

Government Meteorological Observatory.

METEOROLOGICAL Observations at Kelburn, Wellington, for the Month of September, 1931. Observations taken at 9 a.m.

Altitude of Observatory, 415 ft.

Date.	Pressure, in Inches, at Sea-level and Standard Gravity.	Temperature (° F.) from Observations at 9 a.m.									Wind.			Rainfall, in Points: (100 Points = 1 Inch).	Bright Sunshine: Hours and Tenths.	Weather (Symbols) at 9 a.m.
		In Screen.						Minimum on Grass.	Solar Radiation: Maximum.	Beaufort Scale.		Anemometer.				
		At 9 a.m.			Maximum.	Minimum.	Direction.			Force.	Run in 24 Hours.					
		Dry.	Wet.	Humidity.									Dry.			
1	29.445	47.0	43.8	76	52.0	42.9	40.8	111.7	SSW	3	212	3	1.0	o		
2	29.686	45.8	45.0	94	48.9	43.1	38.3	100.2	SSE	2	119	12	3.7	op		
3	29.626	45.9	45.0	93	51.3	41.1	37.0	101.0	NE	1	61	4	3.3	o		
4	29.626	48.1	44.4	72	52.7	41.0	36.2	111.8	NE	1	139	..	9.3	o		
5	29.503	47.4	42.7	64	48.1	44.7	39.1	69.7	NW	5	272	12	0.0	o		
6	29.748	39.0	35.8	70	47.2	36.0	34.9	107.0	SE	6	354	3	4.3	o		
7	29.826	47.0	42.4	65	52.7	32.5	22.2	109.0	NNW	3	99	1	10.6	b		
8	29.769	49.7	47.8	87	53.9	46.0	42.2	107.0	NW	6	347	34	3.0	oq		
9	29.580	52.4	50.0	83	52.9	48.1	48.0	77.7	SSE	2	604	19	1.0	o		
10	30.161	38.0	37.2	92	46.2	38.0	36.1	114.3	SE	3	280	27	3.3	orh		
11	30.069	42.3	39.4	75	46.5	37.1	35.4	111.1	SSE	3	201	4	4.1	c		
12	29.894	45.6	41.2	66	52.8	34.5	31.0	109.8	NNW	2	200	..	9.9	bc		
13	29.806	47.7	44.4	76	54.6	42.0	34.6	116.7	NNW	6	214	36	0.4	o		
14	29.602	52.2	51.1	92	53.1	45.0	45.0	98.1	NW	4	243	17	0.0	o		
15	29.782	52.8	50.3	83	57.8	44.4	40.8	122.0	NNW	2	63	21	4.8	o		
16	29.506	46.3	45.2	91	51.0	45.8	42.1	102.0	Calm	..	260	45	0.2	or		
17	29.975	51.0	47.3	74	56.1	43.0	41.9	114.0	S	2	336	..	9.0	b		
18	30.114	50.1	46.1	72	50.9	40.2	31.0	115.0	SE	3	78	..	7.1	bc		
19	29.998	48.8	44.6	70	54.6	39.0	31.0	114.1	E	1	92	..	10.4	bz		
20	30.050	46.3	42.1	68	48.5	38.5	27.1	109.5	SSE	4	69	..	7.8	o		
21	29.862	47.1	45.3	86	53.1	35.3	26.9	104.3	N	3	109	..	6.3	o		
22	29.673	49.7	47.0	80	52.1	45.6	36.2	72.8	NNE	2	169	62	0.0	o		
23	29.861	44.8	43.0	86	46.6	42.0	41.1	97.5	SSE	5	120	3	1.2	op		
24	30.039	44.9	44.0	93	51.9	42.3	39.3	114.7	SSW	2	238	..	7.9	omd		
25	29.894	51.1	48.0	78	53.0	43.2	39.9	99.8	NNW	4	111	5	1.6	o		
26	29.486	53.0	51.0	86	64.8	47.3	47.1	135.0	NW	5	432	32	4.1	o		
27	30.011	54.4	49.4	67	56.8	39.1	32.0	117.0	N	3	146	9	8.3	c		
28	29.851	48.9	47.4	89	52.2	45.4	44.0	81.8	Calm	..	145	21	0.0	or		
29	29.822	49.0	49.0	100	55.3	47.2	46.1	107.0	S	3	132	9	0.0	omrf		
30	29.917	55.3	51.8	77	58.7	44.9	40.3	120.2	N	3	161	..	5.8	b		
Means, &c.	29.806	48.1	45.4	80	52.5	41.8	37.6	105.7	..	3	200	379	128.4	..		

Mean earth temperature at 1 ft., 48.6°; and at 3 ft., 48.9°. Number of rain days, 21.

DIRECTION OF WIND.

Gale (force 8 or more).	Forces 4 to 7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
..	9	2	6	2½	1	5½	5½	1	..	6½

NOTE.—A cloudy, unsettled, and wet month, with rainfall 22 per cent. above the mean. Total bright sunshine, 128.4 hours, 36 per cent. of the possible, and five sunless days. The approximate mean temperature was 3.3° F below the average, being the coldest September ever experienced in Wellington since meteorological records were first taken in 1864. Frost was recorded on the grass on three mornings. A few flakes of snow fell in the suburbs of Karori and Wadestown on the 6th. Lightning was seen on the 3rd and 7th, hail fell on the 5th and 10th, and a thick fog enveloped the western hills on the 29th. Mean dew-point at 9 hrs., was 42.2°; and mean vapour pressure, 0.268 in.

SUMMARY FOR THE MONTH OF SEPTEMBER, 1931.

General.—September proved a most unsettled month, and hopes that the winter type of weather had departed with August were not fulfilled. Temperatures were decidedly cold, particularly during the first half of the month, and once again they were less than the normal throughout the greater part of the Dominion. In some districts, indeed, it was the coldest September experienced since records have been kept. This was the case in Wellington, where the difference below normal was 3.3° F., while at Christchurch it was as much as 4.1° F.

A marked feature of the month was the predominance of southerly winds. Although usually they were only moderate in force, those on the 5th, 6th, and on the 9th were severe. One of the most serious effects of such southerly rainstorms at this time of the year is the inevitable mortality amongst lambs. In the Canterbury and Waikato districts the loss was fairly considerable, as it was also in some of the high-country stations where snow accompanied the southerlies.

Vegetation was much slower in growth than is usual in this season. Some pastures which had been eaten down were showing little signs of filling up, but towards the latter part of the month when there was a tendency for milder conditions, there was a distinct improvement in this respect. The cold, and insufficient growth of grass, were reflected in the deteriorated condition of stock, and consequently dairy herds showed a yield much below the average.

Rainfall.—Rainfall was above normal over the North Island except in the northern portion of the Auckland Peninsula and on the west side of Mount Egmont. Above-average totals were also experienced along most of the east coast of the South Island, but all the western half, Otago, and the high country, had a deficiency, a few places in Westland having less than half the usual amount, while Arthur's Pass recorded only 19 per cent. of its average.

Pressure Systems.—Of the low-pressure systems the greater number were of cyclonic form, and when a westerly depression crossed the Dominion it was invariably followed by a secondary centre developing off the west coast. The changes in wind and weather were consequently very rapid, and days when generally fine conditions prevailed were few and far between.

Most of the anticyclones moved in northern latitudes, but an irregular one crossed the Dominion between the 17th and 21st, and during this period fine sunny weather was general, although cool southerlies prevailed over the North Island.

The depressions were too numerous to describe in detail, but a few of the most intense may be mentioned. On the 5th a vigorous cyclone which had moved with unusual rapidity over the North Tasman Sea was centred west of the Auckland Peninsula. It crossed the North Island during the night, and by the morning of the 6th was located off East Cape. On these two days very unpleasant conditions prevailed, and on the night of the 5th a particularly violent southerly was experienced. Rain fell almost generally, and there was a heavy fall of snow on much of the central area of the North Island. It is considered that the fall in the Rotorua and Taupo districts was the heaviest experienced in the past fourteen years. In some places the snow covered the ground to a depth of 3 ft., and the Napier-Taupo road was completely blocked against traffic between Te Pohue and Rangitaiki. The east coast districts of the South Island also received snow at this time, but except in the hill country the falls were slight. On the night of the 5th an exceptionally severe thunderstorm occurred at Opotiki.