

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.

Abnormally cool weather prevailed throughout California during the first half of September, but it was much warmer during the latter half. A hot spell which occurred near the close of the month brought the highest temperatures of the season in many places. Precipitation was deficient in northern and central California, but it was unusually heavy in the extreme southern portion of the State. Light showers accompanied thunderstorms in the central portion on the 1st and 2d. Though light, the rainfall was sufficiently heavy to extinguish forest fires which had been burning for some time. At Cupertino, in the Santa Clara Valley, a man was killed by lightning on the 1st. Light showers which fell throughout the northern and central portions on the 17th-19th caused much anxiety among fruit-growers, but the rain was not sufficiently heavy to damage sun-curing fruit. Snow fell in the high Sierra Nevada Mountains on the 18th. On the 30th heavy showers fell throughout southern California. It was a pleasant month along the coast, where there was more sunshine and less fog than usual. Wind movement was about normal.

The cool weather of the early half of the month retarded the growth and maturity of crops somewhat, but the warm weather of the latter half was favorable. Certain crops were late, and harvesting was not completed by the close of the month. However, it was good harvest weather for sugar beets, beans, figs, walnuts, grapes, prunes, potatoes and hops. The sun-curing of fruit was nearly completed under excellent weather conditions. At the close of the month the harvesting of rice was well under way, and the picking of cotton had begun. Dry feed was plentiful, and stock brought in from the mountains were in good condition. Growing vegetables and truck crops were benefited by the showers and cool weather. Citrus fruits made excellent progress; oranges and lemons grew to large sizes for the season. Much fall plowing was accomplished following the softening of the soil by the showers. The weather for the month as a whole was favorable for farm work. At the close of the month the general agricultural situation was satisfactory, and somewhat better than it was on the same date last year. As a whole the weather of the past summer has been favorable for agriculture.

A.H.P.

PRESSURE.

The mean sea-level pressure, determined from the records of 11 regular Weather Bureau stations, was 29.91 inches. The highest was 30.23 inches at Eureka on the 3d; the lowest was 29.58 inches at Red Bluff on the 8th; the range for the State was 0.65 inch.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 96 stations, was 67.3°, which is 1.2° below normal. The highest monthly mean was 85.6°, at Indio; and the lowest was 51.3°, at Foydyc Dam.

The highest temperature, 116°, occurred at Greenland Ranch on the 13th; and the lowest, 26°, occurred at Foydyc Dam on the 15th.

The range for the State was 90°.

PRECIPITATION.

The average precipitation for the State, as shown by the records of 233 stations, was 0.41 inch, or 0.08 inch below the normal.

The greatest monthly amount was 4.40 inches, at Nellie. No rain fell at 27 stations.

The greatest amount in 24 hours was 4.15 inches at Nellie on the 30th.

RELATIVE HUMIDITY, SUNSHINE AND CLOUDINESS.

Stations.	Relative humidity Per cent.			Sunshine.	
	6 a. m.	5 p. m.	Mean.	Actual No. of hours	Per cent of possible.
Eureka.....	91	74	82	277	74
Fresno.....	61	22	42	346	93
Independence.....	33	13	23	350	94
Los Angeles.....	81	58	70	279	75
Red Bluff.....	57	26	42	332	89
Sacramento.....	75	33	54	373	92
San Diego.....	84	74	79	281	76
San Francisco.....	87	68	78	300	80
San Jose.....	49	49	.....	317	85
San Luis Obispo.....	81	56	68	265	71

WIND MOVEMENT.—(Miles.)

Stations.	Total mov. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date	Prev. dir.
Fresno.....	4,824	6.7	22	nw.	2	nw.
Independence.....	3,687	5.1	24	s.	17	s.
Los Angeles.....	3,410	4.7	18	sw.	18	sw.
Point Reyes.....	13,839	19.2	54	nw.	19	nw.
Red Bluff.....	4,271	5.9	25	se.	2	se.
Sacramento.....	5,075	7.0	35	s.	10	s.
San Diego.....	4,438	6.2	30	s.	30	nw.
San Francisco.....	5,954	8.2	23	w.	1	s.
San Jose.....	4,102	5.3	24	sw.	1	s.
San Luis Obispo.....	2,742	3.8	18	ne.	25	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	1904.....	70.3	2.66	1911.....	63.9	0.19	1918.....	67.6	2.37
1898.....	69.2	0.64	1905.....	68.6	0.16	1912.....	66.5	1.65	1919.....	67.3	0.98
1899.....	70.9	0.03	1906.....	68.6	0.25	1913.....	70.7	0.07	1920.....	66.4	0.29
1900.....	65.4	0.22	1907.....	65.6	0.13	1914.....	66.2	0.23	1921.....	67.3	0.41
1901.....	66.0	0.94	1908.....	68.1	0.49	1915.....	66.2	0.06	.....	.....	.....
1902.....	70.7	0.01	1909.....	68.2	0.52	1916.....	66.4	0.56	.....	.....	.....
1903.....	68.7	0.10	1910.....	67.3	0.69	1917.....	69.0	0.10	.....	.....	.....

Daily evaporation (inches) and wind movement (miles) for September.

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.....	193	248	211	219	188	201	217	226	249	253	242	228	239	218	215	232	226	222	193	190	166	161	156	159	194	201	209	221	141	153	.....	6,171
	Wind movement.....	93	118	101	113	104	93	91	94	97	111	102	93	147	109	83	96	93	133	94	73	81	88	90	97	63	60	59	108	85	109	.....	2,866
Dodgeland*	Evaporation.....	236	292	112	211	203	233	280	268	337	163	318	307	175	099	056	230	232	180	083	177	208	069	202	172	197	248	152	168	433	229	.....	6,270
	Wind movement.....	31	50	105	22	26	21	22	85	17	64	16	42	26	15	27	23	18	33	63	38	46	18	9	16	22	20	52	15	108	51	.....	1,101
Oakdale (near)*	Evaporation.....	380	169	318	336	464	421	435	450	462	367	328	323	286	334	340	334	345	117	259	297	300	382	374	409	319	355	338	333	405	391	.....	10,351
	Wind movement.....	135	105	120	90	100	80	100	105	105	175	210	165	110	135	110	100	135	70	100	130	80	70	100	120	110	110	60	60	95	95	.....	3,289
Tahoe**	Evaporation.....	150	085	215	140	165	115	185	140	155	175	135	170	175	140	195	230	180	150	175	145	130	140	140	105	145	135	135	120	150	190	.....	4,590
	Wind movement.....	19	53	74	54	39	35	63	51	50	35	30	56	48	40	87	71	45	60	61	13	65	32	55	53	46	35	11	19	51	27	.....	1,378

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

Daily Precipitation for September, 1921.

Stations.	Drainage-basin.	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	
Antioch	San Joaquin	T.																																0.10
Atascadero	Coast	.22																																.70
Bakersfield	San Joaquin	T.																																T.
Barstow	Desert																																	.17
Berkeley	Coast	.02	T.																															.05
Blue Canon	Sacramento		.05																															2.95
Blythe	Colorado																																	.35
Bonita	Coast																																	1.24
Branscomb	do																																	.70
Brawley	Imperial Valley																																	.85
Calexico	do																																	.03
Chico	Sacramento																																	1.60
Chula Vista	Coast																																	.02
Claremont	do																																	.21
Cloverdale	do	T.																																T.
Colfax	Sacramento	T.																																0
Colusa	do																																	1.00
Corona	Coast																																	1.00
Crescent City	do	T.																																2.37
Davis	Sacramento																																	T.
Dodgeland	do																																	T.
El Cajon	Coast																																	.96
Elsinore	do																																	1.37
Escondido-1	do																																	.92
EUREKA***	do																																	.18
Folsom	Sacramento		.18																															1.61
Fontana	Coast		.07																															.27
Fordyce Dam	Sacramento		.22																															.33
Fort Bidwell	Mountain Lakes			.07																														.21
FRESNO**	San Joaquin	.21																																.04
Grass Valley	Sacramento		T.																															0
Greenland Ranch	Desert																																	.03
Hanford	San Joaquin		.02																															.29
Healdsburg	Coast	T.	T.																															.24
Hollister	do		T.																															.01
INDEPENDENCE***	Owens		.01	T.																														1.24
Indio	Coachella Val.																																	.25
Inskip	Sacramento		.03																															.40
Kennett	do		T.																															.44
La Porte	do		.05																															.15
Lemon Cove	San Joaquin	T.	.15																															.27
Lick Observatory	Coast	T.																																T.
Lindsay	San Joaquin																																	.75
Long Beach	Coast																																	.62
LOS ANGELES***	do																																	1.40
McCloud	Sacramento		.10																															T.
Marysville	do	T.																																2.16
Mecca	Coachella Val.																																	.10
Merced	San Joaquin		.06																															.22
Mr. TAMALPAIS***	Coast																																	.16
Mount Wilson	do	T.																																.70
Napa	do																																	.04
Needles	Colorado																																	1.70
Nevada City	Sacramento		T.																															.04
Newman	San Joaquin		.21																															.37
Oakdale (near)	do		.06																															.06
Oakland	Coast		.03																															.20
Ojai	do		.07																															.24
Orland	Sacramento	T.																																.01
Oroville (near)	do		T.																															T.
Pasadena	Coast																																	.25
Paso Robles-1	do		.14	.01																														.44
Petaluma	do																																	.25
Placerville	Sacramento		.10																															.10
POINT REYES***	Coast	T.																																.72
Pomona	do																																	.01
Porterville	San Joaquin	T.																																T.
RED BLUFF***	Sacramento		T.																															T.
Redding	do																																	.30
Redlands	Coast																																	.30
Riverside	do	T.																																1.71
Rocklin	Sacramento																																	0
SACRAMENTO***	do	T.																																T.
Salinas	Coast																																	.28
San Bernardino	do																																	1.10
SAN DIEGO**	do																																	1.24
SAN FRANCISCO***	do	T.			T.																													

Daily Temperature for September, 1921.

Table with 32 columns for stations (1-31) and a Mean column. Rows list various California cities like 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, and Stockton. Each city has two rows for Maximum and Minimum temperatures.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with 12 columns: Stations, Drainage-basin, Precip. inches, Stations, Drainage-basin, Precip. inches, Stations, Drainage-basin, Precip. inches, Stations, Drainage-basin, Precip. inches. Lists precipitation data for various locations such as Abbotts, Aguanga, Amago, Angiola, Antelope Valley, Arrowhead Springs, Auberry, Auburn, Avalon, Bagdad, Barrett Dam, Beaumont, Beaumont (near), Bellota, Benson's Ferry, Belteravia, 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, Colgrate, Crockett, Cuyamaca, Deer Creek, Del Monte, Denair, De Sable, Dinuba, Dobbins (near), Downieville, Dudley, East Bay, Edison, Eletra, Emigrant Gap, Escondido-2, Fairmont, Firebaugh, Fort Bragg, Fort Ross, Friant, Georgetown, Giant Forest, Glacier Point, Glenville, Gray Mountain, Happy Camp, Hayfork, Head Dam, Helen Mine, Hetch Hetchy, Hot Springs, Hullville (near), Huntington Lake, Idria, Jenny Lind, Jolon, Julian, Keenan Mine, Kentfield, Kernville, King City, Knights Landing, Lake Eleanor, Lakeport, Lake Spaulding, Lake Tahoe, Truckee, Las Plumas, Lathrop, Le Grand, Livermore, Livingston, Llano, Lompce, Los Alamos, Los Gatos, Lytle Creek, Madeline, Maricopa, Mariposa, Markleville, Melones, Merced Falls, Mesa Grande, Middewater, Mill Creek, Mill Creek-2, Milo, Milton (near), Mokelumne Hill, Monroeville, Montague, Nellie, Nicolaus, North Bloomfield, North Fork, Oak Grove, Orleans, Ozema, Parkfield, Paso Robles-2, Pattiway, Peachland, Piedra, Point Loma, Portola, Priest Valley, Quincy, Reedley, Represa, Rio Vista, Ruth, St. Helena, St. John, St. Miguel Island, Santa Ana River, Santa Clara, Santa Maria, Santa Monica, Seven Oaks, Shield's Ranch, Shively, Sierraville, Sonoma, Spaulding, Standish, Mountain Lakes, Sterling, Storey, Tamarack, Tejon Rancho, Three Rivers, Trona, Turlock, Tustin (near), Twin Lakes, Twin Valley, Upper Mattole, Walnut Creek, Warner Springs, Wasco, West Branch, West Point, Westwood, Wrights, Yorba Linda.

*Data obtained from 3-inch rain gage.