Government Meteorological Observatory,

M ETEOROLOGICAL Observations at Kelburn, Wellington, for the month of November, 1933. Observations taken at 9 a.m.

Altitude of Observatory, 415 ft.

-			s, at	Temperature (° F.) from Observations at 9 a.m.						.m.	Wind.			(100	Hours	at
	Date.		Pressure in Inches, at Sea-level and Standard Gravity.	In Screen.				Grass.	: g	Beaufort Scale.		Anemo- meter.	Points: Inch).		(Symbols)	
				At 9 a.m.			Maxi- mum.		8	adiatio mum.	on.		3. 24	g"	Bright Sunshine: and Tenths.	
				Dry.	Wet.	Humid- ity.	Dry.	Dry.	Minimum	Solar Radiation: Maximum.	Direction.	Force.	Run in Hours,	Rainfall, Points	Bright and	Weather 9 a.m.
1			30.273	54.8	47.0	51	60 · 2	41.0	37.5	114.7	NE	2	136		0.5	o
2			$30 \cdot 366$	$60 \cdot 2$	55 · 1	70	$65 \cdot 4$	46.8	38.4	$127 \cdot 1$	E	1	85	• •	13.0	b
3			$30 \cdot 260$	$62 \cdot 8$	$54 \cdot 8$	57	$72 \cdot 2$	$45 \cdot 0$	35.8	$129 \cdot 0$	NE	1	72	• •	$13 \cdot 2$	bz
4			$29 \cdot 968$	$62 \cdot 7$	$55 \cdot 3$	58	$65 \cdot 8$	$53 \cdot 3$	47.7	122.8	NNW	3	107	30	$2 \cdot 2$	ο,
5	• •	• •	29.730	51.7	$51 \cdot 2$	97	58.5	49.2	49.5	107.3	SSE	2	126	11	1.1	\mathbf{omd}
6	• •	• •	29.620	53.5	49.2	72	60.6	46.4	44.0	126 · 2	NW	3	242	29	5.5	e
7	• •	• •	30.029	52.7	47.7	67	55.2	47.1	46.2	123 · 4	S NE	5	286	Trace	$\begin{vmatrix} 7 \cdot 2 \\ 2 \cdot 7 \end{vmatrix}$	be
8	• •	• •	$30.198 \\ 30.177$	$54 \cdot 7 \\ 57 \cdot 6$	$50 \cdot 1 \\ 53 \cdot 2$	70 74	59·8 60·5	45·1 44·8	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$127 \cdot 0 \\ 123 \cdot 9$	NNW	$\frac{1}{2}$	122 71	• • •	3.0	o
9	• •	• •	30.177	57.7	55.0	83	66.0	42.2	34.2	$125.9 \\ 125.1$	E	1	107	• • •	13.2	o b
10 11	• •	• •	29.904	57.0	53.8	80	61.5	52.3	50.0	118.8	NW	5	215	"1	0.5	
12	••	• •	29.753	59.1	55.0	75	60.2	$52 \cdot 4$	50.0	94.9	NW	i	$\frac{213}{347}$	45	1.1	oq
	• •	• •	29.133	51.1	46.6	69	57.9	45.9	44.1	124.0	SSE	3	248		$6 \cdot 2$	op o
13	• •	• •	29.842	57.4	$53 \cdot 2$	74	64.5	43.0	37.0	133.0	N	3	115	• • •	7.4	0
14 15	• •	• •	29.779	60.0	$52 \cdot 8$	59	$62 \cdot 2$	52.0	49.3	$122 \cdot 9$	NW	6	330	• • •	9.6	beq
16	• •	• •	29.779 29.751	58.1	54.6	79	$62 \cdot 0$	52.4	49.7	$133 \cdot 6$	NW	7	438		6.5	oqz
17	• •	• •	30.000	59.1	52.2	60	59.9	48.1	41.0	$134 \cdot 4$	SE	3	247		12.5	0
18	• • •		29.891	58.4	53.8	72	62.0	44.3	40.0	125 · 8	NW	5	160		11.5	oq
19			30.023	60.3	55.0	69	64.6	46.0	41.0	$125 \cdot 8$	NNW	3	173		13 · 1	be
20			29.866	58.8	53.8	70	$61 \cdot 3$	52.0	49.9	$127 \cdot 9$	NW	6	311		11.4	beq
21			29.671	59.0	55.5	79	60.8	$54 \cdot 2$	52.3	$104 \cdot 4$	NW	7	376	31	0.0	0
$\hat{22}$	• • •		30.122	46.8	$42 \cdot 7$	69	54.0	41.0	40.1	$121 \cdot 0$	SE	5	482	. 1	8.0	ō
$\overline{23}$			30.153	53.8	45.9	50	59.0	$35 \cdot 1$	29.0	$121 \cdot 3$	NNW	3	189	Trace	13.3	b
24			$30 \cdot 172$	$50 \cdot 2$	48.3	87	$62 \cdot 2$	48.2	47.1	117.0	SE	5	215		0.6	omp
25			30.072	61.0	53.0	55	$66 \cdot 1$	$40 \cdot 3^{'}$	33.6	$126 \cdot 0$	N	3	151		12.3	b
26	•••		$29 \cdot 987$	61.4	58.3	81	$65 \cdot 2$	$54 \cdot 0$	$52 \cdot 2$	$132 \cdot 3$	NW	5	344		12.3	eq
27			$29 \cdot 993$	58.5	56.3	87	$67 \cdot 6$	$56 \cdot 0$	$55 \cdot 2$	138 · 7	NW	5	248	8	6.6	o
28	••		$30 \cdot 257$	52.9	51.0	88	$64 \cdot 9$	$49 \cdot 1$	$47 \cdot 2$	122.0	SE	5	221		5.7	o
29	• •		$30 \cdot 225$	64.0	57 · 1	63	$65 \cdot 9$	48.1	44.4	$126 \cdot 1$	SE	2	160		7.8	be
30	• •		30 · 196	59.6	56.4	81	$65 \cdot 1$	$52 \cdot 1$	$50 \cdot 1$	$132 \cdot 3$	SSE	3	219	2	3.0	o
	Means, &c.		30.010	57 · 2	52.5	72	62 · 4	47.6	43.9	123 · 6		3.5	218	158	211.0	••

Mean earth temperature at 1 ft., 58·1°; and at 3 ft., 56·8°. 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.
' l	12		4	3	2	$6\frac{1}{2}$	$2\frac{1}{2}$	1 1		12

Note.—A cold, dry, and sunny month, with precipitation 46 per cent. below the mean of previous years. Total bright sunshine, 211 hours, 49 per cent. of the possible, and one sunless day. Frost was recorded on the grass on the morning of the 23rd. Mean dew-point at 9 a.m., 47.8°; and mean vapour pressure, 0.332 in.

Notes on the Weather for November, 1933.

General.—From the meteorological point of view November was a quiet month. Southerly or south-easterly winds were unusually prevalent and were responsible for temperatures being rather on the cold side. There was a better distribution of rainfall than in October, but Nelson and Marlborough again experienced a serious shortage, and are suffering drought conditions. Elsewhere, though supplies are not so abundant in the Waikato and Taranaki districts as last year, there is generally an abundance of pasture. Stock are in good condition, milk-yields are above normal, and in most districts lambs are fattening well. The heavy rains in Canterbury in the early part of the month saved the situation, particularly as regards wheat crops. On the whole, however, crops do not seem to be doing quite so well as last year. The late frosts of the 22nd and 23rd caused serious losses of potatoes, tomatoes, spring vegetables, and small fruits.

PrintIll** Painfall** was above average parth of Auchland in the Part of Blotty and eastern districts of the North

Rainfall.—Rainfall was above average north of Auckland, in the Bay of Plenty, and eastern districts of the North Island, and in most of Canterbury and Otago. In the Waikato, Taranaki, the Manawatu, the Wairarapa, Westland, Southland, and particularly Nelson and Marlborough, it was considerably below average. There was an absence of warm north-westerly rains.

Temperatures.—Temperatures were above normal from Auckland northwards and west of the ranges in the North Island, but east of the main range they were below. The Hawke's Bay and Poverty Bay areas had very cold weather for the time of year. In the South Island, Central Otago had a warm month but the remainder a cold one. The frosts of the 22nd and 23rd were unusually severe for so late in the season. In South Canterbury and Otago that of the 22nd was the more severe, but thence northwards, in North Canterbury, Marlborough, Wellington, and Hawke's Bay, it was on the 23rd that the damage was done.

Sunshine.—There was less sunshine than usual over the greater part of the North Island, and especially the east coast, owing to the dull weather brought by the persistent southerly and south-easterly winds. From Wellington southwards, however, the normal was exceeded at most places by large amounts. Lake Tekapo recorded 285.5, Nelson 271.0, and Blenheim 254.0 hours.

Pressure Systems.—During the first three days pressure was high and the weather fine. On the afternoon of the 2nd, however, during a heat thunderstorm at Omata, near New Plymouth, a Maori was struck by lightning and killed, a rare occurrence in New Zealand.