

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.

G. H. WILLSON, District Forecaster.

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GENERAL SUMMARY.

Unlike the preceding month, February, 1916, was a month of seasonable weather in California. Except along the immediate coast, where cold and cloudy weather prevailed, the greater portion of the State experienced mild, spring-like weather. For the State as a whole the temperature was 1.3° above the normal, while the precipitation was about half an inch less than the average for February. Six stations received no measurable precipitation. Following the abnormally cold weather of the 1st and 2nd, a period of showery weather persisted until about the 10th, the precipitation being particularly heavy on the 4th and 5th in the northern part of the Sacramento Valley. The second decade was fair and warm, with unbroken sunshine. Light showers accompanied the eastward passage of depressions on Feb. 20-22, and again from the 25th to the close of the month. No severe storms or violent winds were recorded during the month. However, a thunderstorm which occurred at Turlock on the 23rd was attended by destructive lightning. Fog on San Francisco Bay on the evening of the 7th resulted in a collision of steamers which caused the loss of one life. There was no approach to flood conditions in any of the larger streams, and the runoff was about normal. Water from melting snow raised the level of Tulare Lake, in Kings County, to such an extent that over 2,000 acres of rich grain land in the vicinity was submerged, and it is estimated that the grain on a considerably larger area in that region will not reach harvest.

From an agricultural point of view the month as a whole was favorable. At the beginning of the month the fear was expressed that the season would be backward, owing to the unfavorable weather of January. The setback was only temporary, however. The persistent cold and cloudy weather of January delayed the blossoming season but slightly, and almond and apricot trees were in full bloom near the close of February. In the northern portion of the State considerable citrus fruit dropped from the trees before maturing on account of injuries sustained during the severe weather of the preceding month. In the southern portion of the State oranges developed to unusually large size and weight because of the excessive rains which fell a few weeks previously. Pastures were everywhere in excellent condition. The growing season, which began about the 11th or 12th, was attended by warm weather during the remainder of the month. The bright sunshine of the middle decade hastened the flow of sap in deciduous fruit trees. As no wide-spread killing frosts occurred during the month, damage from low temperatures was negligible in amount.

February is the great seeding and planting month in California. While the saturated condition of the soil delayed planting somewhat, seeding and planting has progressed under generally favorable conditions. In certain restricted areas some re-seeding was necessary owing to the rotting in the ground during January of early sown grains. The fine weather which marked the middle portion of February was used to good advantage for out-door farm work, particularly in the preparation of gardens and in the cultivation of field crops. Though the rainfall as a whole was below the average, the ground was still well saturated at the close of the month, and the outlook for the immediate future was favorable.

A. H. P.

PRESSURE.

The monthly mean atmospheric pressure for the State, reduced to sea-level, was 30.10 inches. The highest was 30.68 inches at Red Bluff on the 1st. The lowest was 29.59 inches at Red Bluff on the 29th. The range for the State was 1.09 inches.

TEMPERATURE.

The monthly mean temperature for the State was 49.8 degrees, which is 1.3 degrees above the normal. The highest monthly mean was 63.8 degrees, at Bagdad; and the lowest was 23.6 degrees, at Bridgeport. The highest temperature, 96 degrees, occurred at Deer Creek on the 11th; and the lowest, -23 degrees, at Bridgeport on the 1st. The range for the State was 119 degrees.

PRECIPITATION.

The average precipitation for the State was 3.94 inches, or 0.47 inch below the normal. The greatest monthly amount was 31.59 inches, at Magalia. Six stations reported no measurable precipitation. The greatest amount in 24 hours was 7.74 inches at Magalia on February 3-4.

RELATIVE HUMIDITY.—(Per Cent.)

Stations.	5 a. m.	5 p. m.	Mean.
Eureka	91	84	88
Fresno	89	61	75
Los Angeles	81	68	74
Mount Tamalpais	73	78	76
Red Bluff	64	85	74
Sacramento	91	87	79
San Diego	89	72	81
San Francisco	87	74	80
San Jose	94	66	80
San Luis Obispo	83	66	74

SUNSHINE AND CLOUDINESS.

Stations.	Actual hours of sunshine.	Per cent. of the possible.
Eureka	112	36
Fresno	173	55
Los Angeles	228	71
Mount Tamalpais	146	47
Red Bluff	131	42
Sacramento	160	51
San Diego	211	66
San Francisco	139	44
San Jose	160	51
San Luis Obispo	159	50

WIND MOVEMENT.—(Miles.)

Stations.	Total movement for month.	Average hourly velocity.	Maximum velocity.	Direction.	Date.
Eureka	3,964	5.7	34	se.	9
Fresno	3,220	4.6	31	sw.	25
Independence	3,014	4.3	25	w.	29
Los Angeles	3,603	5.2	22	sw.	29
Mount Tamalpais	11,717	16.8	60	s.	10
Point Reyes	10,958	15.7	55	s.	4
Red Bluff	3,891	5.7	25	se.	4
Sacramento	4,520	6.5	34	se.	4
San Diego	3,336	4.8	21	w.	29
San Francisco	3,936	5.7	28	nw.	29
San Jose	3,592	4.7	25	se.	21
San Luis Obispo	2,584	3.7	20	ne.	11

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

Climatological Data for February, 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 (un-melted).	Precipitation .01 inch or more.	Clear.	Partly cloudy.			Cloudy.
Alturas	Modoc	4,400	12	30.2		68	17	6	29	43	0.67	-0.41	0.30	3.5	11	10	8	11	s.	Prof. C. B. Towle.
American Camp	Tuolumne	3,200	1	50.4		78	18	20	1	41	6.06		2.50	0	8	16	4	9	s.	U. S. Forest Service.
Angiola	Tulare	208	16																	Santa Fe Co.
Antioch	Contra Costa	46	37	57.0	+6.2	75	24	34	2	32	1.72	-0.28	0.70	0	4	20	8	1	n.	Southern Pacific Co.
Arrowhead Springs	San Bernardino	2,000	7																	Joan Jurgens.
Atascadero	San Luis Obispo	837		52.6		80	16	29	11	46	1.72		0.55	0	9	16	6	7		Colony Holding Corp.
Auberry	Fresno	2,050		51.1		74	17	30	1	32	4.19		1.02	0	8	17	9	3	nw.	S. J. & E. Ry. Co.
Auburn	Placer	1,360	45	51.4	+3.3	72	118	31	1	27	5.60	+0.02	1.28	0.5	15	10	7	12	ne.	Southern Pacific Co.
Avalon	Los Angeles	30	6	56.6		81	14	38	1	32	1.69		0.70	0	13	15	7	7	n.	T. S. Manning.
Azusa	do	540	14	55.6	+1.9	85	18	27	1	43	1.68	-1.57	0.56		4	18	2	9	sw.	C. O. Hillis.
Bagdad	San Bernardino	784	13	63.8	+6.5	81	18	40	1	21	0.00	-0.52	0.00	0	0	0	0	0		Santa Fe Co.
Bakersfield	Kern	404	27	55.8	+3.5	76	117	30	11	34	0.01	-0.76	0.01	0	1	20	4	5		do
Barstow	San Bernardino	2,105	13	50.0	-1.7	74	114	25	1	35	0.45	-0.04	0.25	0	2	22	4	3	w.	E. L. White.
Berkeley	Alameda	317	29	54.9	+4.9	75	114	35	1	26	4.51	-0.13	1.63	0	12	10	5	14	w.	State University.
Betteravia	Santa Barbara	155	3	56.0		76	116	34	1	36	1.20		0.30	0	6	16	11	2	w.	Union Sugar Co.
Biggs	Butte	98	17	64.4	+14.9	92	118	40	1	1	2.72	-0.72	0.82	0	8					Southern Pacific Co.
Bishop	Inyo	4,450	21	31.6	+11.4	61	27	3	1	37	0.50	-0.18	0.42	0	2	13	13	3		W. A. Chaffant.
Bishop Creek	do	5,500	6	30.6		46	9	9	1	26	2.30		0.60	23.0	5	9	15	5		Paul E. Lodge.
Blocksburg	Humboldt	1,700	10	48.2		74	18	25	11	31	7.48		1.41	9.5	15	2	9	18	se.	Victor Hope.
Blue Canon	Placer	4,035	17	38.1	-0.8	50	26	30	111	13	10.10	-2.69	1.20	30.0	15	12	1	16		Southern Pacific Co.
Blythe	Riverside	268	7	58.4		87	115	23	2	50	0.67		0.14	0	0	20	3	6	n.	C. L. Suits.
Bonita	San Diego	110		56.4		85	15	31	1	37	0.67		0.50	0	10	13	6	e.	R. M. Allen.	
Branscomb	Mendocino	2,000		48.6	+3.9	78	16	26	29	37	11.79	-5.76	0.05	0	15	8	9	12	sw.	A. J. Haun.
Brawley	Imperial	105	6	60.8		85	17	30	2	40	0.05		0.05	0	7					M. D. Witter
Bridgeport	Mono	6,500	2	23.6		50	16	23	1	59	1.64		0.56	20.5	0	7	14	3	w.	A. F. Scott.
Burley	Shasta	3,300	6	38.8		65	20	17	2	39	0.79		0.20	3.0	8	11	4	14	sw.	Mrs. M. D. Chambers.
Cahuilla	Riverside	3,600	5	39.9		72	15	9	1	51	0.77		0.30	0	4	22	2	5	e.	Dr. W. L. Shawk.
Calaveras Ranger Sta.	Calaveras	3,400		45.6		68	15	18	1	36	7.57		2.11	2.5	11	11	9	9	sw.	U. S. Forest Service.
Calexico	Imperial	0	11	61.8	+4.0	88	18	29	2	39	0.00	-0.80	0.00	0	0	25	1	3		F. R. Spencer.
Campbell	Santa Clara	217	19	53.7	+3.4	73	16	30	1	32	1.42	-1.14	0.66	0	7	11	6	12	se.	F. M. Rigater.
Camptonville (near)	Yuba	3,500	9	46.2		70	115	30	1	28	13.82		2.60	5.5	15	13	3	13	sw.	Pacific Gas & Electric Co.
Canon Dam	Plumas	4,570	2	38.6		64	114	18	1	40	4.40		0.66	10.0	13	13	5	11	n.	Great Western Power Co.
Cascada	Fresno	4,900		43.2		68	20	16	1	29	5.15		1.63	4.5	8	17	0	12		S. J. & E. Ry. Co.
Cedarville	Modoc	4,675	22	54.6	+20.7	85	117	9	1	30	0.46	-1.41	0.13	2.0	6	9	17	3	sw.	T. H. Johnstone.
Center Ranger Station	Tuolumne	3,850																		U. S. Forest Service.
Centerville	Butte	490	2	50.8		73	17	30	29	37	5.56		1.23	0	13	11	2	16	s.	Pacific Gas & Electric Co.
Chico	do	189	46																	L. Peart.
China Flat	Humboldt	600	7	49.2		65	20	34	29	27	6.67		1.22	0	13	12	5	12	sw.	O. I. Westerburg.
Claremont	Los Angeles	1,200	24	56.6	-4.5	86	15	29	1	43	1.60	-1.14	0.69	5	19	4	6	sw.	Prof. F. P. Brackett.	
Cloverdale	Sonoma	340	14	54.4	+4.4	81	14	33	1	34	4.81	-3.67	0.64	0	12	9	1	19	n.	John O. Ogle.
Coalinga	Fresno	663	4	52.8		72	110	28	1	31	0.92		0.36		5	8	5	16	w.	Producers Trans. Co.
Colfax	Placer	2,421	45	50.8	-4.9	83	18	25	1	43	8.82	+1.17	1.80		13	13	4	12	sw.	Southern Pacific Co.
Colusa	Colusa	60	13	57.4	+7.7	70	117	34	1	42	1.76		0.75	10						C. D. McComish.
Converse Nursery	San Bernardino	6,000	2	44.0		69	13	19	1	34	3.19		1.02	6.0	5	10	9	10	w.	Edw. N. Munnis.
Corona	Riverside	615	2	55.8		82	15	31	3	38	1.59		0.92		5	11	10	8	sw.	J. W. Garthwaite.
Crescent City	Del Norte	125	2	50.4	+3.2	74	17	32	29	25	13.53	-0.76	2.53	T.	16	11	4	14	sw.	C. H. Rosecock.
Cuyamaca	San Diego	4,677	17	44.8	+7.0	65	10	22	1	33	5.50	-4.38	1.31	4.0	7	14	3	12	w.	Cuyamaca Water Co.
Davis	Yolo	51	44	53.1	+1.5	72	17	32	1	30	1.93	-0.91	0.55	0	9	7	15	7	n.	S. H. Beckett.
Deer Creek	Nevada	3,700	9	44.8		76	11	23	1	30	10.99		2.10	16.0	14	11	15	15		Pacific Gas & Electric Co.
Del Monte	Monterey	25	5	57.0		87	17	31	1	47	2.27		1.13	0	8	13	10	6	nw.	Hotel Del Monte.
Delta	Shasta	1,138	31	46.2	+0.1	70	18	28	29	32	6.95	-2.32	2.41	0	8	13	0	15		Southern Pacific Co.
Denair	Stanislaus	126	16	51.8	+1.6	67	10	30	1	25	1.90	+0.30	0.90	0	3	13	0	16		Santa Fe Co.
De Sable	Butte	2,500	12	47.2		72	14	27	29	34	10.29	-0.07	2.65	2.0	12	11	3	15	sw.	Pacific Gas & Electric Co.
Dobbins (near)	Yuba	1,650	12	53.6	+2.2	78	19	34	1	32	8.40	+1.76	1.70	0	14	8	7	14	s.	do
Downville	Sierra	3,150	5	41.8		63	25	22	1	34	9.62		1.88	2.5	15	11	3	15	s.	J. T. Mason.
Dudley	Kings	595	4	59.1		78	13	32	1	23	0.59		0.20	0	6	14	10	5	sw.	Producers Trans. Co.
Dudleys	Mariposa	3,000	7	45.2		73	15	11	1	41	6.52		2.20	T.	9	11	14	4	nw.	W. H. Dudley.
Dunsmuir	Siskiyou	2,285	27	44.4	+2.9	68	115	25	28	33	9.98	+1.36	2.53	6.0	13					Southern Pacific Co.
Durham	Butte	160	21	53.3	+3.5	79	18	34	1	37	3.43	-0.83	0.65	0	13	10	5	14	s.	R. W. Durham.
East Park	Colusa	2	2	50.6		76	16	28	11	37	2.47		1.00	0	8	8	4	17		J. J. Lea.
Edison	Kern	2,500	2	55.4		70	19	35	1	21	0.71	-1.14	0.35	0	5	15	2	12		So. Cal. Edison Co.
El Cajon	San Diego	482	17	58.1	+3.9	89	15	33	11	45	1.57	-1.10	0.58	0	5	19	4	6	sw.	H. H. Kessler.
Electra	Amador	725	12	52.6	+1.3	75	18	30	1	36	4.67	-0.37	1.33	0	11	12	9	8	sw.	Pacific Gas & Electric Co.
Elsinore	Riverside	1,300		55.5		82	15	31	1	42	0.78		0.42	0	5	18	5	6	n.	U. S. Forest Service.
Emigrant Gap	Placer	5,230	42	43.5	+8.1	70	17	22	1	30	6.83	-1.36	1.23	23.0	15	16	0	13	sw.	Southern Pacific Co.
Escondido	San Diego	657	22	53.8	+1.5	81	15	32	1	39	1.62	-1.18	0.48		5	2	24	3	w.	A. R. Moon.
EUREKA	Humboldt	64	30	50.4	+3.6	68	17	33	29	24	5.18	-1.54	1.35	0	16	5	6	18	s.	U. S. Weather Bureau.
Folsom	Sacramento	252	44	54.3	+3.5	72	18	36	1	29	5.04	+1.81	1.40	0	15	13</				

Climatological Data for February, 1916.—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fabr.						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	36.2	+1.2	62	14	10	1	36	9.45	-4.32	1.96	17.2	12	10	4	15	s.	C. W. Hendel.
Las Plumas.....	Butte.....	506	2	53.6		73	20	37	1	28	7.49		1.20	0	11	5	13	s.	Great Western Power Co.	
Le Grande.....	Merced.....	255	16	52.2	+3.7	78	4	30	1	44	3.65	+1.43	1.33	0	8			n.	Santa Fe Co.	
Lemon Cove.....	Tulare.....	600	21	56.5	+3.5	77	20	30	1	34	2.13	-0.80	0.80	0	5	11	7	11	sw.	Logan Tabler.
Lick Observatory.....	Santa Clara.....	4,209	27	46.1	+5.7	66	15	25	1	13	4.05	-0.87	1.76	0	13	7	6	15	se.	The Director.
Lindsay.....	Tulare.....	384	2	53.5		77	20	25	1	37	1.32		0.48	0	6	10	16	3	nw.	Basil Prior.
Livermore.....	Alameda.....	485	45	54.0	+2.4	75	14	31	1	34	2.17	-0.24	0.76	0	10	11	4	14	ne.	E. G. Still.
Lompoc (near).....	Santa Barbara.....																			A. R. Poett.
Lone Pine.....	Inyo.....	3,728	11	37.3	-6.6	63	127	3	1	35	0.52	-0.52	0.30	0	2	22	7	0	n.	G. F. Marsh.
Los Angeles.....	Los Angeles.....	293	39	58.7	+4.6	88	15	39	1	32	1.82	-1.45	1.13	0	5	10	12	7	sw.	U. S. Weather Bureau.
Los Gatos.....	Santa Clara.....	600	29	54.6	+4.6	74	115	34	1	26	3.44	-2.14	1.91	0	12	13	1	15	n.	F. H. McCullagh.
McCloud.....	Siskiyou.....	3,410	6	38.3		63	17	17	28	32	6.41		1.16	11.0	13	13	7	9	n.	F. F. Spencer.
Madeline.....	Lassen.....	5,270	7	31.0		53	19	7	1	41	1.42		0.25	10.0	9	7	8	14	w.	J. H. Williams.
Magalia.....	Butte.....	2,321	12	47.8	+2.6	74	120	28	29	38	31.59	+20.03	7.74		11	16	2	11	n.	Southern Pacific Co.
Maricopa.....	Kern.....	640	5	52.9		78	27	23	1	41	0.13		0.08	0	2	11	5	13	se.	Producers Trans. Co.
Marysville.....	Yuba.....	67	45	54.2	+2.9	74	17	35	1	31	2.66	-0.44	0.85	0	9	10	6	13	s.	Southern Pacific Co.
Mecca.....	Riverside.....	-185	10	62.0		88	114	30	2	41	T.		T.	0	0	16	13	0	se.	R. A. Palmer.
Merced.....	Merced.....	173	42	53.3	+2.3	69	118	30	1	27	2.94	+1.44	0.83	0	10	9	10	10	se.	Santa Fe Co.
Midwater.....	Kern.....	805	5	53.0		72	10	27	1	29	0.47		0.26	0	5	14	12	3	ne.	Producers Trans. Co.
Mill Creek—L.....	Alameda.....	2,500	9	45.6		71	17	28	1	35	7.22		1.98	2.0	14	9	7	13	n.	Pacific Gas & Electric Co.
Milton (near).....	Calaveras.....	660	25	54.8	+4.0	71	18	34	1	23	2.73	-0.82	0.76	0	9	15	4	10	nw.	J. H. Southwick.
Mineral.....	Tehama.....		1																	U. S. Forest Service.
Mokelumne Hill.....	Calaveras.....	1,550	23	52.8	+6.0	73	118	30	1	24	4.05	-0.78	0.90	0	9	13	1	15	s.	C. E. Prindle.
Montague.....	Siskiyou.....	2,450	28	43.9	+3.5	68	17	23	1	41	1.49	-0.10	0.56	1.0	10	7	13	9	s.	I. E. De Boy.
MOUNTS TAMALPAIS.....	Marin.....	2,375	17	48.4	+2.8	65	15	36	29	15	4.90	+0.47	1.84	0	16	9	3	17	ne.	U. S. Weather Bureau.
Napa City.....	Napa.....	20	39																	Thos. Hull.
Needles.....	San Bernardino.....	477	24	55.8	-1.8	71	25	41	29	25	0.27	-0.16	0.27	0	1	19	4	6		Santa Fe Co.
Nellie.....	San Diego.....	5,350	7	46.0		63	115	19	1	21	3.63		1.33	1.0	5	16	4	9	sw.	N. H. Haugrave.
Nevada City.....	Nevada.....	2,850	24	47.3	+4.2	77	114	23	1	46	6.39	-1.80	1.25	T.	15	11	6	12	se.	S. W. Marsh.
Newman.....	Stanislaus.....	91	27	54.4	+1.8	73	14	28	7	40	2.05	+0.34	0.67	0	6					E. S. Wangerheim.
North Bloomfield.....	Nevada.....	3,214	19	45.0	+2.8	71	15	26	1	38	6.15	-2.44	1.20		9	7	6	16	e.	J. R. McIntosh.
North Fork.....	Madera.....	3,000	12	47.3		73	15	11	1	43	5.07	+0.86	2.09	0	5	16	8	5	sw.	U. S. Forest Service.
Oak Grove.....	San Diego.....	2,751	6	48.1	0	74	112	24	4	38	0.60		0.20		4	14	6	9	w.	U. S. Forest Service.
Oakland.....	Alameda.....	36	40	54.8	+4.5	71	15	36	1	23	3.51	-0.43	1.39	0	13	10	2	17	w.	Chabot Observatory.
Oceanside.....	San Diego.....	60	6	54.1		75	16	37	1	25	1.38		0.34	0	6	12	11	6	w.	H. D. Brodie.
Ojai Valley.....	Ventura.....	900	10	55.7		88	16	29	1	46	2.03		0.70		6	17	10	1	sw.	W. H. Duncan.
Orland.....	Glenn.....	254	34	54.6	+3.4	75	17	34	1	32	1.63	-1.30	0.58	0	10	10	9	10	n.	U. S. Rec. Service.
Orleans.....	Humboldt.....	520	13	49.8	-0.6	70	116	35	1	28	7.23	-2.63	1.37	0	14	11	4	14	se.	F. W. Gent.
Oroville (near).....	Butte.....	250	32	53.8	+3.2	73	115	33	29	32	5.24	+0.91	0.95	0	14	9	2	18	se.	E. D. Fairchild.
Pacific.....	El Dorado.....	3,400	1																	U. S. Forest Service.
Pasadena.....	Los Angeles.....	827	26	57.3	+4.9	88	15	30	1	42	1.96	+0.15	0.90	0	5	20	3	6	sw.	E. R. Sorver.
Paso Robles.....	San Luis Obispo.....	809	29	53.2	+4.9	82	117	13	1	48	2.01	-0.92	0.76	0	9	15	10	4	sw.	Dr. F. W. Sawyer.
Peachland.....	Sonoma.....	190	20	53.2	+3.0	76	14	30	1	32	5.32	-2.25	1.80	0	13	12	6	11	s.	E. H. Farnell.
Petaluma.....	do.....		2	53.0		75	14	29	1	39	3.31	-0.37	0.93		11	12	10			John Landis.
Placerville.....	El Dorado.....	1,302	10	47.7	+3.4	73	18	26	1	26	7.02	+0.71	2.05	0	12	12	6	11	sw.	A. Baring Gould.
Point Loma.....	San Diego.....	490	24	53.2	+3.4	73	115	42	1	26	0.50		0.80	0	12	13	4	16	s.	Fred T. Dick.
POINT REYES.....	Marin.....	490	24	53.2	+3.4	73	15	42	2	23	2.44	-1.03	0.23	0	14	6	5	16	s.	U. S. Weather Bureau.
Pomona.....	Los Angeles.....	357	2	55.9		86	15	27	1	50	1.77		0.80	0	6	14	9	14	n.	J. E. Adamson.
Porterville.....	Tulare.....	464	27	54.2	+2.4	75	117	29	1	36	1.17	-0.45	0.43	0	6	14	9	6	sw.	Leslie McAuliffe.
Portola.....	Plumas.....		1	32.8		60	27	3	1	41	0.42		0.04	3.5	5	16	0	13	sw.	Western Pacific Co.
Quincy.....	do.....	3,400	21	43.8	+7.0	72	14	21	13	50	6.02	-1.27	1.70	3.5	14	16	3	10	ne.	D. N. Rogers.
RED BLUFF.....	Tehama.....	307	39	53.6	+4.3	77	17	36	23	30	1.73	-1.97	0.68	0	11	8	6	15	se.	U. S. Weather Bureau.
Redding.....	Shasta.....	552	41	53.2	+3.9	81	15	34	1	33	6.55	+0.98	2.00	0	11	10	9	10	nw.	J. H. Buick.
Redlands.....	San Bernardino.....	1,352	23	57.6	+4.7	84	118	34	3	43	1.10	-1.71	0.58	0	4	13	2	14	w.	P. W. Moore.
Redley.....	Fresno.....	347	16	52.5	+0.9	71	19	33	1	30	2.32	+0.57	0.79	0	5	15	5	14	se.	Santa Fe Co.
Rialto (near).....	San Bernardino.....	2,250	10	58.7		78	115	37	1	28	4.25		1.06	0	6	17	3	9	se.	So. Cal. Edison Co.
Riverside.....	Riverside.....	851	34	59.6	+6.9	91	15	31	2	43	1.43	-0.55	0.63	0	4	10	19	0	sw.	J. H. D. Cox.
Rocklin.....	Placer.....	249	45	53.4	+3.3	82	10	33	29	37	3.63	+0.02	1.25	0	16	10	3	16	se.	Southern Pacific Co.
Rohmerville.....	Humboldt.....	75	13	52.6		75	117	33	29	30	4.23	-4.23	0.65	0	13	10	5	14	nw.	W. D. Gray.
Ruth.....	Trinity.....	2,925	2	44.3		70	17	25	16	39	7.88		1.30	1.0	15	9	7	13	sw.	U. S. Forest Service.
SACRAMENTO.....	Sacramento.....	71	39	53.8		70	17	35	1	24	2.45	-0.70	1.19	0	15	10	9	10	se.	U. S. Weather Bureau.
St. Helena.....	Napa.....	255	8	53.7		80	17	31	1	37	5.13		1.14	0	12	11	1	17	w.	E. E. Hooper.
Salinas.....	Monterey.....	40	42	55.6	+5.3	78	115	33	1	28	2.75	+0.44	1.96	0	9	15	10	4	w.	Miss E. Ruth Abbott.
San Bernardino.....	San Bernardino.....	1,054	24	57.4	+3.7	85	115	30	1	47	1.86	-1.13	0.95	0	4	17	10	2	sw.	Dr. A. K. Johnson.
SAN DIEGO.....	San Diego.....	87	45	56.4	+1.8	78	15	35	1	23	0.66	-1.60	0.23	0	5	13	8	8	nw.	U. S. Weather Bureau.
SAN FRANCISCO.....	San Francisco.....	207	45	55.8	+4.5	72	16	41	1	21	3.77	+0.08	1.60	0	14	11	3	15	n.	do
San Jacinto.....	Riverside.....	1,550	23	58.3	+6.4	89	1													

Climatological Data for February, 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 (un-melted).	Precipitation .01 inch or more.	Clear.		Partly cloudy.	Cloudy.	Prevailing direction of wind.
Ukiah	Mendocino	620	23	51.6	+4.0	79	16	26	1	39	2.56	-3.61	0.45	0	12	9	7	13	Dr. George McCowen.	
Vacaville	Solano	175	28	51.7	+0.7	70	14	28	1	34	3.15	-0.99	0.70	0	12	15	0	14	J. E. Bassford.	
Vallejo	Los Angeles	3,750	28	48.2	*	71	17	22	1	46	0.46	0.31	0	2	16	8	5	U. S. Forest Service.		
Visalia	Tulare	334	28	56.8	+6.5	75	10	30	1	25	1.89	+0.33	0.90	0	4	13	0	16	Santa Fe Co.	
Walnut Creek	Contra Costa	149	3																R. L. Nougaret.	
Warner Springs	San Diego	3,165	8	53.0		82	15	29	22	47	0.87		0.23		5	20	1	8	J. A. Ream.	
Wasco	Kern	336	16	54.0	+4.4	68	10	25	1	26	0.19	-1.11	0.06	0	4	13	9	7	Santa Fe Co.	
Watsonville	Santa Cruz	23	20	55.6	+3.7	84	16	30	1	38	4.35	+0.44	2.63	0	12	10	6	13	Spreckels Sugar Co.	
Weaverville	Trinity	2,162	4	46.4		72	17	24	29	40	5.89	+0.09	0.95	0.5	15	11	6	12	U. S. Forest Service.	
Weitchpec	Humboldt	1,700	6	45.7		67	17	20	29	31	11.32	1.87	1.5	16	10	7	12	nw.	G. S. Garnett.	
West Branch	Butte	3,216	2	42.4		66	20	24	29	34	13.48		3.20	4.0	11	9	5	15	s.	Pacific Gas & Electric Co.
Wheatland	Yuba	84	29	53.0	+4.1	69	17	35	1	27	3.06	0.74	0	11	6	7	16	se.	Wm. Lumbard.	
Willows	Glenn	136	37	53.0	+4.2	75	18	32	1	34	2.14	-0.35	0.81	0	10	17	3	9	n.	F. E. Barnhouse.
Yorba Linda	Orange	405	2	57.2		85	15	36	12	34	1.56	0.67	6.0	6	12	15	2	w.	S. J. Walker.	
Yosemite	Mariposa	3,945	12	41.2		64	18	3	1	40	4.60	-0.45	1.41	12.0	9	14	9	6	s.	J. R. Kelly.
Yreka	Siskiyou	2,625	27	44.0		67	17	22	1	37	2.26		0.58	0.6	11	11	7	11	sw.	U. S. Forest Service.
Means and Extremes.				49.8	+1.3	96	11	-23	1	62	3.94	-0.47	7.74	3.4	9	13	6	10	sw.	

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.  
 ‡ 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.

Special Rainfall Stations in Los Angeles and San Bernardino Counties for February, 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				
Camp Baldy																																			
Camp Bonita																																			
Camp Rincon																																			
Camp Iron Forks																																			
Clearwater Power House																																			
Dorman's Ranch																																			
Littlelands																																			
Mount Wilson																																			
Nenach																																			
Pacoima																																			
Santa Anita Forest Station																																			
Tyunga Canon																																			

COMPARATIVE DATA FOR FEBRUARY.

MEAN MONTHLY TEMPERATURE FOR THE STATE.

1897	48.0	1907	53.3
1898	49.4	1908	46.8
1899	48.5	1909	46.6
1900	49.9	1910	46.0
1901	47.7	1911	43.7
1902	50.3	1912	49.7
1903	43.7	1913	46.7
1904	54.5	1914	48.4
1905	50.8	1915	46.6
1906	52.0	1916	49.8

AVERAGE PRECIPITATION FOR THE STATE.

1897	5.85	1907	4.14
1898	2.95	1908	3.99
1899	0.45	1909	8.00
1900	0.94	1910	2.43
1901	6.03	1911	3.33
1902	8.14	1912	0.75
1903	1.76	1913	2.07
1904	7.91	1914	5.49
1905	4.24	1915	10.08
1906	4.88	1916	3.94

ERRATA. DECEMBER, 1915.

Blue Canon, page 144, monthly mean temperature 29.2, should be 30.8.  
 Tamarack, page 146, monthly mean temperature 34.8, should be 29.8.

JANUARY, 1916.

North Fork, page 8, total precipitation 23.90 inches, should be 23.09 inches.  
 Santa Cruz, page 5, total precipitation 14.79 inches, should be 15.49 inches.  
 Ukiah, pages 6 and 9, total precipitation 14.26 inches, should be 15.26 inches.

DELAYED REPORTS.

Stations.	Month.	Temperature.					Total precipitation
		Mean	Max.	Date	Min.	Date	
Denair	December.	46.4	66	2	20	31	2.46
Bear Valley Dam	January.	46.4	66	2	20	31	37.60
Dunsmuir	"	42.0	60	1	28	11	21.26
Livermore	"	46.2	60	1	28	11	11.35
Stevenson Creek	"	32.1	58	5	5	30	8.15
Visalia	"	45.7	70	16	28	1	4.54

MISCELLANEOUS PHENOMENA.

**Thunderstorms.**—Big Bar, 21; Calaveras, Camptonville, 20, 28; Cloverdale, 21; Deer Creek, 20; Dobbins (near), 28; Dudleys, 21; Dunlap (near), 20; Electra, 27; Glennville, 19, 20; Happy Camp, 21; Hetch Hetchy, 20; Lake Eleanor, La Porte, Las Plumas, 20; Lemon Cove, 27; Linden, 21, 26, 27; Lindsay, 26, 27; Merced, 21; Mill Creek (No. 1), 20, 27; Mitchell Mill, 20, 27; Monte Vista, 20; Red Bluff, Sacramento, 21; St. Helena, Stanwood, 20; Stockton, 21; Table Rock, 20.

**Earthquakes.**—Cahuilla, 25; Hollister, 4; Julian, 1; Los Alamos, 27; Nellie, 25.





Daily Precipitation for February, 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	
Porterville					.31																	.08					.10	.10	.43	.15		1.17
Portola				.20																						.04	.07	.01	.10			0.42
Priest Valley				.18	.85					.04															.16	.87	.29	.14			2.66	
Quincy			1.70	.50	.29	.41	.20	.22	.92	.06															.49	.14	.38	T.		6.02		
RED BLUFF***	.07		.18	.17	T.		.06		.13	.02			.01									T.	.15	.40	.37	.04					1.73	
Redding			.48	.35	.60	2.00	.65		.26	.85	.14														.13	.49					6.55	
Redlands																										.58	.10		.22			1.10
Redley				.79																			.08				.70	.10	.70		2.32	
Represa			.30	1.05	.10		.52			.70																.25	.20	.25		5.62		
Rialto (near)																										.24	1.06	.90	.75	1.00	4.26	
Rio Vista			.17	.31	.87	.10		T.	T.		.01															.03	.89	.27		2.91		
Riverside																										.63	.13		.39		1.43	
Rocklin	.10	.14	.10	.15	.41	.33	.11	.20	.06	.35	.12															.09	.08			3.63		
Rohnerville		.10	.25	.45	.10	.20	.00		.48	.65	.10		.15													.20	.17	.29		4.23		
Ruth		.14	.53	1.11	.36	.96	1.15		1.05	1.30				.31	.06											.35	.02			7.88		
SACRAMENTO***		.02	.05	.60	.03	.14	.04		.04	.05	.07	.01															.11	.16	.04		2.45	
St. Helena	T.		.33	1.14	.06	.44	.30		.33	.59																.53	.17			5.13		
Salinas			.05	.18	1.90	.10																					.07				2.75	
San Bernardino																											.24				1.88	
SAN DIEGO***																											.21				0.66	
SAN FRANCISCO***	.01	.17	1.60	.05	.03	.13	T.	.08	.07																	.24	.05	.06	.37	.72	.02	3.77
San Jacinto																											.50	.16	.01	.14	1.86	
SAN JOSE***				1.04	T.	T.		T.		.04																.04	.04	.13	.34	.03	.07	1.83
SAN LUIS OBISPO***			T.	.59	.52																						.14	.21	.15	.15	2.38	
San Miguel Island																																
San Pedro																											.30		.70	.10		1.10
Santa Ana River																																
Santa Barbara					.10																											
Santa Clara			.07	1.05	.14	T.																										1.89
Santa Cruz	.42	.60	3.00	.40						.20																						2.00
Santa Margarita					.90																											5.77
Santa Monica				.11																												2.94
Santa Rosa		.35	.60	.35		.46	.13	.06	.67	.15																						1.54
Seven Oaks																																3.63
Shively	.15	.27	.71	.35	.51				.73	.94			.19																			3.25
Sierra Madre																																5.76
Sierraville	.20		.20		.65	.75	.03	.11	.20																							2.84
Sisson		.40	.30	.13	1.08				1.01	.75	T.																					3.01
Sonora		.33	1.32	.40	.04						.04	.05																				3.98
Spreckels																																5.81
Springville					1.02	.92																										7.47
Squirrel Inn																																6.77
Statwood		.25	1.05	.80	1.25	.82	.35	1.60																								7.87
Sterling																																0.00
Stevenson Creek																																
Stirling City																																
Stockton (S. H.)		.06	.60	.65	.21		.02				.03																					2.66
Storey			1.50																													3.90
Sulphur Banks			1.05		.16	.16			.18																							2.71
Summit-1			1.00	.80	.50		.40			.10																						4.10
Summit-2																																1.52
Susanville				.12		.03			.12																							0.42
Tahoe	.01	.52	1.11	.14	.22	.32	.07	.17	.75																							4.62
Tamarack		.40	1.20	1.00	.05	.15		.20	.30																							7.10
Tejon Rancho																																
Three Rivers		.05	.57	.79																												3.33
Towle		1.28	.68	1.15	.90	.45	.45	12	1.00																							10.26
Truckee			1.00				T.			T.																						1.80
Tuolumne Ranger Station																																
Tustin (near)				.05																												1.32
Twin Valley	T.	.30	.50	.35	.50	.43		.20	.60				T.																			4.44
Ukiah		.03	.14	.28	.05	.35	.32		.10	.41																						2.56
Upper Mattole		.07	.51	1.15	.57	.82	2.21		.58	1.90	.09		.24	.20																		11.21
Vacaville		.30	.64	.52	.11		.07		.23	.02																						3.15
Valermo																																0.46
Visalia				.31																												1.89
Walnut Creek																																
Warner Springs					.04																											0.87
Wasco																																0.19
Wasioja																																0.50
Watsonville		.17	.46	2.63	.13				.03																							4.35
Weaverville		.22	.50	.95	.25	.80	.86		.80	.76				.16	.02																	5.89
Weitchpec	T.	.47	1.10	1.40	.77	1.83	1.87	.40	.09	1.66	.40	T.	.51	.02																		11.32
Wells Meadows				.78																												1.62
West Branch		.87	1.71	1.42	1.25	2.22	.14	.63	3.2																							

Daily Temperature for February, 1916.

Table with columns for Stations, days 1-31, and Mean. Rows list various California locations such as Alturas, Bakersfield, Barstow, etc., with their respective maximum and minimum temperatures for each day.

Snowfall Data. [In inches.]					
WATERSHED, COUNTY, STATION.	Total snowfall.	Compr'd with normal.	Am't on ground 15th.	Am't on ground end mo.	Water equivalent.
<b>Klamath Watershed.</b>					
<i>Siskiyou County.</i>					
Yreka .....	1	.....	0	0	.....
<i>Trinity County.</i>					
Hayfork .....	0	.....	8	0	.....
Ruth .....	1	.....	2	1	.....
<i>Humboldt County.</i>					
Weitchpec .....	2	- 3	0	2	.....
<b>Mountain Lakes.</b>					
<i>Modoc County.</i>					
Cedarville .....	2	- 8	0	2	.....
Fort Bidwell .....	8	.....	0	0	.....
<i>Lassen County.</i>					
Eagle Lake .....	3	-12	24	16	.....
Fredonia .....	.....	.....	.....	.....	.....
Madeline .....	10	- 1	15	12	.....
Susanville .....	1	-15	0	0	.....
<i>Tehama County.</i>					
Mineral .....	.....	.....	.....	.....	.....
<i>Nevada County.</i>					
Boca .....	.....	.....	.....	.....	.....
Truckee .....	18	-26	48	30	.....
<i>Inyo County.</i>					
Bishop Creek .....	23	-15	43	44	.....
Lone Pine .....	0	.....	0	0	.....
Wells Meadow .....	2	.....	0	0	.....
<b>Sacramento Watershed.</b>					
<i>Siskiyou County.</i>					
Dunsmuir .....	6	- 5	0	0	.....
McCloud .....	11	- 2	42	22	.....
Sisson .....	10	-10	12	0	.....
<i>Modoc County.</i>					
Alturas .....	4	- 1	0	0	.....
<i>Shasta County.</i>					
Burney .....	3	- 3	7	0	.....
<i>Plumas County.</i>					
Bucks .....	48	.....	159	99	.....
Canon Dam .....	10	.....	53	49	.....
Chester .....	11	-15	50	40	.....
Clover Valley .....	17	-37	47	37	.....
La Porte .....	17	-34	87	76	.....
Portola .....	4	.....	22	1	.....
Quincy .....	4	- 9	0	0	.....
<i>Butte County.</i>					
De Saba .....	2	- 6	0	0	.....
Inskip .....	23	-27	98	83	.....
Stirling City .....	.....	.....	.....	.....	.....
West Branch .....	4	-16	22	5	.....
<i>Yuba County.</i>					
Camptonville .....	6	-11	12	0	.....
<i>Sierra County.</i>					
Bunker Hill .....	.....	.....	.....	.....	.....
Dorsey's .....	.....	.....	.....	.....	.....
Downieville .....	2	- 6	18	0	.....
Sierra City .....	12	-11	42	24	.....
Sierraville .....	9	-11	14	11	.....
Table Rock .....	47	+16	140	113	.....
<i>Nevada County.</i>					
Bowman's Dam .....	.....	.....	.....	.....	.....
Deer Creek .....	16	-12	38	24	.....
Fordyce Dam .....	61	-15	150	154	.....
Lake Spaulding .....	29	-17	100	91	.....
<i>Placer County.</i>					
Blue Canon .....	30	-16	72	30	.....
Cisco .....	65	- 8	115	103	.....
Emigrant Gap .....	23	-37	72	54	.....
Summit .....	41	-35	164	145	.....
<b>San Joaquin Watershed.</b>					
<i>Alpine County.</i>					
Tamarack .....	69	- 8	165	168	.....
<i>Tuolumne County.</i>					
Center Ranger Station .....	.....	.....	.....	.....	.....
Hetch Hetchy .....	9	- 3	2	0	.....
Lake Eleanor .....	14	-14	30	22	.....
<i>Mariposa County.</i>					
Yosemite .....	12	- 9	34	20	.....
<i>Fresno County.</i>					
Cascada .....	4	.....	12	2	.....
Hume .....	.....	.....	.....	.....	.....
Huntington Lake .....	37	.....	75	86	.....
<i>Tulare County.</i>					
Hot Springs .....	0	- 3	0	0	.....
Springville .....	2	-18	0	1	.....
<b>Mountains of Southern California.</b>					
Bear Valley Dam .....	2	-30	31	28	.....
Converse Nursery .....	6	.....	0	3	.....
Holcomb .....	1	-21	8	0	.....
Squirrel Inn .....	3	-13	9	3	.....
Seven Oaks .....	0	-13	0	0	.....
Nellie .....	1	.....	0	0	.....
Julian .....	0	.....	0	0	.....

SNOWFALL IN THE MOUNTAINS.

In marked contrast to that of January, 1916, the snowfall in the mountains of California during February was abnormally light. Only one station received more than the usual amount of snow, while most stations reported less than one-half the normal February snowfall. In the Sierra Nevada Mountains a generous snowfall accompanied the eastward passage of a moderate storm on February 3-7. Additional snow fell from the 27th to the 29th. In the mountains of southern California no station reported more than 6 inches of new snow during the month, and most of this was brought by the storm of February 27-29. While considerable precipitation accompanied this storm, much of it was in the form of rain, owing to the high temperatures prevailing at the time.

At the close of January the deposits of snow in the mountains were enormous, in some places the heaviest in many years. Moreover, on account of the cool and cloudy weather which persisted unbroken throughout that month, the snow extended well into the lower levels. However, as little new snow fell after February 7th, and the remainder of the month was warm and accompanied by abundant sunshine, the snow settled rapidly. By the 15th the snow remaining was about the average in depth for that date. Further settling and melting followed, and at the close of the month the snow remaining was somewhat less than the normal in depth. As much of the water from the melting snow soaked into the ground, the runoff was only moderate, and none of the larger streams approached flood conditions. Moreover, the snow which remained on February 29th, though less than the usual depth for that date, and considerably less than the depth at the beginning of the month, was well packed, almost with the consistency of ice. The solidified nature of the remaining snow insures a slow rate of melting, and will tend to conserve it until late spring. It is therefore apparent that an abundant supply of water is assured for the coming season for all the varied purposes to which it is put in California.

A. H. P.

COMPARATIVE SNOWFALL DATA FOR FEBRUARY.

(Amount on the Ground.)

	FORDYCE DAM.			SUMMIT.			TAMARACK.		
	1st.	15th.	End of mo.	1st.	15th.	End of mo.	1st.	15th.	End of mo.
1907.....	86	67	81	137	95	88	182	122	97
1908.....	75	81	90	88	115	74	104	108	120
1909.....	105	157	138	172	224	213	190	234	256
1910.....	69	72	74	76	70	72	114	110	101
1911.....	128	138	120	228	240	215	320	407	434
1912.....	59	52	44	38	27	23	54	45	42
1913.....	77	69	80	85	55	55	116	100	115
1914.....	107	98	130	192	150	180	274	253	272
1915.....	90	120	135	106	154	180	132	174	185
1916.....	158	150	154	207	164	145	192	165	168