

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.

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GENERAL SUMMARY.

No measurable rain fell in California during August, except in the elevated portions of southern California, where thunderstorms were accompanied by copious showers. The usual summer heat prevailed in the interior valleys, while cool winds and ocean fogs kept the temperatures relatively low along the coast. The first half of the month was moderately cool throughout the State, and freezing temperatures occurred in the Sierra Nevada Mountains on several mornings. The latter half of the month was much warmer. During a hot spell which prevailed from 19th-24th, temperatures of 110°, or higher, were recorded throughout the interior valleys, while temperatures exceeding 120° occurred at Greenland Ranch, in Death Valley. At the latter station, which is the hottest place in the United States during midsummer, the temperature never fell below 80° during the month, while the maximum temperature reached or exceeded 105° every day of the month, culminating with 123° on the 20th.

The summer has thus far been one of the driest on record. Because of the long-continued drought, streams maintained extremely low stages, and some of those tributary to the San Joaquin River reached the lowest stages in 20 years. There were numerous and destructive forest fires, many of them caused by lightning. Cloudless skies prevailed in the interior valleys, and the normal amount of sunshine was received throughout the State. While there were no general storms, many local thunderstorms, usually unaccompanied by rainfall, were experienced in the mountains.

Agriculturally, the weather during August was generally satisfactory. All irrigated crops made good progress, and ample irrigation water was available, except in portions of the San Joaquin Valley. Grazing cattle were in fair to good condition until near the close of the month, when feed on the ranges was nearly exhausted owing to the hot weather and the persistence of the drought. Excellent progress was made by corn, cotton, rice, citrus fruits, walnuts, potatoes and truck crops. High temperatures and unbroken sunshine in the interior of the State accelerated the maturing and the curing of fruit. There was harvested a great variety of fruit, including apricots, peaches, prunes, plums, pears, apples and grapes. No rain fell to injure drying fruit. Haying was largely completed for the season, except the late cuttings of alfalfa. While the bean and olive crops promise to be poor, all other crops are abundant, and in many cases the yields are the greatest on record in California.

A. H. P.

PRESSURE.

The mean sea level pressure, determined from the records of twelve regular Weather Bureau stations, was 29.95 inches. The highest was 30.27 inches at Eureka on the 19th; the lowest was 29.61 inches at Red Bluff on the 14th; the range for the State was 0.66 inch.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 99 stations, was 72.1°, which is 0.7° below the normal. The highest monthly mean was 99.7°, at Greenland Ranch; and the lowest was 53.8°, at Point Reyes. The highest temperature, 123°, occurred at Greenland Ranch on the 20th, and the lowest, 25°, occurred at Portola on the 1st, 2d, 9th and 12th. The range for the State was 98°.

PRECIPITATION.

The average precipitation for the State, as shown by the records of 236 stations, was 0.03 inch, or 0.05 inch below the normal. The greatest monthly amount was 3.37 inches, at Rose Mine. No rain fell at 159 stations. The greatest amount in 24 hours was 1.61 inches at Rose Mine on the 31st.

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	93	83	88	182	43
Fresno	50	15	32	410	98
Independence	32	14	23	363	86
Los Angeles	90	62	76	336	81
Mount Tamalpais	37	35	36	414	98
Red Bluff	52	17	34	401	94
Sacramento	77	29	53	402	95
San Diego	90	78	84	266	64
San Francisco	90	78	84	202	48
San Jose	54	54	54	346	82
San Luis Obispo	91	58	74	341	82

WIND MOVEMENT.—(Miles.)

Stations.	Total mov. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date.	Prev. dir.
Eureka	3,998	5.4	20	n.	31	nw.
Fresno	5,858	7.9	22	nw.	2	nw.
Independence	4,251	5.7	25	se.	5	se.
Los Angeles	3,857	5.2	16	s.	5	sw.
Mount Tamalpais	11,326	15.9	78	nw.	27	nw.
Point Reyes	14,404	19.4	58	nw.	27	nw.
Red Bluff	3,399	4.6	17	s.	26	se.
Sacramento	6,643	8.9	23	s.	10	s.
San Diego	4,426	5.9	20	nw.	30	nw.
San Francisco	9,157	12.3	38	sw.	1	sw.
San Jose	4,241	5.7	19	nw.	31	nw.
San Luis Obispo	2,742	3.7	14	nw.	7	nw.

COMPARATIVE DATA FOR AUGUST.

Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.
1897	73.9	0.03	1903	72.6	0.02	1909	72.1	0.19	1915	74.2	0.06
1898	74.5	0.02	1904	73.9	0.17	1910	72.5	0.01	1916	73.2	0.20
1899	70.8	0.11	1905	73.4	0.03	1911	70.1	0.00	1917	72.5	0.04
1900	71.0	0.02	1906	73.6	0.13	1912	70.2	0.06	1918	71.4	0.14
1901	75.6	0.12	1907	71.0	0.11	1913	74.8	0.30	1919	72.1	0.03
1902	71.8	0.06	1908	73.3	0.12	1914	72.1	0.02			

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 August, 1919.

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.....	182	270	266	272	263	239	235	223	222	250	238	218	232	213	181	228	248	233	251	221	221	175	170	171	202	220	223	237	243	127	189	6.863
	Wind movement.....	101	99	101	105	115	110	118	99	98	104	114	102	114	85	94	101	106	109	124	108	97	80	96	103	95	90	107	83	146	106	303	3,208
Dodge Island*2	Evaporation.....	325	373	476	340	322	385	345	329	314	289	363	242	246	299	376	327	425	310	279	445	341	323	291	381	324	309	333	355	330	390	367	10,460
	Wind movement.....	43	83	86	86	66	40	47	41	45	40	91	30	30	27	34	37	68	41	24	48	33	34	32	44	52	47	50	53	38	61	79	1,510
Oakdale (near)*3	Evaporation.....	465	417	380	416	377	389	443	448	375	438	382	416	396	520	464	546	465	421	581	571	475	481	398	504	547	556	577	566	502	494	384	14,394
	Wind movement.....	113	36	120	137	146	165	194	186	152	150	205	157	104	102	84	150	197	178	135	122	99	96	158	115	105	130	176	146	140	156	188	4,403
Tahoe**4	Evaporation.....	100	220	290	170	240	200	160	070	260	100	300	160	210	150	250	250	240	220	220	170	370	190	250	170	290	130	150	250	160	240	090	6,270
	Wind movement.....	28	89	108	109	108	7	81	116	52	86	89	47	44	57	47	55	53	58	77	66	68	116	89	108	36	74	83	14	47	65	138	2,215

* 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 August, 1919.

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), Number of days (Clear, Partly cloudy, Cloudy), Prevailing direction of wind, Observers.

Daily Temperature for August, 1919.

Table with 32 columns for stations (1-31) and a Mean column. Rows list various California cities like Bakersfield, Calexico, Chico, etc., with their daily maximum and minimum temperatures for August 1919.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with 12 columns: Stations, Watersheds, Precip. inches. It lists precipitation data for various locations across California, including Abbots, Aguanza, Angiola, etc.