Government Meteorological Observations.

TETEOROLOGICAL Observations at Kelburn, Wellington, for the Month of July, 1932. Observations taken at Altitude of Observatory, 415 ft.

	Date	Presente in Trahes at	s, at	Temperature (° F.) from Observations at 9 a.m.						Wind.			(100	Hours	. st	
			Pressure in Inches, at Sea-level and Standard Gravity.	In Screen.				Grass.	: g	Beaufort Scale.		Anemo- meter.	Points: Inch).		(Symbols)	
				At 9 a.m.				Mini- mum.	i- g	tadiatio	on.		.s. 24	1 E I	Sunshine: Tenths.	i
				Dry.	Wet.	Humid- ity.	Dry.	Dry.	Minimum	Solar Radiation Maximum.	Direction.	Force.	Run in Hours.	Rainfall, Points	Bright and 1	Weather 9 a.m.
1			29.967	48 4	45.7	80	54.0	39.1	32 · 1	95.9	NE	3	86		7.5	
2			29.968	48.0	46.1	86	$52 \cdot 1$	44.1	$34 \cdot 9$	95.4	W	1	120	20	6.5	b
3		٠,	30.201	38.8	37.8	91	$45 \cdot 0$	36.6	$34 \cdot 5$	75.7	S	6	150	67	1.0	opq
4			30.384	45.0	43.0	84	$49 \cdot 3$	36.9	36.4	91.7	S	4	367		$5 \cdot 1$	0
5			30.344	48.0	$46 \cdot 4$	88	$52 \cdot 8$	40.5	32.2	96.8	N	2	74		7.5	be
6			30.140	51.3	$47 \cdot 1$	71	$55 \cdot 3$	45.0	40.1	$102 \cdot 9$	NW	6	273	٠.	4.7	beq
7			29.997	$52 \cdot 9$	$46 \cdot 9$	60	$61 \cdot 2$	47.2	$39 \cdot 9$	103 · 1	N	1	405		7.8	b b
8			30.013	$50 \cdot 2$	46.8	76	$55 \cdot 3$	$45 \cdot 3$	40.2	100 · 2	NNW	4	117		3.1	be
9			30.015	47.7	44.5	76	$48 \cdot 2$	45.7	$42 \cdot 0$	$59 \cdot 7$	SE	3	245	13	0.0	. 0
10			29.729	41.2	40.6	95	46.5	39.5	$39 \cdot 0$	57.3	SSE	2	138	1	0.0	or
11			29.656	46.0	43.3	79	$48 \cdot 4$	40.2	37.2	94.3	SSE	3	61		1.4	0
12			$29 \cdot 961$	$42 \cdot 2$	40.3	84	$52 \cdot 1$	38.0	$30 \cdot 2$	90.8	NNE	2	99	• •	$4 \cdot 8$	0
13			29.774	45.8	43.3	81	$49 \cdot 3$	39 · 1	30.4	90.0	NNE	3	76	1	1.5	0
14	• •		$29 \cdot 379$	46.0	44.9	91	48.0	43.1	$39 \cdot 9$	$92 \cdot 9$	S	7	214	1	$2 \cdot 4$	oq
15			29.903	40.7	38 · 1	77	48.8	36 · 1	26.8	$100 \cdot 3$	Calm		206	8	$5 \cdot 6$	b
16			30.145	43.0	42.0	91	$51 \cdot 6$	39 · 1	$35 \cdot 0$	97.0	Calm		17		$4 \cdot 0$	O
17		• • .	$30 \cdot 425$	40.3	39.6	93	49 · 1	36.7	30 · 1	91.9	Calm		32		$7 \cdot 3$	bew
18			30 414	42 · 1	40.8	89	$48 \cdot 3$	$35 \cdot 3$	$27 \cdot 0$	95.0	Calm		19		$3 \cdot 7$	\mathbf{cf}
19	• •		30.335	45.3	41.3	68	$48 \cdot 9$	$37 \cdot 9$	$32 \cdot 3$	$94 \cdot 2$	SSE	3	79	3	$4 \cdot 2$	b
20	• •		30.174	44 · 1	41.5	79	44.5	$42 \cdot 0$	40.0	67.0	SE	5	213	5	0.2	0
21	• •		$29 \cdot 973$	40 · 1	38.3	84	$43 \cdot 2$	38.7	37.0	$72 \cdot 7$	SSE	4	310	Trace	1.3	op
22			$29 \cdot 794$	39.8	37.0	75	$43 \cdot 6$	$36 \cdot 3$	$33 \cdot 1$	$72 \cdot 8$	W	1	169		0.1	0
23	• •	٠.	$29 \cdot 705$	42.0	38.0	66	$51 \cdot 0$	$33 \cdot 1$	26.6	$105 \cdot 0$	N	1	56	Trace	8.6	b
24			29.766	43.0	38.5	63	$47 \cdot 4$	$36 \cdot 6$	$32 \cdot 1$	99.6	S	2	75		4.7	b
25			$29 \cdot 881$	43.2	40.0	65	$46 \cdot 6$	40.0	$35 \cdot 4$	98.9	S	3	145	1	7.2	c .
26	••		$29 \cdot 926$	42 · 1	39 · 1	74	45.7	38.1	$33 \cdot 7$	88.1	S	4	121	9	0.9	o
27			$29 \cdot 850$	45.3	42.4	77	$48 \cdot 3$	40.1	39 · 1	85.6	SE	4	266	6	2.0	be
28	• •		29.966	44.5	41.9	79	$47 \cdot 3$	39.5	38.3	102.0	SE	5	279	5	$5 \cdot 3$	op
29	• •		$29 \cdot 998$	42.9	40.0	76	$46 \cdot 3$	38.0	$34 \cdot 1$	97 1	SE	4	225	8	5.7	c
30			$29 \cdot 953$	46.2	43.1	76	$51 \cdot 3$	34.1	26.8	94.5	NW	5	101	Trace	4.0	c
31	••	• •	30.005	47.1	45.0	84	$53 \cdot 0$	38.7	$32 \cdot 3$	99 · 2	N	1	197	• • •	8.5	b
	Means, &c.		29.992	44.6	42.0	79	49.4	39.4	34.5	90.6		2 · 9	159	148	126 · 6	••

Mean earth temperature at 1 ft., 44.2°; and at 3 ft., 47.7°. Number of rain days, 14.

DIRECTION OF WIND.

Gale (force	rorces									
8 or more).	4 to 7.	Calm.	N.	N.E.	$\mathbf{E}.$	S.E.	s.	s.w.	W.	N.W.
•• 1	12	4	$ 5\frac{1}{2}$	2		7	8	1	2	$ 2\frac{1}{2}$

Note.—A fine, dry month with light to moderate southerly and south-easterly winds prevailing. Precipitation, which was 69 per cent. below the normal, was the lowest rainfall ever recorded at Wellington for July since observations were first taken in 1862. Total bright sunshine, 126.6 hours, 43 per cent. of the possible, and two sunless days. Frost was recorded on the grass on six mornings, fog was in evidence on the 15th and 18th, and lightning was seen on the 21st. Hail fell on four days, and a few light snowflakes were seen on the 3rd. Mean dew-point at 9 hrs., 38.4; and mean vapour pressure, 0.232 in.

SUMMARY FOR THE MONTH OF JULY, 1932.

General.—The month was a very dry one, possibly the driest July on record. Temperatures were much below average, especially in the North Island, but this was offset by an abundance of sunshine accompanied by an unusual absence of wind.

especially in the North Island, but this was offset by an abundance of sunshine accompanied by an unusual absence of wind. The low temperatures and frequent frosts checked the growth of grass, and cattle are, in many districts, having a lean time owing to the shortage of feed. The dry, sunny conditions facilitated winter work on the farms and were also favourable for sheep, which are reported generally to be in good condition. Snow was rather frequent during the month on the high levels, but there were no very heavy falls in the interior, so that stock have suffered comparatively little.

Rainfall—The only places where more than the average rain for July was recorded were in Southland, on the shores of Foveaux Strait, Invercargill, for instance, having an excess of six per cent. Everywhere else the rainfall was below normal. The departures were fairly small on the east coast of the North Island, but in most other districts there were large deficits. In many cases the total was the lowest hitherto recorded. The interior and the northern and western portion of the South Island was particularly dry. Nelson, for example, had rain on only three days, and the total was only ten per cent. of the normal. Still more remarkable was the Waiho Gorge Hotel's total of 0·15 in. falling on only one day, compared with a July average of about 15 in.

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Temperature.—Temperatures were practically everywhere below normal. The North Island fared relatively the worse, being, on the average, about 3°F. colder than usual. In the South Island the farther south one goes the nearer becomes the approach to normal. Ground frosts were very numerous and often severe, but as regards shade temperatures there were no outstanding extremes. In parts of the interior of Nelson and Marlborough, for example, at Reefton and in the Upper Wairau, some swift-running streams were frozen over, a very unusual occurrence. Water-pipes were frozen at many places in the interior. places in the interior.

places in the interior.

Sunshine.—The records of sunshine were everywhere above the July average. Nelson had the remarkable total of 194·3 hours, Blenheim running it close with 186·3 hours. Hokitika had no less than 160·4 hours.

Pressure Systems.—At this time of year the Meteorologist expects well-developed storm systems moving with regularity from the westward and bringing widespread rains with them. It is usually the most satisfactory period for the forecaster. This year the reverse has been the case. The normal westerly depression associated with the prevailing north-westerly winds of this region has been conspicuous by its absence. Yet in Australia several well-developed depressions of this type were experienced. North-westerlies predominated in New Zealand on only two days in July. The first of these was the 6th, when they were strong in Cook and Foveaux Straits, and the second the 31st, when, though general, they were only moderate. In each case a slight westerly depression was passing to the south of New Zealand.