Government Meteorological Observatory.

M ETEOROLOGICAL Observations at Kelburn, Wellington, for the Month of December, 1932. Observations taken at Altitude of Observatory, 415 ft.

			s, at	Temperature (° F.) from Observations at 9 a.m.						.m.	Wind.			(100	Hours	at
	Date.		n Inches, at and Standard	In Screen.				on Grass.	.: g	Beaufort Scale.		Anemo- meter.	Points Inch).		(Symbols)	
			e, in evel ar ity.	At 9 a.m.			Maxi- mum.	Mini- mum.		adiatio mum.	ig		n 24	a .	Sunshi Fenths.	
			Pressure, in Sea-level a Gravity.	Dry.	Wet.	Humid- ity.	Dry.	Dry.	Minimum	Solar Radiation: Maximum.	Direction.	Force.	Run in Hours,	Rainfall, Points	Bright Sunshine: and Tenths.	Weather 9 a.m.
l			29.991	49.2	44.3	65	56.7	43.9	42.1	127.0	SE	5	201		9.1	bip
2			$29 \cdot 855$	$55 \cdot 9$	49.1	58	$57 \cdot 4$	47.1	$47 \cdot 3$	$129 \cdot 2$	SE	4	197		$8 \cdot 2$	c c
;			$29 \cdot 617$	$52 \cdot 3$	49.2	78	$56 \cdot 9$	$48 \cdot 3$	48.0	$93 \cdot 3$	SSE	2	74	2	0.0	О
			$29 \cdot 630$	53.3	47.5	62	$60 \cdot 1$	44.4		$119 \cdot 4$	SSE	3	141		0.2	0
			$29 \cdot 618$	$59 \cdot 0$	48.7	42	$63 \cdot 8$	51.0	45.8	$127 \cdot 3$	$\mathbf{s}$	3	185		$12 \cdot 0$	c
	••		$29 \cdot 759$	$59 \cdot 9$	$51 \cdot 6$	53	$64 \cdot 0$	45.1	$39 \cdot 9$	$129 \cdot 4$	NW	5	180		$11 \cdot 9$	0
	• •		$29 \cdot 712$	$61 \cdot 2$	$52 \cdot 9$	54	$63 \cdot 0$	48.9	45.3	$132 \cdot 8$	NW	3	191		$10 \cdot 5$	be.
		• •	$29 \cdot 657$	58.1	52.8	68	$67 \cdot 7$	52.0	49.0	131.8	NW	5	310	114	4.6	0
	• •	• •	29.123	58.6	53.1	68	60.0	55.1	53.3	125.3	NW	7	482		10.4	bq
	• •	• •	29.264	57.0	49.4	54	59.5	49.1	46.1	130.5	WNW	6	570	.:.	12.4	bq
	• •	• •	29.384	58.6	53.0	67	$63 \cdot 0$	$52 \cdot 1$	50.7	145.3	NW	2	580	10	3.2	0
	• •	• •	30.007	55.0	50.0	68	60.9	49.9	48.2	128.7	S	6	262	• • •	8.0	0
	••	• •	30.199	60.2	55.2	71	$64 \cdot 2$	44.1		128.0	NNW	3	163	• • •	5.8	, 0
	• ,•	• •	30.052	60.0	55.0	71	$65 \cdot 0$	55.0	54.1	136.9	NW	6	267	• • •	8.7	bec
	• •	• •	30.129	64.8	53.2	.41	$72 \cdot 3$	52.4	49.8	137.0	E	2	347	• •	11.5	bv
	• •	• •	30.113	66.0	59.2	65	68.0	53.3	$47 \cdot 1$	132.8	NW	5	102	• •	13.5	e
	••	• •	$30.136 \\ 30.125$	$64 \cdot 6 \\ 67 \cdot 3$	$58.7 \\ 59.8$	69 62	$68 \cdot 3$	55.1	$52 \cdot 9 \\ 52 \cdot 5$	130 · 3	NNW	5	211	• •	$14 \cdot 0$ $13 \cdot 8$	bv b
	• •	• •	30.125	65.0	60.2	74	$68 \cdot 1$	$55 \cdot 9 \\ 58 \cdot 1$		$132 \cdot 7 \\ 136 \cdot 9$	NNW NNW	2 5	$\frac{310}{209}$	• •	12.4	
	••	• •	30.148	55.2	53.0	86	$57 \cdot 7$	53.0	$50.1 \\ 51.1$	98.0	SE	5	204		0.2	c
	••	• •	30.148	54.9	51.3	76	64.0	49.2	49.2	124.9	SE	5	262	_	0.0	o ov
	••	• •	30.191	63.2	56.1	62	67.9	$\frac{49 \cdot 2}{50 \cdot 0}$	46.1	$124.9 \\ 143.2$	E	3	262 187	• •	10.0	ev
	••	• •	30.103	67.3	60.8	67	71.0	55.0	50.0	$143 \cdot 2 \\ 143 \cdot 7$	E	4	134	24	2.5	OV
	• •	• •	30.038	66.5	62.9	81	76.3	56.8	$56 \cdot 2$	139.8	Calm	_	87	51	4.8	
	• •	• •	30.033	$67 \cdot 2$	62.5	76	$70.3 \\ 71.2$	60.5	60.9	131.8	N	3	135	18	1.4	0
	• •		30.023	60.7	60.0	96	64.7	59.5	59.9	119.0	NNW	5	334	22	3.1	0
	••		30.117	53.0	52.8	99	58.3	52 6	$53 \cdot 3$	$92 \cdot 7$	SSE	3	375	18	0.0	or
	• • • • • • • • • • • • • • • • • • • •		30 117	57.8	54.0	77	$65 \cdot 6$	51.8	$51 \cdot 5$	$125 \cdot 7$	SSE	3	237		1.1	0
	• • • • • • • • • • • • • • • • • • • •		30.065	62.6	58.8	79	$74 \cdot 3$	56.5	53.5	141.3	NE	i	66		9.9	oz
	• • • • • • • • • • • • • • • • • • • •		29.973	68.0	61.3	66	72.0	56.6	53.0	$138 \cdot 2$	NW	4	124	Trace	10.8	c
	• •		30.026	56.6	55.9	96	$64 \cdot 6$	54.2	$54 \cdot 3$	131.0	SSE	3	169		3.4	or
	Means, &c.		29.920	60.0	54.6	69	65 · 1	52 · 1	50.3	128.5		3.8	235	260	217 · 4	

Mean earth temperature at 1 ft.,  $62\cdot8^\circ$ ; and at 3 ft.,  $60\cdot1^\circ$ . Number of rain days, 9.

## DIRECTION OF WIND.

Gale (force	Forces									
8 or more).	4 to 7.	Calm.	N.	N.E.	Ε.	S.E.	s.	s.w.	w.	N.W.
1	16	1	$3\frac{1}{2}$	1	3	$6\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$	11

Note.—A cloudy month, with moderate north-westerly and south-easterly winds prevailing. The approximate mean temperature for the month was nearly a degree below the average. Total bright sunshine, 217-4 hours, 46 per cent. of the possible, and three sunless days. Rainfall for the month was 8 per cent. below the normal. Mean dew-point at 9 a.m., 49-5°; and mean vapour pressure, 0.354 in.

Erratum.—November sunshine should read 60 per cent. of the possible.

## NOTES ON THE WEATHER OF DECEMBER, 1932.

General.—The first half of the month was, for the most part, cool and rather stormy, in marked contrast with the second half, during which warm and muggy but relatively quiet weather prevailed. The North Island, south of Auckland, and also Nelson and Marlborough, experienced a very dry month, and water supplies are in some places very low. Most of Canterbury and North Otago had more than the average rain and, in addition, the weather there after the first week was generally humid, with a tendency for thunderstorms. The growth of pastures has been checked in the areas of low rainfall mentioned, and for the dairy-man conditions have deteriorated somewhat since November. There are still, however, ample supplies of feed, and stock are in good condition. Most crops, including wheat, are also doing well, though root crops are rather patchy in parts of the North Island and in Central Otago. Hay crops are abundant and are being harvested under favourable conditions. Shearing has suffered very few setbacks from the weather.

Rainfall.—The Auckland and Coromandel Peninsulas had approximately the normal rainfall for December, but the remainder of the North Island only about half of it. Nelson and Marlborough experienced a similar shortage. In western districts of the South Island and most of Otago the distribution was irregular, the variations from average generally being small, with those on the side of low rainfall predominating. In South Canterbury and about Oamaru the average was considerably exceeded.

Temperatures.—Temperatures were, on the whole, rather below normal, more especially in eastern districts. The departures were, however, seldom large, and parts of western districts and the higher country had rather warmer weather than usual.

Sunshine.—The amount of sunshine was generally about average. Napier with 267.4 hours had the most, while Tauranga followed with 254.5 hours.

Pressure Systems.—The month began with cold southerly winds, following the passage of a depression at the end of November. On the 3rd a fresh but rather shallow depression crossed the Dominion from west to east. Although southerly gales followed it in some places on the 5th, this disturbance produced only scattered rains. It was of interest, however, because from the 5th to the 7th when the general direction of the wind was south-west, north-casterlies frequently blew in parts of Canterbury and North Otago. The weather was very humid, and numbers of thunderstorms, with heavy downpours and some hail, occurred in the districts concerned.