

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.

EDWARD A. BEALS, District Forecaster.

VOL. XXII. SAN FRANCISCO, MARCH, 1918. No. 3.

GENERAL SUMMARY.

Abundant and well distributed rains fell during March throughout the State bringing the seasonal amount of precipitation nearly up to the normal in the southern counties, while in most of the remainder of the State the seasonal average was exceeded, the most important exception being the Sacramento Valley. In nearly all sections the monthly amounts were above normal, the exceptions being mainly in the coast counties. There were two noticeable periods during which precipitation occurred: from the 4th to the 13th when the greater portion of the rainfall was recorded, and again between the 17th and 27th when the rains were more or less intermittent. Like those of the preceding month, the storms were not of a violent character, and although the rainfall on some days was considerable, exceeding two inches in some localities, it occurred so gently that practically all of it was absorbed by the soil. For this reason, crops will not suffer materially because of insufficient moisture if the rainfall of April and May approaches the mean. Although the total snowfall for the month was about normal, the mild weather and rains caused rapid melting and like that of February the amount of snow remaining on the ground at the close of March was much less than the average. Water was running plentifully in all streams at the close of the month, and it is possible that there will not be a sufficient supply of water available for late irrigation and power purposes.

The average temperature for the State was slightly below normal, but there were no marked warm or cold spells, and most of the stations reporting mean temperatures below normal were in the northern counties. As a rule the lowest temperatures occurred during the latter part of the first decade, and the warmest days were the closing ones of the month.

The weather during most of the time was favorable for farming operations, and plowing and seeding went forward rapidly. Some wheat was sown, also a considerable acreage of barley and oats, and the condition of the soil and the weather both favored germination and growth. However, the grains generally were not so far advanced in growth as is usual at this time of the year. In the northern part of the State pastures, ranges, and meadows are in excellent condition and as a consequence stock are looking well; in the southern counties forage crops are improving rapidly and stock will be in good condition soon. There have been but slight losses so far during the lambing season, and the flock increases are probably better than usual.

Throughout the State the condition of most of the orchards is satisfactory. In some sections almonds were injured by frosts on the 5th, 6th and 13th, and in a few localities some dropping of undersized nuts, due probably to the effects of the autumn and winter drought, was reported. Apricots, cherries, peaches, pears, plums, and prunes, generally, were in blossom at the close of the month. Citrus fruits in southern sections were maturing nicely, lemons were recovering from the setback due to the hot weather of last June, and Valencia oranges of fine quality were being marketed. As the month closed, horticulturists were very busy plowing vineyards, cultivating orchards, and spraying trees. A considerable acreage for corn and beans has been prepared, and there has been extensive planting of truck crops and home gardens. The outlook from an agricultural standpoint is favorable.

T. F. D.

PRESSURE.

The mean sea level pressure, determined from the records of twelve regular Weather Bureau stations, was 30.03 inches. The highest was 30.49 inches at Eureka on the 13th; the lowest was 29.45 inches at Independence on the 7th; the range for the State was 1.04 inches.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 97 stations, was 51.5°, which is 0.3° below the normal.

The highest monthly mean was 65.4°, at Mecca; and the lowest was 29.4° at Summit.

The highest temperature, 96°, occurred at Blythe and Mecca on the 31st; and the lowest, -5°, occurred at Portola on the 14th. The range for the State was 101°.

PRECIPITATION.

The average precipitation for the State, as shown by the records of 227 stations, was 7.07 inches, or 2.33 inches above the normal.

The greatest monthly amount was 21.83 inches, at Opid Camp. Two stations reported no precipitation.

The greatest amount in 24 hours was 7.24 inches at Squirrel Inn on the 7th.

RELATIVE HUMIDITY, SUNSHINE AND CLOUDINESS.

Stations.	Relative humidity. (Per cent.)			Sunshine.	
	5 a. m.	5 p. m.	Mean.	Actual No. of hours	Per cent of possible.
Eureka.....	86	74	80	180	49
Fresno.....	84	53	69	246	66
Los Angeles.....	79	61	70	199	54
Mount Tamalpais.....	76	72	74	145	39
Red Bluff.....	82	51	66	213	57
Sacramento.....	88	58	73	236	64
San Diego.....	80	68	74	232	62
San Francisco.....	82	62	72	218	59
San Jose.....	82	58	74	190	51
San Luis Obispo.....	82	60	72	184	49

WIND MOVEMENT.—(Miles.)

Stations.	Total mov. for month.	Ave. hr. velocity.	Maximum velocity.	Direction.	Date.	Prev. dir.
Eureka.....	5,426	7.3	48	se.	17	se.
Fresno.....	4,581	6.2	29	se.	17	nw.
Los Angeles.....	4,597	6.2	24	sw.	12	se.
Mount Tamalpais.....	9,525	12.8	58	sw.	11	sw.
Point Reyes.....	11,333	15.2	73	se.	11	nw.
Red Bluff.....	4,087	5.5	30	se.	17	se.
Sacramento.....	5,485	7.4	32	se.	18	s.
San Diego.....	4,464	6.0	38	s.	12	nw.
San Francisco.....	5,145	6.9	30	sw.	18	sw.
San Jose.....	4,629	6.2	36	s.	17	nw.
San Luis Obispo.....	3,582	4.8	24	se.	10	w.

COMPARATIVE DATA FOR MARCH.

Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.	Year.	Mean temp.	Ave. precip.
1887.....	48.0	3.98	1903.....	50.9	5.80	1909.....	48.5	3.56	1915.....	53.1	2.33
1888.....	48.8	0.66	1904.....	51.1	8.52	1910.....	54.7	2.43	1916.....	53.0	3.38
1889.....	51.2	6.10	1905.....	54.7	5.42	1911.....	52.7	6.02	1917.....	45.7	1.58
1900.....	55.7	2.38	1906.....	50.8	9.19	1912.....	48.6	5.17	1918.....	51.5	5.75
1901.....	53.0	1.01	1907.....	49.0	10.67	1913.....	49.6	2.06	.....	.....	.....
1902.....	49.7	3.39	1908.....	51.8	1.49	1914.....	55.0	1.16	.....	.....	.....

Explanation of Reference Marks Used in This Publication.

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.

† 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.

Station at Liano formerly known as Valyermo; station at Lytle Creek formerly known as Rialto (near).

Climatological Data for March, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				Number of days.			Prevailing direction of wind.	Observers.		
				Mean.	Deviation from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Snowfall (unmelted).	Precipitation 0.1 inch or more.	Clear.			Partly cloudy.	Cloudy.
Alturas	Modoc	4,400	14	40.0	+1.0	74	30	5	13	47	2.48	+1.00	1.05	18.0	13	13	5	13	w.	Prof. C. B. Towle.
Antioch	Contra Costa	46	29	54.4	+0.8	85	31	35	10	38	2.75	+0.45	0.72	0	7	21	11	8	nw.	C. G. McDaniel.
Atascadero	San Luis Obispo	837	2	52.2		85	30	20	4	48	5.59		1.28	0	11	12	11	8	n.	Colony Holding Corp.
Avalon	Los Angeles	30	8	56.4	+2.5	82	30	44	19	24	4.61	+1.51	1.12	0	12	17	3	11	n.	T. S. Manning.
Azusa	do	540	16	53.8		90	30	40	18	39	8.79		2.05	0	8	14	3	11	n.	C. O. Hillis.
Bakersfield	Kern	404	29	58.4	+1.7	84	117	35	6	33	2.25	+1.26	0.50	0	7	17	3	11	w.	Santa Fe Co.
Barstow	San Bernardino	2,105	15	52.9	-4.9	81	31	30	1	40	2.18	+1.62	0.72	0	8	20	4	7	w.	E. L. White.
Berkeley	Alameda	317	31	53.7	+1.9	78	29	34	5	30	3.48	-1.42	0.67	0	8	13	4	14	w.	State University.
Betteravia	Santa Barbara	155	5																w.	Union Sugar Co.
Blue Canon	Placer	4,695	19	38.6	-1.2	67	30	15	8	32	12.05	+0.73	1.75	48.0	14	16	0	15	.....	Southern Pacific Co.
Blythe	Riverside	268	9	62.6		96	31	36	9	47	0.75		0.47	0	4	20	1	10	w.	C. L. Suits.
Bonita	San Diego	110	2	58.6		85	30	36	9	39	4.44		1.20	0	7	12	10	9	nw.	R. M. Allen.
Branscomb	Mendocino	2,000	18	48.0	+2.6	83	30	21	6	45	9.08	-3.66	2.50	1.5	15	20	1	10	n.	A. J. Haun.
Brawley	Imperial	-105	8	63.8		95	31	38	9	42	0.83		0.68	0	2	.....	.....	.....	sw.	M. D. Witter.
Burney	Shasta	3,300	8	40.8		74	30	10	5	45	3.27		1.10	7.5	7	11	8	12	s.	Mrs. M. D. Chambers.
Calexico	Imperial	0	13	64.7	+1.1	95	31	40	12	41	0.72	+0.45	0.64	0	2	22	3	6	n.	H. M. Rouse.
Camptonville (near)	Yuba	3,500	11	46.2		78	30	24	5	32	12.37		1.90	10.5	15	14	4	13	sw.	Pacific Gas & Electric Co.
Cedarville	Modoc	4,675	24	39.9	+1.9	71	30	13	5	37	2.29	+0.71	0.50	12.0	11	8	18	5	.....	T. H. Johnstone.
Chico	Butte	189	48	52.0	-3.6	81	30	26	6	36	5.41	+2.21	1.40	0	12	11	8	12	se.	U. S. Bureau Plant Ind.
Claremont	Los Angeles	1,200	26	55.1	+1.2	85	30	33	8	43	8.22	+3.94	2.16	0	8	11	8	12	sw.	Prof. F. P. Brackett.
Cloverdale	Sonoma	340	16	52.8	+0.3	87	30	28	15	40	5.60	-3.89	1.30	T.	10	13	3	15	s.	John O. Ogle.
Coffax	Placer	2,421	47	48.2	-0.9	76	30	22	9	33	11.08	+3.48	2.70	6.0	12	16	6	9	.....	Southern Pacific Co.
Corona	Riverside	615	4	58.2		92	30	35	9	40	7.43		1.44	0	10	17	3	11	nw.	T. C. Sias.
Crescent City	Del Norte	125	4	48.8	+1.2	80	30	30	18	36	13.07	+1.76	2.21	0.1	20	11	3	17	sw.	Thos. E. Peacock.
Davis	Yolo	51	46	52.6	-3.6	82	30	28	15	39	3.10	+0.53	0.80	0	8	17	8	6	sw.	S. H. Beckett.
Downieville	Sierra	3,150	7	44.5		81	30	22	5	48	15.64		2.83	9.8	15	11	7	13	s.	J. T. Mason.
Durham	Butte	160	23	52.4	+0.2	79	129	25	6	40	5.19	+1.62	1.48	0	11	12	11	8	sw.	R. W. Durham.
El Cajon	San Diego	482	19	57.5	+1.1	87	30	34	1	45	6.58	+3.87	1.95	0	9	21	4	6	sw.	Philip L. Kessler.
Elsinore	Riverside	1,300	2	53.0		90	2	36	19	52	4.54		1.60	0	8	10	8	13	se.	W. L. Wilhite.
Esccondido	San Diego	637	24	57.6	+2.7	85	30	34	9	43	7.43	+4.41	2.31	0	8	4	23	4	w.	U. S. Weather Bureau.
ETREKA	Humboldt	64	32	48.5	+0.5	65	16	32	6	23	5.84	-1.13	1.24	T.	18	7	6	18	sw.	U. S. Weather Bureau.
Folsom	Sacramento	292	45	55.2	+0.4	82	30	33	4	42	6.05	+2.24	1.70	0	9	14	3	14	s.	G. J. Marvin.
Fontana	San Bernardino	1,325	6	55.6		86	30	32	9	35	8.45		1.98	0	10	19	3	9	sw.	Fontana Land Co.
Fort Bidwell	Modoc	4,293	29	42.0	+2.6	71	30	32	5	39	5.45	+0.25	0.98	12.5	10	12	12	12	nw.	C. R. Decious.
FRESNO	Fresno	31	56.4	+1.5	80	31	38	14	27	4.19	+2.43	2.30	3.5	14	15	4	12	sw.	U. S. Weather Bureau.	
Grass Valley	Nevada	2,690	46	46.4		72	30	25	6	30	11.68	+3.64	2.30	3.5	14	15	4	12	sw.	Mrs. L. M. Wentworth.
Greenland Ranch	Inyo	-178	7	64.8		91	29	40	11	34	0.75		0.30	0	5	17	0	14	.....	O. A. Denton.
Hanford	Kings	249	18	56.2	+1.9	84	31	36	12	37	3.43	+1.48	0.74	0	9	18	0	13	n.	Santa Fe Co.
Healdsburg	Sonoma	110	25	52.5	+0.4	80	30	27	5	43	5.50	-1.37	1.74	0	10	10	12	9	se.	Dr. F. J. Kinley.
Hollister	San Benito	284	44	53.9	-0.6	81	30	34	9	39	3.83	+1.45	0.86	0	12	16	3	12	w.	Grangers' Union.
INDEPENDENCE	Inyo	3,907	22	49.6	0	77	31	27	9	36	1.02	+0.62	0.40	0.2	6	17	5	9	s.	U. S. Weather Bureau.
Inskip	Butte	4,975	11	39.9		70	30	14	5	26	15.05		3.91	40.8	15	9	4	18	sw.	Pacific Gas & Electric Co.
Kennett	Shasta	730	6	52.6		92	30	26	5	39	8.93		3.29	0	14	14	3	14	sw.	C. H. Kremers.
King City	Monterey	333	31	53.2	+0.1	86	30	30	22	50	4.07	+1.94	1.09	0	12	17	2	12	n.	Southern Pacific Co.
La Porte	Plumas	5,000	24	32.2	+3.0	58	29	5	6	30	13.10	+0.08	2.51	44.2	16	11	5	15	s.	C. W. Hendel.
Lemon Cove	Tulare	600	23	55.8	-0.4	75	31	39	15	30	5.02	+1.61	1.59	0	10	13	7	11	nw.	T. E. Bence.
Lick Observatory	Santa Clara	4,209	29	42.6	+1.6	63	30	25	5	17	4.64	-1.03	1.41	.....	13	10	8	13	.....	The Director.
Lindsay	Tulare	384	4	55.8		84	31	31	9	42	3.90		1.43	0	10	11	9	11	nw.	Basil Prior.
Lone Pine	Inyo	3,728	13	50.3	+0.9	73	127	27	1	38	2.80	+1.69	0.95	2.0	6	24	7	0	s.	G. F. Marsh.
LOS ANGELES	Los Angeles	293	41	59.1	+2.2	88	30	43	8	30	6.21	+3.21	1.92	0	8	11	9	11	ne.	U. S. Weather Bureau.
McCloud	Siskiyou	3,270	8	40.2		77	30	9	5	46	9.53		3.29	14.8	15	8	8	15	n.	McCoud River Lbr. Co.
Madeline	Lassen	5,270	9	33.0		58	130	4	14	43	2.51		0.60	23.0	10	12	3	16	sw.	J. H. Williams.
Marysville	Yuba	67	47	52.0	-5.4	79	29	29	6	33	4.29	+1.48	1.35	0	10	14	7	10	sw.	Southern Pacific Co.
Mecca	Riverside	-185	12	65.4	+2.8	96	130	38	2	39	0.85	+0.50	0.55	0	2	19	6	6	nw.	E. A. Palmer.
Merced	Merced	173	44	54.0	-1.0	78	30	31	9	35	4.89	+3.12	1.01	0	10	20	2	9	nw.	Santa Fe Co.
MOUNT TAMALPAIS	Marin	2,375	19	46.8	-0.3	70	30	30	5	17	2.78	-2.39	0.84	T.	14	9	7	15	sw.	U. S. Weather Bureau.
Mount Wilson	Los Angeles	5,704	1	46.5		71	30	23	18	28	12.85		3.14	10.0	10	14	5	12	se.	Wendell P. Hoge.
Napa	Napa	20	41	51.3	-1.3	80	30	26	5	41	2.91	-0.79	1.13	0	8	10	13	8	sw.	State Hospital.
Needles	San Bernardino	477	26	63.6	-0.2	95	31	38	9	44	0.37	+0.46	0.46	0	7	13	7	11	.....	Santa Fe Co.
Nevada City	Nevada	2,850	30	43.9	-1.9	76	30	19	6	47	10.26	+1.76	1.80	4.5	15	13	7	11	.....	B. H. Preston.
Newman	Stanislaus	91	29	52.8		81	30	31	9	40	3.72	+1.60	0.47	0	11	11	7	12	sw.	E. S. Wengenheim.
Oakland	Alameda	36	42	53.3	+0.3	76	30	37	5	23	3.60	-0.50	0.64	0	7	17	7	12	w.	Chabot Observatory.
Orland	Glenn	254	36	52.1	-3.6	81	30	28	5	36	3.71	+1.04	1.28	0	13	15	2	14	n.	U. S. Rec. Service.
Oroville (near)	Butte	250	34	54.0	-0.3	82	31	26	6	39	6.50	+2.47	1.37	0	11	11	2	18	sw.	E. D. Fairchild.
Pasadena	Los Angeles	1,085	28	54.5	+0.1	88	30	34	9	37	9.43	+5.75	2.46	0	7	13	8	10	sw.	R. P. Hamlin.
Paso Robles	San Luis Obispo	800	31	53.7	+2.1	88	31	29	9	47	5.45	+2.22	1.36	0						

Daily Precipitation for March, 1918.

Stations.	Watersheds.	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				
Alturas	Sacramento				.06	.10			.03	1.05			.21	.15	.13	.08																				2.48
Antioch	San Joaquin								.35				.70	.08	.20																				2.75	
Atascadero	Coast				.29	1.28	.95	.30				.32	.02	.66																					5.59	
Avalon	Ocean				.08	.53	.95	.07				.01	1.12	.80	.60	.07																			4.61	
Azusa	San Joaquin								.71	2.05	1.49			1.93	.32	.25																			8.79	
Bakersfield	San Joaquin				T.				.39	.17	.29																								2.25	
Barstow	Desert				T.				.27	.30																									2.18	
Berkeley	Coast				T.				.39	.01			.08	.64	.57																				3.48	
Betteravia	do																																		12.05	
Blue Canon	Sacramento				.10	.20				.70	1.01	.80		1.40	1.70	1.20																			0.75	
Blythe	Colorado								.09																										4.44	
Bonita	Coast								T.	.13	.65			1.18	1.20	.30																			0.83	
Branscomb	do				.15	.42	.05			.20	.50	.10	.10	.75	.75																			4.44		
Brawley	Imperial Valley								T.					.15																					0.83	
Burney	Sacramento								T.	.15				.20	.72	.40																			0.72	
Calexico	Imperial Valley													.08																					12.37	
Camptonville	San Joaquin				.04				.46	1.23	.72		.86	1.21	1.35	.04																			2.29	
Cedarville	Mountain Lakes				.14	.07				.20	.44		.47	.11	.09	.04																			5.41	
Chico	Sacramento									.40	1.07	.04		1.40	.08	.04																			8.22	
Claremont	Coast								.73	1.65	1.04			2.16	1.33	.29																			5.60	
Cloverdale	do								T.		.16	T.		.48	.62	.74																			11.08	
Colfax	Sacramento				.10				.10	1.07	1.00			2.66	1.38	.81																			7.43	
Corona	Coast								.04	.82	1.38	.06		1.44	1.38	1.14	.32																		13.07	
Crescent City	do				1.18	.63	.04			.12	.39	2.00		1.10	0.00	.42	.30																		7.43	
Davis	Sacramento									.62				.80	.33	.22																			15.64	
Downieville	do				.43	.15			.15	1.52	.28		.95	2.83	2.31	.24																			3.10	
Durham	do								.03	1.48			1.00	.50	.06																				6.58	
El Cajon	Coast								.11	.51	.55		1.15	1.95	1.81	.11																			4.54	
Elsinore	do								.25	.25	.10		1.60	1.51	.25																				7.43	
Esconido	do									1.03	.44		.45	1.63	2.31	.04																			5.84	
EURKA	do				.45	.30	.09			.71	.10	.02	.02	.52	.96	.01																			6.05	
Folsom	Sacramento									.80	.68			1.70	.60	.25																			8.45	
Fontana	Coast								.23	.93	1.98	.44		.80	1.77	1.34	.23																		4.19	
Fort Bidwell	Mountain Lakes				.27					.08	.15	.04	.04	.20	.27	.20																			11.68	
FRESSO	San Joaquin				.07	.39	.21	.35						.13	.01	.32																				4.75
Grass Valley	Sacramento				.06	T.	.07	1.20		.24			1.12	2.30	1.17	.50																			13.10	
Greenland Ranch	Desert									.05	.30			.05	.30																				0.75	
Hanford	San Joaquin				.48	.26	.65							.19	.30	.53																			3.43	
Healdsburg	Coast									.17				.18	.27	.40																			5.50	
Hollister	do				.04					.28	.65	.17		.08	.18	.86																			3.83	
INDEPENDENCE	Owens									.16	.26			.18	.27																				1.02	
Inskip	Sacramento				.40	.14			T.	.60	.78		1.27	1.74	.95	T.																			15.05	
Kennett	do									.45	.33	.53	.53	.63	.45	.45																			8.93	
King City	Coast				.05				T.	.80	.93	.28		.14	.05	.58	.10																		4.07	
La Porte	Sacramento				.40					.24	1.32	.82		.80	1.40	.94	.30																		13.10	
Lemon Cove	San Joaquin				T.	T.	.19	.39	.85	T.				.23	.07	.90																			5.02	
Lick Observatory	Coast				.04	.04	.59	.01					.60	.36	1.41	.03	.08	.63	.61	.24	.06														4.64	
Lindsay	San Joaquin								.22	.23	.86	.06		.17	.12	.55																			3.90	
Lone Pine	Owens									.95			.10	.60	.35	.25																			2.80	
LOS ANGELES	Coast				.43	.83	1.12	.01					1.86	.68	.40																				6.21	
McClound	Sacramento								.20	.24	.38	.42	.61	.88																					9.53	
Madeline	Mountain Lakes				.20					.06	.60	T.	.50	.40	.20	.10																			2.51	
Marysville	Sacramento								.49	.80				1.35	.17	.09																			4.29	
Mecca	Desert								T.	T.	T.			T.	T.	.30																			0.85	
Merced	San Joaquin								.43	.95	.57			.18	.36	.44																			4.89	
MR. TAMALPAIS	Coast				.03					.10	.11	.01		.58	.30	.21																			2.78	
Mount Wilson	do								.30	1.58	3.14	.13		1.60	2.40	1.67	.19																		12.85	
Napa	do									.35	T.			1.13	.02	.38																			2.91	
Needles	Colorado								.05	.09	.04			.01	.12																				0.87	
Nevada City	Sacramento				.12	.02			.08	1.62	.24		1.08	1.80	.29	.06																			10.26	
Newman	San Joaquin								.41	.72				.43	.58																				3.72	
Oakland	Coast								.01	.39	.02		.64	.39	.63	T.																			3.60	
Orland	Sacramento								.45	1.09			.47	.09	.01	.08																			3.71	
Oroville (near)	do									.45	1.09			1.37	.23	.05																			6.50	
Pasadena	Coast								.18	1.02	.46		1.25	1.93	1.37																				9.43	
Paso Robles	do									1.04	1.14	.52		.19	.22	.26	.40																			

Daily Temperature for March, 1918.

Table with 33 columns for stations (1-31) and a Mean column. Rows list various California cities like Bakersfield, Calexico, Chico, Escondido, Eureka, Fresno, Independence, Los Angeles, Merced, Mount Tamalpais, Oakland, Orland, Oroville, Paso Robles, Point Reyes, Pomona, Porterville, Red Bluff, Redlands, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, San Luis Obispo, Santa Barbara, Santa Rosa, and Stockton, each with maximum and minimum temperature values.

SUPPLEMENTAL PRECIPITATION TABLE.

Table with 12 columns: Stations, Watersheds, Precip. inches. Lists various locations such as Abbotts, Aruanga, Alder Creek, Angiola, Antelope Valley, Arroyo Seco, Auberry, Auburn, Bagdad, Barrett Dam, Beaumont, Beaumont (near), Big Bar, Bishop, Bishop Creek, Bridgeport, Cahuilla, Campbell, Camp Baldys, Camp Bonita, Campo, Camp Rincon, Canon Dam, Casca, Centerville, Chester, China Flat, Churn Creek, Cloyd Ranch, Colby Springs, Coldbrook, Colusa, Covelo, Crockett, Cuyamaca, Deer Creek, Del Monte, Denair, De Saba, Dillon Ranch, Dinuba, Dobbins (near), Dudley, East Park, Echo Mountain, Edison, Electra, Emigrant Gap, Fairmont, Fish Canyon, Fordyce Dam, Foresters Sanitar, Fort Bragg, Glennville, Gray Mountain, Gridley, Haines Canyon, Hansen's Ranch, Happy Camp, Hayfork, Head Dam, Helen Mine, Hetch Hetchy, Hullville (near), Huntington Lake, Indio, Iron Forks, Julian, Kennedy Mine, Kentfield, La Crescenta, La Jolla, Lake Eleanor, Lake Spaulding, Lancaster (near), Las Plumas, Le Grand, Live Oak Canyon, Livermore, Llanos, Los Gatos, Lower Haines Cany, Lytle Creek, Magulia, Maricopa, Mariposa, May Canyon, Mesa Grande, Middlewater, Mill Creek, Milton (near), Mokelumne Hill, Monrovia Canyon, Montague, Montgomery Creek, Mountain Springs, Mouth S. Anton C, Niles, North Bloomfield, North Fork, North Lakeport, Oak Grove, Oceanside, Ojai Valley, O Melviny Camp, Opid Camp, Orleans, Ozena, Pacoima, Parkfield, Peachland, Point Loma, Quincy, Reedley, Represa, Rohnerville, Ruth, San Antonio Cany, San Antonio Intake, San Gabriel Intake, Do Power House, San Miguel Island, San Pedro, Santa Anita, Santa Clara, Santa Monica, Seven Oaks, Shively, Sierra Alta Ranch, Sierra Madre, Sierraville, Slisnon, Sister Elsie Peak, Springville (near), Standish, Stanwood, Sterling, Stevenson Creek, Stirling City, Storey, Susanville, Switzer's Camp, Tamarack, Tejon Rancho, Tujunga, Three Rivers, Tustin (near), Twin Valley, Upper Live Oak C, Venice, Visalia, Walnut Creek, Warner Springs, Wells Meadows, West Branch, West Point, Wilson Toll House, Yorba Linda.

**SNOWFALL IN THE MOUNTAINS.**

On March 1, 1918, there was a foot or more of snow on the ground at intermediate elevations in the Sierra Nevada Mountains; at the crest there was 74 inches and there was a little as low down as the 3,500-foot level. In southern California there was a few inches of snow on some of the highest isolated peaks. These amounts were far less than is usual at that time of the year.

The precipitation in March occurred in two general periods, one in each half of the month. In the first half of the month two storms passed over California, one on the 6th and 7th and the other from the 10th to the 12th, and the resulting precipitation fell in the form of snow in the elevated portions of the State, including the Coast Ranges. Several feet of snow was added to the amount on the ground at high elevations in the Sierra Nevada Mountains during these storms, and most of the snowfall for the month, and in some cases all of it, occurred in the first half of the month. Although during and immediately following these falls of snow the daily minimum temperatures were the lowest of the month, the daily maximum temperatures were comparatively high and the snow, with but few exceptions, remained in a soft and melting condition. In the latter half of the month though considerable precipitation occurred it was mostly in the form of rain except on the ridges and peaks, with alternating rain and snow on the slopes. The relatively high temperatures and intermittent rain of this period caused the snow to melt rapidly so that at the end of the month there was far less snow on the ground than there was in the middle of the month. The amounts of snowfall as compared with the normals varied greatly, being in some cases twice the normal and in others far below the normal. Taking the State as a whole, the total fall of snow in March was about normal.

At the end of the month there was no snow on the ground in California below the 4,500-foot level and above this level there was less snow than at the same time last year. Compared with a normal year the snow on the ground was deficient but not without precedent. At every station from which reports were received the snow was soft and melting and water was flowing plentifully in all streams.

E. E. E.

**COMPARATIVE SNOWFALL DATA FOR MARCH.**  
(Amount on the Ground.)

	FORDYCE DAM.			SUMMIT.			TAMARACK.		
	1st.	15th.	End of mo.	1st.	15th.	End of mo.	1st.	15th.	End of mo.
1907.....	98	119	154	104	191	262	101	210	348
1908.....	105	87	75	116	130	60	131	126	84
1909.....	131	116	126	201	196	191	256	255	253
1900.....	72	58	71	65	38	68	101	82	99
1911.....	128	154	124	222	276	138	443	440	338
1912.....	45	80	67	26	81	53	44	79	62
1913.....	80	72	82	52	42	50	115	103	107
1914.....	130	113	108	178	140	124	271	255	258
1916.....	133	117	100	182	153	119	185	161	143
1916.....	165	148	133	151	139	120	192	179	160
1917.....	114	114	110	128	143	114	152	153	125
1918.....	127	106	82	102	114	78	116	120	100

T. means trace.

**Snowfall Data. [In inches.]**

WATERSHED, COUNTY, STATION.	Elevation, feet.	Total snow-fall.	Compr'd with normal.	Am't on ground 15th.	Am't on ground end mo.
<b>Klamath Watershed.</b>					
<i>Siskiyou County.</i>					
Yreka.....	2,625	2	.....	0	0
<i>Trinity County.</i>					
Hayfork.....	2,300	T.	.....	0	0
Ruth.....	2,925	T.	.....	0	0
Weaverville.....	2,162	.....	.....	0	0
<b>Mountain Lakes.</b>					
<i>Modoc County.</i>					
Cedarville.....	4,675	12	- 2	1	0
Fort Bidwell.....	4,375	12	.....	T.	0
<i>Lassen County.</i>					
Eagle Lake.....	5,000	21	+ 6	19	0
Madeline.....	5,270	23	+13	8	0
<i>Nevada County.</i>					
Grass Valley.....	2,690	4	.....	0	0
Nevada City.....	2,850	4	- 5	0	0
North Bloomfield.....	3,214	.....	.....	.....	.....
Truckee.....	5,817	65	+30	20	8
<i>Mono County.</i>					
Bridgeport.....	6,500	.....	.....	.....	.....
<i>Placer County.</i>					
Gold Run.....	3,222	14	-11	0	0
Tahoe.....	6,230	80	.....	57	31
<i>Inyo County.</i>					
Bishop Creek.....	8,500	49	+22	42	24
Lone Pine.....	8,728	2	.....	0	0
Wells Meadow.....	5,280	.....	.....	.....	.....
<b>Sacramento Watershed.</b>					
<i>Siskiyou County.</i>					
McCloud.....	3,270	15	- 1	4	0
Sisson.....	3,555	26	+ 4	0	0
<i>Modoc County.</i>					
Alturas.....	4,400	18	+13	3	0
<i>Shasta County.</i>					
Burney.....	3,300	8	+ 5	0	0
<i>Plumas County.</i>					
Bucks.....	5,515	68	- 1	104	60
Canon Dam.....	4,570	.....	.....	50	21
Chester.....	4,550	38	+12	27	10
Clover Valley.....	5,700	42	+28	41	12
La Porte.....	5,000	44	-17	47	18
Portola.....	4,832	34	.....	19	0
Quincy.....	3,400	22	+ 2	8	0
<i>Butte County.</i>					
De Saba.....	2,500	11	- 2	0	0
Inskip.....	4,975	41	- 7	38	18
Stirling City.....	3,525	4	-18	0	0
West Branch.....	3,216	6	-12	0	0
<i>Yuba County.</i>					
Camptonville.....	3,500	10	- 5	0	0
<i>Sierra County.</i>					
Downieville.....	3,150	10	+ 1	0	0
Sierraville.....	5,000	48	+34	38	0
Table Rock.....	5,980	42	- 9	65	40
<i>Nevada County.</i>					
Deer Creek.....	3,700	22	-10	14	0
Fordyce Dam.....	6,500	127	+41	106	82
Lake Spaulding.....	4,600	86	+19	64	24
<i>Placer County.</i>					
Blue Canon.....	4,695	48	- 6	42	8
Emigrant Gap.....	5,230	68	+14	50	6
Summit.....	7,017	102	+55	114	78
<b>San Joaquin Watershed.</b>					
<i>Alpine County.</i>					
Tamarack.....	8,000	116	+20	120	100
<i>Tuolumne County.</i>					
Lake Eleanor.....	4,700	48	+12	16	T.
<i>Kern County.</i>					
Glennville.....	3,300	T.	- 4	0	0
<i>Mariposa County.</i>					
Yosemite.....	3,945	32	+12	.....	0
<i>Fresno County.</i>					
Camp Seven.....	6,980	58	.....	48	46
Cascada.....	4,900	22	.....	0	0
Hume.....	5,300	11	.....	3	0
Huntington Lake.....	6,950	72	.....	56	44
Stevenson Creek.....	4,250	.....	.....	.....	.....
<i>Tulare County.</i>					
Hot Springs.....	3,300	2	- 2	0	0
Springville.....	4,000	11	- 3	.....	0
<b>Mountains of Southern California.</b>					
Bear Valley Dam.....	6,700	19	- 5	6	0
Cuyamaca.....	4,677	2	- 8	0	0
Julian.....	4,222	2	.....	0	0
Mount Wilson.....	5,704	10	.....	.....	.....
Nellie.....	5,350	5	.....	0	0
Seven Oaks.....	5,000	9	- 1	0	0
Squirrel Inn.....	5,280	8	- 3	0	0