

Government Meteorological Observatory.

METEOROLOGICAL Observations at Kelburn, Wellington, for the Month of July, 1938. 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.									
1	29.206	51.0	48.3	81	56.0	46.7	43.1	NW	4	125	..	4.1	o
2	29.303	50.0	45.8	71	55.0	40.5	32.2	WNW	4	70	20	4.7	b
3	28.878	50.4	46.9	75	54.1	45.7	43.9	NW	6	244	37	3.1	og
4	29.221	46.3	45.7	95	50.6	42.1	35.8	SSW	6	230	1	4.3	omd
5	29.770	48.3	44.4	71	51.3	44.2	39.2	SSE	2	145	22	7.8	bc
6	30.009	42.3	41.3	91	45.0	40.4	37.2	SSE	6	160	28	2.2	op
7	30.349	43.5	41.2	81	46.4	38.1	36.0	SE	3	216	7	3.0	o
8	30.425	38.5	38.1	96	46.8	35.0	26.1	Calm	..	47	..	6.6	bxz
9	30.228	43.0	41.0	83	48.3	34.0	25.9	NNE	2	23	15	2.3	o
10	29.977	46.2	45.4	94	51.5	41.5	41.1	N	3	180	74	0.7	oir
11	30.216	44.9	44.3	95	50.9	44.0	42.0	SSE	5	169	32	0.0	or
12	29.858	50.7	48.0	81	57.0	44.1	41.1	Calm	..	191	12	8.1	bz
13	29.903	41.7	40.8	92	44.6	40.9	40.3	S	8	330	11	0.0	orq
14	30.201	43.9	39.2	64	44.4	38.3	35.8	SSE	5	419	20	2.2	ojp
15	30.437	41.9	39.8	82	44.7	38.9	36.0	S	4	217	15	1.1	oip
16	30.558	42.6	41.5	90	47.8	40.1	34.6	Calm	..	159	..	3.1	c
17	30.514	39.1	37.7	87	51.3	33.3	24.8	Calm	..	36	..	8.2	b
18	30.295	44.7	40.7	68	51.8	37.3	28.2	NE	2	71	..	4.5	o
19	29.858	51.8	47.7	72	53.7	43.2	43.4	NW	8	309	29	0.1	o
20	29.935	49.6	48.4	92	54.4	48.0	45.6	Calm	..	268	3	0.0	oz
21	29.678	47.2	47.0	98	48.8	46.4	46.8	SSW	3	135	10	0.0	oid
22	29.737	44.7	42.0	78	48.1	43.0	40.7	S	4	415	Trace	2.2	ojp
23	29.720	46.1	44.8	89	52.6	38.9	31.8	Calm	..	69	4	4.0	oz
24	30.003	42.8	37.7	59	45.3	41.1	38.3	SE	6	262	Trace	2.0	o
25	30.124	45.2	41.0	67	50.0	37.1	27.6	SE	3	146	..	8.5	b
26	30.033	46.0	41.9	68	52.3	39.0	28.0	Calm	..	67	9	7.1	cz
27	29.622	47.6	45.9	87	49.6	45.2	36.7	Calm	..	60	20	0.0	or
28	29.430	47.7	46.0	87	49.0	45.7	44.6	SSE	5	143	19	0.7	ojp
29	29.669	40.7	36.9	67	42.2	38.0	37.0	SE	4	234	1	0.0	ojp
30	29.929	42.1	38.2	67	43.8	35.6	32.8	SSE	5	236	32	4.9	cjp
31	29.779	39.9	38.9	91	43.4	35.5	32.7	SSE	7	246	48	1.4	or
Means, &c.	29.899	45.2	42.8	81	49.4	40.7	36.4	..	3.4	181	469	96.9	..

Mean earth temperature at 1 ft., 46.0°; and at 3 ft., 49.0°. Number of rain days, 23. Total rainfall, 3 per cent. below normal. Sunshine, 32 per cent. of the possible. Mean dew-point at 9 a.m., 39.6°; mean vapour pressure, 0.243 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.
2	14	1½	1½	..	7½	7½	1	½	3½	8

NOTE.—Hail fell on several occasions. Southerly gales were experienced on the 6th and 13th, and a north-west gale on the morning of the 19th. There was a heavy fall of snow on the Orongorongos and lower eastern hills on the night of the 29th, being the heaviest on the latter since 1926. Snowflakes fell at Kelburn on the 30th, and at Karori snow fell and lay to a depth of from ½ in. to 1 in.

NOTES OF THE WEATHER FOR JULY, 1938.

General.—July was a dull, wet, and cold month. The ground is thoroughly saturated in almost all districts. Growth of vegetation is at a standstill and farm work held up. Stock are reported to be in fair to good condition, but they must have suffered considerably during the last few days, and dry, sunny weather is badly needed. Thunderstorms were rather frequent and severe. Though there were no heavy floods, a good deal of minor flooding occurred. Snow was more frequent and more persistent than usual.

Rainfall.—In the North Island the rain was much above average in the Auckland and Hawke's Bay Provinces, more than double the normal being recorded at many places. Elsewhere, though rain was frequent, the totals were below average. In the South Island it was a very wet month in Canterbury and southern Marlborough. In eastern Otago and Southland conditions were rather variable and the departures from average generally small. Elsewhere the falls were below normal, and Central Otago and the West Coast had a dry month.

Temperatures.—Temperatures were below normal in most districts. In the Auckland Province and on the west coast generally the departures were, however, small, and the normal was in some cases exceeded. In Canterbury, Otago, and Southland, the means were upwards of three degrees below average and it was the coldest July on record. Frosts were frequent, especially in the South Island, where some severe ones were experienced.

Sunshine.—The amount of bright sunshine recorded was considerably below average in eastern districts and the high country, but not always so elsewhere. Hokitika, for example, with 139.0 hours, had more than usual, Nelson had 148.2 hours.

Pressure Systems.—During the first five days of the month a series of westerly depressions was passing. On the 2nd to the 3rd conditions were particularly boisterous on the west coast of the North Island, with westerly gales. Many places also had severe thunderstorms. Rain was practically general during this period except on the east coast of the North Island, and many heavy falls were recorded. Snow fell on the high levels and there was hail in many places. In South Canterbury there was local flooding. There were some remarkably high tides in eastern and northern districts during this period also.

A fine spell followed, but from the 10th to the 14th the weather was again very unsettled. A deep depression developed off the west coast and crossed the Auckland Province. On the 13th there was a very boisterous and widespread south-easterly gale, which caused minor damage in many places. Again, there were numbers of severe hail and thunderstorms and snow on the ranges. In the South Island there was snow on the Canterbury Plains and in Central Otago. Rain was general, and in the North Island there was minor flooding, especially in Auckland and Hawke's Bay.

From this time onwards there was a succession of depressions which developed centres off the west coast and crossed the northern portion of the North Island. These led to a persistence of southerly or south-easterly winds which were frequently strong, especially in the middle portions of the Dominion. There was widespread and heavy rain from one of these depressions between the 18th and 20th culminating in a south-easterly gale on the 21st. Some flooding occurred about Auckland and in Hawke's Bay.