

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
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# CLIMATOLOGICAL DATA.

**CALIFORNIA SECTION**

EDWARD A. BEALS, METEOROLOGIST.

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**GENERAL SUMMARY.**

Temperatures were somewhat above normal; during a hot spell which prevailed from the 17th to the 20th the maximum temperatures at several stations were the highest ever recorded during a month of October. Precipitation was about normal in southern California, but throughout the central and northern portions of the State it was less than one-half of the normal. Light snow fell in the Sierra Nevada Mountains during the last decade, but most of it melted before the close of the month. The heaviest snowfall reported was 18 inches, at Summit, Placer County, altitude 7,017 feet. A tornado occurred at Sacramento on the 26th; several persons were injured and the property damage was estimated at about \$17,000. There were no general storms, however, and the wind movement was light. Sunshine was somewhat deficient, for although the precipitation was subnormal in most regions, there was much cloudiness, and the rains came in the form of frequent but light showers. As far as personal comfort was concerned it was a pleasant month.

The weather for the month as a whole was favorable for agriculture. The sun-curing of fruit was completed under excellent weather conditions. Citrus fruit trees in southern California were especially benefited by the timely rains; navel oranges made excellent growth, and there was every prospect of an unusually good crop. It was good harvest weather for rice, beans, corn, sugar beets, tomatoes, alfalfa and late grapes. Because of inadequate rainfall the soil in the central and northern portions of the State was too dry for fall plowing, and seeding is somewhat backward as a result. In southern California the generous showers softened the soil sufficiently to permit plowing. Dry feed held out well throughout the State, and grazing cattle and sheep maintained excellent condition. No damaging frosts occurred in the agricultural regions. Generally favorable weather has characterized the agricultural year now drawing to a close, and harvests have been satisfactory, both in quality and quantity.

A.H.P.

**PRESSURE.**

The mean sea-level pressure, determined from the records of 11 regular Weather Bureau stations, was 30.00 inches. The highest was 30.55 inches at Independence on the 28th; the lowest was 29.52 inches at Independence on the 22d; the range for the State was 1.03 inches.

**TEMPERATURE.**

The monthly mean temperature for the State, as shown by the records of 96 stations, was 62.7°, which is 1.6° above normal. The highest monthly mean was 77.6°, at Indio; and the lowest was 45.6°, at Foydyce Dam.

The highest temperature, 109°, occurred at Greenland Ranch on the 2d; and the lowest, 14°, occurred at Portola on the 26th.

The range for the State was 95°.

**PRECIPITATION.**

The average precipitation for the State, as shown by the records of 231 stations, was 0.85 inch, or 0.60 inch below the normal.

The greatest monthly amount was 5.13 inches, at Crescent City. No rain fell at 7 stations.

The greatest amount in 24 hours was 3.45 inches at Beaumont (near) 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.....	92	84	88	117	34
Fresno.....	72	33	52	295	85
Independence.....	50	24	37	294	85
Los Angeles.....	80	64	72	232	66
Red Bluff.....	77	38	53	263	76
Sacramento.....	77	48	62	296	85
San Diego.....	83	76	79	189	54
San Francisco.....	89	71	80	226	65
San Jose.....	57	22	39	253	73
San Luis Obispo.....	73	56	64	246	70

**WIND MOVEMENT.—(Miles.)**

Stations.	Total mov. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date	Prev. dir.
Fresno.....	4,131	5.6	28	nw.	27	nw.
Independence.....	3,136	4.2	39	se.	22	se.
Los Angeles.....	3,494	4.7	17	s.	22	sw.
Point Reyes.....	11,433	15.3	52	nw.	21	nw.
Red Bluff.....	3,183	4.3	24	se.	26	se.
Sacramento.....	4,211	5.6	27	s.	21	s.
San Diego.....	4,112	5.5	24	nw.	24	nw.
San Francisco.....	3,239	3.5	24	w.	21	w.
San Jose.....	3,572	4.8	23	nw.	21	nw.
San Luis Obispo.....	3,128	4.2	30	ne.	27	nw.

**COMPARATIVE DATA FOR OCTOBER.**

Year	Mean temp.	Ave. precip.	Year	Mean temp.	Ave. precip.	Year	Mean temp.	Ave. precip.	Year	Mean temp.	Ave. precip.
1897.....	58.5	1.79	1904.....	61.6	2.74	1911.....	59.1	0.58	1918.....	62.9	1.02
1898.....	61.0	0.59	1905.....	60.7	0.12	1912.....	57.1	0.36	1919.....	57.6	0.63
1899.....	58.1	3.50	1906.....	63.4	0.09	1913.....	61.9	0.08	1920.....	57.0	2.52
1900.....	58.8	2.34	1907.....	62.0	1.56	1914.....	60.2	1.60	1921.....	62.7	0.85
1901.....	63.2	1.50	1908.....	58.3	1.37	1915.....	62.3	0.14	.....	.....	.....
1902.....	60.7	1.73	1909.....	60.2	1.66	1916.....	55.0	1.91	.....	.....	.....
1903.....	64.0	0.49	1910.....	61.9	0.83	1917.....	64.4	0.01	.....	.....	.....

**Daily evaporation (inches) and wind movement (miles) for October.**

Stations.	Data.	Day of Month.																															Total	
		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**.....	Evaporation.....	.063	.075	.065	.100	.190	.190	.129	.123	.132	.084	.104	.087	.167	.167	.097	.124	.049	.073	.178	.153	.165	.146	.225	.161	.139	.115	.149	.247	.210	.227	.169	4,303	
	Wind movement.....	61	80	108	86	84	88	55	61	81	63	73	65	115	101	61	69	48	47	63	79	130	86	147	113	85	77	81	61	63	79	57	2,467	
Dodgeland*.....	Evaporation.....	.239	.024	.292	.199	.312	.253	.094	.053	.143	.113	.158	.100	.074	.169	.140	.010	.039	.077	.093	.191	.176	.045	.064	.010	.145	.138	0	.059	.062	.143	.062	3,669	
	Wind movement.....	6	33	7	26	25	5	29	13	23	9	17	20	22	39	11	17	34	64	11	13	74	71	42	1	24	49	41	58	12	31	9	896	
Oakdale (near)*.....	Evaporation.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Wind movement.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tahoe**.....	Evaporation.....	.085	.125	.100	.115	.165	.080	.120	.160	.095	.095	.085	.125	.145	.080	.060	.085	.075	.105	.115	.120	.105	.085	.030	.125	.105	.080	0	.105	.065	.060	.060	2,955	
	Wind movement.....	10	84	136	61	67	28	61	102	35	42	43	51	31	81	91	72	31	55	69	58	40	86	90	92	46	79	42	20	15	32	32	1,782	

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

Climatological Data for October, 1921.

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



Daily Temperature for October, 1921.

Table with 32 columns (Stations, 1-31, Mean) and 32 rows (Bakersfield, Calexico, Chico, Escondido, Eureka, Fresno, Independence, Los Angeles, Merced, Oakland, Orland, Oroville, Pasadena, 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, Stockton). Each row contains temperature data for each day and a mean value.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with 10 columns (Stations, Drainage-basin, Precip.-inches) and 32 rows listing various locations and their precipitation amounts. Locations include Abbots, Aguanga, Amago, Angola, Antelope Valley, Arrowhead Springs, Auberry, Auburn, Avalon, Bagdad, Barrett Dam, Beaumont, Beaumont (near), Bellota, Benson's Ferry, Betteravia, Big Bar, Big Sur, Bishop Creek, Calaveras R. S., Campbell, Campo, Camptonville, Canon Dam, Cascada, Cedarville, Centerville Pwr. H., Chester, China Flat, Churn Creek, Clovis, Coalinga, Cokrate, Crockett, Cuyamaca, Deer Creek, Del Monte, Denair, De Saba, Dinuba, Dobbins (near), Downville, Dudley, Dudleys, East Park, Edison, Electra, Emigrant Gap, Escondido-2, Fairmont, Firebaugh, Fort Bragg, Fort Ross, Friant, Georgetown, Giant Forest, Glacier Point, Glennville, Gray Mountain, Happy Camp, Hayfork, Head Dam, Helen Mine, Hetch Hetchy, Huntington Lake, Idria, Jenny Lind, Jolon, Julian, Kennedy Mine, Kentfield, Kernville, King City, Knights Landing, Lake Eleanor, Lakeport, Lake Spaulding, Lake Tahoe, Truckee, Las Plumas, Lathrop, Le Grand, Livermore, Livingston, Llano, Lompoc, Los Alamos, Los Gatos, Lytle Creek, Madeline, Maricopa, Mariposa, Markleville, Melones, Merced Falls, Mesa Grande, Middlewater, Mill Creek-1, Mill Creek-2, Mio, Milton (near), Mokelumne Hill, Monroeville, Montague, Nellie, Nicolaus, North Bloomfield, North Fork, Oak Grove, Orleans, Ozena, Parkfield, Paso Robles-2, Pattiway, Peachland, Piedra, Point Loma, Portola, Priest Valley, Quincy, Reedley, Represa, Rio Vista, Ruth, St. Helena, St. John, San Miguel Island, Santa Ana River, Santa Clara, Santa Maria, Santa Monica, Seven Oaks, Shively's Ranch, Shively, Sierraville, Sonora, Spaulding, Standish, Standing\*, Storey, Tamarack, Teton Rancho, Three Rivers, Trona, Turlock, Tusin (near), Twin Lakes, Twin Valley, Upper Mattole, Walnut Creek, Warner Springs, Wasco, Wasioja, West Branch, West Point, Westwood, Wrights, Yorba Linda.

\*Data obtained from 3-inch rain gage.