

Government Meteorological Observatory.

METEOROLOGICAL observations at Kelburn, Wellington, for the Month of January, 1939. 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.		Anemo-meter.					
								At 9 a.m.							
				Dry.	Wet.	Humid-ity.		Dry.	Dry.	Direction.	Force.				
												Run in 24 Hours.			
1	..	..	29.903	57.4	54.6	76	66.0	48.6	45.2	SSE	4	287	..	11.6	c
2	..	..	30.053	60.9	56.8	76	64.0	51.2	44.2	NNE	3	98	..	11.2	c
3	..	..	30.041	58.8	54.1	72	67.0	54.4	51.7	N	7	281	..	9.0	o
4	..	..	29.979	66.7	61.0	71	71.1	55.2	50.8	NE	2	216	Trace	8.3	bc
5	..	..	29.891	58.3	55.3	70	68.5	55.0	52.1	NNW	3	156	..	2.7	o
6	..	..	29.841	64.0	58.8	72	68.0	56.6	48.8	E	1	269	..	7.0	o
7	..	..	29.799	64.0	58.9	72	69.4	56.2	53.2	NE	4	157	..	6.0	bc
8	..	..	29.838	59.2	56.1	81	62.3	53.1	49.1	SSE	4	314	Trace	3.3	o
9	..	..	29.675	56.7	54.6	86	64.3	52.8	46.8	NW	6	173	6	3.0	oq
10	..	..	29.578	62.5	54.0	55	66.6	54.6	51.4	NW	4	425	4	10.5	by
11	..	..	29.879	58.6	51.6	59	65.1	41.6	32.4	E	2	161	6	8.8	by
12	..	..	29.495	58.2	58.1	99	68.8	53.8	52.5	NW	6	365	Trace	7.4	omdq
13	..	..	29.374	63.8	54.6	52	70.2	55.0	50.5	NW	4	350	Trace	11.4	by
14	..	..	29.436	56.7	51.7	69	62.6	46.1	40.5	NW	3	202	13	4.1	o
15	..	..	28.807	59.0	58.8	99	64.5	52.2	50.9	N	6	281	4	6.1	or
16	..	..	28.730	60.4	52.8	67	64.0	53.2	49.5	NW	7	438	..	13.0	bc
17	..	..	29.218	58.2	47.5	39	61.8	52.0	47.6	NW	5	400	..	12.8	by
18	..	..	29.548	58.7	48.4	42	63.6	51.0	47.2	NW	5	422	..	13.6	byq
19	..	..	29.666	62.1	52.6	48	65.5	50.6	45.0	NNW	3	357	..	13.4	by
20	..	..	29.628	60.6	53.4	60	63.8	48.2	40.4	NW	5	270	..	12.4	b
21	..	..	29.578	60.3	52.6	56	67.7	53.1	49.3	NW	3	362	55	7.3	oy
22	..	..	29.808	61.0	54.7	65	66.1	47.1	44.4	E	2	135	..	13.2	bc
23	..	..	29.832	61.6	56.3	70	66.8	52.1	48.4	N	4	190	Trace	7.8	c
24	..	..	29.575	61.6	56.4	71	67.7	53.4	50.7	NW	5	252	..	9.0	b
25	..	..	29.953	60.3	53.7	62	62.7	51.6	44.1	NNW	4	179	Trace	12.8	c
26	..	..	29.838	58.2	53.6	72	59.7	49.1	43.5	S	3	251	..	9.4	op
27	..	..	29.906	59.5	54.5	71	62.6	47.2	40.5	NW	5	160	1	4.6	o
28	..	..	29.852	61.8	57.1	74	68.3	54.5	53.2	NW	4	343	..	11.3	c
29	..	..	29.897	61.5	56.9	68	64.9	56.5	52.5	S	2	88	..	4.2	o
30	..	..	30.112	56.2	50.3	64	67.8	50.7	46.2	SSE	4	256	..	2.0	o
31	..	..	29.979	67.8	58.8	55	74.0	50.1	40.6	E	2	121	Trace	9.8	by
Means, &c.			29.697	60.5	54.8	68	66.0	51.8	47.2	..	3.9	257	89	267.0	..

Mean earth temperature at 1 ft., 64.1°; and at 3 ft., 62.2°. Number of rain days, 7. Total rainfall, 69 per cent. below normal, being the driest January since 1928. Sunshine, 58 per cent. of the possible. Mean dew-point at 9 a.m., 49.5°; mean vapour pressure, 0.354 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.
..	19	5	2½	4	1½	3½	..	..	14½	..

NOTE.—Gales, and strong, cold winds were frequent. On the 21st there was a vivid thunderstorm, followed by a deluge of rain.

NOTES ON THE WEATHER FOR JANUARY, 1939.

General.—January was a very cold and windy but sunny month. Very dry conditions prevailed for most of the time. There was little growth of pasture but the wind and sun hardened up the available supplies so that stock are in very good condition. Lambs have fattened well in most districts but in some, for example, in parts of Canterbury, are underweight. The absence of green feed has led to a reduction of the milk yield. Crops, particularly rape, turnips, &c., have suffered from the cold and strong winds. Much fruit, also, was blown from the trees. At the same time these conditions have been unfavourable to pests of all kinds. White butterflies are much less numerous than last year. The season has been a difficult one for haymaking.

Rainfall.—The strong westerly winds of the middle of the month brought frequent and heavy rains to southern Otago and Southland, so that the totals were much above normal there. During the last four days there were very heavy falls, also, in the Auckland Province, and in the area northward from Kawhia and Rotorua the totals exceeded the average. Many places indeed had more than double. Otherwise the month was a very dry one. In places which receive their rain from the west, particularly on the high levels, the shortage was not so acute, but in Hawke's Bay, Wellington, Nelson, Marlborough, and Canterbury, generally, only 10 to 40 per cent. of the normal was recorded. In the far North scarcely any rain fell before the 28th.

Temperatures.—Mean temperatures were very much below normal. Except on parts of the east coast, where they were smaller, the departures ranged, generally, between 2° F. and 4° F. Frosts were unusually frequent, especially on the Canterbury Plains. Snow fell on the ranges on several occasions. There was, however, no very severe cold.

Sunshine.—There was less bright sunshine than usual for January on parts of the west coast, but over most of the country it was a very sunny month. Many places had upwards of forty hours more than the previous average. Blenheim recorded 314.0 hours and Nelson 301.1.

Pressure Systems.—For the first eight days fair to fine though cool weather prevailed, only slight disturbances crossing the South Island. During the 9th and 10th, however, a very deep westerly depression passed in the south causing north-westerly, followed by south-westerly, gales. Rain fell in western and southern districts and on the ranges there was some snow. From the 11th to the 12th there was a recurrence of strong westerly winds.

A much deeper and more extensive westerly depression passed during the 15th to the 18th. On this occasion the barometer at Taiaroa Heads, Dunedin, fell to 954.5 millibars, 28.19 inches, a record for the Dominion. Very severe gales from between north-west and south-west were experienced over most of the country and very considerable damage was done. Heavy rains fell in western and far southern portions of the South Island, with considerable flooding in Southland. Snow was again reported from the mountain tops. On the whole, however, these westerly depressions produced remarkably little precipitation. Thunderstorms were frequent during their occurrence and in the Esk Valley, in Hawke's Bay, much of the silt deposited by the floods of last year was carried away in dust storms. During this period, also, much smoke was borne across the Tasman Sea from the Australian bush fires.

On the 19th a tropical cyclone, which became very severe, developed in the neighbourhood of Fiji. On the 22nd it moved rapidly southwards, passing the Kermadecs on the morning of the 23rd. This storm was responsible for violent gales and torrential rains, while much damage was caused to property in the Islands.

New Zealand meanwhile was having fair weather.

On the 28th a depression from the west caused widespread rain over the Dominion. A cyclone developed in the northern part of the depression, crossing the Auckland Peninsula on the 30th. Very heavy rains occurred over the northern half of the North Island, accompanied by easterly gales. The latter were particularly severe at Te Aroha and Paeroa.

EDWARD KIDSON, Director.