

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.

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GENERAL SUMMARY.

Seasonable weather prevailed in California during September. In the interior of the State the mean temperature was somewhat below normal, while along the coast it was slightly above normal. The average precipitation was about twice that usually received during September. Light showers occurred in the extreme north portion of the State on the 7th and 8th. Moderately heavy rain fell throughout northern California and in the mountains of southern California between the 26th and 30th. Snow fell in the high Sierra Nevada Mountains during this period. About 10 inches of snow fell on the 29th and 30th at Huntington Lake, Fresno County, altitude 7,000 feet. Streams which had maintained extremely low stages during the summer began to rise near the close of the month. The heavy rains in the elevated portions of southern California came at an opportune time, as they extinguished several forest fires which were beyond control. During a thunderstorm which occurred near Ferndale, Humboldt County, on the 28th, some stock were killed by lightning. The normal amount of sunshine was received throughout the State, and the wind movement was moderately high along the coast, and light in the interior valleys.

Agriculturally, the weather during September was favorable. It was good weather for drying fruit, and the sun-curing of raisins and prunes was completed without loss from wet weather. There was extensive harvesting of large crops of prunes, grapes, figs, almonds, rice, corn, cotton, potatoes, sugar beets, apples and tomatoes. The bean crop proved to be deficient, both in quantity and quality. Frosts occurred earlier than usual in the mountains and foothills, and the growth of tender vegetation in those regions was thus terminated. Citrus fruits made excellent progress, and were much benefited by the rains. Stock ranges were improved by the showers, and grazing cattle maintained good condition. Sheepshearing was begun near the close of the month. The rains softened the ground sufficiently to permit early fall plowing, and in a few places there was some seeding of winter growing grains. It was favorable weather for general farm work, and much was accomplished. At the close of the month, most agricultural activities were about two weeks ahead of the normal. The season now drawing to a close has been a very satisfactory one, so far as weather conditions are concerned.

A. H. P.

PRESSURE.

The mean sea level pressure, determined from the records of twelve regular Weather Bureau stations, was 29.87 inches. The highest was 30.27 inches at Eureka on the 11th; the lowest was 29.44 inches at Independence on the 6th; the range for the State was 0.83 inch.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 101 stations, was 67.3°, which is 1.2° below the normal. The highest monthly mean was 89.2°, at Greenland Ranch; and the lowest was 51.6°, at La Porte. The highest temperature, 112°, occurred at Needles on the 21st; and the lowest, 20°, occurred at Portola on the 5th. The range for the State was 92°.

PRECIPITATION.

The average precipitation for the State, as shown by the records of 247 stations, was 0.98 inch, or 0.49 inch above the normal. The greatest monthly amount was 5.39 inches, at Kennett. No rain fell at 5 stations. The greatest amount in 24 hours was 2.30 inches at Kennett on the 28th.

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	78	85	198	53
Fresno	62	24	43	322	86
Independence	35	16	26	336	90
Los Angeles	84	66	75	268	72
Mount Tamalpais	56	55	56	331	89
Red Bluff	90	28	44	282	77
Sacramento	75	34	54	313	84
San Diego	90	71	78	265	71
San Francisco	86	59	70	291	78
San Jose	87	59	70	300	81
San Luis Obispo	87	59	70	300	81

WIND MOVEMENT.—(Miles.)

Stations.	Total mov. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date.	Prev. dir.
Eureka	3,931	5.5	35	n.	20	sw.
Fresno	5,274	7.3	29	nw.	10	nw.
Independence	5,327	7.4	30	se.	28	s.
Los Angeles	3,673	5.1	18	sw.	9	sw.
Mount Tamalpais	12,874	17.9	70	nw.	6	nw.
Point Reyes	13,436	18.7	48	nw.	2	nw.
Red Bluff	4,498	6.2	24	nw.	19	nw.
Sacramento	5,776	8.0	31	sw.	27	s.
San Diego	4,555	6.3	20	s.	26	nw.
San Francisco	7,973	11.1	40	sw.	21	sw.
San Jose	3,847	5.3	20	s.	7	nw.
San Luis Obispo	2,989	4.2	18	ne.	12	nw.

COMPARATIVE DATA FOR SEPTEMBER.

Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.
1897	67.7	0.03	1903	68.7	0.10	1909	68.2	0.52	1915	66.2	0.06
1898	69.2	0.64	1904	70.3	2.66	1910	67.3	0.69	1916	66.4	0.56
1899	70.9	0.03	1905	68.6	0.16	1911	63.9	0.19	1917	69.0	0.10
1900	65.4	0.22	1906	68.6	0.25	1912	66.5	1.65	1918	67.6	2.37
1901	66.0	0.94	1907	65.5	0.13	1913	70.7	0.07	1919	67.3	0.98
1902	70.7	0.01	1908	68.1	0.49	1914	66.2	0.23			

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 September, 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.....	196	223	178	171	228	210	245	249	237	210	213	192	201	224	197	192	216	237	190	130	160	121	175	215	149	176	201	163	209	213	5,915	
	Wind movement.....	101	102	89	94	157	95	110	106	119	107	86	472	289	99	77	84	90	105	90	69	90	74	98	110	90	146	104	114	120	101	2,988	
Dodgeland*2.	Evaporation.....																																
	Wind movement.....																																
Oakdale (near)*3.	Evaporation.....	401	353	394	352	335	341	347	267	335	337	289	368	341	337	298	265	297	369	466	435	401	436	403	398	343	419	299	222	091	021	9,964	
	Wind movement.....	149	195	72	136	132	122	146	124	152	128	124	145	91	68	185	132	132	153	102	83	73	89	99	51	52	98	168	132	110	87	3,533	
Tahoe**4.	Evaporation.....	086	154	180	186	210	180	240	254	241	326	310	236	186	090	270	081	310	210	170	270	090	150	250	090	130	210	230	300	250	190	6,040	
	Wind movement.....	23	15	83	112	101	91	91	108	103	90	62	94	53	114	6	64	83	139	88	120	100	26	51	99	12	57	61	87	79	115	2,327	

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

Daily Temperature for September, 1919.

Table with columns for Stations, 1-31, and Mean. Rows include 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, Stockton.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with columns for Stations, Watersheds, and Precip. inches. Rows include Abbotts, Aguanga, Angiola, Antelope Valley, Arrowhead Springs, Auburn, Avalon, Badgad, Barrett Dam, Beaumont, Beaumont (near), Bellota, Big Bar, Bishop, Bishop Creek, Cahuilla, Calaveras R. S., Campbell, Campo, Canon Dam, Cascada, Cedarville, Centerville, Chester, China Flat, Chula Vista, Churn Creek, Clovis, Coalinga, Coluata, Colusa, Covelo, Crockett, Cuyamaca, Deer Creek, Del Monte, Denair, De Saba, Dinuba, Dobbins (near), Dodgeland, Dudley, Dudley's, East Park, Edison, Electra, Emigrant Gap, Fairmont, Firebaugh, Fortyce Dam, Fort Bragg, Fort Ross, Friant, Georgetown, Glennville, Goffs, Gold Run, Gray Mountain, Happy Camp, Hayfork, Head Dam, Helen Mine, Hetch Hetchy, Hullville (near), Huntington Lake, Idria, Indio, Jolon, Julian, Kennedy Mine, Kentfield, Kernville, Knights Landing, La Jolla, Lake Eleanor, Lake Spaulding, Las Plumas, Lathrop, Le Grand, Livermore, Llano, Lompoc, Lordsburg, Los Alamos, Los Gatos, Lytle Creek, Maricopa, Mariposa, Melones, Mesa Grande, Middlewater, Mill Creek-1, Mill Creek-2, Milton (near), Mokelumne Hill, Monroeville, Montague, Montgomery Creek, Nellie, Nicolaus, Oroville, North Bloomfield, North Fork, North Lakeport, Oakdale (near), Oak Grove, Oceanside, Ojai Valley, Orleans, Ozena, Parkfield, Pattiway, Peachland, Piedra, Point Loma, Priest Valley, Quincy, Reedley, Represa, Rio Vista, Rosamond, Ruth, San Pedro Island, San Pedro, Santa Ana River, Santa Clara, Santa Monica, Sever Oaks, Shively, Sierra Madre, Sierraville, Sonora, Springville (near), Standish, Stanwood, Stevenson Creek, Storey, Tahoe, Tamarack, Tefon Rancho, Three Rivers, Towle, Truckee, Tustin (near), Twin Lakes, Twin Valley, Upper Mattole, Wasilla, Walnut Creek, Warner Springs, Wasco, Wasioja, West Branch, West Point, Wrights, Yorba Linda.

