THE NEW ZEALAND GAZETTE.

Government Meteorological Observatory.

M ETEOROLOGICAL Observations at Kelburn, Wellington, for the Month of December, 1933. Observations taken at 9 a.m. Altitude of Observatory, 415 ft.

			, at dard	Temperature (° F.) from Observations at 9 a.m.						m.	Wind.			(100	Hours	at
	Date.		n Inches, at and Standard	In Screen.				Grass.		Beaufort Scale.		Anemo- meter.	Points Inch).	1	(Symbols)	
				At 9 a.m.			Maxi- mum.	Mini- mum,	5	Solar Radiation Maximum.			n 24 13.	a [t Sunshine : Tenths.	
			Pressure, i Sea-level Gravity.	Dry.	Wet.	Humid- ity.	Dry.	Dry.	Minimum	Solar B Maxi	Direction.	Force.	Run in Hours.	Rainfall, Points	Bright and 1	Weather 9 a.m.
			30.200	54.0	$52 \cdot 9$	92	56.7	$52 \cdot 0$	$48 \cdot 3$	118.1	SSE	5	130		0.0	0
			30.058	56.0	50.8	68	$57 \cdot 9$	$49 \cdot 0$	$47 \cdot 9$	$127 \cdot 0$	SE	5	319		9.5	0
	••		30.180	$56 \cdot 5$	50.7	64	$64 \cdot 2$	46.7	$44 \cdot 1$	$125 \cdot 9$	SSE	4	299		$11 \cdot 2$	be
			30.070	$64 \cdot 1$	$52 \cdot 8$	42	$67 \cdot 3$	44.7		$128 \cdot 0$	NW	5	134		13.3	be
	••	• •	$29 \cdot 897$	61.8	$55 \cdot 9$	67	$65 \cdot 6$	$55 \cdot 0$	$53 \cdot 8$	$131 \cdot 3$	NW	6	374		11.4	cq
			$29 \cdot 887$	$65 \cdot 4$	$58 \cdot 0$	61	70.6	$52 \cdot 2$	$49 \cdot 2$	$129 \cdot 8$	NW	3	286		$11 \cdot 9$	b
			$29 \cdot 915$	$66 \cdot 9$	$59 \cdot 0$	60	$72 \cdot 1$	$56 \cdot 1$	$54 \cdot 1$	$131 \cdot 0$	Ν	3	263		12.5	с
	••		30.502	$59 \cdot 0$	$56 \cdot 1$	83	$70 \cdot 0$	$54 \cdot 0$	$47 \cdot 2$	$131 \cdot 0$	\mathbf{s}	2	149		$9 \cdot 1$	0
	••		30.194	$65 \cdot 3$	$61 \cdot 0$	77	$68 \cdot 6$	$54 \cdot 2$	$47 \cdot 1$	$130 \cdot 0$	NW	4	96	••	4.7	с
			$30 \cdot 202$	$62 \cdot 3$	$58 \cdot 8$	80	$67 \cdot 1$	$57 \cdot 4$	$55 \cdot 4$	118.7	Ν	3	218	1	$5 \cdot 1$	0
			30.258	61.7	$59 \cdot 0$	85	$74 \cdot 2$	$55 \cdot 1$	$54 \cdot 6$	$134 \cdot 3$	ESÈ	1	91		$6 \cdot 4$	op
			30.227	$64 \cdot 2$	$61 \cdot 2$	83	$72 \cdot 3$	58.7	$55 \cdot 0$	$137 \cdot 1$	Ν	3	148		$7 \cdot 3$	0
			30.196	$63 \cdot 9$	$58 \cdot 8$	72	$71 \cdot 6$	$59 \cdot 3$	$58 \cdot 2$	$131 \cdot 0$	NW	2	167		$8 \cdot 9$	0
	••		30.084	$64 \cdot 8$	59.7	73	$70 \cdot 1$	$58 \cdot 2$	$56 \cdot 0$	$134 \cdot 9$	Ν	4	223		11.4	е
			$29 \cdot 967$	$67 \cdot 2$	$62 \cdot 0$	73	69.6	$59 \cdot 3$	$57 \cdot 9$	$133 \cdot 0$	NW	6	387		$12 \cdot 0$	bq
			$29 \cdot 927$	65.7	$62 \cdot 5$	83	$71 \cdot 2$	$61 \cdot 9$	$61 \cdot 4$	140.6	NW	7	533	2	$6 \cdot 3$	c
			29.896	64.7	$63 \cdot 0$	91	$66 \cdot 0$	62.5	$62 \cdot 6$	96.9	NW	7	602	34	0.0	oq
			$29 \cdot 813$	$57 \cdot 0$	$55 \cdot 3$	89	62.5	$56 \cdot 2$	56.8	$125 \cdot 3$	SSE	2	357	5	$1 \cdot 2$	0
			30.065	$59 \cdot 0$	$53 \cdot 6$	68	$66 \cdot 8$	51.8	$50 \cdot 1$	$127 \cdot 4$	SSE	3	150		11.7	0
		•••	30.131	$66 \cdot 8$	60.4	67	70.2	$50 \cdot 2$		115.4	N	1 I	85	15	$0 \cdot 1$	oz
			29.766	62.0	59.3	85	71.0	$57 \cdot 1$		139.7	N	3	159		$2 \cdot 4$	0
			29.715	66.3	58.5	60	69.6	59.8	55.7	134.0	NW	6	333		$1\overline{2}\cdot\overline{2}$	cq
			29.608	66.7	$59 \cdot 9$	65	$71 \cdot 8$	60.0		132.5	NW	6	463		13.4	bo
		•••	$29 \cdot 330$	61.6	58.5	82	67.6	58.5		127.3	NW	6	536	10	$10 \cdot 1$	bee
			$29 \cdot 860$	$55 \cdot 2$	48.0	55	$61 \cdot 2$	42.6	39.5	135.5	SSE	i	239		6.6	bc
			30.128	61.0	53.0	55	$64 \cdot 4$	44.0		$127 \cdot 2$	NW	4	120		11.4	b
			29.674	$59 \cdot 2$	$55 \cdot 2$	76	63.0	$55 \cdot 1$	$53 \cdot 1$	$134 \cdot 1$	NW	7	472	$\frac{1}{2}$	6.0	ő
		•••	29.451	$55 \cdot 9$	46.0	41	$57 \cdot 1$	$50 \cdot 1$		132.0	wsw	3	388	18	$5 \cdot 2$	ou
			$29 \cdot 694$	$52 \cdot 6$	46.1	57	$57 \cdot 0$	$43 \cdot 2$		129.0	SSE	6	304	2	$9\cdot\overline{8}$	be
			$29 \cdot 802$	57.0	50.3	60	59.0	$48 \cdot 1$		$126 \cdot 1$	S	7	537	_	12.7	be
		••	29.302 29.731	58.6	53.0	67	60.0	50.0	47.6	$120 1 \\ 132 \cdot 8$	SSE	4	284	•••	8.5	cz
л	Means, &c.		29.940	$61 \cdot 4$	$56 \cdot 1$	70	66.3	53.6	50.9	$128 \cdot 9$		$\frac{-}{4 \cdot 2}$	285		252.3	

Mean earth temperature at 1 ft., 63·1°; and at 3 ft., 60·7°. Number of rain days, 9.

DIRECTION OF WIND.

Gale (force 8 or more).	Forces 4 to 7.	Calm.	N.	N.E.	Е.	S.E.	s.	s.w.	W.	N.W.		
•••	18		6		1/2	5	$ 5\frac{1}{2}$		1/2	13		

NOTE .- With the exception of a cold and stormy spell which followed Christmas, December was a month of pleasant summer weather, very dry, with abundant sunshine, and with temperatures somewhat above the average. Total bright sunshine, 252·3 hours, 54 per cent. of the possible, and two sunless days. Precipitation was 69 per cent. below the normal. Hail fell on the 28th and 29th, lightning was seen on the 24th, and thunder was heard on the 24th and 29th. Mean dewpoint at 9 a.m., 51.4° ; and mean vapour pressure, 0.379 in.

Notes on the Weather for December, 1933.

General.-The first half of December was very dry and warm, many parts of the country having no rain at all. In General.—The first half of December was very dry and warm, many parts of the country having no rain at all. In Marlborough, especially, and to only a slightly less extent in Nelson, the situation prior to the 17th was very serious, and although some good rains fell thereafter, they were too late to save large areas of crops. Pastures are generally in the dry condition usual about a month later in the summer. Canterbury had better rains than most districts, and though the wheat yield will be lighter than last year, an ample growth of pasture seems assured. Generally speaking, milk yields have fallen off somewhat owing to the absence of green growth, but otherwise there is no lack of feed at present and stock are in good condition. Lambs are going early to the freezers, but in some parts of the South Island, especially, are small. Haymaking and shearing have been carried out under favourable circumstances. The hot and dry weather was accompanied by some etterory winds, while the acld stormy conditions covering during the rains did an anyount of damage which is difficult to and shearing note beth carried out and introduction control and uses. In his and up wanted was accompanied by some strong winds, while the cold, stormy conditions occurring during the rains did an amount of damage which is difficult to determine. The season, therefore, has been by no means ideal for crops. Rainfall.—There were some heavy falls in eastern districts of the North Island on the 1st, but otherwise it was extremely

Rainfall.—There were some heavy falls in eastern districts of the North Island on the 1st, but otherwise it was extremely dry until the 16th. From then onwards stormy and wet weather prevailed, and the situation was considerably improved. Over most of the North Island, however, the total rain for the month was much below average. There were some exceptions in South Taranaki, Hawke's Bay, and the East Cape districts. In the South Island there was still a deficit at the end of the month in northern Nelson and Marlborough and in southern coastal districts. In Canterbury, Westland, and much of the interior of Otago, on the other hand, the normal was exceeded, and the soil is in a satisfactory condition. *Temperatures.*—Owing to the high temperatures of the first half of the month the cold weather of the last seven or eight days was not sufficient to lower the average below the normal for December. Though the mean temperature was everywhere above normal, it was in the interior and in Westland that the warmth was especially marked. Some frosts occurred during the last week, especially in the interior of the South Island. *Sunshine.*—Except at scattered places in eastern districts, sunshine was generally considerably above the average. Nelson had 320-3 hours, Blenheim 304-7, and Lake Tekapo 296-0 hours. *Storm Systems.*—The month opened with high pressure over New Zealand, but a series of small cyclones passing to the east of the Dominion on a south-easterly course was responsible for the prevalence of southerly winds and cool temperatures during the first day or two. Between the 5th and the 7th a shallow westerly depression passed but produced very little rain. Following another spell of high pressure, there was a second shallow depression on the 10th, but again scarcely any rain resulted.