

CLIMATOLOGICAL TABLE—continued

Summary of the Records of Temperature, Rainfall, and Sunshine for July, 1950—continued

Station.	Height of Station above M.S.L.	Air Temperatures in Degrees (Fahrenheit).								Rainfall in Inches.					Bright Sun- shine.
		Means of		Mean of A and B.	Difference from Normal.	Absolute Maximum and Minimum.				Total Fall.	No. of Rain Days.	Difference from Normal.	Maximum Fall.		
		A Max.	B Min.			Maximum. Maximum.	Date.	Minimum. Minimum.	Date.				Amount. Amount.	Date.	
	Ft.	°F.	°F.	°F.		°F.		°F.		In.			In.		Hrs.
Milford Sound ..	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waimate ..	200	52.0	34.5	43.2	+1.0	61.0	8	23.0	20	2.17	10	+0.27	0.87	23	117.2
Queenstown ..	1,100	46.7	31.8	39.2	+1.4	56.2	31	24.0	20	4.28	10	+2.28	1.62	22	84.1
Cromwell ..	720	46.9	29.0	38.0	..	60.1	6	22.1	19	0.65	9	..	0.23	13	..
Ophir ..	1,000	47.9	25.4	36.6	+2.3	60.5	22	16.0	19	0.57	4	-0.18	0.29	13	..
Earnsclough ..	500	47.7	28.0	37.8	..	59.8	22	20.5	19	0.38	6	..	0.12	22	..
Waipiatā ..	1,550	45.8	30.6	38.2	+2.2	56.5	22	22.8	19	0.84	9	-0.10	0.21	6	110.6
Alexandra ..	520	47.2	29.0	38.1	+2.2	59.0	22	22.0	19	0.40	9	-0.25	0.11	6	115.1
Mid Dome ..	1,252	48.0	31.7	39.8	..	59.0	20	23.0	19	4.44	11	..	0.85	13	..
Manorburn Dam ..	2,448	42.2	24.7	33.4	+3.5	50.5	9	7.2	19	0.73	7	-0.25	0.40	6	..
Taieri ..	80	51.0	33.1	42.0	(+1.0)	64.4	22	20.4	19	1.38	15	(-0.75)	0.28	16	86.3
Musselburgh, Dunedin ..	5	50.5	38.0	44.2	(+1.8)	63.7	22	27.9	20	2.09	17	-0.28	0.48	16	92.1
East Gore ..	245	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gore ..	240	48.7	33.7	41.2	+1.4	57.0	22	24.5	20	2.30	18	..	0.30	16	69.3
Otautau ..	180	49.8	33.5	44.6	..	58.8	30	23.5	19	3.76	20	..	0.53	13	..
Invercargill ..	32	49.9	35.4	42.6	+1.9	56.0	21, 22	22.0	19	2.40	21	-0.60	0.23	12	78.3
Invercargill South ..	8	49.9	36.1	43.0	+1.8	55.5	22	26.1	19	2.44	19	(-0.64)	0.28	6	..

LATE RETURNS

Waihi (June, 1950) ..	354	58.0	43.7	50.8	+2.1	64.5	10	26.0	19	7.25	16	-1.28	1.65	26	111.2
Pahiatua (June, 1950) ..	384	53.8	37.2	45.5	-0.3	59.1	4	24.0	19	8.49	19	+3.64	2.15	16	..
Milford Sound (June, 1950)	20	48.3	33.0	40.6	(-1.6)	55.2	4	29.8	6, 10	14.15	13	(+0.09)	2.93	3	..

NOTE.—At stations where departures from normal are in parentheses, the temperature record has been maintained for less than ten years, the rainfall record for less than twenty years, and the normals are partly interpolated.

NOTES ON THE WEATHER FOR JULY, 1950

General.—On the whole July was a favourable winter month. The Gisborne district must be excepted, however, on account of the damage caused by serious flooding in the Waipaoa River at the beginning of the month.

Two spells of clear frosty weather were experienced, the first in the middle of the month, the second towards the end. Both occurred during the passage of very large anticyclones, the first of which caused barometers to reach their highest values for many years.

Pastures and autumn-sown cereal crops made little growth, but the preparation of the soil for further sowings has proceeded under very favourable conditions. Dairy production showed a rapid increase in the north.

Rainfall.—Over most of the North Island rainfall was deficient, the amount being less than half the normal north of Hamilton. Near Gisborne, however, totals were over double the normal amount as a result of heavy rains at the beginning of the month. An area of excess rain extended from East Cape to Southern Hawke's Bay and across the Ruahines to Wanganui. The southern part of the Island also had a slight excess.

In the South Island there was a moderate excess on the West Coast—except the Buller district; also in two narrow belts bordering the northern and southern boundaries of the Canterbury Province. The deficiency over the remainder of the Island was slight, except about Golden Bay.

Temperatures.—Temperatures were slightly below normal in the western part of Northland, but above normal elsewhere. In Central Otago and part of Southland the departure from normal was + 2° F. In general the departures tended to be about 1° F. higher inland than on the coast.

The high country of both Islands was thickly coated with snow about the middle of the month. Frosts were widespread and severe from 17th to 21st, and again from the 26th onwards.

Sunshine.—For the most part sunshine was a little better than the average. The highest figure was Blenheim's 187.0 hours, which is equivalent to an hour a day above average. There were slight deficiencies in the southern half of the South Island, and locally about Wellington and Gisborne.

Weather Sequence.—During the passage of a vigorous depression the centre of which crossed Northland at the beginning of the month, heavy rain fell in the north-eastern part of the North Island and caused severe flooding in the Gisborne district. The weather was mainly fair in the South Island under the influence of an extensive ridge of high pressure stretching from New South Wales across the South Island and away to the east.

As the northern depression moved away, an anticyclone built up to the east of New Zealand on the 5th. By that time conditions had improved in the North Island, but cloudy showery weather soon prevailed due to the passage of two weak troughs associated with depressions centred far to the south-west. On that occasion, however, showers did not extend to the east of the main ranges.

An active cold front moved across rapidly from the south-west on the 9th, the associated low pressure centre passing close to Southland.

Cold southerlies prevailed on the 11th with the approach of an anticyclone. A brief period of clear frosty weather which followed came to an end on the 13th with the arrival of a trough from the west. A depression formed within this trough deepened rapidly, and then moved across South Auckland on the morning of the 14th. Rain became general, while the formation of a secondary depression east of Wairarapa accounted for heavier rainfalls and southerly gales about the Cook Strait region. Snow fell on the high country of the North Island and Marlborough. It became still colder after the passage of a secondary cold front on the 16th and showers also developed over the South Island, except Westland.

With the approach of a very intense anticyclone, the weather began to improve, and by the 18th it had become fine generally except in the Gisborne district where the clearance was delayed until the next day. Widespread frosts of unusual severity were recorded for several days during the passage of this remarkable anticyclone in which the central pressure exceeded 1,045 millibars. As the anticyclone began to move away eastwards on the 22nd the frontal system, associated with an extensive disturbance centred far to the south-west, began to advance over the South Island. The development of a wave depression off Westland temporarily retarded the front's progress and this resulted in heavy rainfall in Westland. There was also widespread rain northwards to Wellington and Taranaki. After the depression had passed across the South Island, the front resumed its journey northwards on the 25th.

Following the passage of an active cold front, southerlies prevailed on the 26th. A large anticyclone approaching from the west then took charge of the weather until the end of the month. Although showers persisted in the Southland and Gisborne districts until the 29th, elsewhere clear frosty weather prevailed after the 26th. The anticyclone was beginning to move off slowly eastwards on the 31st.

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(N.Z. M.O. 107.)