## Government Meteorological Observatory

METEOROLOGICAL Observations at Kelburn, Wellington, for the Month of November, 1938. Observations taken at 9 a.m. Altitude of Observatory, 415 ft

- 4		Date.		Pressure in Inches, at Sea-level and Standard Gravity.	Temperature (* F.) from Observations at 9 a.m.						Wind.			(100	Hours	at
					In Screen.				rass.	Beaufort Scale.		Anemo- meter.	Points: Inch).		(Symbols)	
					At 9 a.m.			Maxi- mum.	Mini- mum.	m on 6	'n.		s. 24	# H	Sunshi l'enths.	
					Dry.	Wet.	Humid- ity.	Dry.	Dry.	Minimum on Grass.	Direction.	Force.	Run in Hours.	Rainfall Points	Bright Sunshine: and Tenths.	Weather 9 a.m.
1		•••		29.663	56.7	56.4	98	59.9	45.6	45.5	NNW	3	295	9	0.0	0
2				30.021	49.9	47.9	86	$52 \cdot 2$	47.8	$47 \cdot 7$	SSE	3	223	36	0.0	or
3				30 · 198	49.8	48.4	90	$60 \cdot 9$	$45 \cdot 2$	$43 \cdot 8$	SSE	5	227	14	0.0	$\mathbf{or}$
£				30.313	60.9	$55 \cdot 3$	68	$65 \cdot 3$	48.7	$47 \cdot 7$	ESE	2	209		1.5	0
5				$30 \cdot 295$	63 · 4	$54 \cdot 9$	55	$68 \cdot 7$	$50 \cdot 2$	$41 \cdot 1$	E	1	34		11.5	by
3				$30 \cdot 263$	60.6	$52 \cdot 8$	56	$65 \cdot 9$	44.9	$36 \cdot 1$	E	2	60	١	13.1	сy
7	•			30.112	60.5	55.1	69	68.0	47.5	40.8	NW	4	92	Trace	8.9	be
3				30.039	61.6	58.7	84	66.4	$54 \cdot 5$	49.9	NNW	3	137	9	$2 \cdot 2$	oid
)				29.829	$62 \cdot 2$	61.1	93	67.6	58.4	$57 \cdot 4$	NNW	5	173	58	5.2	oid
)				29.720	57.0	55.4	90	65.7	53.0	$50 \cdot 2$	NW	4	225	1	4.9	0
L		••		29.785	$61 \cdot 2$	58.0	81	$67 \cdot 1$	$51 \cdot 2$	$44 \cdot 2$	NNW	4	112	1	9.6	0
2				29.950	67.1	60.7	67	71.3	55.2	55.0	NNW	3	398		11.4	b
3				30.030	63 · 7	57.2	65	68.0	53.5	46.4	NNW	4	175	::	12.9	$\tilde{\mathbf{b}}$
Ĺ		• • • • • • • • • • • • • • • • • • • •		29.903	67.6	60.1	62	68.6	53.2	45.3	NNW	3	182	Trace	10.1	o o
ŝ	• • •	• • • • • • • • • • • • • • • • • • • •		30.121	56.7	51.4	67	60.2	49.4	45.3	SE	4	249	11	12.0	e
ŝ				29.894	60.2	55.8	74	61.9	49.1	43.9	NNW	6	157	Trace	8.0	o
7	• •	• •		30.065	57.9	55.2	83	65.3	$52 \cdot 1$	45.0	NNW	2	141		4.1	ou
3	• •	• •	• •	30.012	61.3	57.1	76	64.3	52.7	45.0	N	3	88		9.0	· e
)	• •	• • •	• •	29.773	$62 \cdot 3$	57.8	75	67.6	52.5	43.6	SSE	2	155	27	8.8	0
)	• •	• •	• •	29.726	53.2	50.1	79	$62 \cdot 2$	$\frac{32.3}{44.2}$	43.6	SSE	4	216		7.1	
Ĺ	• •	• • •	• •	$29.720 \\ 29.268$	$62 \cdot 2$	57.1	71	67.5	52.1	49.7	NNW	6	$\begin{array}{c} 210 \\ 242 \end{array}$		8.1	e bac
2	• •	• • •	• •	29.208 $29.457$	50.5	46.2	70	53.4	46.6	46.6	SSE	4	508	Trace	1.1	bec
3	• •	• •	• • •			49.9	77	61.3					91		4.7	0
5 <b>1</b>	• •	• •	• •	$29.761 \\ 29.935$	$53 \cdot 4 \\ 61 \cdot 3$	55.0	64	63.3	45·3 45·4	$ 43.8 \\ 38.6$	E	$\frac{1}{2}$	64	16	11.1	0
E j	• •	• •	• •			58.9	88	$62 \cdot 2$			NNW				0.0	c
	• •	• •	• •	29.876	60.9				53.7	53.6		6	303	17	7.7	oq
3	• •	• •	• •	30.021	54.5	54.0	97	63.6	53.2	52.3	SSE	3	404			.0
7	• •	• •	• •	30.390	61.8	54.4	59	65.0	48.4	40.1	E	4	121	1	9.7	by
8	• •	• •	• •	30.222	61.3	55.2	65	63.3	51.8	48.4	E	3	130	4	0.0	0
9	• •	• •	• •	30.039	59.4	58.0	92	68.1	52.6	48.6	SE	1	19	5	2.6	0
)	• • •	• •	• •	30.039	60.9	58.8	87	67.8	56.6	54.1	NNW	3	62	1	. 6.6	oip
	Means	, &c		29.957	59.3	55 · 2	76	64 · 4	50.5	46.4		3.3	183	199	191 · 9	

Mean earth temperature at 1 ft., 62·0°; and at 3 ft., 59·0°. Number of rain days, 14. Total rainfall, 33 per cent. below normal. Sunshine, 44 per cent. of the possible. Mean dew-point at 9 a.m., 51·5°; mean vapour pressure, 0·381 in.

## DIRECTION OF WIND.

Gale (force Forces S. S.W. W. N.W. 3 | ... | 8 | E. S.E. N.E. 4 to 7. 8 or more).  $5\frac{1}{2}$ 1 - 1 3  $5\frac{1}{2}$ 

Note.—North-west gales occurred on the 11th, 21st, and 25th, that of the 21st being very boisterous. Hail fell on the early morning of the 10th; and lightning was observed on the night of the 19th.

## Notes on the Weather for November, 1938.

General.—November completed one of the best springs of recent years. Temperatures were warm and there was enough rain to ensure vigorous growth of vegetation. In a few places growth was still rather backward, owing to drying winds or to previous lack of rainfall, but generally the country is looking particularly well, and there is abundance of feed. Stock also are thriving, though there has been some trouble with lambs, chiefly from internal parasites. The milk yield is well up to standard. Numbers of native trees have produced a remarkable amount of blossom. This is especially noticeable with the cabbage tree and the beech. The beech forests have seldom displayed such as warmth and variety of colour as during last month.

Rainfall.—The distribution of rainfall was rather erratic owing to there being many falls of a local character. Thus, of places at no great distance apart, one may have had considerably more and the other less than the average. Over most of the North Island it was a wet month, but in numbers of places, particularly in Western Wellington, the totals were below normal. In the South Island the average was exceeded along most of the east coast, while in western districts there were

normal. In the South Island the average was exceeded along most of the east coast, while in western districts there were moderate deficits at many places.

Temperatures.—Except on the Canterbury Plains, where they were about equal to it, temperatures were considerably above normal. The departures ranged mainly between one and four degrees, the average being about two degrees. Rather uniform conditions prevailed without extremes of temperature, and there were few frosts.

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Sunshine.—The amount of bright sunshine was above average at Alexandra and Invercargill, but elsewhere very much below. Numbers of places have 50 or more hours less than usual. Queenstown had 232.4 hours.

Pressure and Storm Systems.—The first three days of the month were dull, wet, and miserable in most parts. A series of depressions was crossing first the middle and later the northern portions of the Dominion. Strong south-easterly winds blew about Cook Strait, and the weather was cold from that area southward. There were heavy rains over the North Island and in Canterbury and Marlborough. A certain amount of flooding occurred in Taranaki and Wellington.

After a fine spell, dull and humid conditions again prevailed from the 7th to the 10th in association with a series of shallow and irregular depressions. Rain was widespread but irregular in amount. On the 8th and 9th there were some severe local downpours in Central Otago. That at Coal Creek, near Roxburgh, did serious damage to a number of orchards. The weather remained somewhat disturbed until the 14th.

Another fine spell with anticyclonic conditions followed, but from the night of the 18th, when south-westerly weather

Another fine spell with anticyclonic conditions followed, but from the night of the 18th, when south-westerly weather was ruling, an unusual type of storm developed in the south. This storm culminated in boisterous westerly or south-westerly gales over much of the country on the 21st. There was heavy rain in parts of the South Island and hail fell in many places. During the 21st to the 22nd there was a heavy fall of snow on the ranges of the South Island, light falls being recorded even on some of the low levels in Otago and Southland.

There was a leavy fall of the 22nd to the 36th there was a leavy fall of the 30th the south and the sou

From the 23rd to the 26th there was an improvement though the weather was at no time very settled. On the 25th there were boisterous northerly gales on the west coast of the South Island. Some very high temperatures were recorded on this day, 80° being exceeded at Christchurch.

From the 27th to the end of the month pressure was high to the east while an extensive and complex series of depressions developed over the Tasman Sea. Rain was general, with heavy falls at one time or other in most districts, the ground receiving

a thorough soaking.

Thunderstorms were rather numerous during the month, and at Maranui, on the West Coast, a man was killed by lightning