

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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CLIMATOLOGICAL DATA

CALIFORNIA SECTION

AUGUST, 1916

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BY

GEORGE H. WILLSON

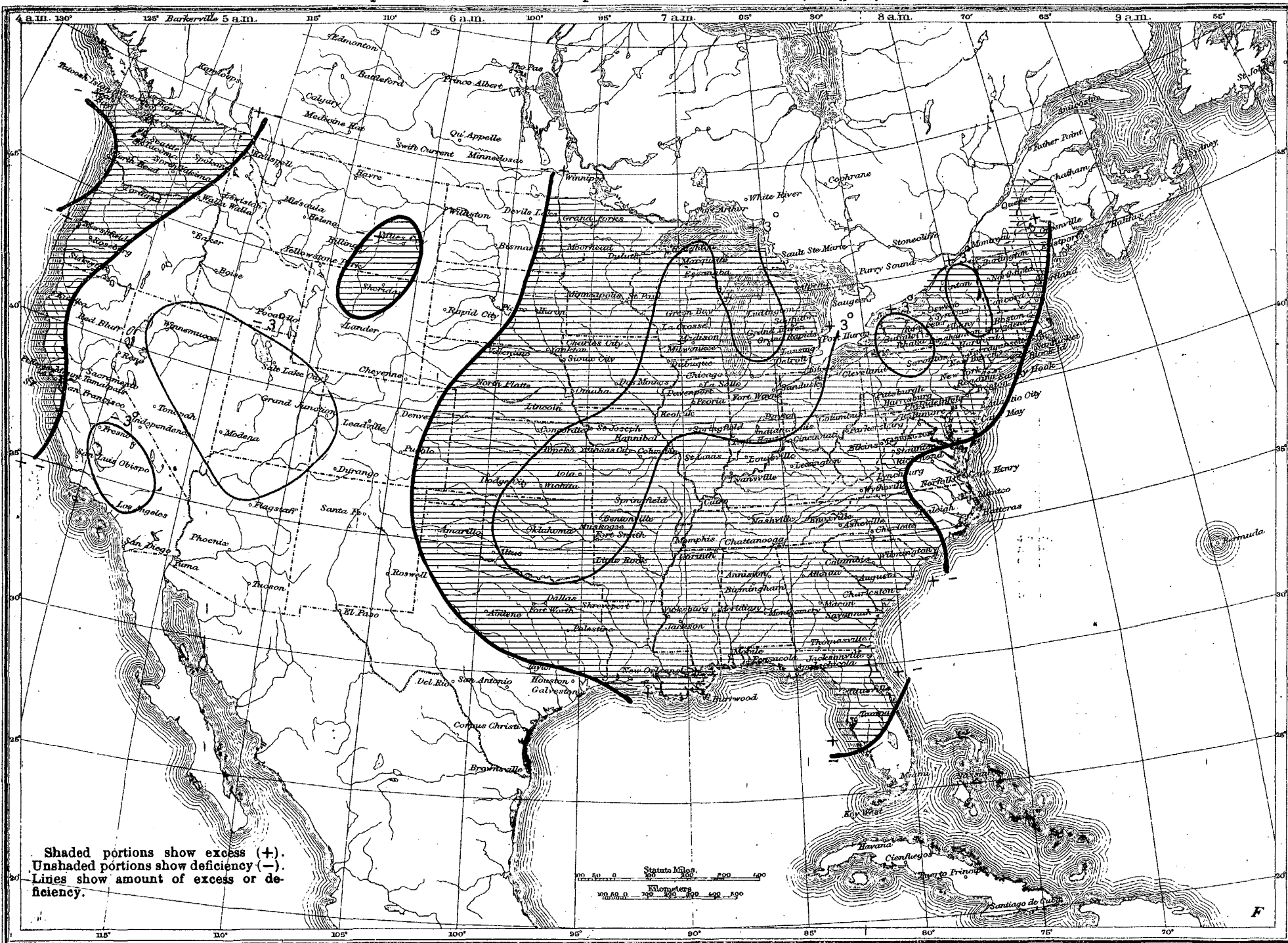
DISTRICT FORECASTER AND SECTION DIRECTOR

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SAN FRANCISCO, CAL.  
WEATHER BUREAU OFFICE  
SEPTEMBER 20, 1916

# Departure of the Mean Temperature from the Normal, August, 1916.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.  
G. H. WILLSON, District Forecaster.

VOL. XX. SAN FRANCISCO, AUGUST, 1916. No. 8.

GENERAL SUMMARY.

Temperature and precipitation were about normal in California during August, 1916. For the State as a whole the mean temperature, 73.2°, was 0.4° above the normal, while the average precipitation, 0.20 inch, was 0.12 inch above the usual amount. A total of 52 stations reported no rainfall whatever, while at 52 other stations only a trace was recorded. The percentage of the possible sunshine received and the total wind movement were about normal. Along the immediate coast the usual summer fog prevailed, occasionally delaying the movement of vessels. Dense fog on the morning of the 31st was the indirect cause of a collision of steamers off Point Reyes. Thunderstorms were of unusual frequency and of extraordinary violence. Those in the extreme south portion of the State on the 24th and 25th, and those in the central and north portions on the night of August 27-28 were particularly severe. They were accompanied by heavy local showers and, in a few instances, by hailstones of large size. The attendant lightning resulted in two deaths, did considerable damage to power lines and telephone wires, and in numerous instances caused forest fires, one storm alone causing eight such fires in San Diego County on the 25th. In the elevated portions of the State frosts occurred between the 18th and 22d, but did no material damage.

The first decade was moderately warm and practically rainless, though scattered light showers occurred in the desert regions during the first three days. The second decade was considerably cooler, the lowest temperatures of the month occurring at most stations on the 18th or 19th. An extraordinary precipitation of 0.22 inch, which fell at San Francisco during the night of August 13-14, exceeded the greatest 24-hour and also the greatest total monthly amount recorded during August in a period of 68 years. In the extreme north portion of the State light showers fell from the 16th to the 18th. The last ten days of the month brought variable weather conditions. Throughout the greater portion of the State a period of hot and sultry weather began on the 20th and ended in the south portion with the thunderstorm of the 25th, but persisted throughout the remainder of the State until the remarkable electrical storm of the 27th-28th brought relief.

From an agricultural point of view the weather of August was generally favorable. The harvesting of a great variety of crops has proceeded under satisfactory weather conditions. In most cases the crops are about normal or slightly below the normal in quantity, but without exception they are above the average in quality. In the interior valleys the weather was well adapted for the ripening and the curing of fruit. The light showers accompanying the thunderstorm of the 27th-28th did no material harm to drying fruit, though some injury was sustained by hay and alfalfa. Fortunately the disturbance which gave a quarter of an inch of rain in the San Francisco Bay region on the night of August 13th-14th did not move inland. In certain restricted districts there has been an abnormal dropping of immature fruit due to the spring drought and the midsummer heat. In the extreme south portion of the State hail of sufficient size and quantity fell during the thunderstorm of the 25th to injure tender garden truck. Generally speaking, however, the agricultural situation continues favorable as far as weather influences are concerned.

A. H. P.

PRESSURE.

The monthly mean atmospheric pressure for the State, reduced to sea level, was 29.88 inches. The highest was 30.20 inches at Eureka on the 18th. The lowest was 29.61 inches at Red Bluff on the 3d. The range for the State was 0.59 inch.

TEMPERATURE.

The monthly mean temperature for the State was 73.2 degrees, which is 0.4 degree above the normal. The highest monthly mean was 98.0 degrees, at Greenland Ranch; and the lowest was 50.6 degrees, at Fordyce Dam. The highest temperature, 121 degrees, occurred at Greenland Ranch, on the 2d; and the lowest, 20 degrees, occurred at Cahuilla, on the 18th. The range for the State was 103 degrees.

PRECIPITATION.

The average precipitation for the State was 0.20 inch, or 0.12 inch above the normal. The greatest monthly amount was 2.09 inches, at Cuyamaca. 52 stations reported no precipitation. The greatest amount in 24 hours was 1.97 inches at Cuyamaca, on the 25th.

RELATIVE HUMIDITY.—(Per Cent.)

Stations.	5 a. m.	5 p. m.	Mean.
Eureka.....	94	81	88
Fresno.....	56	18	37
Los Angeles.....	88	64	76
Mount Tamalpais.....	45	42	43
Red Bluff.....	52	19	35
Sacramento.....	82	30	56
San Diego.....	90	78	84
San Francisco.....	92	76	84
San Jose.....	85	54	70
San Luis Obispo.....	91	62	76

SUNSHINE AND CLOUDINESS.

Stations.	Actual hours of sunshine.	Per cent of the possible.
Eureka.....	195	46
Fresno.....	403	96
Los Angeles.....	322	78
Mount Tamalpais.....	400	95
Red Bluff.....	372	88
Sacramento.....	374	88
San Diego.....	293	71
San Francisco.....	275	65
San Jose.....	352	83
San Luis Obispo.....	289	69

WIND MOVEMENT.—(Miles.)

Stations.	Total movement for month.	Average hourly velocity.	Maximum velocity.	Direction.	Date.
Eureka.....	4,229	5.7	24	n.	1
Fresno.....	5,751	7.7	26	nw.	17
Independence.....	4,280	5.7	29	w.	17
Los Angeles.....	3,682	4.9	16	sw.	18
Mount Tamalpais.....	11,048	14.8	66	nw.	17
Point Reyes.....	17,246	23.2	67	nw.	17
Red Bluff.....	3,408	4.6	22	nw.	17
Sacramento.....	6,048	8.1	26	sw.	10
San Diego.....	4,378	5.9	17	nw.	1
San Francisco.....	8,807	11.8	38	sw.	3
San Jose.....	4,343	5.8	24	nw.	17
San Luis Obispo.....	2,619	3.5	20	w.	18

The prevailing direction of the wind for the State was west.

Climatological Data for August, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.					Number of days.				Prevailing direction of wind.	Observers
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Snowfall (unmelted).	Precipitation 0.1 inch or more.	Clear.	Partly cloudy.	Cloudy.		
Alturas	Modoc	4,400	12	63.6		98	25	28	18	60	0.62	+0.39	0.27	0	4	21	8	2	Prof. C. B. Towle.	
American Camp	Tuolumne	2,600	1	71.4		100	1	40	18	48	0.20	0.20	0	1	26	4	1	U. S. Forest Service.		
Angiola	Tulare	206	16								0.00	0.00	0	0	0	0	0	Santa Fe Co.		
Antioch	Contra Costa	46	37	78.0	+3.5	101	12	56	22	40	0.10	+0.08	0.10	0	1	29	0	C. G. McDaniel.		
Arrowhead Springs	San Bernardino	2,000	7	75.8		94	75	58	119	26	0.04	0.04	0	1	20	4	7	Arrowhead Springs Co.		
Atascadero	San Luis Obispo	837		67.0		103	23	35	18	56	0.08	0.08	0	1				Colony Holding Corp.		
Auberry	Fresno	2,050																S. J. & E. Ry. Co.		
Auburn	Placer	1,360	45	77.0	+1.1	101	25	51	12	32	T.	-0.02	T.	0	0	28	1	2	Southern Pacific Co.	
Aviation	Los Angeles	1,300	6	64.2	+2.6	77	1	54	19	15	0.00	0.00	0	0	22	8	1	T. S. Manning.		
Azusa	do	540	14	75.8		110	12	46	19	32	0.00	-0.08	0.00	0	0	30	1	0	W. W. Hillis.	
Bagdad	San Bernardino	784	13	89.8	-5.0	110	12	68	120	31	0.00	-0.46	0.00	0	0	21	0	0	Santa Fe Co.	
Bakersfield	Kern	494	27	77.9	-2.1	105	25	51	19	46	0.03	+0.02	0.03	0	1	25	0	0	do	
Barstow	San Bernardino	2,105	13	78.8	-4.6	108	2	51	19	40	0.00	-0.15	0.00	0	0	27	4	0	E. L. White.	
Berkeley	Alameda	317	29	61.8	+0.9	88	20	49	118	33	0.72	+0.67	0.38	0	2	23	3	5	State University.	
Betteravia	Santa Barbara	155	3	62.0		80	25	42	116	31	0.00	0.00	0.00	0	0	28	3	0	Union Sugar Co.	
Biggs **	Butte	98	17	87.0	+9.6	112	23	64	9	42	0.00	-0.02	0.00	0	0				Southern Pacific Co.	
Bishop	Inyo	4,450	21	68.5	-3.3	98	2	41	19	46	0.10	-0.11	0.10	0	1	23	4	4	W. A. Chalfant.	
Bishop Creek	do	8,790	6	58.8		87	4	31	120	39	1.85		1.10	0	2	19	7	5	Floyd E. Van Cleave.	
Blocksburg	Humboldt	1,700	10																Victor Hope.	
Blue Canon	Placer	4,695	17	59.6	-4.3	90	25	34	112	52	T.	-0.14	T.	0	0	30	0	1	Southern Pacific Co.	
Blythe	Riverside	288	7	87.5		111	31	56	19	46	0.25	0.20	0	2	22	4	5	5	C. L. Suits.	
Bonita	San Diego	110		69.8		92	1	51	22	30	T.	T.	0	0	29	1	1	1	R. M. Allen.	
Branscomb	Merced	2,000	6	65.6	+0.3	98	22	40	17	42	0.05	+0.01	0.05	0	1	24	5	2	n.	
Brawley	Imperial	1,105	6	85.0		108	12	60	19	58	0.30	0.30	0	1	27	2	2	2	M. J. Haun.	
Bridgeport	Mono	6,500	2	56.8		88	12	27	20	58	0.08	0.08	0	0	1	27	3	4	Geo. Delury, Jr.	
Burney	Shasta	3,300	6	62.6		99	24	28	18	60	T.	T.	0	0	24	3	4	4	Mrs. M. D. Chambers.	
Cahuilla	Riverside	3,660	5	60.6		98	1	20	18	69	0.10	0.10	0	1	27	1	3	3	Dr. W. L. Shawk.	
Calaveras Ranger Sta.	Calaveras	3,400		66.7		93	13	34	18	44	0.12	0.12	0	1	25	4	1	1	U. S. Forest Service.	
Calexico	Imperial	0	11	87.6	-2.0	111	72	56	18	41	1.25	1.25	0	1	28	2	1	0	F. R. Spencer.	
Campbell	Santa Clara	217	19	63.2	-1.1	91	20	41	7	46	T.	-0.70	T.	0	0	29	2	0	nw.	
Camptonville (near)	Yuba	3,500	9	71.0		100	24	45	19	42	0.05	0.05	0	1	25	2	4	4	Pacific Gas & Electric Co.	
Canon Dam	Plumas	4,570	2																Great Western Power Co.	
Cascada	Fresno	4,900		68.8		96	2	48	18	36	0.35	0.31	0	2	29	0	2	2	S. J. & E. Ry. Co.	
Cedarville	Modoc	4,675	22	68.0	-0.5	96	27	30	19	44	0.34	+0.06	0.18	0	2	12	16	3	sw.	
Center Ranger Station	Tuolumne	3,850		69.2		90	24	40	18	29	0.09	0.09	0	1	22	3	6	6	U. S. Forest Service.	
Centerville	Butte	490	2	72.2		104	24	44	118	52	T.	T.	0	0	23	0	5	5	Pacific Gas & Electric Co.	
Chico	do	46	46	75.9	-5.6	103	13	43	19	52	0.00	-0.02	0.00	0	0	25	3	3	se.	
China Flat	Humboldt	1,600	7	69.4		98	24	42	119	51	0.46	-0.03	0.35	0	3	25	3	3	w.	
Clement	Los Angeles	1,200	24	72.7	0.3	104	2	47	19	39	0.02	-0.03	0.02	0	1	18	13	0	0	
Cloverdale	Sonoma	940	14	69.4	-0.7	102	2	45	8	45	0.35	+0.35	0.27	0	2	28	1	2	s.	
Cooling	Fresno	663	4																Producers Trans. Co.	
Collax	Placer	2,421	45	69.8	-6.7	97	24	40	18	38	T.	-0.02	T.	0	0	28	2	1	1	
Colusa	Colusa	60	13	72.6	-1.9	95	24	53	19	33	0.13	+0.12	0.10	0	2	26	4	1	se.	
Converse Nursery	San Bernardino	6,000	2	61.7		84	23	37	116	38	0.34	0.32	0	2	23	8	0	0	w.	
Corona	Riverside	615	2	72.8		104	2	47	9	45	T.	T.	0	0	25	6	0	0	nw.	
Crescent City	Del Norte	125	2	59.6	+3.4	98	20	42	117	43	0.08	-0.44	0.68	0	1				Thos. E. Peacock.	
Cuyamaca	San Diego	4,677	17	66.5	+0.5	89	72	38	19	42	2.09	+1.45	1.97	0	2	24	2	5	sw.	
Davis	Yolo	51	44																S. H. Beckett.	
Deer Creek	Nevada	3,700																	Pacific Gas & Electric Co.	
Del Monte	Monterey	25	5	62.0		81	20	49	20	32	0.00	0.00	0	0	18	5	8	8	nw.	
Delta	Shasta	1,138	37																Hotel Del Monte.	
Denair	Stanislaus	1,126	16																Santa Fe Co.	
De Saba	Butte	2,700	12	70.2		101	124	38	18	50	T.	T.	0	0	23	7	1	1	sw.	
Dobbin (near)	Yuba	1,650	12	76.6	-2.0	102	13	52	19	40	0.00	-0.01	0.00	0	0	21	3	4	0	
Downville	Sierra	3,150	5	66.2		102	24	35	19	67	0.33	0.30	0	1	25	4	2	0	s.	
Dudley	Kings	595	4	79.6		105	13	49	18	43	0.17	0.17	0	1	30	1	0	0	ne.	
Dudleys	Mariposa	3,000	7	64.6		95	2	34	18	48	0.10	0.10	0	1	28	3	0	0	nw.	
Dunsmuir	Siskiyou	2,235	27	73.8	+4.6	106	25	50	17	48	T.	T.	0	0	29	0	2	2	s.	
Durham	Butte	160	21	74.2	-1.9	104	24	45	19	45	T.	-0.05	T.	0	0	29	0	2	2	
East Park	Colusa	2	2	75.0		109	24	46	19	50	0.25	0.25	0	1	28	1	2	1	n.	
Edison	Kern	2,500	2	82.0		104	3	59	118	36	0.00	-0.12	0.00	0	0	25	6	0	0	
El Cajon	San Diego	482	17	72.1	-1.4	103	1	50	19	41	0.10	-0.01	0.10	0	1	30	1	6	sw.	
Electra	Amador	725	12	74.0	-4.3	101	3	45	18	44	0.00	0	0.00	0	0	28	1	2	s.	
Elsinore	Riverside	1,200	42	76.0		104	13	43	18	32	0.04	-0.01	0.02	0	1	30	1	0	sw.	
Emigrant Gap	Placer	5,230	42	71.2	+5.3	97	25	49	117	36	0.00	-0.03	0.00	0	1	30	1	0	sw.	
Escudido	San Diego	457	22	73.1	+0.9	103	1	47	9	39	0.18	+0.10	0.18	0	1	18	0	0	w.	
EUKEKA	Humboldt	64	30	56.0	+0.2	69	31	46	18	19	0.12	-0.02	0.10	0	2	7	10	14	n.	
Folsom	Sacramento	252	44	75.2	-2.5	103	12	50	19	45	T.	-0.03	T.	0	0	29	2	0	e.	
Fontana	San Bernardino	1,325	4	74.0		104	14	46	117	44	T.	T.	0	0	21	10	0	0	G. I. Marvin.	
Fordey Dam	Nevada	6,500	21	50.6		76	24	28	18	33	0.40	+0.07	0.30	0	2	15	1	1	sw.	
Fort Bidwell	Modoc	4,375	27	66.1	-4.6	95	27	34	18	45	0.23	+0.09	0.27	0	2	19	10	2	0	
FRESNO	Fresno	293	29	78.2	-3.0	103	3	52	18	39	0.08	+0.08	0.07	0	2	27	4	0	nw.	
Georgetown	El Dorado	2,650	43								0.25	+0.23								

Climatological Data for August, 1916.—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.					Number of days.			Prevailing direction of wind.	Observers	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Snowfall (unmelted).	Precipitation 0.1 inch or more.	Clear.	Partly cloudy.			Cloudy.
La Porte	Plumas	5,000	22	60.6	-0.7	89	24	36	18	37	1.20	+1.04	1.20	0	1	25	2	4	n.	C. W. Hendel.
Las Plumas	Butte	506	2	78.4		105	24	54	18	40	T.		T.	0	0	27	0	4	s.	Great Western Power Co.
Le Grande	Merced	255	16																	Santa Fe Co.
Lemon Cove	Tulare	600	21	81.2	+1.2	103	11	55	18	38	0	0	T.	0	0	30	1	0	nw.	Logan Tabler.
Lick Observatory	Santa Clara	4,209	27	67.6	-1.8	84	12	40	17	19	0.00	-0.02	0.00	0	0	27	4	0	nw.	The Director.
Lindsay	Tulare	384	2	78.0		108	13	47	18	50	0.00		0.00	0	0	31	4	0	nw.	Basil Prior.
Livermore	Santa Barbara	455	45	67.4	-2.2	104	2	40	18	56	T.	-0.03	T.	0	0	28	1	2	w.	E. G. Still.
Lompoc (near)	Santa Barbara																			A. R. Poett.
Lone Pine	Inyo	11	66.6	-5.9	98	1	40	24	44	0.11	-0.11	0.07	0	2	28	3	0	s.	G. F. Marsh.	
LOS ANGELES	Los Angeles	293	39	68.6	0	96	1	54	8	32	T.	-0.03	T.	0	0	25	5	1	sw.	U. S. Weather Bureau.
LOS GATOS	Santa Clara	600	29	67.3	+0.1	95	2	45	18	46	T.	-0.05	T.	0	0	29	1	1	n.	F. H. McCullagh.
McCloud	Siskiyou	3,270	6	63.4		97	24	29	18	51	0.21		0.21	0	1	24	5	2	n.	F. F. Spencer.
Madeline	Lassen	5,270	7	61.2		91	24	26	18	50	0.17		0.12	0	2	19	12	0	sw.	J. H. Williams.
Magalia	Butte	2,321	12	69.6	-2.8	100	24	46	20	50	0.05	+0.03	0.03	0	2	28	0	3	n.	Southern Pacific Co.
Mariocopa	Kern	640	5	84.2		114	4	57	18	44	T.		T.	0	0	24	2	5	n.	Producers Trans. Co.
Marysville	Yuba	67	45	74.6	-4.3	105	24	45	19	48	0.00	-0.01	0.00	0	0	25	3	3	s.	Southern Pacific Co.
Mecca	Riverside	-185	10	88.6		111	2	59	16	41	T.		T.	0	0	24	7	0	se.	E. A. Palmer.
Merced	Merced	173	42	75.0	-4.3	101	3	52	12	41	0.25	+0.23	0.25	0	1	28	3	0	nw.	Santa Fe Co.
Middlewater	Kern	803	5	88.0		117	25	62	17	34	0.05		0.05	0	1	22	5	4	n.	Producers Trans. Co.
Mill Creek—1	Amador	2,500	9	65.8		97	13	39	17	39	0.09		0.08	0	2	27	4	0	n.	Pacific Gas & Electric Co.
Milton (near)	Sacramento	660	25	75.1	-1.2	102	12	50	18	38	T.	-0.01	T.	0	0	28	3	0	nw.	J. H. Southwick.
Mokelumne Hill	Tehama	1	60.3		94	24	26	18	53	0.50		0.45	0	2	19	5	7	s.	U. S. Forest Service.	
Montague	Calaveras	1,550	23	74.7	+0.9	99	12	46	18	34	0.00	-0.02	0.00	0	0	28	1	2	n.	C. E. Prindle.
MOUNT TAMALPAIS	Siskiyou	2,450	28	70.0	-5.3	104	14	37	18	54	0.26	+0.05	0.15	0	5	16	11	4	n.	J. E. De Boy.
Napa City	Marin	2,375	17	67.4	+1.5	92	23	46	17	30	0.27	+0.26	0.15	0	3	24	6	1	nw.	U. S. Weather Bureau.
Needles	San Bernardino	477	24	87.0	-5.7	107	7	65	14	36	0.32	-0.27	0.25	0	3	20	5	6	n.	Santa Fe Co.
Nellie	San Diego	5,350	7	68.4		89	11	44	18	32	0.82		0.78	0	3	21	3	7	sw.	Esther P. Hewlett.
Nevada City	Nevada	2,850	24	65.8	-2.3	97	24	36	19	48	0.06	+0.01	0.06	0	1	25	5	1	sw.	S. W. Marsh.
Newman	Stanislaus	91	27																	E. S. Wangenheim.
North Bloomfield	Nevada	3,214	19	68.8	-1.6	98	24	40	19	44	0.00	-0.06	0.00	0	0	23	0	7	w.	J. R. McIntosh.
North Fork	Madera	3,000	12	69.2		97	4	41	18	44	0.10	-0.04	0.10	0	1	23	8	0	sw.	U. S. Forest Service.
Oak Grove	San Diego	2,751	6	69.0		99	1	35	18	55	1.09		0.55	0	2	20	2	9	w.	U. S. Forest Service.
Oakland	Alameda	36	40	61.4	+0.1	84	20	51	17	29	1.11	+1.08	0.77	0	2	10	14	7	w.	Chabot Observatory.
Oceanside	San Diego	60	6	65.1		76	12	53	22	17	T.		T.	0	0	17	2	2	w.	H. D. Brodie.
Orland Valley	Glenn	900	10	69.1		105	1	41	18	49	0.16		T.	0	0	28	3	0	sw.	W. H. Duncan.
Orleans	Butte	254	34	79.6	-4.6	113	24	54	19	48	T.	+0.14	0.16	0	1	24	1	6	n.	U. S. Rec. Service.
Oroville (near)	Humboldt	376	13	71.5	-5.4	100	24	46	18	40	0.04	-0.14	0.04	0	1	26	0	5	nw.	F. W. Gent.
Pacific	Butte	250	32	76.6	-2.0	107	24	48	19	50	T.	-0.02	T.	0	0	25	2	4	nw.	E. D. Fairchild.
Pasadena	Los Angeles	3,400	1	70.0	-3.5	100	1	47	8	38	T.	-0.02	T.	0	0	27	4	0	sw.	U. S. Forest Service.
Paso Robles	San Luis Obispo	800	29	71.2	+1.0	109	25	37	18	62	0.21	+0.14	0.21	0	1	27	4	0	sw.	Harlan W. Hall.
Peachland	Sonoma	190	20	64.4	+0.7	98	20	42	12	48	0.38	+0.35	0.22	0	2	26	5	0	sw.	Dr. F. W. Sawyer.
Petaluma	do	2	64.0		95	20	39	5	51	0.22	+0.21	0.17	0	2	13	18	0	nw.	E. H. Parnell.	
Placerville	El Dorado	1,875	27	68.3	-1.6	92	12	42	118	42	0.02	-0.01	0.02	0	1	22	7	2	nw.	John Landis.
Point Loma	San Diego	302	10	65.8		79	1	58	19	14	0.02	-0.16	0.02	0	1	17	7	3	nw.	A. Baring Gould.
POINT REYES	Marin	490	24	53.0	-1.6	74	20	46	19	25	0.03	-0.05	0.03	0	1	17	3	21	nw.	Fred J. Dick.
Pomona	Los Angeles	857	27	72.2		103	2	49	19	40	0.03		0.03	0	0	19	19	2	n.	U. S. Forest Service.
Porterville	Tulare	464	27	77.4	-3.2	103	12	49	118	44	0.00	-0.01	T.	0	0	31	0	0	sw.	H. E. Adams.
Portola	Plumas	464	1	54.0		82	31	26	17	51	0.09		0.05	0	2	22	0	9	sw.	Leslie McAuliffe.
Quincy	do	3,400	21	64.5	+0.8	95	125	40	17	46	0.18	+0.02	0.10	0	2	22	0	9	nw.	Western Pacific Co.
RED BLUFF	Tehama	307	39	79.4	-1.6	113	24	56	18	43	T.	-0.02	T.	0	0	26	1	4	se.	D. N. Rogers.
Redding	Shasta	552	41	78.8	-2.2	110	24	52	12	45	0.07	0	0.05	0	2	23	7	1	nw.	U. S. Weather Bureau.
Redlands	San Bernardino	1,352	23	74.1	-3.1	101	11	49	19	40	0.34	0	0.34	0	1	25	3	3	w.	J. H. Buick.
Reedley	Fresno	347	16	75.6	-4.2	103	13	45	9	50	0.20	+0.20	0.20	0	1	23	0	5	nw.	P. W. Moore.
Rialto (near)	San Bernardino	2,250	10	73.4		100	11	47	16	43	T.		T.	0	0	21	7	3	sw.	Santa Fe Co.
Riverside	Riverside	851	34	73.2	-3.2	105	1	44	19	52	0.22	+0.08	0.12	0	2	21	9	1	w.	So. Cal. Edison Co.
Rocklin	Placer	249	45	75.0	-3.2	104	24	48	17	45	0.00	-0.04	0.00	0	0	30	1	0	nw.	J. H. D. Cox.
Rohnerville	Humboldt	75	13	62.7		89	21	41	20	47	0.00	-0.05	0.00	0	0	26	4	1	nw.	Southern Pacific Co.
Ruth	Trinity	2,925	2	64.2		102	24	35	13	58	0.30		0.30	0	1	26	3	2	nw.	W. D. Gray.
SACRAMENTO	Sacramento	71	39	71.8	-0.3	100	2	59	19	40	0.00		0	0	0	28	1	1	sw.	U. S. Forest Service.
St. Helena	Napa	255	8	70.0		105	2	46	112	55	0.62		0.52	0	2	22	5	3	s.	U. S. Weather Bureau.
Salinas	Monterey	40	42	59.0	-2.4	83	20	44	112	38	0.00	-0.02	0.00	0	0	18	10	3	sw.	W. F. Bornhorst.
SAN BERNARDINO	San Bernardino	1,054	24	74.7	-1.0	105	1	47	19	47	0.37	+0.22	0.20	0	2	21	10	0	sw.	Miss E. Ruth Abbott.
SAN DIEGO	San Diego	87	45	67.0	-1.7	84	1	58	21	18	0.01	-0.11	0.01	0	1	18	13	0	nw.	Dr. A. K. Johnson.
SAN FRANCISCO	San Francisco	207	45	58.6	+0.6	84	20	48	7	27	0.29	+0.28	0.22	0	3	13	14	4	sw.	U. S. Weather Bureau.
SAN JACINTO	Riverside	1,550	23	75.8	-0.3	103	1	48	111	46	0.70	+0.48	0.70	0	1	22	8	1	nw.	E. T. Tanner.
SAN JOSE	Santa Clara	95	41	65.6	-1.1	92	20	44	18	43	0.01	-0.02	0.01	0	1	25	6	0	nw.	U. S. Weather Bureau.
SAN LUIS OBISPO	San Luis Obispo	201	21	62.9	-0.6	85	26	46	20	32	T.	0	T.	0	0	14	17	0	nw.	do
San Miguel Island	Santa Barbara	500	22	56.8	-2.6	68	25	48	7	14										

Climatological Data for August, 1916.—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				Number of days.				Observers		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Snowfall (unmelted).	Precipitation 0.1 inch or more.	Clear.	Partly cloudy.		Cloudy.	Prevailing direction of wind.
Ukiah	Mendocino	620	23	70.9	+0.2	104	24	39	18	56	0.41	+0.40	0.27	0	2	25	0	6	nw.	Dr. George McCowen.
Vacaville	Solano	175	28	73.6	-0.9	105	24	37	27	48	0.39	+0.36	0.39	0	1	29	1	1	w.	J. E. Bassford.
Valerino	Los Angeles	3,750	...	57.8	...	102	11	38	19	53	0.10	...	...	0	1	24	5	2	...	U. S. Forest Service.
Visalia	Tulare	334	28	79.0	+0.6	101	25	60	9	38	0.22	+0.22	0.22	0	1	29	0	2	nw.	Santa Fe Co.
Walnut Creek	Contra Costa	149	...	71.8	-0.3	99	12	52	19	40	0.21	+0.02	0.11	0	2	...	...	...	...	R. L. Nongaret.
Warner Springs	San Diego	3,165	...	72.9	...	99	11	40	16	49	T.	...	T.	0	0	27	3	1	...	J. A. Ream.
Wasco	Kern	336	16	77.8	-1.8	104	3	49	18	41	0.18	+0.16	0.18	0	1	29	0	2	se.	Santa Fe Co.
Watsonville	Santa Cruz	23	20	60.6	-1.6	88	20	42	11	41	0.00	-0.01	0.00	0	0	4	23	4	s.	Spreckels Sugar Co.
Weaverville	Trinity	2,162	4	70.4	...	107	13	33	18	61	0.51	+0.40	0.45	0	2	29	0	2	...	U. S. Forest Service.
Weitchpec	Humboldt	1,700	6	67.2	...	97	24	33	18	41	0.01	...	...	0	1	25	2	3	nw.	G. S. Garnett.
West Branch	Butte	3,216	2	63.2	...	98	24	32	18	50	0.05	...	0.05	0	1	25	1	5	s.	Pacific Gas & Electric Co.
Wheatland	Yuba	84	29	74.4	-1.1	100	12	48	19	41	T.	-0.03	T.	0	0	23	5	3	s.	Wm. Lumbard.
Willows	Glenn	136	37	78.0	-3.6	110	24	52	15	46	0.26	+0.23	0.26	0	1	28	2	1	n.	F. E. Barnhouse.
Yorba Linda	Orange	405	2	70.5	...	101	1	47	113	42	0.00	...	0.00	0	0	27	4	0	w.	S. J. Walker.
Yosemite	Mariposa	3,960	12	75.8	...	99	25	42	19	44	0.95	+0.67	0.45	0	3	18	1	12	s.	Supt. National Park.
Yreka	Siskiyou	2,625	27	69.2	...	103	24	37	118	53	0.54	...	0.17	0	5	15	8	5	ne.	U. S. Forest Service.
Means and Extremes..				73.2	+0.4	121	2	20	18	69	0.20	+0.12	1.97	0	1	23	5	3	w.	

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.

\*\* Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† 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.

COMPARATIVE DATA FOR AUGUST.

MEAN MONTHLY TEMPERATURE FOR THE STATE.

1897	73.9	1907	71.0
1898	74.5	1908	73.3
1899	70.8	1909	72.1
1900	71.0	1910	72.5
1901	75.6	1911	70.1
1902	71.8	1912	70.2
1903	72.6	1913	74.8
1904	73.9	1914	72.1
1905	73.4	1915	74.2
1906	73.6	1916	73.2

AVERAGE PRECIPITATION FOR THE STATE.

1897	0.03	1907	0.11
1898	0.02	1908	0.12
1899	0.11	1909	0.19
1900	0.02	1910	0.01
1901	0.12	1911	0.00
1902	0.06	1912	0.06
1903	0.02	1913	0.30
1904	0.17	1914	0.02
1905	0.03	1915	0.06
1906	0.13	1916	0.20

DELAYED REPORTS.

Stations.	Month.	Temperature.				Total precipitation
		Mean	Max.	Date	Min.	
Georgetown	April.	...	...	...	...	0.90
Georgetown	May.	...	...	...	...	0.96
Wasioja	...	...	...	...	...	0.00
Durham	June.	68.3	99	111	46	1
Georgetown	...	...	...	...	...	0.00
Truckee	...	54.2	86	15	27	27
Wasioja	...	...	...	...	...	0.00
Beloit	July.	...	...	...	...	0.00
Boulder Creek	...	...	...	...	...	0.00
Georgetown	...	...	...	...	...	0.40
Jolon	...	...	...	...	...	0.00
Livermore	...	71.8	108	22	46	126
Mill Creek (No. 2)	...	...	...	...	...	0.00
Mineral	...	58.5	88	110	30	4
Pine Crest	...	...	...	...	...	0.67
Walnut Creek	...	72.1	105	22	51	11
Wasioja	...	...	...	...	...	0.00
West Point	...	...	...	...	...	0.00

ERRATA. JULY, 1916.

Auburn, page 82, lowest temperature, 52°, should be 55°.  
 Bagdad, page 82, mean temperature, 94.8°, should be 94.7°; highest temperature, 117°, on 24th, should be 116°, on 23d.  
 Stanwood, page 83, highest temperature, a96°, on 24th, should be a98°, on 22d.  
 Twin Valley, page 83, lowest temperature, 34°, on 16th, should be 39°, on 17th.

DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms.*—Abbotts, 27; Alturas, 15, 17, 28, 29; Berkeley, 28; Big Bar, 15, 26-29; Bishop Creek, 27, 28; Bonita, 1, 23, 24; Brawley, 23; Cahuilla, 1; Calaveras, 27, 28; Campo, 3, 25; Camptonville (near), 27, 28; Center Ranger Station, 13-15, 26-28; Chester, 10, 15, 26, 27; China Flat, 11, 27; Cloverdale, 28; Converse Nursery, 3, 22-28; Covelo, 27, 28; Crescent City, 11; Deer Creek, 27, 28; De Sable, 10, 11; Downieville, 28; Dudleys, 15, 27, 28; Dunlap (near), 27, 28; Fontana, 24, 25; Fort Bragg, Fresno, 27, 28; Glennville, 23-28; Goffs, 23, 25-29; Happy Camp, 11, 14, 27, 28; Hayfork, 26-28; Hetch Hetchy, 26-28; Holcomb, 25, 27; Hot Springs, 24-27; Hullville (near), 27, 28; Independence, 24, 26, 27; Jolon, 28; Kennett, 11; Kentfield, 27, 28; King City, 26; Kinsley, 15, 27; La Jolla, 2; La Porte, 25-27; Lake Eleanor, 15, 25-29; Livermore, 27, 28; Lone Pine, 24-26; Los Gatos, 28; McCloud, 29; Magalia, 11, 14, 26-28; Maricopa, 25, 27; Merced, 28; Middlewater, 27; Mill Creek (No. 1), 15, 27; Mill Creek (No. 2), 23-25; Mills College, 28; Milton (near), 27; Mineral, 11, 27; Montague, 4, 11, 14, 27; Mount Tamalpais, 28; Mount Wilson, 24; Nellie, 1, 24, 25; North Bloomfield, 28; Oak Grove, 1, 25; Oakland, 27, 28; Oceanside, 23; Orleans, 11, 14, 28; Peachland, 27, 28; Petaluma, 28; Quincy, 15, 29; Red Bluff, 11; Redding, 11, 12, 14; Riverside, 24, 25; Ruth, 27, 28; Salinas, 27; San Bernardino, 25; San Francisco, 27, 28; San Jose, 27; San Luis Obispo, 28; Santa Clara, Santa Cruz, 27; Seven Oaks, 23, 24; Sonora, Spreckels, Stockton, 27; Squirrel Inn, 24; Stanwood, 28; Stevenson Creek, 27; Stirling City, 10; Sulphur Banks, 27, 28; Tamarack, 10, 27, 28; Tejon Rancho, 24; Three Rivers, 27, 28; Tuolumne Ranger Station, 15, 27, 28; Twin Valley, 14, 28; Ukiah, 27; Vacaville, 27; Walnut Creek, 28; Weaverville, 11, 29; Weitchpec, 11, 27, 28; West Branch, 11, 28; West Point, 13, 14, 25; Yosemite, 25, 27, 28; Yreka, 28, 29.

*Earthquakes.*—Covelo, 1; Hollister, Los Gatos, Merced, Paso Robles, Priest Valley, Salinas, San Francisco, Santa Cruz, Soledad, Spreckels, 6; Salinas, 7; Los Gatos, Salinas, Santa Cruz, Soledad, Spreckels, 8; Lone Pine, 13; Yorba Linda, 20, 21; Rohnerville, Shively, Eureka, 23, 30; Spreckels, 31.

Daily Precipitation for August, 1916.

Stations.	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									
Abbotts																																		.30	0.30					
Aguaanga													.04																					.04	0.04					
Alturas																.05	.27	.05																.25	0.62					
American Camp																																	.20	0.20						
Anziola																																			0.00					
Antelope Valley																																	.11	0.11						
Antioch														.10																				0.10						
Arrowhead Springs																								T.	.04									0.04						
Atascadero																																	.08	0.08						
Auberry																																			0.00					
Auburn																																			T.	0.00				
Avalon																																			T.	0.00				
Azusa																																			T.	0.00				
Barlad																																			T.	0.00				
Bakersfield																																			T.	0.03				
Barstow																																			T.	0.00				
Bear Valley																																					0.00			
Bear Valley Dam																																					0.00			
Beaumont																																					.55	0.55		
Beaumont (near)																																				.03	0.63			
Belotta																																				.50	0.75			
Ben Lomond																																					0.00			
Berkeley																																					0.00			
Betteravia																																				T.	0.00			
Big Bar																																				T.	0.00			
Biggs																																					T.	0.00		
Big Sur																																						0.00		
Bishop																																					T.	0.00		
Bishop Creek																																					T.	0.00		
Blocksburg																																						0.00		
Blue Canon																																						T.	0.00	
Blythe																																						0.25		
Boca																																						0.00		
Bonita																																						T.	0.00	
Boulder Creek																																						0.00		
Bowman's Dam																																						0.05		
Branscomb																																						T.	0.05	
Brawley																																						0.30		
Bridgeport																																						0.68		
Burney																																						0.30		
Cahuilla																																						T.	0.00	
Calaveras Ranger Station																																						0.10		
Calxico																																						0.12		
Cambell																																						1.25	1.25	
Camp Baldys																																						T.	0.00	
Camp Bonitas																																						0.07		
Camp Iron Forks																																						0.04	0.07	
Campo																																						.60	0.85	
Camp Rincon																																						.25	0.85	
Camptonville (near)																																						.25	0.85	
Canon Dam																																						0.05		
Cascada																																						0.05		
Cedarville																																						0.35		
Centerville																																						0.34	0.34	
Chester																																						T.	0.10	
Chico																																						0.10		
China Flat																																						0.00		
Cisco																																						0.46		
Claremont																																						0.07	T.	
Clearwater Power House																																						T.	0.02	
Cloverdale																																						0.00		
Coalinga																																						0.27	0.00	
Colfax																																						0.08	0.35	
Colgate																																						0.08	0.35	
Colusa																																						0.08	0.35	
Converse Nursery																																						0.08	0.35	
Corona																																						0.32	0.34	
Covina																																						0.02	0.34	
Covelo																																							0.02	0.34
Crescent City																																						0.10	0.10	
Cuyamaca																																								



Daily Precipitation for August, 1916.—Continued.

Stations.	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								
Goffs.....		.08	T.								T.														T.												0.13		
Gold Run																																				0.00			
Grass Valley.....														T.													.02	.02								0.04			
Gray Mountain.....																																				0.37			
Greenland Ranch.....																																				0.00			
Groveland.....														T.	T.												T.								T.	0.00			
Hanford																																				0.28			
Happy Camp.....											.07				.11		.09											.28								0.28			
Hayfork.....														.03														T.								0.07			
Head Dam.....																																				0.00			
Healdsburg												T.	.22															.28								0.52			
Hearst (near).....																																				0.15			
Helen Mine.....																																				0.59			
Hetch Hetchy.....																											.02	.53	.04								0.60		
Holcomb.....																																				0.76			
Hollister.....																																				0.00			
Hot Springs																																				0.08			
Hullville (near).....														.12														.08								0.20			
Hume																																				0.63			
Huntington Lake.....																																				T.	0.00		
Hyampom																																				T.	0.00		
INDEPENDENCE***																																				0.22			
Indio.....																																				0.03			
Inskip.....											.08			.03	T.																					0.16			
Jacksonville.....																																				T.	0.00		
Jenny Lind.....																																					T.	0.00	
Jolon.....																																					T.	0.00	
Julian.....		.04		.11																																	1.52		
Kennedy Mine.....																																					0.00		
Kennett											.04						.06																				0.10		
Kentfield.....												.32																									0.45		
Keruville.....																																					0.00		
King City.....																																					T.	0.00	
Kinsley.....																																					T.	0.00	
Knights Landing.....																																					T.	0.00	
La Jolla.....		.50																																			0.10		
Lake Eleanor.....																																					0.50		
Lake Spaulding																																					0.93		
La Porte.....											T.																										0.00		
Las Plumas.....																																					1.20		
Lathrop.....																																					T.	0.00	
Laurel.....																																					T.	0.00	
Le Grand.....																																					T.	0.00	
Lemon Cove																																					T.	0.00	
Lick Observatory.....																																					T.	0.00	
Lindsay																																					T.	0.00	
Littlelands.....																																					T.	0.00	
Livermore.....																																					T.	0.00	
Lone Pine.....																																					T.	0.11	
Lordsburg.....																																					T.	0.00	
Los Alamos.....																																					T.	0.00	
LOS ANGELES***																																					T.	0.00	
Los Gatos.....																																					T.	0.00	
Lowe Observatory.....																																					T.	0.00	
McCloud.....																																					T.	0.00	
Madeline.....																																					T.	0.00	
Magalia											.02				.03		.05		.12																		T.	0.17	
Maricopa																																						T.	0.05
Mariposa																																						T.	0.23
Marysville.....																																						T.	0.00
Meadow Valley.....																																					T.	0.00	
Mecca.....																																					T.	0.00	
Melones.....																																					T.	0.25	
Merced																																					T.	0.03	
Merced Falls.....																																					T.	0.00	
Mesa Grande.....																																					T.	0.05	
Middewater.....																																					T.	0.09	
Mill Creek-1.....																																					T.	0.74	
Mill Creek-2.....																																					T.	1.02	
Mills College.....																																					T.	0.15	
Milo.....																																							





Daily Temperature for August, 1916.

Table with columns for Stations, 1-31, and Mean. Rows list various California locations such as Alturas, Bakersfield, Barstow, etc., with their corresponding daily temperature readings and monthly averages.

# Total Precipitation, Inches, August, 1916.





The influence of the diversified topography of California upon its precipitation is shown by the lines of equal rainfall in inches on the accompanying relief map.