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CALIFORNIA SECTION.

G. H. WILLSON, District Forecaster.

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GENERAL SUMMARY.

In California, April, 1916, was slightly above the normal in temperature, while the precipitation was decidedly below the normal. Taking the State as a whole, it was the driest April in seven years, the average precipitation having been 0.52 inch, whereas the normal is 1.79 inches. A total of 36 stations reported no rainfall whatever, while 11 other stations reported only a trace. The month was remarkably fine for April, there having been no severe or long-continued storms. The cloudiness was less and the sunshine greater than that recorded during April in many years. Coast stations received 70 per cent or more of the possible sunshine, while most interior stations received over 90 per cent of the possible amount. This is an unusual record for April. The latter half of the month was unusually windy, though that is a common feature of a spring month in California. As might be expected to follow the excessive snowfall in the mountains during the midwinter months, the run-off during April has been relatively great, as it was during the preceding month. However, as the streams were not augmented through rainfall there has been no approach to flood conditions at any point, except in the vicinity of Tulare Lake, where considerable agricultural land is still submerged.

The first four days of the month were unsettled, with scattered light showers, while the following five days were warm and dry. For three days, beginning on the 10th, showery weather again prevailed, with light to moderate rains at most places on the 11th. Cool weather followed the passage of these unsettled conditions, from the 12th to the 14th, when light frosts occurred in the interior lowlands. Though scattered showers again occurred in various portions of the State from the 16th to the 19th, the latter half of the month was a period of fine weather and unbroken sunshine, with temperatures increasing from day to day, reaching the highest for the month on the 30th.

From an agricultural point of view the outstanding features of the month were the lack of rainfall and the excess of sunshine. These conditions were favorable for making hay. This crop, the first of the season, was heavier than usual, owing to the abundant midwinter rains. However, as April was the third successive month with excessive temperature and deficient precipitation agricultural conditions are somewhat below normal. The condition of deciduous fruits is below normal, partly because of local frosts and winds during March, but primarily because of the prolonged lack of moisture. Citrus fruit trees, however, are in excellent condition, the warm and dry weather having been favorable for the setting of the fruit. Grains and grasses are suffering from the drought, the grain heading prematurely, while pastures and ranges, generally, were showing the effect of the dry weather at the close of April. The season is everywhere advanced from one to two months. Even forest fires, which do not usually occur until June or July, were first reported this year during April. While the agricultural outlook in various branches is at present unfavorable the situation is not yet serious. Ample water for irrigation and power purposes is stored in the mountains, and considerable snow still remains in the high Sierra.

A. H. P.

PRESSURE.

The monthly mean atmospheric pressure for the State, reduced to sealevel, was 30.03 inches.

The highest was 30.41 inches at Eureka on the 12th.

The lowest was 29.60 inches at Independence on the 11th.

The range for the State was 0.81 inch.

TEMPERATURE.

The monthly mean temperature for the State was 57.1 degrees, which is 0.1 degree above the normal.

The highest monthly mean was 81.0 degrees, at Greenland Ranch; and the lowest was 36.1 degrees, at Tamarack.

The highest temperature, 104 degrees, occurred at Greenland Ranch on the 27th; and the lowest, 11 degrees, occurred at Madeline on the 19th.

The range for the State was 93 degrees.

PRECIPITATION.

The average precipitation for the State was 0.52 inch, or 1.27 inches below the normal.

The greatest monthly amount was 6.43 inches, at Crescent City. 36 stations reported no precipitation.

The greatest amount in 24 hours was 2.00 inches at Stirling City, on the 17th.

RELATIVE HUMIDITY.—(Per Cent.)

Stations.	5 a.m.	5 p.m.	Mean.
Eureka.....	91	82	87
Fresno.....	79	31	55
Los Angeles.....	83	56	70
Mount Tamalpais.....	54	50	52
Red Bluff.....	63	26	45
Sacramento.....	85	37	61
San Diego.....	84	71	78
San Francisco.....	83	61	72
San Jose.....	87	50	68
San Luis Obispo.....	82	62	72

SUNSHINE AND CLOUDINESS.

Stations.	Actual hours of sunshine.	Per cent of the possible.
Eureka.....	280	70
Fresno.....	373	94
Los Angeles.....	316	81
Mount Tamalpais.....	377	95
Red Bluff.....	325	
Sacramento.....	366	82
San Diego.....	298	76
San Francisco.....	333	84
San Jose.....	358	91
San Luis Obispo.....	327	83

WIND MOVEMENT.—(Miles.)

Stations.	Total movement for month.	Average hourly velocity.	Maximum velocity.	Direction.	Date.
Eureka.....	6,058	8.4	36	n.	1
Fresno.....	6,521	9.1	28	nw.	10
Independence.....	5,506	7.6	30	nw.	17
Los Angeles.....	3,937	5.5	16	s.	18
Mount Tamalpais.....	16,483	22.9	84	nw.	10
Point Reyes.....	18,426	25.6	87	nw.	11
Red Bluff.....	4,720	6.6	30	nw.	29
Sacramento.....	6,324	8.8	37	nw.	29
San Diego.....	4,341	6.0	22	w.	11
San Francisco.....	6,914	9.6	31	nw.	13
San Jose.....	3,950	5.5	24	w.	11
San Luis Obispo.....	3,470	4.8	18	w.	17

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

Climatological Data for April, 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.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Snowfall (unmelted).	Precipitation 01 inch or more.						
Alturas.....	Modoc.....	4,400	12	47.2	77	25	17	+5	53	0.75	-0.56	0.55	0	3	17	9	4 sw.		
American Camp.....	Tuolumne.....	2,600	1	55.6	.....	83	9	32	+12	40	1.20	0.85	0	2	22	6	2 s.		
Angiola.....	Tulare.....	208	16	55.6	.....	83	9	32	+12	40	.....	.....	0	0	29	1	0 e.
Antioch.....	Contra Costa.....	46	87	70.1	+10.4	91	6	43	+11	37	T.	-0.82	T.	0	0	29	1	C. G. McDaniel.		
Arrowhead Springs.....	San Bernardino.....	2,000	7	69.2	.....	87	8	44	+4	26	0.78	0.63	0	3	22	2	3 s.		
Atascadero.....	San Luis Obispo.....	837	.....	57.8	.....	90	9	31	+13	49	0.15	0.15	0	1	28	0	2 Colony Holding Corp.	
Auberry.....	Fresno.....	2,050	.....	56.8	.....	76	+9	34	+12	31	1.28	0.51	0	3	24	6	0 nw.	
Auburn.....	Placer.....	1,360	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. J. & E. Ry. Co.
Avalon.....	Los Angeles.....	30	6	60.4	.....	84	30	47	+5	28	0.00	0.00	0	0	26	2	2 nw.		
Azusa.....	do.....	540	14	62.8	+2.7	95	20	37	+5	53	0.10	-0.90	0.10	0	1	23	2	5 sw.		
Bagdad.....	San Bernardino.....	784	13	76.8	+4.1	96	+27	59	12	27	0.00	-0.06	0.00	0	0	27	0		
Bakersfield.....	Kern.....	404	27	66.6	+1.1	89	23	42	+12	43	0.33	+0.01	0.33	0	1	26	0	E. L. White.		
Barstow.....	San Bernardino.....	2,105	13	64.4	+2.2	90	9	44	+11	36	0.44	+0.37	0.31	0	2	27	0	State University.		
Berkeley.....	Alameda.....	317	29	58.4	.....	86	30	41	+18	33	0.01	0.01	0	1	25	4	1 w.		
Betteravia.....	Santa Barbara.....	155	3	57.8	.....	80	30	36	+17	34	0.10	0.10	0	1	24	3	3 w.		
Biggs **.....	Butte.....	98	17	69.8	+10.4	92	7	50	+16	46	0.00	-0.99	0.00	0	0	25	3	Southern Pacific Co.		
Bishop.....	Inyo.....	4,450	21	55.8	+2.3	85	28	29	7	46	0.10	-0.19	0.10	0	1	25	3	W. A. Chalfant.		
Bishop Creek.....	do.....	8,500	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Paul E. Lodge.
Blacksburg.....	Humboldt.....	1,700	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Victor Hope.
Blue Canon.....	Placer.....	4,695	17	49.6	+2.7	75	9	30	+12	33	1.80	-1.74	1.10	T.	2	27	1	2 Southern Pacific Co.		
Blythe.....	Riverside.....	268	7	68.8	.....	103	27	35	+11	59	T.	T.	0	0	25	2	3 s.		
Bonita.....	San Diego.....	110	.....	61.2	+1.8	89	8	41	+14	45	0.02	0.02	0	1	23	3	4 w.		
Branscomb.....	Mendocino.....	2,000	16	52.6	+2.8	84	30	27	+16	46	2.41	-1.72	1.42	0	6	20	7	3 n.		
Brawley.....	Imperial.....	-105	6	70.8	.....	*98	+23	45	1	*43	T.	T.	0	0	22	4	4 nw.		
Bridgeport.....	Mono.....	6,500	2	41.8	68	9	16	30	45	T.	T.	T.	0	0	22	4	Geo. Delury, Jr.		
Burney.....	Shasta.....	8,300	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. M. D. Chambers.
Cahuilla.....	Riverside.....	3,600	5	46.2	.....	80	+27	13	11	57	0.00	0.00	0	0	26	1	3 sw.		
Calaveras Ranger Sta.....	Calaveras.....	3,400	.....	50.2	.....	75	30	30	18	60	1.29	1.09	0	2	21	8	1 sw.	
Campbell.....	Imperial.....	0	11	71.8	+1.8	100	27	44	1	45	0.25	0.25	0	1	28	2	0			
Camptonville (near).....	Santa Clara.....	217	19	54.2	-0.7	83	30	30	6	47	0.04	-0.92	0.04	0	1	28	0		
Canon Dam.....	Yuba.....	3,500	9	59.4	.....	*78	30	34	12	*38	1.10	0.86	0	2	29	0	1 Pacific Gas & Electric Co.		
Cascade.....	Fresno.....	4,570	2	49.6	.....	79	9	29	+19	48	0.88	0.63	0	3	23	4	3 n.		
Cedarville.....	Modoc.....	4,675	22	51.4	+1.0	72	15	30	12	34	0.65	0.32	0	3	29	0	1 Great Western Power Co.			
Center Ranger Station.....	Tuolumne.....	3,850	49.5	+3.3	*74	+25	*22	19	*39	0.68	-0.15	0.26	0	4	14	8	8 T. H. Johnstone.		
Centerville.....	Butte.....	490	2	57.6	.....	84	30	33	13	46	0.51	0.50	0	2	26	2	2 s.		
Chico.....	do.....	189	46	*61.4	-0.2	*85	9	*33	13	*41	0.27	-1.40	0.17	0	2	21	4	5 U. S. Bureau Plant Ind.		
China Flat.....	Humboldt.....	600	7	56.2	.....	80	+26	33	5	41	1.07	0.35	0	7	20	7	3 w.		
Claremont.....	Los Angeles.....	1,200	24	60.4	+2.6	89	20	39	+15	43	0.24	-0.49	0.24	0	1	22	5	3 sw.		
Cloverdale.....	Sonoma.....	340	14	59.2	+1.4	88	30	35	16	45	0.30	-1.51	0.20	0	2	24	1	5 n.		
Coalinga.....	Fresno.....	663	4	60.6	.....	87	10	35	12	43	0.27	0.20	0	2	28	0	2 w.		
Colfax.....	Placer.....	2,421	45	55.3	+1.0	78	13	34	+12	36	0.80	-3.36	0.40	0	2	27	1	2 Southern Pacific Co.		
Colusa.....	Colusa.....	60	13	.....	.....	*78	28	30	13	40	0.12	0.49	0	1	24	2	2 Co. use Sun.	
Converse Nursery.....	San Bernardino.....	6,000	2	50.8	.....	74	23	20	12	36	0.93	0.49	1.0	5	19	7	4 w.		
Corona.....	Livermore.....	615	2	61.3	.....	89	20	37	12	45	0.02	0.02	0	1	24	1	5 nw.		
Crescent City.....	Del Norte.....	125	2	49.2	-0.7	75	30	32	12	33	6.43	+1.56	1.36	0	12	14	6	10 O. I. Westerburg.		
Cuyamaca.....	San Diego.....	4,677	17	52.6	+7.0	77	28	27	12	33	0.74	-1.56	0.50	0	4	21	2	7 Prof. F. P. Brackett.		
Davis.....	Yolo.....	51	44	60.8	0	86	30	35	+18	44	0.11	-1.11	0	1	25	5	1 sw.			
Deer Creek.....	Nevada.....	3,700	9	49.6	.....	73	9	30	13	40	1.80	1.20	2.0	4	25	2	3 w.		
Del Monte.....	Monterey.....	25	5	57.8	.....	76	+35	42	+13	34	0.12	0.12	0	1	22	7	1 Hotel Del Monte.		
Delta.....	Shasta.....	1,138	31	50.8	-6.3	75	10	32	12	30	0.32	-5.15	0.32	0	1	22	7	1 Southern Pacific Co.		
Denair.....	Stanislaus.....	126	16	58.6	+0.2	89	26	37	23	45	0.20	-0.79	0.20	0	1	29	0	1 ne.		
De Sola.....	Butte.....	2,500	12	54.4	76	+10	30	19	38	1.11	-2.22	0.84	0	2	25	4	1 sw.		
Dobbins (near).....	Yuba.....	1,650	12	61.5	+1.5	88	30	40	12	42	0.48	-1.72	0.41	0	3	19	8	3 s.		
Downteville.....	Sierra.....	3,150	5	53.0	.....	81	9	31	3	46	1.89	0.86	T.	4	19	7	4 J. T. Mason.		
Dudley.....	Kings.....	595	4	62.0	.....	89	26	35	12	45	0.23	0.18	0	2	26	4	0 ne.		
Dudleys.....	Mariposa.....	3,000	7	51.0	.....	74	+8	28	12	40	1.18	0.70	T.	3	24	5	1 W. H. Dudley.		
Dunsinuir.....	Siskiyou.....	2,285	27	55.0	+1.6	82	9	33	19	38	0.02	-1.32	0.02	0	1	23	7	0 Southern Pacific Co.		
Durham.....	Butte.....	160	21	58.8	+0.8	84	11	37	19	41	0.10	-1.63	0.10	0	1	24	4	2 R. W. Durham.		
East Park.....	Colusa.....	2	58.3	.....	82	+13	33	22	46	T.	T.	T.	0	0	20	10	J. J. Lea.		
Edison.....	Kern.....	2,500	2	62.4	76	8	48	13	20	0.25	-0.86	0.25	0	1	24	2	4 So. Cal. Edison Co.		
El Cajon.....	San Diego.....	482	17	61.0	+1.3	89	8	37	8	52	0.15	-0.48	0.10	0	2	25	3	H. H. Kessler.		
Electra.....	Amador.....	725	12	59.0	-0.8	85	30	37	12	37	0.64	-1.61	0.52	0	2	26	3	Pacific Gas & Electric Co.		
Elsinore.....	Riverside.....	1,300	.....	63.6	.....	92	26	40	2	47	0.20	0.18	0	2	27	1	2 U. S. Forest Service.	
Emigrant Gap.....	Placer.....	5,230	42	50.4	+7.9	70	+15	29	12	30	1.16	-3.29	0.70	1.0	4	27	3	Southern Pacific Co.		
Escondido.....	San Diego.....	657	22	60.3	+1.9	85	18	38	+1	47	0.37	-0.48	0.29	0	2	11	19	A. R. Moon.		
ETREKA.....	Humboldt.....	64	30	50.2	+0.7	70	26	38	12	26	1.98	-2.30	0.79	0	9	10	13	U. S. Weather Bureau.		
Folsom.....	Sacramento.....	252	44	62.8	+2.0	86	30	41	18	38	0.34	-1.71	0.30	0	2	25	4	2 G. I. Marvin.		
Fontana.....	San Bernardino.....	1,325	4	59.8	.....	92	28	36	5	44	0.20	0.12	0	3	23	2	3 Fontana Co.		
Fordyce Dam.....	Nevada.....	6,500	21	36.8	52	25	21	12	21	0.77	-3.65	0.50	5.0	3	16	11	3 E. E. Roening.		
Fort Bidwell.....	Modoc.....	4,375	27	48.0	+0.7	74	26	22	12	39	0.58	-1.13	0.22	0	5	16	5	9 C. R. Deacons.		
FRESNO.....	Fresno.....	293	29	62.4	+1.2	84	10	42	18	39	0.02	-1.32	0.02	0	1	23	7	0 U. S. Weather Bureau.		
Georgetown.....	El Dorado																			

Climatological Data for April, 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 (un-melted).	Precipitation, 0.1 inch or more.	Clear.	Partly cloudy.	Cloudy.		
La Porte.....	Plumas.....	5,000	22	39.4	-2.8	60	30	20	28	31	8.32	-1.95	1.52	1.5	7	23	5	2	n.s.	C. W. Hendel.
Las Plumas.....	Butte.....	506	22	63.7	+0.6	85	26	39	12	35	0.53	-0.53	1.23	6	1	23	6	1	s.w.	Great Western Power Co.
Le Grande.....	Merced.....	255	16	58.0	+0.6	84	10	30	18	46	0.69	-0.12	0.69	0	1	26	0	4	w.	Santa Fe Co.
Lemon Cove.....	Tulare.....	600	21	66.6	+4.2	88	19	41	19	37	0.70	-0.87	0.27	0	3	27	0	3	n.w.	Logan Tabler.
Lick Observatory.....	Santa Clara.....	4,209	27	48.6	+2.2	69	9	29	18	25	0.47	-2.34	0.47	0	1	27	2	1	n.	The Director.
Lindsay.....	Tulare.....	384	2	62.3	+2.2	90	10	39	16	44	0.22	-0.16	0.2	0	2	19	10	1	n.w.	Basil Prior.
Livermore.....	Alameda.....	485	43	60.2	+3.3	94	3	37	12	55	0.21	-0.94	0.17	0	2	23	6	1	w.	E. G. Still.
Longpoc (near).....	Santa Barbara.....																			A. R. Poett.
Lone Pine.....	Inyo.....	3,728	11	57.3	+2.1	82	24	35	19	38	0.20	+0.04	0.20	0	1	29	1	0	s.	G. F. Marsh.
Los ANGELES.....	Los Angeles.....	293	39	62.4	+4.8	84	7	49	12	31	1.36	-1.36	1.36	0	0	20	6	4	sw.	U. S. Weather Bureau.
Los Gatos.....	Santa Clara.....	600	29	58.4	+2.1	84	30	37	16	37	1.0	-2.03	1.0	0	0	24	5	1	n.	F. H. McCullagh.
McCloud.....	Siskiyou.....	3,410	6	47.3	.....	75	19	21	12	47	0.58	.....	0.56	1.0	0	20	6	4	s.w.	F. F. Spencer.
Madeline.....	Lassen.....	5,270	7	43.8	.....	68	9	11	19	41	0.75	.....	0.30	6.0	0	12	8	10	s.	J. H. Williams.
Magalia.....	Butte.....	2,321	12	56.3	+2.0	89	18	35	14	40	0.72	-3.09	0.62	0	0	21	0	9	s.	Southern Pacific Co.
Maricopa.....	Kern.....	640	5	66.8	.....	96	17	43	13	46	0.59	.....	0.38	0	0	20	2	8	n.	Producers Trans. Co.
Marysville.....	Yuba.....	67	45	62.6	+0.6	85	30	41	20	38	1.0	-1.51	1.0	0	0	22	8	0	s.	Southern Pacific Co.
Mecca.....	Riverside.....	-185	10	72.8	.....	99	25	45	1	42	0.00	0.00	0.00	0	0	24	4	2	n.w.	E. A. Palmer.
Merced.....	Merced.....	173	42	59.9	-0.1	82	10	82	18	36	0.29	-0.68	0.22	0	3	27	3	0	n.w.	Santa Fe Co.
Middlewater.....	Kern.....	803	5	63.8	.....	87	9	39	13	40	0.15	.....	0.15	0	1	27	2	1	n.	Producers Trans. Co.
Milk Creek—1.....	Amador.....	2,500	9	50.0	.....	72	9	32	12	31	1.52	.....	0.99	0	4	22	6	2	n.	Pacific Gas & Electric Co.
Milton (near).....	Calaveras.....	660	25	60.0	-1.4	85	30	36	12	36	0.40	-1.24	0.20	0	2	24	6	0	n.w.	J. H. Southwick.
Mineral.....	Tehama.....	1	.....	.....	.....	82	30	36	18	37	0.36	-2.43	0.24	0	2	26	0	4	.....	U. S. Forest Service.
Mokelumne Hill.....	Calaveras.....	1,560	23	58.9	+4.2	82	30	36	18	37	0.36	-2.43	0.24	0	2	26	0	4	.....	C. E. Prindle.
Montague.....	Siskiyou.....	2,450	28	49.9	-3.4	77	8	24	12	44	0.04	-1.95	0.04	0	0	14	11	5	n.w.	I. E. De Boy.
MOUNT TAMALPAIS.....	Marin.....	2,375	17	53.3	+3.8	75	30	36	11	25	0.05	-1.95	0.04	0	3	23	7	0	n.w.	U. S. Weather Bureau.
Napa City.....	Napa.....	20	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thos. Hull.
Needles.....	San Bernardino.....	477	24	52.6	.....	95	127	26	12	27	0.62	-0.08	0.00	0	0	28	0	2	sw.	Santa Fe Co.
Nellie.....	San Diego.....	5,350	7	52.6	.....	79	28	26	12	27	0.62	0.44	0.44	0	4	19	4	7	s.w.	Esther P. Hewlett.
Nevada City.....	Nevada.....	2,850	24	51.6	+1.1	78	9	29	12	46	1.51	-2.99	1.21	0	3	24	4	2	s.	S. W. Marsh.
Newman.....	Stanislaus.....	91	27	58.7	-3.4	82	11	32	18	47	0.25	-0.45	0.25	0	1	39	1.5	1	s.	E. S. Wangenheim.
North Bloomfield.....	Nevada.....	3,214	19	52.9	+1.6	78	30	32	11	39	1.95	-3.14	1.50	0	2	14	10	6	w.	J. R. McIntosh.
North Fork.....	Madera.....	3,000	12	53.8	.....	85	18	30	12	48	0.50	-1.96	0.23	0	3	20	9	1	sw.	U. S. Forest Service.
Oak Grove.....	San Diego.....	2,751	6	61.4	.....	78	24	25	12	45	0.55	-0.55	0.05	0	1	20	3	7	w.	U. S. Forest Service.
Oakland.....	Alameda.....	36	40	57.2	+1.8	82	30	41	12	28	0.02	-1.54	0.02	0	1	19	11	0	.....	Chabot Observatory.
Oceanside.....	San Diego.....	60	6	58.1	.....	78	8	45	13	26	1.0	.....	0.32	0	1	23	4	3	sw.	H. D. Brodie.
Ojai Valley.....	Ventura.....	900	10	59.6	.....	92	28	35	5	45	0.5	-0.52	0.00	0	0	21	8	1	s.	W. H. Duncan.
Orland.....	Glenn.....	254	34	63.2	-0.2	87	19	38	19	41	0.00	-1.24	0.00	0	0	21	4	3	sw.	U. S. Rec. Service.
Orleans.....	Humboldt.....	520	13	57.6	-3.8	86	7	38	13	44	2.07	-0.57	0.95	0	9	20	0	10	.....	F. W. Gent.
Oroville (near).....	Butte.....	250	32	61.6	+2.1	86	30	36	12	41	0.23	-1.75	0.23	0	1	20	1	9	se.	E. D. Fairchild.
Pacific.....	El Dorado.....	3,400	1	.....	.....	85	8	39	12	42	0.13	-0.15	0.13	0	1	25	0	5	sw.	U. S. Forest Service.
Pasadena.....	Los Angeles.....	827	26	59.9	-0.2	85	8	39	12	42	0.13	-0.15	0.13	0	1	25	0	5	sw.	Harlan W. Hall.
Paso Robles.....	San Luis Obispo.....	800	29	59.2	+0.4	89	10	30	15	46	0.22	-0.14	0.14	0	1	21	9	0	n.w.	Dr. F. W. Sawyer.
Peachland.....	Sonoma.....	190	20	57.0	+0.9	88	30	34	16	48	0.22	-1.77	0.22	0	1	25	5	0	sw.	E. H. Parnell.
Petaluma.....	do.....	2	25	51.1	.....	89	30	34	12	51	0.02	-1.85	0.02	0	1	29	1	0	n.w.	John Landis.
Placerville.....	El Dorado.....	1,875	27	54.8	+2.6	78	27	34	12	34	0.37	-3.88	0.20	0	2	19	9	2	se.	A. Baring Gould.
Point Loma.....	San Diego.....	302	10	59.3	.....	74	8	48	12	21	1.0	.....	0.49	0	0	19	9	2	se.	Fred J. Dick.
POINT REYES.....	Marin.....	490	24	61.6	+0.5	65	27	44	9	17	0.01	-1.33	0.01	0	1	14	12	4	n.w.	U. S. Weather Bureau.
Pomona.....	Los Angeles.....	857	2	60.4	.....	90	20	36	15	53	0.27	.....	0.27	0	1	14	4	12	.....	U. S. Weather Bureau.
Porterville.....	Tulare.....	464	27	68.5	+0.6	88	30	41	19	41	0.27	-0.52	0.17	0	2	27	1	2	sw.	Leslie McAuliffe.
Quincy.....	Plumas.....	3,400	21	52.0	+4.0	68	26	26	16	30	0.11	.....	0.06	0	3	25	0	5	sw.	Western Pacific Co.
RED BLUFF.....	Tulare.....	562	23	61.8	+1.6	87	30	42	19	32	0.04	-2.12	0.02	0	2	20	4	6	n.w.	H. D. Cox.
Redding.....	Tehama.....	307	39	62.5	+3.4	87	30	42	19	32	0.04	-2.55	0.41	0	1	21	9	0	n.w.	W. D. Gray.
Redlands.....	San Bernardino.....	1,352	23	62.0	+1.3	91	20	37	12	42	0.12	-0.57	0.11	0	2	20	5	5	sw.	U. S. Forest Service.
Reedley.....	Fresno.....	347	16	64.4	-0.2	85	9	39	12	40	0.14	-0.85	0.14	0	1	27	0	3	se.	P. W. Moore.
Rialto (near).....	San Bernardino.....	2,250	10	61.6	.....	86	24	40	5	30	1.07	.....	0.54	0	3	22	3	5	se.	Santa Fe Co.
Riverside.....	Riverside.....	851	24	62.0	+1.6	96	20	35	12	56	0.02	-0.66	0.02	0	1	22	7	1	w.	So. Cal. Edison Co.
Rocklin.....	Placer.....	249	45	61.0	+0.6	84	10	38	18	41	0.15	-1.58	0.15	0	1	27	0	3	sw.	J. H. D. Cox.
Ruth.....	Humboldt.....	75	13	53.3	.....	74	23	33	12	38	0.35	-0.39	0.52	0	7	20	3	5	n.w.	Southern Pacific Co.
Trinity.....	Trinity.....	2,925	2	51.4	.....	80	14	29	14	45	1.48	.....	0.54	0	5	19	6	5	sw.	U. S. Weather Bureau.
SACRAMENTO.....	Sacramento.....	71	39	61.0	+3.0	85	30	41	18	33	0.06	-2.22	0.06	0	2	27	3	0	s.	U. S. Weather Bureau.
Salinas.....	Monterey.....	255	8	60.4	.....	96	19	35	16	53	0.00	.....	0.00	0	0	23	7	0	.....	Miss E. Ruth Abbott.
San Bernardino.....	San Bernardino.....	1,054	24	62.4	+2.2	84	8	38	13	36	0.16	-1.01	0.16	0	1	28	1	1	w.	Dr. A. K. Johnson.
SAN DIEGO.....	San Diego.....	87	45	60.2	+2.0	79	7	48	7	31	0.01	-0.75	0.01	0	1	21	6	3	n.w.	U. S. Weather Bureau.
SAN FRANCISCO.....	San Francisco.....	207	45	57.6	+3.9	83	30	46	9	27	0.00	-1.97	0.00	0	0	22	8	0	sw.	do.....
SAN JOAQUIN.....	Riverside.....	1,550	23	64.7	+5.9	95	9	34	15	49	0.00	-0.82	0.00	0	0	23	2	0	n.w.	E. T. Tanner.
SAN JOSE.....	Santa Clara.....	95	41	57.6	+0.															

Climatological Data for April, 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.			
Ukiah.....	Mendocino.....	620	23	57.0	+2.3	88	30	31	+12	53	0.25	-2.20	0.15	0	2	21	8	I	nw.	Dr. George McCowen.	
Vacaville.....	Solano.....	175	28	59.6	+0.8	84	30	37	18	41	0.08	-1.89	0.08	0	1	28	2	0	w.	J. E. Bassford.	
Valyermo.....	Los Angeles.....	3,750	28	57.2	.....	83	+27	31	3	47	0.00	.....	0.00	0	0	19	9	2	.....	U. S. Forest Service.
Visalia.....	Tulare.....	334	28	63.8	+5.0	84	9	44	+17	34	0.04	-0.72	0.04	0	1	27	2	1	nw.	Santa Fe Co.	
Walnut Creek.....	Contra Costa.....	149	2	59.8	+1.7	84	30	38	12	40	0.04	-1.36	0.04	0	0	1	23	2	5	R. L. Nougaret.
Warner Springs.....	San Diego.....	3,165	8	37.4	.....	86	27	35	+12	48	0.03	.....	0.03	0	1	26	0	4	sw.	J. A. Ream.
Wasco.....	Kern.....	336	16	61.6	+2.0	84	30	40	13	38	0.45	-0.06	0.38	0	2	26	0	2	s.	Santa Fe Co.	
Watsonville.....	Santa Cruz.....	23	20	57.2	-0.3	84	30	32	18	44	0.08	-0.99	0.08	0	1	19	9	2	.....	Spreckels Sugar Co.
Weaverville.....	Trinity.....	2,162	4	56.7	.....	86	30	24	12	56	0.65	-2.63	0.55	0	2	22	5	3	.....	U. S. Forest Service.
Weitchpec.....	Humboldt.....	1,700	6	51.5	.....	81	30	30	12	42	2.30	.....	0.54	0	9	19	4	7	w.	G. S. Garnett.
West Branch.....	Butte.....	3,216	2	51.3	.....	76	+13	30	+12	42	1.59	.....	0.84	0	2	19	4	7	n.	Pacific Gas & Electric Co.
Wheatland.....	Yuba.....	84	29	61.8	+3.4	84	30	41	+18	39	0.06	-1.24	0.06	0	1	16	12	2	s.	Wm. Lumbard.	
Willows.....	Glenn.....	136	37	61.8	+1.5	84	19	36	18	43	0.00	-1.20	0.00	0	0	29	1	0	n.	F. E. Barnhouse.	
Yorba Linda.....	Orange.....	405	2	61.0	.....	87	18	39	12	42	0.09	.....	0.06	0	2	23	7	0	w.	S. J. Walker.
Yosemite.....	Mariposa.....	3,945	12	67.0	.....	96	10	29	14	60	0.58	-1.53	0.45	0	3	23	4	3	s.	J. R. Kelly.
Yreka.....	Siskiyou.....	2,625	27	50.4	.....	76	+18	25	12	45	0.33	.....	0.28	0	3	15	6	9	nw.	U. S. Forest Service.
Means and Extremes.....				57.1	+0.1	104	27	11	19	60	0.52	-1.27	2.00	0.1	2	23	4	3	nw.		

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 APRIL.
MEAN MONTHLY TEMPERATURE FOR THE STATE.

1897.....	60.6	1907.....	53.2
1898.....	60.9	1908.....	53.4
1899.....	58.1	1909.....	57.6
1900.....	59.9	1910.....	59.8
1901.....	55.8	1911.....	54.2
1902.....	56.2	1912.....	51.9
1903.....	54.8	1913.....	54.9
1904.....	57.2	1914.....	56.6
1905.....	57.2	1915.....	56.0
1906.....	56.3	1916.....	57.1

AVERAGE PRECIPITATION FOR THE STATE.

1897.....	0.51	1907.....	1.11
1898.....	0.41	1908.....	0.67
1899.....	0.60	1909.....	0.12
1900.....	2.14	1910.....	0.62
1901.....	2.16	1911.....	1.93
1902.....	1.88	1912.....	3.07
1903.....	1.28	1913.....	1.44
1904.....	2.18	1914.....	2.14
1905.....	1.18	1915.....	1.85
1906.....	1.68	1916.....	0.52

ERRATA. JANUARY, 1916.

- Antelope Valley, page 7, total precipitation, 7.15, should be 7.13.
 Burney, pages 4 and 7, total precipitation, 11.48, should be 11.25; pages 4 and 11, total snowfall, 85.0, should be 83.0.
 Blue Canon, pages 4 and 7, total precipitation, 29.42, should be 31.49; pages 4 and 11, total snowfall, 227.8, should be 230.5.
 Campbell, pages 4 and 7, total precipitation, 10.05, should be 10.11.
 Chester, page 7, total precipitation, 15.96, should be 15.81.
 Chico, page 4, highest temperature, 54°, on 22nd, should be 58°, on 25th; total precipitation, 12.08, should be 12.48.
 Crescent City, page 4, lowest temperature, 29°, on 19th, should be 28°, on 29th.
 Delta, page 4, highest temperature, 59°, on 4th, should be 52°, on 23rd.
 Denair, pages 4 and 7, total precipitation, 3.85, should be 3.86.
 Glennville, page 4, mean temperature, 36.8°, should be 36.6°.
 Gold Run, pages 4 and 7, total precipitation, 17.35, should be 17.53.
 Gridley, page 8, total precipitation, 9.68, should be 9.98.
 Madeline, page 5, total snowfall, 80.0, should be 87.0.
 Magalia, page 5, number of days with precipitation, 11, should be 20.
 North Fork, page 5, number of days with precipitation, 18, should be 21.
 Oak Grove, page 5, number of days with precipitation, 15, should be 14.
 Oroville (near), page 5, mean temperature, 44.2°, should be 43.6°.
 Redlands, page 6, number of days with precipitation, 14, should be 16.
 Rocklin, page 5, mean temperature, 49.9°, should be 44.9°; number days with precipitation, 11, should be 12.
 Rohnerville, page 5, mean temperature, 44.6°, should be 42.6°.
 San Bernardino, page 5, highest temperature, 65°, on 7th, should be 67°, on 22nd.
 Seven Oaks, pages 5 and 9, total precipitation, 31.10, should be 31.55.
 Stanwood, page 5, mean temperature, 26.7°, should be 36.6°.
 Susanville, pages 5 and 9, total precipitation, 11.48, should be 10.76.
 Wasioja, page 9, total precipitation, 11.67, should be 12.67.

DELAYED REPORTS.

Stations.	Month.	Temperature.					Total precipitation
		Mean	Max.	Date	Min.	Date	
Spreckels.....	January.	45.0	77	7	25	11	7.64
Gray Mountain.....	February.	49.7	73	+18	20	1	0.50
San Miguel Island.....	"	66.0	79	15	39	1	1.81
Spreckels.....	"	56.2	86	15	30	1	2.02
Fort Ross.....	March.	"	"	"	"	"	4.48
Gray Mountain.....	"	55.0	88	12	27	6	0.40
Hearst (near).....	"	50.8	84	10	31	10	4.49
Lick Observatory.....	"	47.6	78	10	24	24	2.96
San Miguel Island.....	"	55.9	86	11	45	6	1.46
Spreckels.....	"	54.2	93	10	*31	24	1.35

West Branch, page 6, total snowfall, 135.3, should be 136.3.

Yorba Linda, page 6, highest temperature, 63°, on 7th, should be 67°, on 20th.

FEBRUARY, 1916.

Auburn, page 18, number of days with precipitation, 15, should be 16.

Cedarville, page 18, mean temperature, 54.6°, should be 56.6°.

Delta, pages 18 and 21, total precipitation, 6.95, should be 7.65.

Dinubin, page 21, total precipitation, 2.56, should be 2.52.

Deer Creek, page 18, highest temperature, 96°, on 11th, should be blank.

Emigrant Gap, page 18, lowest temperature, 22°, on 1st, should be 20°, on 20th.

Gold Run, page 18, mean temperature, 59.6°, should be 49.3°.

Grass Valley, page 18, mean temperature, 48.5°, should be 48.6°.

Hetch Hetchy, page 18, mean temperature, 42.9°, should be 42.8°.

Lick Observatory, page 19, number of partly cloudy days, 6, should be 7.

Milton (near), page 19, greatest 24-hour precipitation, 0.76, should be 0.81.

Oceanside, page 19, greatest 24-hour precipitation, 0.34, should be 0.47.

Ojai Valley, page 19, number of clear days, 17, should be 18.

Portola, page 19, mean temperature, 52.8°, should be 32.5°; greatest 24-hour precipitation, 0.04, should be 0.20.

Redlands, page 19, mean temperature, 57.6°, should be 57.3°.

Stanwood, pages 19 and 23, total precipitation, 7.87, should be 8.17.

Wasco, page 20, mean temperature, 54.0°, should be 52.0°.

DATES OF MISCELLANEOUS PHENOMENA.

- Thunderstorms.—Auberry, 2; Bucks, 1; Camptonville, 1, 11; Chester, 1, 10; Cloverdale, 1; Converse Nursery, 3, 4; Davis, 11; Deer Creek, 1, 3; Downieville, 1; Dudley, 2, 4, 11; Durham, 13; Holcomb, 3; Hullville (near), 1; Lick Observatory, 2; McKinney's, 1; Merced, 11; Mill Creek (No. 1), 2, 3; North Lakeport, Peachland, 1; Seven Oaks, 3; Sulphur Banks, 1; Three Rivers, 4; Twin Valley, Ukiah, 1; Weitchpec, 3, 10; West Branch, 1; Yosemite, 10, 11.

- Earthquakes.—Lone Pine, 12.

Daily Precipitation for April, 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 	0.00
Aguanga.	0.00	
Alturas.	0.75		
American Camp.	.35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.20
Angiola.	0.00		
Antelope Valley 	T.		
Autioch.	0.78		
Arrowhead Springs 	0.15		
Atascadero.	1.28		
Auberry.	.51	.38	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.00
Auburn 	0.00		
Avalon.	0.00		
Azusa 	0.10		
Baghdad.	0.00		
Bakersfield.	.	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.33
Barstow |||.	.	.13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.44
Bear Valley.	0.73		
Bear Valley Dam.	.	.73	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.25
Beaumont 	0.24		
Beaumont (near) 	0.34		
Belotta.	0.00		
Ben Lomond.	0.00		
Berkeley.	0.01		
Betteravia 	0.10		
Big Bar.	1.04		
Biggs.	0.00		
Big Sur.	0.35		
Bishop |||.	.10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.10
Bishop Creek.	0.25		
Blocksburg.	0.00		
Blue Canon|||.	.	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.80
Blythe.	T.		
Boca.	0.02		
Bonita.	0.00		
Boulder Creek.	0.00		
Bowman's Dam.	2.41		
Branscomb.	T.		
Brawley.	0.65		
Bridgeport.	.	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.00
Burney.	0.25		
Calbuilla.	0.00		
Calaveras Ranger Station.	.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.29
Calexico.	0.25		
Campbell.	.	.04	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.04
Camp Baldy|||.	.01	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.41
Camp Bonita 	0.22		
Camp Iron Forks 	0.19		
Campo.	.	.06	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.93
Camp Rincon 	0.02		
Camptonville (near).	1.10		
Canon Dam.	.	.02	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.88
Cascade.	.01	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.65
Cedarville.	.17	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.68
Centerville.	0.51		
Chester.	.03	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.88
Chico.	.	.10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.27
China Flat.	.	.05	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.07
Cisco.	1.40		
Claremont 	0.24		
Clearwater Power House|||.	.20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.65
Cloverdale.	.07	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.30
Coalinga 	0.27		
Colfax 	0.80		
Colgate.	0.55		
Colusa.	0.93		
Converse Nursery.	.03	.31	.08	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.02
Covelo.	.	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.76
Crescent City.	6.43		
Cuyamaca.	.12	.02	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.74
Davis.	0.11		
Deer Creek.	.	T.	.	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.80
Del Monte.	0.12		
Delta </																													

Daily Precipitation for April, 1916.—Continued.

Daily Precipitation for April, 1916.—Continued.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observation. *** Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

III Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.
† Separate dates of fall not recorded. T Trace, or less than 0.01 inch.

Note: Stations indicated thus [] in the above table are located as follows: Camp Baldy, lat. 34° 15' N., long. 117° 28' W.; Camp Bonita, lat. 34° 14' N., long. 117° 45' W.

Note: Stations indicated thus [§] in the above table are located as follows: Iron Forks, lat. 34° 18' N., long. 115° 44' W.; Camp Rincon, lat. 34° 15' N., long.

Iron Forks, lat. 34 18 N., long. 117 44 W.; Camp Rincon, lat. 34 15 N., long. 117 49 W.; Clearwater Power House, lat. 34 35 N., long. 118 27 W.; Dorman's Ranch, lat. 34 14 N., long. 116 16 W.; Littlelands, lat. 34 15 N., long. 118 17 W.; Mount Wilson, lat. 34 14 N., long. 118 5 W.; Menach, lat. 34 48 N., long. 118 35 W.; Pocoima, lat. 34 22 N., long. 118 21 W.; Rialto (near), Lytle Creek Canon; Santa Anita Forest Station, lat. 34 12 N., long. 118 2 W.; Summit-2, Cajon Pass; Tujunga Canon, lat. 34 18 N., long. 118 11 W.

APRIL, 1916.

Daily Temperature for April, 1916.