

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

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

VOL. XX. SAN FRANCISCO, JUNE, 1916. No. 6.

GENERAL SUMMARY.

June, 1916, was abnormally cold and dry in California. Taking the State as a whole, the mean temperature was 3.8° below normal, while the average precipitation was but 0.22 inch, or 0.09 inch less than the usual amount. Marked extremes of temperature occurred. They ranged from 121° at Greenland Ranch on the 15th, to 18° at Tamarack on the 2d. At Eureka the extreme temperatures were the highest and lowest recorded during June in 13 years. A total of a 158 stations reported no precipitation whatever, while 27 other stations reported only a trace. Like the two preceding months June was unusually windy. Cloudiness and sunshine were about normal. No damage from frost was reported, though light frosts occurred in the lowlands on several mornings. The average stages of streams were about normal or somewhat above the normal, and in nearly every case were higher than during this month last year. Owing to cool weather and slight precipitation no wide-spread floods have occurred this spring.

The first half of the month was seasonable throughout the State. With the exception of the 1st and 2d, when the coldest weather of the month was experienced, and when scattered light showers occurred in the extreme north portion, the first 15 days were generally pleasant, and moderately warm weather prevailed in the interior valleys. At most stations the highest temperatures of the month occurred on the 14th, 15th or 16th. The latter half of the month was abnormally cool for June. Cold winds and fogs were frequent along the coast, while in the interior valleys the departures from the normal temperatures ranged from 6° to 8° per day. Light showers fell in the northern counties on the 16th and 17th. The last five days of the month were marked by moderately heavy rains throughout the northern half of the State. These rains accompanied the eastward passage of an unusual depression which had many of the features of a typical winter storm.

From an agricultural point of view June was favorable in certain characteristics and unfavorable in others. It was the fifth consecutive month with deficient precipitation. However, the serious effect of a lack of moisture was offset in a manner by the cool weather. All irrigated crops made good progress during the month. Grain crops, however, have suffered from the long-continued drought. While the yield is light the quality is good. Pastures became dry earlier than usual this year, and even in the extreme north portion of the State the hay crop is short. Fruit crops everywhere show the effects of the drought, while in certain restricted regions the damaging effects of May frosts did not become fully apparent until June. Along the immediate coast the abundance of fog had a favorable effect, and the moisture thus derived has been particularly beneficial to garden crops. The moderately heavy rain in the northern half of the State near the close of the month did more harm than good. While it helped alfalfa and garden produce it damaged hay and ripening fruit, injured dry feed on the ranges, interfered with the drying of fruit, and caused the grain to rust in certain sections. As far as personal comfort was concerned, the month was very pleasant, and the weather was well adapted for farm work. This was particularly true in the interior valleys, where June is usually accompanied by excessive heat.

A. H. P.

PRESSURE.

The monthly mean atmospheric pressure for the State, reduced to sea level, was 29.93 inches. The highest was 30.24 inches at Eureka on the 4th. The lowest was 29.43 inches at Independence on the 20th. The range for the State was 0.81 inches.

TEMPERATURE.

The monthly mean temperature for the State was 65.2 degrees, which is 3.8 degrees below the normal. The highest monthly mean was 94.8 degrees, at Greenland Ranch; and the lowest was 47.6 degrees, at Tamarack. The highest temperature, 121 degrees, occurred at Greenland Ranch, on the 15th; and the lowest, 18 degrees, occurred at Tamarack, on the 2d. The range for the State was 103 degrees.

PRECIPITATION.

The average precipitation for the State was 0.22 inch, or 0.09 inch below the normal. The greatest monthly amount was 3.31 inches, at Branscomb. 158 stations reported no precipitation. The greatest amount in 24 hours was 2.80 inches at Branscomb, on the 30th.

RELATIVE HUMIDITY.—(Per Cent.)

Stations.	5 a. m.	5 p. m.	Mean.
Eureka.....	91	78	84
Fresno.....	60	18	39
Los Angeles.....	91	62	76
Mount Tamalpais.....	56	46	51
Red Bluff.....	50	22	36
Sacramento.....	87	31	59
San Diego.....	89	76	83
San Francisco.....	86	66	76
San Jose.....	83	52	65
San Luis Obispo.....	89	62	76

SUNSHINE AND CLOUDINESS.

Stations.	Actual hours of sunshine.	Per cent of the possible.
Eureka.....	250	55
Fresno.....	434	99
Los Angeles.....	431	76
Mount Tamalpais.....	400	90
Red Bluff.....	343	76
Sacramento.....	416	93
San Diego.....	266	62
San Francisco.....	347	78
San Jose.....	360	82
San Luis Obispo.....	346	80

WIND MOVEMENT.—(Miles.)

Stations.	Total movement for month.	Average hourly velocity.	Maximum velocity.	Direction.	Date.
Eureka.....	6,082	8.4	88	sw.	30
Fresno.....	7,243	10.1	28	nw.	27
Independence.....	4,654	6.4	27	w.	27
Los Angeles.....	3,963	5.5	20	sw.	20
Mount Tamalpais.....	12,083	16.8	92	nw.	8
Point Reyes.....	17,694	24.6	85	nw.	19
Red Bluff.....	4,512	6.3	26	nw.	20
Sacramento.....	6,671	9.3	31	nw.	20
San Diego.....	4,922	6.8	21	s.	21
San Francisco.....	8,451	11.7	33	sw.	7
San Jose.....	2,825	3.9	20	nw.	1
San Luis Obispo.....	3,542	4.9	18	w.	20

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

Climatological Data for June, 1916.

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 of inch or more.	Clear.		Partly cloudy.	Cloudy.	Prevailing direction of wind.
Alturas	Modoc	4,400	12	58.4		97	16	25	20	56	0.18	-0.71	0.16	0	2	14	12	4	Prof. C. B. Towle.	
American Camp	Tuolumne	2,600	1	64.0		103	15	32	1	53	0.00	0.00	0.00	0	0	26	3	1	U. S. Forest Service.	
Angiola	Tulare	208	16	73.4	+1.0	103	115	44	1	48	0.00	0.00	0.00	0	30	0	0	Santa Fe Co.		
Antioch	Contra Costa	46	37	72.2	+0.2	101	7	47	2	46	0.00	-0.11	0.00	0	30	0	0	C. G. McDaniel.		
Arrowhead Springs	San Bernardino	2,000	7															John Jurgens.		
Atascadero	San Luis Obispo	837		63.0		102	15	32	1	62	0.00	0.00	0.00	0	0	0	0	Colony Holding Corp.		
Auberry	Fresno	2,050		68.8		97	15	38	1	38	0.00	0.00	0.00	0	30	0	0	S. J. & E. Ry. Co.		
Auburn	Placer	1,360	45	71.3	+0.5	99	16	45	18	38	T.	-0.44	T.	0	0	26	3	1	Southern Pacific Co.	
Avalon	Los Angeles	30	6	60.2		70	121	50	1	16	0.00	0.00	0.00	0	28	1	1	T. S. Manning.		
Azusa	do	540	14	69.0	+1.0	98	15	40	1	50	0.00	-0.15	0.00	0	24	5	1	C. O. Hillis.		
Bagdad	San Bernardino	784	13	87.8	-2.4	110	10	66	1	38	0.00	0.00	0.00	0	0	0	0	Santa Fe Co.		
Bakersfield	Kern	404	27	74.4	-1.4	102	7	45	11	44	0.00	-0.03	0.00	0	30	0	0	do		
Barstow	San Bernardino	2,105	13	77.2	-0.2	108	14	49	3	47	0.00	0.00	0.00	0	30	0	0	E. L. White.		
Berkeley	Alameda	317	29	59.6	-1.3	82	6	45	2	34	0.02	-0.18	0.02	0	24	0	6	State University.		
Betteravia	Santa Barbara	155	3	63.4		92	22	40	1	48	0.00	0.00	0.00	0	30	0	0	Union Sugar Co.		
Riggs **	Butte	98	17	79.0	+5.5	108	15	56	12	34	0.54	+0.04	0.42	0	2	0	0	Southern Pacific Co.		
Bishop	Inyo	4,450	21	63.6	-4.1	91	115	36	4	46	T.	-0.05	T.	0	29	0	1	W. A. Chalfant.		
Bishop Creek	do	8,500	6															Paul E. Lodge.		
Blocksburg	Humboldt	1,700	10	61.8		97	14	38	1	62	1.15	0.50	0.00	0	4	20	2	8	Victor Hope.	
Blue Canon	Placer	4,695	17	55.4	-2.0	89	17	32	2	47	0.00	-1.31	0.00	0	3	0	0	Southern Pacific Co.		
Blythe	Riverside	268	7	83.3		116	15	42	4	67	0.00	0.00	0.00	0	0	0	0	C. L. Suits.		
Bonita	San Diego	110		64.8		84	30	44	4	35	0.00	0.00	0.00	0	26	3	1	R. M. Allen.		
Branscomb	Merced	2,000	16	58.6	-0.3	93	8	36	1	48	3.31	+1.92	2.00	0	6	20	5	5	A. J. Haun.	
Brawley	Imperial	-105	6															At. D. Witter		
Bridgeport	Mono	6,500	2	53.2		85	15	22	1	47	0.00	0.00	0.00	0	21	6	3	w.		
Burney	Shasta	3,300	6	57.7		94	16	29	1	54	0.80	0.75	0.00	0	18	8	4	sw.		
Cahuilla	Riverside	3,600	5	55.6		98	15	19	1	66	0.00	0.00	0.00	0	29	1	0	sw.		
Calaveras Ranger Sta.	Calaveras	3,400	0	80.2		91	15	33	1	42	0.00	0.00	0.00	0	0	0	0	U. S. Forest Service.		
Calico	Imperial	0	11	85.4	+2.0	116	15	55	12	50	0.00	-0.03	0.00	0	30	0	0	w.		
Campbell	Santa Clara	217	19	58.5	+3.6	90	6	35	10	51	T.	-0.10	T.	0	0	27	3	0	nw.	
Camptonville (near)	Yuba	3,500	9	65.0		92	15	38	1	36	0.18	0.18	0.00	0	22	5	3	w.		
Canon Dam	Plumas	4,570	2	60.0		96	14	33	12	49	0.15	0.15	0.00	0	1	28	1	1	s.	
Cascada	Fresno	4,900		59.3		84	21	32	5	43	0.13	0.13	0.00	0	1	29	0	1	n.	
Cedarville	Modoc	4,675	22	59.5	-0.9	95	15	30	12	45	0.06	-0.62	0.06	0	1	9	21	0	n.	
Center Ranger Station	Tuolumne	3,850		64.0		88	16	39	1	34	0.00	0.00	0.00	0	0	27	0	3	U. S. Forest Service.	
Centerville	Butte	490	2	67.6		100	13	40	1	48	0.61	0.50	0.00	0	2	26	3	1	s.	
Chico	do	189	46	71.4	-6.0	103	15	45	1	45	0.80	+0.39	0.80	0	1	25	3	2	se.	
China Flat	Humboldt	600	7	66.4		97	114	41	1	47	1.07	0.46	0.00	0	6	20	6	4	s.	
Claremont	Los Angeles	1,200	24	66.6	-0.6	94	16	41	1	46	0.00	-0.14	0.00	0	0	22	7	1	sw.	
Cloverdale	Sonoma	340	14	66.3	-2.1	99	6	42	3	52	0.15	-0.12	0.15	0	1	27	0	3	w.	
Coalinga	Fresno	663	4	70.9		105	16	35	1	52	0.00	0.00	0.00	0	0	27	0	3	e.	
Collax	Placer	2,421	45	64.2	-7.0	93	15	35	1	38	0.00	-0.70	0.00	0	0	25	3	2	sw.	
Colusa	Colusa	60	13	68.6	-2.8	92	6	43	3	42	0.75	+0.41	0.38	0	2	28	0	2	se.	
Converse Nursery	San Bernardino	6,000	2	58.6		83	14	31	1	43	0.00	0.00	0.00	0	0	25	5	0	w.	
Corona	Riverside	615	2	67.3		96	15	42	4	44	0.00	0.00	0.00	0	0	26	4	0	nw.	
Crescent City	Del Norte	125	2	55.6	+0.8	80	11	35	20	38	2.49	+0.85	0.62	0	6	18	2	10	nw.	
Cuyamaca	San Diego	4,677	17	64.0	+3.6	92	15	62	116	28	0.00	-0.25	0.00	0	0	27	2	1	sw.	
Davis	Yolo	51	44	69.0		102	14	40	13	57	0.00	0.00	0.00	0	0	27	2	1	sw.	
Deer Creek	Nevada	3,700	9	58.8		89	14	33	1	33	0.00	0.00	0.00	0	0	0	0	0	nw.	
Del Monte	Monterey	25	59	69.0		78	29	46	22	28	0.00	0.00	0.00	0	0	26	0	0	nw.	
Delta	Shasta	1,138	31	69.0	-2.5	79	19	43	119	47	1.17	-0.17	1.00	0	2	28	1	1	nw.	
Denair	Stanislaus	126	16	68.0	-3.6	98	15	41	1	47	0.00	-0.09	0.00	0	0	30	0	0	sw.	
De Sable	Butte	2,700	12	64.6		94	15	36	29	42	1.00	+0.01	1.00	0	1	20	9	1	sw.	
Dobbins (near)	Yuba	1,650	12	70.6	0	100	6	44	1	36	0.09	-0.72	0.09	0	1	24	4	2	s.	
Downieville	Sierra	3,150	5	61.8		94	115	33	1	51	0.12	0.12	0.00	0	1	20	6	4	s.	
Dudley	Kings	595	4	74.0		104	16	38	1	45	0.00	0.00	0.00	0	0	30	0	0	ne.	
Dudleys	Mariposa	3,000	7	59.8		90	15	32	1	46	T.	T.	0	0	25	4	1	nw.		
Dunsmuir	Siskiyou	2,285	27																Southern Pacific Co.	
Durham	Butte	160	21																R. W. Durham.	
East Park	Colusa	2	2	68.6		101	15	39	1	50	0.15	0.15	0.00	0	1	28	1	1	s.	
Edison	Kern	2,500	2	75.2		100	115	54	1	30	0.00	-0.05	0.00	0	0	30	0	0	sw.	
El Cajon	San Diego	482	17	66.9	-0.3	92	30	43	2	44	0.00	-0.11	0.00	0	0	30	0	0	sw.	
Electra	Amador	725	12	69.0	-2.9	99	15	42	1	45	0.00	-0.33	0.00	0	0	29	0	1	s.	
Elsinore	Riverside	1,300		72.6	+1.4	104	118	47	12	56	0.00	-0.04	0.00	0	0	30	0	0	sw.	
Emigrant Gap	Placer	5,230	42	62.8	+3.3	90	8	42	20	36	0.00	-1.06	0.00	0	0	27	1	2	Southern Pacific Co.	
Escondido	San Diego	657	22	68.4	+0.2	94	14	42	4	45	0.00	-0.10	0.00	0	0	15	15	0	w.	
EUREKA	Humboldt	64	30	52.8	-1.8	71	30	41	10	18	1.00	-0.18	0.40	0	7	9	6	15	n.	
Folsom	Sacramento	252	44	73.6	-0.5	103	15	52	1	44	0.00	-0.23	0.00	0	0	25	2	3	s.	
Fontana	San Bernardino	1,325	4	67.2		98	114	44	1	49	T.	T.	0	0	24	6	0	sw.		
Fordyce Dam	Nevada	6,500	21	49.0		72	16	30	1	29	T.	-1.77	0.00	0	0	10	18	2	sw.	
Fort Bidwell	Modoc	4,375	27	58.4	-5.8	95	16	28	20	43	0.21	-0.82	0.13	0	2	15	6	9	sw.	
Fresno	Fresno	293	29	73.2	-2.6	103	15													

Climatological Data for June, 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 40 inch or more.		Clear.	Partly cloudy.	Cloudy.	Prevailing direction of wind.
La Porte	Plumas	5,000	22	54.2	-2.0	83	†15	23	20	41	0.25	-1.35	0.25	0	1	20	5	4	n.	C. W. Hendel.
Las Plumas	Butte	506	12	71.8		103	15	46	1	39	0.66		0.66	0	1	20	5	5	s.	Great Western Power Co.
Le Grande	Merced	255	16																	Santa Fe Co.
Lemon Cove	Tulare	600	21	78.0	+2.0	105	15	49	1	41	0.00	-0.09	0.00	0	0	30	0	0	nw.	Logan Tabler.
Lick Observatory	Santa Clara	4,209	27	59.2	-0.8	84	14	32	1	27	0.00	-0.40	0.00	0	0	27	1	2	n.	The Director.
Lindsay	Tulare	384	2	72.2		107	15	40	0	51	0.00		0.00	0	0	27	2	0	nw.	Basil Prior.
Livermore	Alameda	485	45	67.0	-0.6	101	7	44	†1	53	T.	-0.15	T.	0	0	28	2	0	w.	E. G. Still.
Lompoc (near)	Santa Barbara																			A. R. Poett.
Lone Pine	Inyo	3,728	11	66.4	-2.1	95	†28	35	1	53	0.00	-0.05	0.00	0	0	30	0	0	s.	G. F. Marsh.
LOS ANGELES	Los Angeles	293	39	63.6	-0.9	80	30	51	1	24	0.00	-0.10	0.00	0	0	16	14	0	sw.	U. S. Weather Bureau.
Los Gatos	Santa Clara	600	29	63.0	-1.8	95	6	40	2	49	0.00	-0.09	0.00	0	0	24	6	0	n.	F. H. McCullagh.
McCloud	Siskiyou	3,270	6	57.2		93	16	27	1	49	2.43		1.14	0	0	17	2	11		F. F. Spencer.
Madeline	Lassen	5,270	7	53.3		90	16	26	20	47	T.		T.	0	0	17	5	8	sw.	J. H. Williams.
Magalia	Butte	2,321	12	64.8	+0.3	92	†8	40	†18	48	0.60	-0.41	0.40	0	2	20	0	10	s.	Southern Pacific Co.
Maricopa	Kern	640	5	77.8		108	16	52	2	44	0.00		0.00	0	0	30	0	0	n.	Producers Trans. Co.
Marysville	Yuba	67	45	70.7	-5.5	101	15	44	9	45	T.	-0.27	T.	0	0	25	4	1	s.	Southern Pacific Co.
Mecca	Riverside	-185	10	85.9		119	15	58	1	44	0.00		0.00	0	0	36	0	0	nw.	E. A. Palmer.
Merced	Merced	173	42	71.4	-3.9	101	15	43	1	42	0.00	-0.12	0.00	0	0	29	1	0	nw.	Santa Fe Co.
Middlewater	Kern	803	5	75.7		103	15	46	1	40	0.00		0.00	0	0	22	8	0	ne.	Producers Trans. Co.
Mill Creek-1	Amador	2,500	9	59.8		87	15	36	†1	40	0.00		0.00	0	0	25	4	1	n.	Pacific Gas & Electric Co.
Milton (near)	Calaveras	660	25	70.4	-1.4	100	14	43	1	41	0.00	-0.25	0.00	0	0	29	1	0	nw.	J. H. Southwick.
Mineral	Tehama		1																	U. S. Forest Service.
Mokelumne Hill	Calaveras	1,550	23	68.0	-0.1	95	†7	36	1	38	0.00	-0.41	0.00	0	0	26	1	3		C. E. Prindle.
Montague	Siskiyou	2,450	28	64.7	-2.2	105	16	33	1	53	0.68	+0.05	0.40	0	8	13	11	6	n.	T. E. De Boy.
MOUNT TAMALPAIS	Marin	2,375	17	60.0	-4.1	86	7	38	2	28	0.02	-0.10	0.02	0	1	21	6	3	nw.	U. S. Weather Bureau.
Napa City	Napa	20	39																	Thos. Hull.
Neville	San Bernardino	477	24	85.4	-1.9	111	17	56	2	44	0.00	-0.01	0.00	0	0	30	0	0		Santa Fe Co.
Nellie	San Diego	5,350	7	66.3		92	†14	38	1	42	0.00		0.00	0	0	25	3	2	sw.	Esther P. Hewlett.
Nevada City	Nevada	2,850	24	61.2		96	16	33	†3	45	0.08	-0.59	0.08	0	1	21	7	2	sw.	S. W. Marsh.
Newman	Stanislaus	91	27	69.4	-1.1	98	17	38	†3	54	0.00	-0.06	0.00	0	0	0	0	0		E. S. Wamgenheim.
North Bloomfield	Nevada	3,214	19	62.9	-2.1	95	16	35	†1	43	T.	-0.91	T.	0	0	15	9	3	w.	J. R. McIntosh.
North Fork	Madera	3,000	12	63.2		94	†15	33	1	44	0.00	-0.27	0.00	0	0	29	1	2	sw.	U. S. Forest Service.
Oak Grove	San Diego	2,751	6	58.8		91	15	29	1	50	0.00		0.00	0	0	28	0	0	sw.	U. S. Forest Service.
Oakland	Alameda	36	40	59.6	-1.9	82	6	47	†9	33	T.	-0.30	T.	0	0	16	8	6	w.	Chabot Observatory.
Oceanside	San Diego	60	6	61.0		72	30	49	4	16	T.		T.	0	0	11	12	7	w.	H. D. Brodie.
Ojai Valley	Ventura	900	10	63.8		98	14	37	1	41	0.00		0.00	0	0	29	1	0	sw.	W. H. Duncan.
Orland	Glenn	254	34	74.0	-4.7	104	15	46	†1	45	0.75	+0.41	0.75	0	0	22	4	4	s.	U. S. Rec. Service.
Orleans	Humboldt	520	13	66.1	-4.7	99	16	42	†1	46	1.42	+0.43	0.59	0	6	21	0	9		F. W. Gent.
Oroville (near)	Butte	250	32	72.2	-2.3	103	15	45	†1	40	0.65	+0.32	0.65	0	1	23	2	5	sw.	E. D. Fairchild.
Pacific	El Dorado	3,400	1																	U. S. Forest Service.
Pasadena	Los Angeles	827	26	64.6	-6.0	90	†14	41	1	42	T.	-0.01	T.	0	0	13	17	0	sw.	Harlan W. Hall.
Paso Robles	San Luis Obispo	800	29	65.2	-3.0	100	†8	34	1	56	0.00	-0.03	0.00	0	0	29	1	0	nw.	Dr. F. W. Sawyer.
Peachland	Sonoma	190	20	60.6	-3.3	95	6	36	2	52	0.35	-0.03	0.35	0	0	26	2	2	sw.	E. H. Parnell.
Petaluma	do		2	60.0		92	6	37	1	51	0.08	-0.19	0.08	0	0	22	7	1	n.	John Landis.
Placerville	El Dorado	1,875	27	65.5	-0.9	96	†14	38	1	42	0.00	-0.66	0.00	0	0	22	3	5		A. Haring Gould.
Point Loma	San Diego	302	10	61.6		71	†28	51	4	15	0.02	-0.07	0.02	0	1	9	10	11	nw.	Fred J. Dick.
POINT REYES	Marin	490	24	51.1	-1.7	61	†27	44	11	10	0.22	-0.03	0.22	0	1	11	6	13	nw.	U. S. Weather Bureau.
Pomona	Los Angeles	857	2	67.1		95	†14	39	3	48	0.00		0.00	0	0	8	3	19		J. E. Adamson.
Porterville	Tulare	464	27	72.2	-6.6	102	15	43	1	45	0.00	-0.11	0.00	0	0	30	0	0		Leslie McAuliffe.
Portola	Plumas		1	49.6		70	†2	25	29	35	0.00		0.00	0	0	25	5	0	sw.	Western Pacific Co.
Quincy	do	3,400	21	63.4	+2.6	93	†14	35	28	44	0.40	-0.53	0.25	0	3	19	5	6	ne.	D. N. Rogers.
RED BLUFF	Tehama	307	39	73.4	-2.3	102	15	47	†5	40	1.14	+0.65	1.14	0	1	19	6	5	se.	U. S. Weather Bureau.
Redding	Shasta	552	41	73.2	-2.4	103	15	44	1	45	0.93	+0.20	0.65	0	3	25	3	2	nw.	J. H. Bueck.
Redlands	San Bernardino	1,332	23	69.2	-2.5	98	†14	44	1	44	0.00	-0.11	0.00	0	0	25	4	1	w.	P. W. Moore.
Redley	Fresno	347	16	71.1	-4.9	103	†6	35	†6	35	0.00	-0.02	0.00	0	0	30	0	1	nw.	Santa Fe Co.
Rialto (near)	San Bernardino	2,250	10	68.0		100	15	41	1	44	0.00		0.00	0	0	26	3	1	sw.	So. Cal. Edison Co.
Riverside	Riverside	851	34	69.0	-1.6	104	14	40	3	54	0.00	-0.05	0.00	0	0	27	3	0	w.	J. H. D. Cox.
Rocklin	Placer	249	45	71.4	-3.6	100	†8	46	†1	45	0.00	-0.25	0.00	0	0	25	2	3	se.	Southern Pacific Co.
Rohnerville	Humboldt	75	13	58.2		84	24	39	7	38	0.70	+0.14	0.15	0	6	16	3	11	nw.	W. D. Gray.
Ruth	Trinity	2,925	2	61.4		99	†15	32	27	56	1.84		1.36	0	6	21	6	3		U. S. Forest Service.
SACRAMENTO	Sacramento	71	39	68.0	-0.9	98	14	44	1	43	0.01	-0.16	0.01	0	1	28	1	1	s.	U. S. Weather Bureau.
St. Helena	Napa	255	8	65.4		100	6	38	†1	54	0.49		0.49	0	1	28	1	1		E. E. Hooper.
Salinas	Monterey	40	42	58.2	-3.8	83	†2	41	3	38	0.00	-0.13	0.00	0	0	0	0	0	w.	Miss E. Ruth Abbott.
San Bernardino	San Bernardino	1,054	24	69.3	-0.5	100	†14	41	†1	51	0.00	-0.08	0.00	0	0	27	3	0	sw.	Dr. A. K. Johnson.
SAN DIEGO	San Diego	87	45	61.4	-2.4	74	30	52	2	17	T.	-0.06	T.	0	0	14	12	4	nw.	U. S. Weather Bureau.
SAN FRANCISCO	San Francisco	207	45	57.4	+0.4	76	6	47	14	25	T.	-0.24	T.	0	0	21	7	2	sw.	do
San Jacinto	Riverside	1,550	23	75.6	+4.4	110	15	51	†21	43	0.00	0	0.00	0	0	27	3	0		E. T. Tanner.
SAN JOSE	Santa Clara	95	41	62.6	-2.4	91	6	41	2	46	T.	-0.13	T.	0	0	27	3	0	nw.	U. S. Weather Bureau.

Climatological Data for June, 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	65.3	-0.1	100	15	38	2	53	0.30	-0.04	0.30	0	1	18	9	3	nw.	Dr. George McCowen.
Vacaville	Solano	175	28	63.1	-1.9	100	16	39	1	56	0.00	-0.16	0.00	0	0	.....	.....	.....	w.	J. E. Bassford.
Valvermo	Los Angeles	3,750	28	66.0	.....	98	14	33	22	58	0.00	0.00	0.00	0	0	.....	.....	.....	sw.	U. S. Forest Service.
Visalia	Tulare	334	28	74.2	+0.9	101	16	45	11	40	0.00	-0.10	0.00	0	0	30	0	0	nw.	Santa Fe Co.
Walnut Creek	Contra Costa	149	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. L. Nougaret.
Warner Springs	San Diego	3,165	8	67.1	.....	101	15	37	1	54	0.00	0.00	0.00	0	0	27	2	1	.....	J. A. Ream.
Wasco	Kern	386	16	73.2	-1.8	103	15	44	1	45	0.00	0	0.00	0	0	30	0	0	nw.	Santa Fe Co.
Watsonville	Santa Cruz	23	20	59.1	+3.3	90	23	36	2	48	0.00	-0.14	0.00	0	0	8	20	2	s.	Spreckels Sugar Co.
Weaverville	Trinity	2,162	4	64.1	.....	104	16	33	21	59	1.30	+0.57	1.16	0	3	22	2	6	.....	U. S. Forest Service.
Weitchpec	Humboldt	1,700	6	61.1	.....	96	16	35	20	44	2.31	.....	0.75	0	7	21	1	8	nw.	G. S. Garnett.
West Branch	Butte	3,216	2	60.6	.....	92	15	34	1	46	1.13	.....	1.13	0	1	21	8	1	s.	Pacific Gas & Electric Co.
Wheatland	Yuba	84	29	70.9	-0.5	99	17	47	1	42	0.10	-0.18	0.08	0	2	25	3	2	s.	Wm. Lumbard.
Willows	Glenn	136	37	74.4	-2.5	105	15	41	1	47	1.06	+0.88	1.05	0	1	27	1	2	s.	F. E. Barthouse.
Yorba Linda	Orange	405	2	64.8	.....	86	30	42	4	38	0.00	.....	0.00	0	0	17	9	4	w.	S. J. Walker.
Yosemite	Mariposa	3,960	12	70.2	.....	103	4	30	28	53	T.	-0.81	T.	0	0	14	14	2	s.	Supt. National Park.
Yreka	Siskiyou	2,625	27	62.2	.....	102	16	31	21	50	0.48	.....	0.36	0	4	15	4	11	nw.	U. S. Forest Service.
Means and Extremes.				65.2	-3.8	121	15	18	2	67	0.22	-0.09	2.80	T.	1	24	4	2	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 JUNE.
MEAN MONTHLY TEMPERATURE FOR THE STATE.

1897	69.8	1907	66.1
1898	71.3	1908	66.0
1899	71.5	1909	65.1
1900	71.4	1910	67.3
1901	70.5	1911	66.7
1902	70.2	1912	68.0
1903	70.9	1913	65.8
1904	71.1	1914	66.4
1905	67.5	1915	67.3
1906	66.7	1916	65.2

AVERAGE PRECIPITATION FOR THE STATE.

1897	0.46	1907	1.02
1898	0.25	1908	0.17
1899	0.57	1909	0.19
1900	0.19	1910	0.05
1901	0.01	1911	0.15
1902	0.10	1912	0.49
1903	0.07	1913	0.27
1904	0.04	1914	0.85
1905	0.07	1915	0.01
1906	1.05	1916	0.22

DELAYED REPORTS.

Stations.	Month.	Temperature.					Total precipitation
		Mean	Max.	Date	Min.	Date	
Abbotts	May	.....	.....	.....	.....	.....	0.08
Angiola	"	64.7	95	5	35	25	0.00
Big Sur	"	.....	.....	.....	.....	.....	0.43
Blythe	"	73.6	105	4	140	14	.....
Center Ranger Station	"	54.8	75	4	30	23	0.40
Greenland Ranch	"	84.0	110	5	57	19	0.40
San Miguel Island	"	53.3	73	1	45	21	0.00
Sisson	"	48.8	82	28	21	17	0.54
Twin Valley	"	54.7	88	4	24	7	0.98
Yosemite	"	64.4	96	28	32	24	0.53

DATES OF MISCELLANEOUS PHENOMENA.

Thunderstorms.—Big Bar, 11, 12; Bucks, 2; Chester, 11, 12, 17; Covelo, 12, 17; Eureka, 17; Happy Camp, 16, 17; Hayfork, 11, 12, 17; Holcomb, 7; Hullville (near), 17; Las Plumas, 16; McCloud, 18; Magalia, 1, 2, 3; Montague, 16, 17; Orleans, 17; Red Bluff, 16; Redding, 2, 3, 27, 29; Ruth, 12; Tamarack, 3; Weitchpec, 3, 17.

Earthquakes.—Calxico, 7; King City, Paso Robles, Priest Valley, Salinas, Santa Cruz, 27.

Daily Temperature for June, 1916.

Table with columns for Stations, 1-31, and Mean. Rows list various California locations such as Alturas, Bakersfield, Barstow, etc., with their corresponding temperature data for each day of the month.