

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for August 1966—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Fahrenheit)							Rainfall in Inches				Bright Sunshine		
		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	Date	Minimum				Date		Amount	Date
Musselburgh, Dunedin ..	5	51.9	37.2	44.6	-0.6	61.3	21	31.3	12	1.32	12	-1.0	0.40	24	128
Oamaru ..	..	52.0	35.2	43.6	..	62.0	22	22.0	20	1.42	7	..	0.55	24	136
West Arm, Lake Manapouri	590	47.6	34.6	41.1	+1.5	54.0	21	27.9	31	6.71	15	..	2.53	3	..
Queenstown ..	1,080	51.4	32.0	41.7	-0.1	61.0	22	27.3	10	1.54	6	-1.0	0.64	3	128
Mid Dome ..	1,252	52.5	31.8	42.2	+1.0	..	..	23.9	27	1.91	10	-0.3	0.38	8	..
Cromwell ..	720	51.6	30.1	40.8	-0.3	60.0	13, 21	22.4	28	0.45	9	-0.4	0.21	7	..
Ophir ..	1,000	51.4	26.8	39.1	-0.1	60.3	22	18.5	31	0.44	4	-0.4	0.18	8	..
Moa Creek ..	1,400	50.4	23.3	36.8	-0.5	58.8	22	15.4	10	0.06	3	-0.1	0.04	8	..
Earnsclough ..	500	52.8	25.5	39.2	-1.5	64.5	13	18.0	28, 31	0.20	4	-0.4	0.13	15	..
Alexandra ..	461	52.0	29.7	40.8	-0.7	63.0	13	22.8	11	0.16	4	-0.4	0.11	15	165
Roxburgh Hydro	350	51.8	33.7	42.8	-1.2	62.2	13	25.2	6	0.72	10	-0.3	0.42	24	..
Moa Flat, West Otago ..	1,345	47.6	31.9	39.8	-1.2	59.0	13	25.8	26	1.16	11	-0.6	0.18	3, 25	..
Lake Mahinerangi ..	1,300	47.4	28.8	38.1	..	57.8	13	20.2	14	2.01	13	..	0.85	24	..
Tapanui ..	740	51.4	34.3	42.8	-0.2	61.2	22	27.5	10	1.98	9	-0.3	0.70	24	..
Rankleburn Forest	835	48.7	33.2	41.0	-0.8	58.0	22	26.0	28	1.31	12	..	0.27	3, 24	..
Otautau ..	180	52.2	32.0	42.1	-0.7	61.0	14, 22	23.8	2	1.59	10	-1.4	0.44	7	153
Gore ..	230	51.1	33.5	42.3	-1.0	62.5	22	26.9	10	1.04	8	-1.1	0.24	28	139
Winton ..	150	52.7	33.2	43.0	..	60.9	22	25.1	2	1.01	9	..	0.22	24	150
Pebble Hills ..	138	52.7	32.5	42.6	-0.4	62.0	22	24.0	2	1.39	10	-1.3	0.26	4, 28	..
Invercargill Airport	1	51.6	32.2	41.9	-1.1	62.1	13	17.6	31	1.19	12	-1.8	0.28	3	145
Milton ..	60	50.7	31.4	41.0	..	58.2	19, 22	24.4	28	1.69	11	-0.3	0.55	24	..
Balclutha ..	20	50.3	32.6	41.4	..	60.8	22	25.6	28	1.91	7	..	0.28	24	132
Rarotonga ..	15	76.5	66.5	71.5	+0.8	81.0	4	50.7	14	3.90	15	0.0	1.55	20	178
Raoul Island ..	126	63.9	54.6	59.3	-1.6	69.3	27	49.1	6	4.68	22	-1.0	1.25	28	128
Chatham Islands ..	157	50.3	42.7	46.5	+0.1	56.5	28	36.6	30	3.39	17	+0.2	1.02	25	67
Campbell Island ..	49	45.3	38.5	41.9	..	50.0	21	31.0	5	3.16	24	..	0.72	13	26
Scott Base, Antarctica ..	45	..	..	-24.7	..	+9.4	..	-62.3	..	..	..	..	..	..	..

LATE RETURNS

Waitangi Forest, July 1966	180	59.8	46.1	53.0	..	65.0	7	39.0	15, 30	7.89	17	..	1.13	18	..
Waihi, July 1966 ..	300	54.9	39.9	47.4	-0.1	62.2	7	26.2	26	9.42	15	-0.7	2.31	19	122
Moa Creek, July 1966 ..	1,400	42.5	20.4	31.4	-1.4	53.4	27	10.9	24	0.39	4	-0.3	..	..	..
Erratum—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Esik Forest, July 1966 ..	1,400	..	..	..	..	..	..	..	..	12.55	12	+6.1	3.71	19	..
Dannevirke, July 1966 ..	680	..	..	..	..	..	..	..	..	..	..	..	..	..	90

The "normal" refers to the present site of the instruments. The standard periods for normals are: for temperature 1931-60, for rainfall 1921-50, and for sunshine 1935-60. No normals are available for stations with only short records.

\*Sunshine recorder is not located at the station but is in the near vicinity.

NOTES ON THE WEATHER FOR AUGUST 1966

AUGUST was a cold month, with an unusually high frequency of south-easterly winds. In eastern districts fairly persistent cloud and rain, especially during the last week, made conditions unsuitable for lambing. In Hawke's Bay many lambs were lost; and in Canterbury both lambs and ewes were lost, many of them during a fall of snow on the 25th and 26th. However, in northern and western districts of the North Island it was comparatively sunny, with better conditions for lambing.

On the 25th a fierce south-easterly gale caused considerable damage on the West Coast and in Wellington.

**Rainfall:** Rainfall was less than three-quarters the average value over the greater part of the South Island, and totals were quite negligible in parts of Central Otago. However, in Canterbury it was mainly about 50 percent above average; and on the Kaikoura Coast and in parts of North Canterbury it was more than double the average value.

On account of the high frequency of south-easterly winds over the period May-August, the total rainfall on the west coast of the South Island during these four months was unusually low, particularly in Fiordland. At Milford Sound the total for this period was 37.23 in., the lowest in 37 years of record.

In the North Island contrasts were not so great. Most western and northern areas received about three-quarters of the average value. In Hawke's Bay and Wairarapa rainfall was about 50 percent above average. It was also somewhat above average in most of Gisborne and in Rotorua and Waikato.

**Temperatures:** Temperatures were 1-2 degrees below average over the North Island, and also over the greater part of the South Island. However, on the West Coast and in inland Marlborough it was a little warmer than usual.

The last week of the month was particularly cold, with snow to low levels in inland Canterbury. Another very cold spell was from the 7th to the 9th, when snow affected not only Central Otago and inland Canterbury, but also many inland districts of the North Island.

**Sunshine:** The West Coast, northern districts of the North Island, and also Southland were favoured with 25-50 hours more sunshine than usual. On the other hand, eastern districts from Gisborne to Ashburton, together with Wellington received 30-60 hours below average. Wellington had its cloudiest August in 60 years of observation, with a total sunshine of only 79 hours.

**Weather Sequence:** During the first two days of the month a large anticyclone covered the Tasman Sea and New Zealand. Fine weather prevailed, apart from some rain at first in eastern districts from Wairarapa to East Cape.

A depression soon passed far to the south, and two troughs of low pressure brought rain on the 3rd and 4th to western districts of both islands and also to Southland. Some heavy falls were recorded in Fiordland and South Westland. As the trough moved

over the North Island a depression developed on it, and during the 5th and 6th rain spread over the rest of this Island, except for parts of Hawke's Bay. With the depression to the east of Gisborne, a vigorous cold front brought a change to southerlies on the 7th and 8th, with fairly general rain. Snow affected not only Central Otago and inland Canterbury but also many inland areas of the North Island, especially Taihape and parts of Manawatu, Hawke's Bay, and Taupo. On the following day the weather cleared in the west as an anticyclone moved on to the South Island, but cold southerlies with rain persisted from Christchurch to East Cape and in central districts of the North Island.

From the 10th to the 12th the weather was generally settled during the passage of an anticyclone across the country.

The weather deteriorated again in western and northern districts of both Islands during the passage of a trough of low pressure over New Zealand on the 13th and 14th, with some heavy rain in South Westland. The trough became slow-moving over the North Island, and a depression which formed on the following day moved east of the Auckland Peninsula. The rain cleared over the South Island but extended to most of the North Island. As pressures rose in the south, cold southerlies prevailed again on the 16th and 17th, with rain mainly in eastern districts of the North Island.

For the next three days the anticyclone covered the country, with the weather mainly fine. Conditions still remained settled in most districts during the 21st and 22nd as a depression passed to the south-west of the South Island. Rain was recorded only on the West Coast.

A depression over the Central Tasman Sea soon deepened and moved towards the North Island, while an anticyclone was centred south of Tasmania, moving eastward. During the 23rd and 24th there was general rain, soon clearing on the West Coast. Some heavy falls were reported in parts of Bay of Plenty and Canterbury.

The last week of the month was marked by persistent cold south-easterlies. The depression over the Tasman Sea remained centred west of Auckland, while another centre developed off the Hawke's Bay coast. The anticyclone was centred to the south-east of Tasmania, with a ridge of high pressure extending towards Campbell Island. As the south-easterlies set in on the 25th and 26th, fierce gales buffeted Wellington and parts of Westland. Rain covered the whole of the North Island and eastern districts of the South Island, with snow especially affecting the young lambs in inland Canterbury. During the next three days the two low pressure centres drifted slowly eastward but lost intensity. Rain continued in northern and eastern districts of the North Island and about Cook Strait, with some light falls also in eastern districts of the South Island. On the last two days of the month, as pressures rose in the south but still remained low to the east, the weather cleared in northern districts of the North Island, but otherwise remained similar.

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