

## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CALIFORNIA SECTION.  
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## GENERAL SUMMARY.

July, 1916, was abnormally cool in California. Taking the State as a whole, the mean temperature was  $3.7^{\circ}$  below normal, while the average precipitation was 0.31 inch, or 0.27 inch more than the usual amount. A total of 118 stations reported no precipitation whatever, while 22 other stations reported only a trace. Unlike the three preceding months, July was not characterized by excessive wind movement. Long delayed warm weather was experienced in the interior valleys during the month. Along the coast the weather was unusually pleasant, there being less fog and fewer occurrences of cold west winds than are normally recorded during July. At San Francisco the per centage of the possible sunshine received, 88 per cent, was the greatest ever recorded during July in a record covering 26 years, while at Eureka it was also much above the average, and the greatest in 8 years. Damage from frost was negligible for the State as a whole, though killing frosts occurred in the mountain regions on the mornings of the 27th, 28th and 29th. No damage from floods occurred during the month.

The northern half of the State received moderately heavy rain on the 1st and 2d, during the eastward passage of an unusual depression. The first decade was cool, the lowest temperatures recorded during the month throughout the greater part of the State occurring between the 1st and 5th. The second decade was moderately warm, and scattered showers fell from the 13th to the 16th. In the desert regions of the south, where rain is of infrequent occurrence, heavy showers fell on the 13th and 14th. The 24-hour rainfall received in the extreme north portion of the State on the 15th-16th was excessive, while along the coast it was unprecedented during the month of July. At Eureka the 24-hour precipitation amounted to 1.18 inches, while at Crescent City it measured 2.46 inches. Thunderstorms occurred at many places on the 16th. The last decade was hot in the interior valleys and moderately warm along the coast, the highest temperatures of the month occurring at most stations between the 22d and 25th. Practically no rain fell during the last 10 days of the month.

From an agricultural point of view the weather of July, like that of the preceding month, was favorable in certain characteristics and unfavorable in others. The continued cool weather has resulted in slow growth, causing the grain to fill and the fruit to become plumper. Crops already harvested are larger than were expected to follow the unfavorable weather of the spring months. Grain and grass crops, while deficient in quantity, are good in quality. In restricted districts showers interfered with the curing of hay and the harvesting of grain, and also damaged ripening fruits and injured berries. As a result of the cool spring the rice fields are not looking their best. In the San Joaquin Valley and along the southern coast mildew has also been an unfavorable result. However, all irrigated crops have progressed favorably, and a normal yield is anticipated. The pleasant weather was well adapted for farm work. Taking all conditions into consideration the agricultural outlook continues favorable. In a region of stable climatic conditions like California the weather conditions are rarely so abnormal as to result in crop failures.

A. H. P.

## PRESSURE.

The monthly mean atmospheric pressure for the State, reduced to sea level, was 29.92 inches.

The highest was 30.19 inches at Eureka on the 21st.

The lowest was 29.56 inches at Independence on the 25th, and also at Red Bluff on the 25th.

The range for the State was 0.63 inch.

## TEMPERATURE.

The monthly mean temperature for the State was  $70.3^{\circ}$  degrees, which is  $3.7^{\circ}$  degrees below the normal.

The highest monthly mean was  $102.6^{\circ}$  degrees, at Greenland Ranch; and the lowest was  $54.0^{\circ}$  degrees, at Fordyce Dam and also at Point Reyes.

The highest temperature,  $127^{\circ}$  degrees, occurred at Greenland Ranch, on the 23rd; and the lowest,  $24^{\circ}$  degrees, occurred at Cahuilla, on the 1st and 4th, and also at Portola on the 29th.

The range for the State was 103 degrees.

## PRECIPITATION.

The average precipitation for the State was 0.31 inch, or 0.27 inch above the normal.

The greatest monthly amount was 4.17 inches, at Crescent City. 118 stations reported no precipitation.

The greatest amount in 24 hours was 2.46 inches at Crescent City, on the 16th.

## RELATIVE HUMIDITY.—(Per Cent.)

Stations.	5 a.m.	5 p.m.	Mean.
Eureka.....	92	79	86
Fresno.....	52	14	33
Los Angeles.....	91	66	79
Mount Tamalpais.....	44	38	41
Red Bluff.....	53	17	35
Sacramento.....	79	28	54
San Diego.....	89	78	84
San Francisco.....	89	69	79
San Jose.....	82	47	64
San Luis Obispo.....	92	60	76

## SUNSHINE AND CLOUDINESS.

Stations.	Actual hours of sunshine.	Per cent of the possible.
Eureka.....	274	60
Fresno.....	447	99
Los Angeles.....	318	72
Mount Tamalpais.....	435	97
Red Bluff.....	426	94
Sacramento.....	445	98
San Diego.....	257	59
San Francisco.....	395	88
San Jose.....	414	93
San Luis Obispo.....	340	77

## WIND MOVEMENT.—(Miles.)

Stations.	Total movement for month.	Average hourly velocity.	Maximum velocity.	Direction	Date.
Eureka.....	6,058	8.1	33	n.	18
Fresno.....	7,154	9.6	30	nw.	1
Independence.....	4,456	6.0	27	se.	27
Los Angeles.....	3,935	5.3	15	sw.	1
Mount Tamalpais.....	13,257	17.8	76	nw.	25
Point Reyes.....	20,709	27.8	78	nw.	25
Red Bluff.....	3,769	5.1	22	se.	1
Sacramento.....	5,998	8.1	23	sw.	7
San Diego.....	4,450	6.0	18	nw.	1
San Francisco.....	9,335	12.5	35	sw.	23
San Jose.....	4,902	6.6	25	se.	24
San Luis Obispo.....	3,065	4.0	20	w.	2

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













