

Government Meteorological Observatory.

METEOROLOGICAL Observations at Kelburn, Wellington, for the month of February, 1940. Observations taken at 9 a.m.

Altitude of Observatory, 415 ft.

Date.				Pressure in Millibars, 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	..	..	..	1007.4	60.8	53.6	60	65.3	50.0	44.0	SSE	3	204	..	11.4	c
2	..	..	..	1008.5	61.5	55.0	64	68.2	53.5	44.5	SE	2	112	51	9.2	oz
3	..	..	..	990.7	56.3	55.6	95	62.3	55.2	55.2	N	5	281	..	3.5	oir
4	..	..	..	992.5	62.5	52.3	46	69.7	50.0	43.3	NW	4	258	..	13.3	by
5	..	..	..	1004.5	66.0	59.0	64	70.9	55.9	47.0	NW	5	260	..	8.3	b
6	..	..	..	1007.4	63.7	61.4	87	64.5	58.5	53.8	NW	5	203	31	0.1	oir
7	..	..	..	997.1	62.0	55.0	61	65.4	57.4	53.0	NW	7	599	..	13.1	bq
8	..	..	..	994.4	62.8	56.5	65	64.9	57.3	52.6	NW	7	448	..	12.6	c
9	..	..	..	997.2	62.3	53.0	50	66.6	53.8	49.0	NW	6	391	Trace	11.1	cq
10	..	..	..	1001.4	59.4	55.3	75	62.7	53.3	46.1	NW	3	252	119	3.1	oir
11	..	..	..	1009.8	57.9	50.2	54	61.7	46.1	45.3	S	2	307	..	9.6	b
12	..	..	..	997.4	61.0	58.8	87	67.5	54.8	50.5	NW	6	376	..	10.1	oq
13	..	..	..	997.0	55.7	50.0	65	63.0	51.4	46.0	NW	4	298	..	10.8	c
14	..	..	..	993.5	57.8	52.4	67	64.3	52.2	47.8	NW	5	366	21	7.3	o
15	..	..	..	1002.3	56.7	51.7	69	64.8	42.8	37.1	N	3	159	..	6.1	bc
16	..	..	..	1005.5	64.7	58.7	68	71.3	51.0	44.5	N	3	153	Trace	12.4	b
17	..	..	..	1005.7	62.3	59.7	85	64.2	57.7	55.7	NW	6	173	1	0.0	ouq
18	..	..	..	997.4	60.9	60.2	96	75.7	60.0	59.6	NW	8	682	Trace	6.8	odfq
19	..	..	..	1016.3	62.3	57.3	72	66.6	49.5	44.1	NNW	5	158	Trace	11.4	c
20	..	..	..	1010.8	65.2	61.4	80	69.6	56.7	55.2	NW	4	429	..	9.9	cq
21	..	..	..	1015.1	64.9	55.0	49	66.9	55.4	51.9	NE	2	249	..	7.5	bb
22	..	..	..	1016.5	64.0	56.9	62	71.0	53.0	47.0	NNW	1	145	..	11.6	bz
23	..	..	..	1012.6	65.4	58.9	66	71.2	53.0	47.3	NNW	4	78	41	7.6	b
24	..	..	..	1003.0	65.5	65.2	98	66.1	62.5	61.6	NW	5	316	40	0.0	od
25	..	..	..	1002.1	63.7	57.0	63	70.9	53.6	51.2	NW	3	177	..	12.1	b
26	..	..	..	1005.0	61.0	58.0	82	64.0	55.6	52.6	NW	7	390	..	6.8	oq
27	..	..	..	1009.8	61.9	56.3	68	66.0	55.6	52.4	NW	5	435	9	8.1	bz
28	..	..	..	1010.6	61.2	59.8	92	65.4	58.1	57.9	NW	8	519	14	0.3	oq
29	..	..	..	1006.4	63.8	63.8	100	67.0	60.1	60.0	NW	8	551	Trace	0.4	orm
Means, &c.				1004.1	61.8	56.8	72	66.8	54.3	50.2	..	4.7	309	327	224.5	..

Mean earth temperature at 1 ft., 65.4°; and at 3 ft., 64.7°. Number of rain days, 9. Total rainfall, 19 per cent. above normal. Sunshine, 56 per cent. of the possible. Mean dewpoint at 9 a.m., 52.5°; mean vapour pressure, 0.395 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.
3	17	4½	1	..	1½	1½	..	..	20½	..

NOTE.—The month was remarkable for the persistence of strong north-west winds. Gales blew on ten occasions. A gust of 75 m.p.h. was recorded on the 29th.

NOTES ON THE WEATHER FOR FEBRUARY, 1940.

General.—February was a most unseasonable month presenting a number of unusual features. Average pressures were low generally but the lowest values were in the south, where previous records were broken. The westerly type of situation, which is not common at this time of year, predominated throughout the month, so that strong winds were very persistent. There was some rain on most days in western and far southern districts, which had an exceptionally wet month. Sunshine and temperature suffered accordingly. East of the ranges in the rain shadows, where the rainfall was light, the winds have parched the countryside. Elsewhere pasture growth has been rapid and prolific and most crops are good. Dairy yields have been moderate to heavy, and all stock are very healthy. Although harvesting has been delayed by wind and rain, the past weeks have seen most of the Canterbury wheat successfully harvested. High winds have caused considerable damage to trees and serious loss in orchards. White butterflies and other pests were fairly prevalent.

Rainfall.—The Auckland Peninsula and some eastern areas—viz., Poverty Bay, Wairarapa, and North Canterbury—show appreciable rainfall deficits. Elsewhere the averages were exceeded. For Taranaki, Westland, and Southland the month was the wettest February on record and at some stations, mostly in Southland, it was the wettest of any month irrespective of season. In these areas flooding was very serious, and towards the end of the month the Canterbury rivers, fed by the heavy rains in the Alps, were unusually high. Thunder was frequent, especially in the far south, and was often accompanied by hail.

Temperatures.—Due to Föhn effects there were many hot, windy days in the east where temperatures averaged about normal. Excepting the far north, the rest of the country was cooler than the normal, and, in fact, the month was a record February for coldness in Central Otago and Westland, where the departures were as much as 5 degrees Fahrenheit. Although on several occasions snow fell on the ranges, temperatures were fairly uniform and no severe extremes were experienced. Some frosts occurred but they were quite light.

Sunshine.—West of the ranges sunshine figures were extremely poor, while to the east average values were exceeded. Blenheim had the high total of 270.6 hours.

Weather Sequence.—Fair weather prevailed at the beginning of the month, pressure being high to the north. By the 3rd a vigorous depression from the Tasman Sea had caused heavy rain in western districts and intermittent rain became widespread. On the 4th, with the advance of another anticyclone to the north, the weather cleared considerably but westerly winds were strong in many places. An extensive and active depression crossing New Zealand on the 6th resulted in strong northerly winds. Cloud increased and in western areas south of Taranaki intermittent rain developed extending to Otago and to Auckland. Winds then backed to west or south-west and continued strong. Conditions remained unsettled in the west, and some snow fell on the southern ranges, but meanwhile to the east the weather was for the most part fair. Barometers were very low to the south-east. On the 10th winds moderated, but a southerly change advancing from the south brought rain to eastern areas which had previously escaped. Temperatures became cooler and further snow fell in the mountains. A marked improvement occurred on the 11th.

From the 12th to the 17th many westerly disturbances passed with high winds blowing and rain falling continually in the west. More definite south-westerly changes gave showers in eastern areas also. Exceptional rain in Southland resulted in serious flooding in Invercargill on the 14th. The high-pressure system to the north on the 18th spread over the whole country on the following day, the weather being fine and mild generally, but northerly winds were still strong about Cook Strait. On the 20th the anticyclonic centre moved to the north-east, where it remained several