

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for September 1968—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
Waimate	200	57.7	39.3	48.5	0.0	68.1	15	32.0	29	1.01	10	-1.1	0.23	28	Hrs.
Otematata	920	56.8	36.6	46.7	-0.9	66.3	19	25.7	6	2.09	10	+0.8	0.66	7	..
Oamaru Aerodrome	99	55.2	37.7	46.4	..	68.5	13	31.6	29	0.97	8	..	0.43	2	..
Tara Hills, Omarama	1,600	52.9	33.2	43.0	-1.0	63.9	19	21.9	9	3.06	6	+1.5	1.05	7	178
Lake Hawea	1,147	53.4	36.9	45.2	-1.4	58.0	19	26.5	30	5.10	10	+2.3	1.95	21	..
Naseby Forest	2,000	52.3	31.4	41.8	-1.0	61.0	21, 24	23.0	6, 29	1.45	10	-0.1	0.45	8	..
Herbert Forest	200	57.6	32.1	44.8	..	70.0	15	25.2	9	1.85	12	..	0.50	20	..
Cherry Farm, Waikouaiti	21	56.2	36.1	46.2	+0.1	67.5	13	31.0	6, 17	1.04	11	-0.6	0.18	10	..
Taieri	80	56.0	36.8	46.4	-0.6	66.7	13	29.1	29	0.99	12	-1.0	0.20	9	..
Berwick Forest	60	57.1	36.0	46.5	-0.4	68.0	13	28.4	30	2.31	16	+0.2	0.68	9	..
Dunedin Airport	4	56.5	35.8	46.2	-1.1	66.6	13	27.6	30	1.56	14	-0.2	0.35	9	149
Musselburgh, Dunedin	5	55.0	40.1	47.5	-1.1	67.9	13	34.8	11	1.67	16	-0.5	0.34	17	145
Oamaru	99	57.3	39.9	48.6	..	69.0	13	30.6	30	1.05	6	..	0.41	2	178
West Arm, Lake Manapouri	590	49.1	36.7	42.9	+0.5	57.8	24	31.1	3	16.74	24	+3.7	2.62	7	..
Queenstown	1,080	54.2	36.5	45.4	-1.1	63.1	19	29.0	27	4.60	14	+2.0	1.22	7	153
Queenstown Aerodrome	1,145	53.2	35.4	44.3	..	62.2	21	28.0	6, 27	3.26	11	..	0.98	7	..
Mid Dome	1,252	53.3	34.0	43.6	-2.4	61.1	20	25.1	6	2.78	17	0.0	0.81	8	..
Cromwell	698	57.3	36.4	46.8	-0.9	63.3	19	25.7	6	0.68	10	-0.4	0.40	21	..
Ophir	1,000	55.6	33.4	44.5	-0.7	70.0	19	23.2	29	0.67	4	-0.4	0.42	21	..
Moa Creek	1,400	52.2	29.1	40.6	-2.7	61.5	21	22.0	28	0.68	..	-0.2	..	..	..
Earnsclough	500	59.1	32.9	46.0	-0.5	67.9	19	22.0	29	0.44	4	-0.5	0.30	21	..
Alexandra	461	57.5	37.0	47.2	-0.4	65.0	19, 20	27.2	6	0.56	5	-0.2	0.31	21	170
Roxburgh Hydro	350	56.6	35.4	46.0	-2.4	65.0	13, 21	26.0	29	0.95	9	-0.3	0.41	17	..
Moa Flat, West Otago	1,345	51.4	33.8	42.6	-2.0	63.1	13	26.9	29	2.15	16	+0.2	0.40	10	..
Lake Mahinerangi	1,300	51.0	32.6	41.8	..	61.5	24	24.7	6	2.68	16	-0.1	0.56	17	..
Tapanui	740	53.7	36.5	45.1	-1.7	64.0	24	30.0	29	2.83	18	+0.2	0.40	9	..
Rankleburn Forest	835	52.0	35.9	44.3	-1.5	64.4	13	29.6	29	3.71	19	..	0.69	9	..
Taieri Mouth	50	54.2	37.9	46.0	..	66.6	13	30.3	30	2.68	16	..	0.64	9	..
Otautau	180	53.9	36.2	45.0	-1.5	62.5	24	26.6	29	5.10	19	+1.8	1.01	9	136
Winton	145	53.7	37.2	45.4	..	64.1	24	28.1	29	3.30	19	..	0.80	8	146
Gore	235	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pebble Hills	150	54.4	36.6	45.5	-1.6	66.0	24	28.0	29	4.03	19	+1.1	0.86	8	..
Invercargill Airport	1	53.5	37.5	45.5	-0.8	63.6	24	29.3	29	5.17	19	+1.9	1.03	7	118
Milton	60	55.0	36.1	45.6	..	69.4	13	26.2	30	2.36	16	-0.4	0.47	9	..
Balclutha	20	55.6	37.1	46.4	..	67.0	13	28.9	30	2.53	19	..	0.51	17	131
Rarotonga	15	77.8	67.6	72.7	+1.3	80.3	11	58.5	2	5.28	13	+0.8	2.04	4	153
Raoul Island	126	65.5	54.6	60.0	-1.3	70.2	27	49.2	5	3.61	16	-0.7	1.07	23	145
Chatham Islands	157	52.6	44.0	48.3	+0.1	59.1	23	34.4	7	2.22	18	-0.3	0.46	5	145
Campbell Island	49	45.9	36.6	41.3	..	49.9	21, 24	28.0	26	6.86	25	..	1.96	7	45
Scott Base, Antarctica	45	..	..	-35.0	..	-7.6	..	..	..	..	..	..	..	..	..

LATE RETURNS

Station	Ft.	°F.	°F.	°F.	°F.	°F.	°F.	In.	In.	Hrs.					
Waitangi Forest, May 1968	180	..	..	..	..	..	..	..	..	..
Waitangi Forest, June 1968	180	..	..	..	..	..	..	..	..	..
Leigh, August 1968	100	..	..	..	..	..	..	..	..	157					
Whatawhata, August 1968	340	57.4	44.5	51.0	+1.8	71.0	28	28.9	21	7.42	20	+1.7	1.00	30	119
Retaruke, August 1968	680	56.0	38.1	47.0	..	61.5	12	25.2	21	5.36	16	..	1.02	13	..
Taurewa Forest, August 1968	2,545	49.6	34.2	41.9	..	58.8	28	23.2	21	8.18	..	..	1.63	13	..
Havelock North, August 1968	30	57.8	37.7	47.7	+1.0	63.9	4	28.3	7	3.40	13	+0.7	1.23	17	..
Gracefield, Lower Hutt, August 1968	10	54.4	43.7	49.0	+1.6	62.5	12	33.5	21	2.66	15	-2.8	0.70	30	..
Kaitoke, August 1968	625	52.6	36.5	44.6	..	60.0	12	24.2	8	4.19	18	..	0.75	30	118
Errata	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Waikaremoana, August 1968	2,110	..	..	..	..	..	..	..	..	9.48	..	+2.5	..	..	..
Hanmer Forest, August 1968	1,270	..	..	..	..	..	..	..	..	1.86	12	-2.1	0.32	29	..

The "normal" refers to the present site of the instruments. The standard periods for normals are: for temperature 1931-60, for rainfall 1921-59, and for sunshine 1935-60. No normals are available for stations with only short records.

*The sunshine recorder is not located at the station but is in the near vicinity.

NOTES ON THE WEATHER FOR SEPTEMBER 1968

General—September was marked by a somewhat greater frequency of westerly winds than usual. It was comparatively cool, with lower rainfall than normal. Farmers found growth too slow for the time of the year, and in parts of Canterbury conditions were reported to be very dry. For most of the country it was a good month for lambing. However, in Southland and parts of Otago a cold spell with snow from the 8th to the 10th caused serious losses of lambs and also some ewes.

On the 13th parts of Otago and Canterbury, with Cook Strait, were buffeted by exceptionally strong north-westerly gales. In some inland districts of South Canterbury and North Otago trees were uprooted.

Rainfall—Over the greater part of the North Island and in most of Canterbury and Otago, east of the high country and the Southern Lakes district, rainfall was only three-quarters of the average value. However, over the remainder of the South Island it was somewhat above average. In coastal Southland the surplus was more than 50 percent and Invercargill had its highest September rainfall for over 30 years, of 5.17 in. In the North Island rainfall was somewhat above average in Auckland and parts of Waikato and also in some areas of Taihape and Hawke's Bay.

Temperatures—Temperatures were below average, mainly by a degree.

A cold spell with southerlies on the 26th and 27th brought snow to low levels in some eastern districts of the South Island and in some southern and central districts of the North Island.

Sunshine—Sunshine was mainly close to average. However, it was about 30 hours above average in Gisborne and Northern Hawke's Bay, and also near the coast from Kaikoura to Oamaru. It was below average by the same amount in the Rotorua - Taumarunui - Taihape area and also in parts of Buller.

Weather Sequence—At the beginning of the month a depression was centred near Campbell Island and an anticyclone to the north-west of the North Island. One trough was just moving off the country and another was moving on to the South Island from the west. Rain was reported on the West Coast and in Southland, and some light falls also in parts of the North Island, especially Gisborne. During the next three days the trough of low pressure in the south became slow moving. Rain affected the greater part of the South Island and also western districts of the North Island. A depression developed to the north of Northland, causing rain in that area on the 5th and 6th; while the continued northward passage of the trough caused rain about Cook Strait.

The 7th to 13th was a period of westerly weather. At first a very deep depression far to the south-west was moving eastward; while another trough of low pressure crossed the country, bringing rain to the West Coast and Southland. From the 8th to 10th another