

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.

EDWARD A. BEALS, District Forecaster.

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GENERAL SUMMARY.

Seasonable weather prevailed in California during July. Though the average temperature for the State as a whole was somewhat below the normal, the usual midsummer heat prevailed in the interior valleys. Cool winds and ocean fogs kept the temperatures relatively low along the immediate coast. The average temperature for July was below that for June, which is an abnormal condition. Accelerated nocturnal radiation through the clear, dry air produced low minimum temperatures in the mountain and plateau regions, where freezing temperatures occurred on several mornings. On the other hand, high midday temperatures were recorded in the desert regions of the south. In Death Valley the temperature reached or exceeded 100° on 29 days of the month, culminating with a maximum of 120°, which occurred on the 4th and 5th. Thunderstorms were of frequent occurrence in the elevated portions of the State. A series of severe storms of this type, accompanied by destructive lightning, passed over southern California on the night of June 30-July 1. The usual summer drought prevailed throughout the greater portion of the State. Streams maintained abnormally low stages. The supply of stored water proved to be deficient in several places, and power companies curtailed service in order that more water might be made available for irrigation.

The abnormal heat of June continued during the first ten days of July. At most stations the highest temperatures of the month occurred between the 1st and 7th. The second decade was much cooler, the nights being especially cold, accompanied by killing frosts in the mountain and plateau regions. Cool weather continued during the remainder of the month. No general rains occurred, though scattered light showers accompanied the numerous thunderstorms.

From an agricultural viewpoint, the weather during July was generally favorable. Ideal weather prevailed for the harvesting of a great variety of fruits and grains. The unbroken sunshine was well adapted for the curing of fruit, grain, hay and alfalfa. Ranges maintained a fair condition, considering the drought. Where ample irrigation water was available, growing crops made good progress. Oranges, lemons, olives, grapes, sugar beets, corn, rice, cotton, hops, beans, potatoes and truck crops did well. However, there was an unusually heavy dropping of unripe oranges, due to injuries caused by heat and desiccating winds during the preceding month. At the close of the month the composite condition of all California crops was 7.3 per cent below their 10-year average condition on that date, and 5.0 per cent below their average condition on a similar date last year. The condition of apricots, grapes, pears, lemons and sweet potatoes was above, while that of most other growing crops was below their respective 10-year averages. Farm work in general, and harvesting in particular proceeded without interruption during the month, except through unavoidable delays caused by an abnormal shortage of labor. While irrigation water ran low in most places, and proved to be deficient in others, it is believed that most growing crops will reach maturity before the present water supply is exhausted. At the close of the month the agricultural situation was generally satisfactory, and the outlook for the immediate future was favorable. A. H. P.

PRESSURE.

The mean sea level pressure, determined from the records of twelve regular Weather Bureau stations, was 29.92 inches. The highest was 30.21 inches at Eureka on the 10th; the lowest was 29.66 inches at Red Bluff on the 21st; the range for the State was 0.55 inch.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 99 stations, was 71.5°, which is 2.5° below the normal.

The highest monthly mean was 98.1°, at Greenland Ranch; and the lowest was 53.5°, at Point Reyes.

The highest temperature, 120°, occurred at Greenland Ranch on the 4th and 5th; and the lowest, 29°, occurred at Truckee on the 13th, and at Tamarack on the 24th.

The range for the State was 91°.

PRECIPITATION.

The average precipitation for the State, as shown by the records of 216 stations, was 0.07 inch, or 0.03 inch above the normal.

The greatest monthly amount was 1.58 inches, at Tamarack. One hundred and twenty-one stations reported no precipitation.

The greatest amount in 24 hours was 1.58 inches at Tamarack on the 1st.

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.....	84	95	89	176	38
Fresno.....	51	17	34	430	96
Los Angeles.....	88	58	73	318	72
Mount Tamalpais.....	45	39	42	415	92
Red Bluff.....	49	15	32	434	98
Sacramento.....	74	28	51	428	95
San Diego.....	88	75	82	321	74
San Francisco.....	92	76	84	308	68
San Jose.....	54	54	54	388	87
San Luis Obispo.....	90	59	74	345	78

WIND MOVEMENT.—(Miles.)

Stations.	Total mov. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date.	Prev. dir.
Eureka.....	4,424	5.9	26	n.	26	n.
Fresno.....	6,928	9.3	24	nw.	22	nw.
Los Angeles.....	3,737	5.0	15	s.	24	sw.
Mount Tamalpais.....	10,196	13.7	55	nw.	23	nw.
Point Reyes.....	16,861	22.7	61	nw.	21	nw.
Red Bluff.....	3,696	5.0	20	se.	22	se.
Sacramento.....	6,965	9.4	28	sw.	22	s.
San Diego.....	4,864	6.5	20	nw.	18	nw.
San Francisco.....	9,735	13.1	34	sw.	11	sw.
San Jose.....	4,728	6.4	24	se.	27	nw.
San Luis Obispo.....	2,973	4.0	15	w.	23	nw.

COMPARATIVE DATA FOR JULY.

Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.
1897.....	74.5	0.01	1903.....	71.2	0.03	1909.....	71.2	0.05	1915.....	72.7	0.06
1898.....	81.4	T.	1904.....	72.2	0.09	1910.....	75.5	0.10	1916.....	70.3	0.31
1899.....	77.9	T.	1905.....	74.8	0.01	1911.....	74.1	0.10	1917.....	75.8	0.08
1900.....	75.9	T.	1906.....	76.8	0.04	1912.....	71.0	0.06	1918.....	71.5	0.07
1901.....	76.0	0.01	1907.....	73.1	0.03	1913.....	73.1	0.46			
1902.....	72.8	0.07	1908.....	76.4	0.04	1914.....	72.4	0.06			

Explanation of Reference Marks Used in This Publication.

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. T., Precipitation is less than 0.01 inch rain or melted snow.  
 a, b, c, etc., indicate respectively, 1, 2, 3, etc., days missing from the record.  
 Station at Llano formerly known as Valyerno; station at Lytle Creek formerly known as Rialto (near).

Climatological Data for July, 1918.

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 on inch or more, Clear, Partly cloudy, Cloudy), Number of days (Prevailing direction of wind), and Observers. Rows list various California locations like Alturas, Antioch, Atascadero, etc.



Daily Temperature for July, 1918.

Table with columns for Stations, 1-31, and Mean. Rows list various California cities like Bakersfield, Calexico, Chico, Escondido, Eureka, Fresno, Independence, Los Angeles, Merced, Mount Tamalpais, Oakland, Orland, Oroville, Paso Robles, Point Reyes, Pomona, Porterville, Red Bluff, Redlands, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, San Luis Obispo, Santa Barbara, Santa Rosa, and Stockton.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with columns for Stations, Watersheds, and Precip. inches. Rows list various locations and watersheds such as Abbotts, Aruanga, Alder Creek, Angiola, Arroyo Valley, Auberry, Auburn, Bagdad, Barrett Dam, Beaumont, Beaumont (near), Big Bar, Bishop, Bridgeport, Cabuilla, Campbell, Camp Baldy, Camp Bonita, Campo, Camp Rincon, Caouan Dam, Cascada, Centerville, Chester, China Flat, Churn Creek, Clovis, Clyde Ranch, Colby Springs, Coldbrook, Colusa, Covelo, Crockett, Curamaca, Deer Creek, Del Monte, Denair, De Sabla, Dillon Ranch, Dinuba, Dobbins (near), Dudley, East Park, Echo Mountain, Edison, Electra, Emigrant Gap, Fairmont, Fish Canyon, Fordyce Dam, Foresters Sanitar, Fort Bragg, Glennville, Gray Mountain, Gridley, Haines Canyon, Hansen's Ranch, Happy Camp, Hayfork, Head Dam, Helen Mine, Hetch Hetchy, Hulville (near), Huntington Lake, Indio, Iron Forks, Julian, Kennedy Mine, Kentfield, La Crescenta, La Jolla, Lake Eleanor, Lake Spaulding, Lancaster (near), Las Plumas, Le Grand, Live Oak Canyon, Livermore, Llanos, Los Gatos, Lower Haines Cany, Lytle Creek, Magalia, Maricopa, Mariposa, Mesa Grande, Middlewater, Mill Creek-1, Milton (near), Mokelumne Hill, Monrovia Canyon, Montague, Montgomery Creek, Mountain Springs, Mouth S. Anton. C., Nellie, Niles, North Bloomfield, North Fork, North Lakeport, Oak Grove, Oceanside, Ojai Valley, O'Melveny Camp, Opid Camp, Orleans, Ozena, Pacoima, Parkfield, Peachland, Point Loma, Quincy, Reedley, Represa, Rohnerville, Ruth, San Antonio Cany, San Antonio Intake, San Gabriel Intake, do Power House, San Miguel Island, San Pedro, Santa Anita, Santa Clara, Santa Monica, Seven Oaks, Shively, Sierra Alta Ranch, Sierra Madre, Sierraville, Sisson, Sister Elsie Peak, Springville (near), Standish, Stanwood, Sterling, Stevenson Creek, Stirling City, Storey, Switzer's Camp, Tamarack, Tejon Rancho, Tujunga, Three Rivers, Tustin (near), Twin Valley, Upper Live Oak C., Venice, Visalia, Walnut Creek, Warner Springs, Wells Meadows, West Branch, West Point, Wilson Toll House, Yorba Linda.