month, were backward in maturing. At the close of the month, little more than one-half of these crops had been gathered. The harvesting of sugar beets was completed, and the gathering of olives proceeded. Navel oranges in the San Joaquin and Sacramento Valleys matured early, and were shipped eastward in large consignments. Lemons and oranges in southern California made normal progress, and were unharmed by frost.

A. H. P.

PRESSURE.

The mean sea-level pressure, determined from the records of 12 regular Weather Bureau stations, was 30.09 inches. The highest was 30.41 inches at Eureka on the 27th; the lowest was 29.71 inches at Eureka on the 21st; the range for the State was 0.70 inch.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 98 stations, was 51.2°, which is 1.7° below the normal. The highest monthly mean was 61.4°, at Indio; and the lowest was 31.1°, at Summit.

The highest temperature, 87°, occurred at Corona on the 14th; and the lowest, 9°, occurred at Portola on the 2nd. The range for the State was 78°.

PRECIPITATION.

The average precipitation for the State, as shown by the records of 242 stations, was 5.24 inches, or 2.43 inches above the normal.

The greatest monthly amount was 32.55 inches, at Branscomb. No rain fell at 6 stations.

The greatest amount in 24 hours was 10.15 inches at Helen Mine on the 17-18th.

RELATIVE HUMIDITY, SUNSHINE AND CLOUDINESS.

Stations.	Relative humidity Per cent.			Sunshine.	
	5 a.m.	5 p.m.	Mean.	Actual No. of hours	Per cent of possible.
Eureka.....	88	81	84	116	34
Fresno.....	84	58	71	212	69
Independence.....	87	37	47	227	74
Los Angeles.....	74	64	69	231	74
Mount Tamalpais.....	81	81	81	148	49
Red Bluff.....	24	60	72	101	36
Sacramento.....	91	68	80	140	47
San Diego.....	81	74	77	244	78
San Francisco.....	83	71	77	154	51
San Jose.....	73	73	73	147	48
San Luis Obispo.....	78	62	70	217	70

WIND MOVEMENT.-(Miles.)

Stations.	Total mov. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date.	Prev. dir.
Eureka.....	4,155	5.8	34	se.	21	se.
Fresno.....	3,777	5.2	25	se.	19	nw.
Independence.....	3,285	4.6	33	w.	19	nw.
Los Angeles.....	3,744	5.2	19	nw.	6	se.
Mount Tamalpais.....	13,279	18.4	66	nw.	4	se.
Point Reyes.....	14,964	20.8	70	s.	15	s.
Red Bluff.....	4,903	6.8	31	n.	5	nw.
Sacramento.....	4,763	6.6	31	se.	15	se.
San Diego.....	3,901	5.4	22	nw.	8	nw.
San Francisco.....	5,253	7.3	27	se.	15	se.
San Jose.....	4,153	5.7	34	se.	15	se.
San Luis Obispo.....	2,328	3.2	26	ne.	28	n.

COMPARATIVE DATA FOR NOVEMBER.

Year	Mean temp.	Ave. precip.	Year	Mean temp.	Ave. precip.	Year	Mean temp.	Ave. precip.	Year	Mean temp.	Ave. precip.
1897....	50.8	1.41	1903....	55.2	5.03	1909....	50.7	4.52	1915....	50.8	1.96
1898....	51.6	0.99	1904....	53.4	1.41	1910....	52.8	1.91	1916....	48.0	1.77
1899....	52.1	3.82	1905....	52.3	2.23	1911....	51.1	1.00	1917....	54.1	1.33
1900....	54.7	3.21	1906....	52.6	1.92	1912....	52.2	2.85	1918....	50.5	3.10
1901....	54.9	2.65	1907....	52.7	0.28	1913....	52.2	5.00	1919....	50.9	0.90
1902....	59.8	3.61	1908....	52.9	1.85	1914....	54.2	0.80	1920....	51.2	5.24

Daily evaporation (inches) and wind movement (miles) for November.

Stations.	Data.	Day of Month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
Chula Vista**.....	Evaporation.....	130	182	173	0.2	137	176	0.95	121	0.86	104	0.73	109	124	0.90	138	111	122	0.67	0.74	0.89	1.04	0.91	0.93	1.07	0.90	0.92	1.21	2.71	1.50	1.06	.....	3,533
	Wind movement.....	71	64	68	68	132	102	94	94	64	70	62	84	76	50	66	80	85	63	74	71	89	60	71	81	85	57	61	152	30	47	.....	2,242
Dodgeland*.....	Evaporation.....	123	0.94	0.68	0.61	1.02	0.27	1.41	0.42	0.12	0.08	2.80	0	0	0	0	0	0	0.04	0.11	0.12	0.12	0.15	0.32	0	0	114	100	0.08	.....	1,344		
	Wind movement.....	36	19	6	36	119	65	28	72	14	45	2	6	0	14	7	52	69	75	57	36	19	30	65	9	5	28	58	51	5	2	.....	1,053
Oakdale (near)*.....	Evaporation.....	0.84	118	0.89	1.08	1.25	1.23	1.29	0.79	0.53	0.57	0.96	1.20	0.35	1.00	1.10	0	1.17	0.56	0.29	1.02	0.31	0.19	0.67	0.67	0.51	0.56	0.77	0.72	0.18	0.14	.....	2,223
	Wind movement.....	53	40	30	50	90	100	130	180	70	50	70	109	52	78	170	290	145	155	130	150	95	145	90	70	50	130	90	100	130	35	.....	3,065
Tahoe**.....	Evaporation.....	0.80	0.70	0.80	1.50	0.50	1.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.90	0.60	0.90	1.00	0.50	0.60	0.80	.....	.....
	Wind movement.....	26	33	69	61	79	88	107	69	70	74	91	91	52	101	100	86	93	96	67	87	111	134	76	75	69	78	88	96	72	71	.....	2,428

* Observations taken at 7 a. m.; ** at 8 a. m. † Included in the next following entry.

Climatological Data for November, 1920.

Table with columns: Stations, Counties, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range), Precipitation (Total, Departure from normal, Greatest in 24 hours, Snowfall, Precipitation of inch or more, Clear, Partly cloudy, Cloudy), Prevailing direction of wind, Observers.

Daily Precipitation for November, 1920.

Table with columns: Stations, Watersheds, Day of Month (1-31), and Total. Rows list various stations like Antioch, Atascadero, Bakersfield, etc., with their corresponding precipitation data for each day of the month.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observation. ...

Daily Temperature for November, 1920.

Table with 32 columns (Stations, 1-31, Mean) and 31 rows of temperature data for various California locations like Bakersfield, Calexico, Chico, etc.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with 12 columns (Stations, Watersheds, Precip. inches) listing precipitation data for numerous locations and watersheds across California.

Data obtained from 3-inch rain gage.