

Government Meteorological Observatory.

METEOROLOGICAL Observations at Kelburn, Wellington, for the Month of July, 1937. 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.	Beaufort Scale.	Anemometer.					
		At 9 a.m.			Maxi- mum.	Mini- mum.				Direction.	Force.			
		Dry.	Wet.	Humid- ity.				Dry.	Dry.					
1	30-139	44-9	43-2	86	49-8	40-0	36-3	SE	3	92	14	4-5	b	
2	30-115	43-2	42-7	95	45-1	42-4	39-5	SSE	4	247	9	0-2	or	
3	30-095	42-3	40-8	87	48-8	36-8	30-6	Calm	..	121	1	7-6	cz	
4	30-077	44-4	44-1	98	46-1	39-9	33-4	S	1	52	3	0-0	od	
5	29-879	43-0	42-4	95	50-0	36-4	32-6	Calm	..	26	..	7-8	bcz	
6	29-607	44-9	40-2	63	49-8	40-8	29-8	Calm	..	257	Trace	5-1	bz	
7	30-160	41-2	35-0	47	46-2	34-9	33-0	S	5	289	..	7-5	by	
8	30-266	42-0	39-9	82	53-9	36-0	28-0	Calm	..	52	..	6-5	o	
9	30-127	47-6	45-3	83	53-2	39-4	30-0	N	4	74	..	8-0	b	
10	30-098	49-6	45-8	73	54-3	43-9	35-0	N	4	252	..	5-8	b	
11	30-245	50-2	48-1	85	56-0	43-0	32-2	N	4	123	Trace	4-8	bc	
12	30-077	51-7	48-3	77	54-9	49-2	45-9	NNW	5	358	55	1-8	og	
13	29-779	51-0	47-0	72	53-3	47-1	45-0	NNE	3	352	3	0-6	or	
14	30-127	44-0	41-9	83	46-3	43-0	41-0	SSE	4	185	Trace	1-1	op	
15	29-953	44-5	42-8	86	44-6	35-5	28-9	N	1	98	32	0-1	og	
16	30-095	42-4	39-7	77	43-9	40-2	38-1	S	5	284	72	1-1	op	
17	30-233	43-1	41-3	85	43-1	39-6	38-9	S	8	451	21	0-0	ophq	
18	30-337	41-8	40-5	89	45-0	39-6	37-3	SSE	3	373	Trace	4-8	od	
19	30-207	42-2	40-0	81	50-4	33-1	26-8	NE	1	78	Trace	8-0	bcx	
20	30-089	49-1	48-0	92	51-6	40-3	32-6	NNW	4	198	7	0-0	od	
21	29-956	51-6	49-5	85	56-3	47-3	45-9	N	4	255	43	2-2	c	
22	29-965	46-8	45-4	89	47-0	44-7	40-0	S	1	287	81	0-2	c	
23	30-109	42-4	40-9	87	48-2	41-2	38-6	SW	2	98	Trace	6-4	bcp	
24	29-968	45-6	43-0	80	52-0	37-7	29-6	NNW	4	87	13	1-4	o	
25	29-655	48-8	48-3	97	54-2	44-6	43-4	Calm	..	230	1	2-9	o	
26	29-601	45-3	41-7	71	51-2	42-4	39-8	S	3	201	36	3-9	o	
27	29-779	39-8	38-3	87	49-9	38-2	31-2	S	6	100	2	5-1	opq	
28	29-690	49-9	46-2	74	54-0	35-6	28-3	NW	6	269	..	8-7	bc	
29	29-773	50-5	43-6	53	58-7	43-6	37-3	NNE	2	356	..	9-1	b	
30	30-236	46-1	44-3	86	51-9	42-5	32-3	Calm	..	66	..	3-0	oz	
31	30-213	48-8	46-4	82	54-4	40-9	33-5	N	2	51	..	8-5	c	
Means, &c. . .	30-021	45-8	43-7	82	50-5	40-6	35-3	..	2-9	192	393	126-7	..	

Mean earth temperature at 1 ft., 44-7°; and at 3 ft., 47-4°. Number of rain days, 16. Total rainfall, 19 per cent. below normal. Sunshine, 43 per cent. of the possible. Mean dew-point at 9 a.m., 41-1°; mean vapour pressure, 0-257 in.

DIRECTION OF WIND.

Gale (force 8 or more).	Forces 4 to 7.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
1	13	3½	2	..	2½	8½	1	..	2½	6

NOTE.—Southerly gales were experienced on the night of the 16th and morning of the 17th respectively. Hail fell on the 6th, 7th, 15th, 16th, 17th, and 27th. There was a fairly thick fog over the harbour on the afternoon of the 4th. Seven frosts were registered during the month.

NOTES ON THE WEATHER FOR JULY, 1937.

General.—The cold weather with a prevalence of southerly winds which had characterized June persisted through the first eight days of July, but thereafter weather of a more westerly type prevailed and conditions were definitely milder. Towards the end of the month some beautiful days were experienced in most places. Rainfall was generally much below and sunshine above average, but, nevertheless, the weather during the month was rather unsettled, and, except in eastern districts, more especially in the South Island, rain, though often light, was rather frequent. Over western and central districts of the North Island the soil was continually damp and muddy, and conditions on the farms were unpleasant. There was little growth of vegetation. In Canterbury and Marlborough, on the other hand, it was possible for some arrears in agricultural operations to be made up in numbers of places. The area under crop is, however, likely to be considerably less than during last year. Stock, except hoggets, are reported as doing well, but a spell of dry and sunny weather would be welcome. Early lambs have appeared in numbers of districts, and so far the losses have been light. In regard to trees, shrubs, and flowers, there are some curious anomalies. In many cases, in spite of the low temperatures in June, they are unusually far advanced for the time of year, while in others they are backward.

Rainfall.—Except in comparatively small and isolated areas the rainfall was much below normal. In Marlborough and Canterbury the totals were particularly low, some places having only a quarter of their average fall. On the west coast of the South Island and in the far South a number of places had more than normal.

Temperatures.—Temperatures were almost everywhere below normal, though the departures nowhere amounted to 2° F. At New Plymouth the mean was just a little above, and at Palmerston North and Pahiatua it was equal to the normal. Very severe frosts were again recorded during the first eight days of the month, but thereafter conditions were milder.

Sunshine.—Though below it at a few places, more especially on the west coast, sunshine was generally considerably above average. Nelson had 180-2 and Tauranga 175-7 hours.

Storm Systems.—On the 1st a cyclonic depression was centred over North Auckland. Easterly gales blew in the far North and south-easterlies in Taranaki. There were some heavy rains in northern districts. By the 3rd the depression had moved away and an anticyclone had enveloped the Dominion. The centre was, however, far to the south, and cold southerly winds persisted.

On the 5th a depression with a considerable extension in the south to north direction advanced from the Tasman Sea and crossed the country during the night. On the 6th strong south-westerly winds were blowing. This storm caused general rains. Snow was widespread in the South Island and reached low levels on the mountains in the North. Some very severe frosts followed.

From the 9th to the 17th there was another unsettled spell. This began with a series of westerly depressions, and from the 14th an intense anticyclone covered Australia and extended over the Tasman Sea, while several depressions followed each other on a southerly course off the east coast of New Zealand. Southerly gales blew on the 16th to 17th. Snow again fell to low levels on the ranges, while there was hail and thunder in many places.