

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.

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GENERAL SUMMARY.

Moderately cold weather prevailed in California during April. During the first three weeks the nights were abnormally cold, and frosts were of frequent occurrence. During the last week, however, temperatures rose rapidly. A hot spell, the first of the season, prevailed from the 25th to the close of the month. Midday temperatures over 90° were recorded in the interior valleys, while temperatures above 100° occurred in the desert portions of the southeastern plateau region.

Precipitation was deficient in the agricultural portions of the interior valleys, but generous rains occurred in the foothills and moderately heavy snow fell in the Sierra Nevada Mountains. Most of the precipitation came in the form of scattered showers between the 8th and the 16th. Following these rains the smaller streams rose abruptly, and reached the highest stages in a year. However, the larger streams maintained abnormally low stages throughout the month. It was an extremely windy month, as most spring months are in California. Velocities of 40 miles per hour or higher were recorded on 28 days at Mount Tamalpais, where a maximum velocity of 92 miles per hour was recorded on the 1st. The average hourly velocity at that station was 25.1 miles, a new high record. Somewhat more than the usual amount of sunshine was received throughout the State.

From an agricultural viewpoint the weather of April was partly favorable, partly unfavorable. The weather was well adapted for farm work. Seeding and planting proceeded without interruption. The showers were beneficial to growing vegetation, and they accelerated the germination of newly planted crops. Pastures and ranges thrived, but cold nights prevented rapid growth. Winter growing grains made good progress toward maturity. Deciduous fruit set well. The harvesting of citrus fruit continued, and Valencia oranges were shipped eastward in large quantities. On the other hand, desiccating, northerly winds dried the soil, formed a crust on the surface and made early irrigation necessary. Frosts did some damage to grapes, almonds, vegetables and early fruit. In certain regions grain headed prematurely because of deficient moisture. Though snowfall in the mountains was heavy, the new snow was of light density and did not congeal. As a result, it disappeared rapidly, without appreciably increasing the reserve water supply. At the close of the month the agricultural situation was generally satisfactory, with the exception of the prospect of a serious shortage of water for summer irrigation and hydroelectric power in northern California, and particularly in the Sacramento Valley.

A. H. P.

PRESSURE.

The mean sea level pressure, determined from the records of twelve regular Weather Bureau stations, was 29.99 inches. The highest was 30.45 inches at Eureka on the 17th; the lowest was 29.52 inches at Red Bluff on the 15th; the range for the State was 0.93 inch.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 97 stations, was 54.8°, which is 2.2° below the normal. The highest monthly mean was 71.4°, at Greenland Ranch; and the lowest was 31.2°, at Summit. The highest temperature, 105°, occurred at Blythe on the 28th; and the lowest, 9°, occurred at Portola on the 10th. The range for the State was 96°.

PRECIPITATION.

The average precipitation for the State, as shown by the records of 242 stations, was 2.56 inches, or 0.77 inch above the normal. The greatest monthly amount was 16.55 inches, at Wright's. No rain fell at 16 stations. The greatest amount in 24 hours was 4.75 inches at Wright's on the 9th.

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.....	90	80	85	299	75
Fresno.....	75	36	56	351	89
Independence.....	42	21	32	341	86
Los Angeles.....	81	68	70	274	70
Mount Tamalpais.....	64	61	62	304	77
Red Bluff.....	70	34	52	300	75
Sacramento.....	80	46	63	311	78
San Diego.....	82	68	75	286	73
San Francisco.....	78	67	72	319	80
San Jose.....	81	52	66	309	78
San Luis Obispo.....	81	63	72	285	73

WIND MOVEMENT.—(Miles.)

Stations.	Total moy. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date.	Prev. dir.
Eureka.....	6,201	8.6	36	n.	17	n.
Fresno.....	6,101	8.5	38	n.w.	17	n.w.
Independence.....	6,814	9.5	35	n.	17	n.w.
Los Angeles.....	4,756	6.6	30	n.w.	17	sw.
Mount Tamalpais.....	18,085	25.1	92	n.w.	1	n.w.
Point Reyes.....	21,730	30.2	87	n.w.	19	n.w.
Red Bluff.....	5,894	8.2	30	se.	8	n.w.
Sacramento.....	7,181	10.0	35	se.	15	n.w.
San Diego.....	5,176	7.2	33	n.w.	17	sw.
San Francisco.....	9,077	12.6	42	n.w.	20	w.
San Jose.....	5,313	7.4	28	sw.	15	n.w.
San Luis Obispo.....	3,572	5.0	21	w.	20	n.w.

COMPARATIVE DATA FOR APRIL.

Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.
1897.....	60.6	0.51	1903.....	54.8	1.28	1909.....	57.6	0.12	1915.....	56.0	1.85
1898.....	60.9	0.41	1904.....	57.2	2.18	1910.....	59.8	0.62	1916.....	57.1	0.52
1899.....	58.1	0.60	1905.....	57.2	1.18	1911.....	54.2	1.93	1917.....	52.8	1.32
1900.....	59.9	2.14	1906.....	56.3	1.65	1912.....	51.9	3.07	1918.....	56.5	0.79
1901.....	55.8	2.16	1907.....	58.2	1.11	1913.....	54.9	1.44	1919.....	57.3	0.84
1902.....	56.2	1.88	1908.....	58.4	0.67	1914.....	56.6	2.14	1920.....	54.8	2.56

The departures from the normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or division means.  
 † Also on other dates. a, b, c, etc., indicate respectively, 1, 2, 3, etc., days missing from the record.

Daily evaporation (inches) and wind movement (miles) for April, 1920.

Stations.	Data.	Day of Month.																															Monthly.
		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	
Chula Vista**1..	Evaporation.....	193	184	196	194	172	207	163	217	269	237	182	189	195	159	160	261	237	246	230	201	192	196	192	173	196	241	218	250	219	222	.....	6,184
	Wind movement.....	125	90	101	77	78	112	95	119	219	115	82	99	135	112	193	337	121	129	153	167	155	106	105	94	91	97	97	123	129	122	.....	3,731
Dodgeland**2...	Evaporation.....	230	140	180	254	206	205	245	245	073	072	118	109	217	098	088	122	190	190	135	135	022	370	151	246	258	277	210	230	453	345	.....	5,817
	Wind movement.....	110	40	85	75	40	20	60	120	130	80	10	20	50	90	160	120	100	130	30	40	120	62	142	54	54	11	6	11	36	101	.....	2,107
Oakdale (near)*3	Evaporation.....	210	158	072	183	236	214	227	373	214	042	131	157	218	090	000	000	267	260	226	248	176	122	174	251	259	301	243	318	258	301	.....	3,929
	Wind movement.....	70	150	50	150	90	60	50	100	180	80	70	50	50	60	106	264	180	160	270	150	90	110	70	70	110	100	60	40	20	105	105	.....
Tahoe**4.....	Evaporation.....	140	090	140	120	080	090	110	140	*	*	*	140	130	080	*	*	*	160	130	120	140	150	170	170	170	180	140	170	070	020	.....	4,695
	Wind movement.....	40	81	46	81	64	48	55	53	*	*	213	39	45	85	*	*	415	93	16	59	87	167	233	145	260	43	44	44	54	103	.....	2,613

\* Observation taken at 7 a. m.; \*\* at 8 a. m. † Included in next following entry.  
 1 Ele. 9 ft.; 10 miles SE of San Diego. 2 Ele. 125 ft.; 16 miles SW of Chico. 3 Ele. 215 ft.; Woodward Reservoir, 8 miles N of Oakdale. 4 Ele. 6230 feet; float in Lake Tahoe.

Climatological Data for April, 1920.

Table with columns: Stations, Counties, Elevation, Length of record, Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range, Total, Precipitation from normal, Greatest in 24 hours, Snowfall, Number of days (Precipitation 0.1 inch or more, Clear, Partly cloudy, Cloudy), Prevailing direction of wind, Observers.



Daily Temperature for April, 1920.

Table with columns for Stations, 1-31, and Mean. Rows list various California cities like Bakersfield, Calexico, Chico, etc., with their daily temperature ranges and monthly averages.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with columns for Stations, Watersheds, and Precip. inches. Lists precipitation data for various locations such as Abbotts, Aguanga, Angiola, etc., including watershed names and precipitation amounts.

\* Data obtained from 3-inch rain gage.