

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for December 1957—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Fahrenheit)								Rainfall in Inches				Bright Sunshine Hrs.	
		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
Lake Coleridge ..	1,195	64.5	44.7	54.6	-3.0	75.0	25	33.0	3	7.32	15	+4.74	1.39	26	..
Franz Josef ..	450	59.7	44.6	52.2	..	68.0	25	36.8	19	38.97	26	..	9.59	26	..
Eyrewell ..	520	68.8	45.6	57.2	..	80.4	26	37.0	9	29.2	15	-0.68*	0.73	22	..
Ashley Forest ..	460	68.0	48.6	58.3	-0.8	81.0	26	41.7	21	3.52	15	+0.24	0.70	22	..
Darfield ..	640	67.9	46.7	57.3	-1.6	82.1	26	36.8	3	3.52	15	+0.67	0.97	22	..
Harewood ..	94	69.3	48.4	58.8	..	83.4	26	38.8	16	2.60	14	..	0.57	18	214
Christchurch ..	22	69.5	49.0	59.2	-0.6	84.1	26	37.9	3	2.76	14	+0.22	0.57	18	..
Wigram ..	74	69.3	49.0	59.2	-0.8*	83.8	26	38.0	16	2.52	12	+0.13*	0.47	18	..
Akaroa ..	150	67.9	50.6	59.2	-1.1	80.0	24	41.5	2	3.66	15	+0.96*	0.78	18	185
Lincoln ..	36	68.9	46.5	57.7	-1.0	82.9	27	35.9	16	3.07	13	+0.85	0.53	1	208
Highbank ..	1,102	63.9	46.1	55.0	..	73.0	26	38.0	23	4.29	16	..	1.00	22	207
The Hermitage ..	2,510	58.0	42.1	50.0	-4.6	69.5	9	31.5	19	50.83	21	+37.91	19.34	26	118
Winchmore ..	626	65.9	45.7	55.8	-1.9*	78.5	26	33.2	3	3.92	14	+1.12*	1.01	18	..
Haast ..	15	59.9	45.1	52.5	-4.2*	65.0	25	37.4	2	20.48	22	+7.90*	2.94	26	131
Ashburton ..	323	70.6	47.2	58.9	-0.2	84.4	26	34.2	3	3.61	11	+0.60	0.82	21	194
Fairlie ..	1,004	67.9	43.8	55.8	-1.3	79.5	26	33.0	3	5.01	15	+2.12	1.09	17	..
Timaru ..	56	67.8	47.8	57.8	-0.9	86.3	26	38.4	3	4.41	15	+1.75	1.53	17	190
Adair ..	200	65.4	47.3	56.4	-0.8*	79.5	26	38.6	3	4.85	15	+2.02	1.33	17	..
Tara Hills, Omarama ..	1,600	63.4	43.3	53.4	-4.5*	74.0	25	33.8	3	4.50	16	+2.50*	0.81	26	172
Milford Sound ..	20	58.4	45.7	52.0	-3.4	64.4	26	34.7	14	38.41	24	+15.05	8.75	26	..
Waimate ..	200	68.0	48.1	58.0	+0.2	82.7	26	38.5	3	5.41	17	+2.48	1.78	17	164
Naseby ..	2,300	62.4	40.1	51.2	..	72.8	26	26.6	3	3.55	14	..	1.12	21	..
Queenstown ..	1,100	62.6	44.6	53.6	-4.3	74.5	25	37.0	3, 15	5.35	20	-2.85	1.24	26	196
Cromwell ..	720	66.5	46.9	56.7	-3.5*	79.2	25	35.6	3	2.33	13	+1.05*	0.47	17	..
Ophir ..	1,000	65.4	44.0	54.7	-3.6	76.2	25	29.2	3	1.99	12	+0.17	0.68	17	..
Moa Creek ..	1,400	63.0	42.7	52.8	..	76.0	25	26.4	3	1.47	12	..	0.35	21	..
Earnsclough ..	500	68.1	45.4	56.8	-2.8*	79.8	27	32.5	3	1.58	11	+0.32*	0.38	13	..
Waipiata ..	1,550	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alexandra ..	520	67.6	47.2	57.4	-2.8	80.0	25	35.2	3	1.35	10	+0.05	0.37	13	204
Manorburn Dam ..	2,448	..	..	..	..	..	..	..	Incomplete	..	..	..	..	..	..
Garston ..	1,009	62.8	43.9	53.4	..	73.2	25	31.7	3	4.81	16	..	0.82	5	..
Roxburgh ..	350	66.7	46.1	56.4	..	76.0	11, 24	37.0	3	2.34	14	+0.53*	1.03	17	..
Mid Dome ..	1,252	56.0	39.1	47.6	..	74.7	25	32.0	3	5.03	19	..	0.89	26	..
Moa Flat, West Otago ..	1,345	60.0	42.4	51.2	..	77.4	26	33.2	3	3.90	21	+0.94*	1.28	17	..
Taieri ..	80	64.8	46.2	55.5	-0.5*	80.1	26	35.1	16	2.77	19	+0.21*	0.54	17	143
Musselburgh, Dunedin ..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tapanui ..	550	62.0	44.3	53.2	..	78.2	26	34.7	3	4.45	22	..	0.99	5	..
East Gore ..	245	64.3	45.0	54.6	-1.7	78.0	26	34.0	3	4.52	21	+1.44	1.00	5	..
Gore ..	240	64.0	43.8	53.9	-2.8*	78.0	26	36.0	3, 27	4.61	17	+1.53*	1.11	14	163
Otautau ..	180	61.9	44.8	53.4	-2.0*	72.0	24, 26	34.5	3	4.57	18	+1.55*	1.21	5	162
Pebble Hills ..	150	63.0	44.8	53.9	..	76.8	26	33.0	3	3.76	19	+0.24*	1.10	5	..
Invercargill ..	8	61.6	47.2	54.4	-1.4	75.2	26	36.6	3	3.19	20	-0.49*	0.53	5	..
Invercargill Airfield ..	0	60.4	45.8	53.1	-1.9*	74.8	26	34.3	3	3.25	22	-0.35*	0.50	5	178

LATE RETURNS

Riverhead, Nov., 1957 ..	105	66.4	49.3	57.8	+0.4	76.2	27	36.8	6	3.14	12	-0.64	0.50	2	..
Paerata, Nov., 1957 ..	150	70.9	44.6	57.8	-1.0	75.2	21	40.3	6	3.69	14	+0.45	0.91	13	..
Waerenga-o-kuri, Nov., 1957 ..	1,130	65.9	48.1	57.0	+0.8	82.7	19	38.5	13	1.86	11	-1.17	0.56	27	..
Tara Hills, Oct., 1957 ..	1,600	57.6	36.1	46.8	-2.2	68.8	19	27.7	21	3.29	14	+1.51	1.08	1	156
Tara Hills, Nov., 1957 ..	1,600	61.2	40.5	50.8	-2.6	75.0	18	31.8	29	5.39	14	+3.90	1.76	18	162
Waipiata, Nov., 1957 ..	1,550	60.1	40.5	50.3	-2.0	71.0	8	31.6	7	1.81	14	+0.26	0.40	17	141

NOTE—At stations where departures from normal have an asterisk, the temperature record has been maintained for less than ten years, the rainfall record for less than twenty years. Rainfall normals have been revised and now refer to the standard period 1921-50. Where observations are not available for the whole period, or where the site of the rain gauge has been changed, the normals are partly interpolated.

NOTES ON THE WEATHER FOR DECEMBER 1957

General: December was the third successive month with winds from a westerly quarter stronger and more frequent than usual for the time of the year. The weather was wet, cool, and cloudy over the greater part of the country. These conditions delayed haymaking in many areas and adversely affected sheep in some districts, especially Southland. By contrast, in Northland and Gisborne farmers were complaining that the weather was too dry.

Three small local tornadoes were reported in the Waikato - Bay of Plenty area on the 5th and another one occurred in Westport on the 14th.

Rainfall: Rainfall was above normal, except in northern and eastern districts of the north Island, the Waimea Valley of Nelson, and the Kaikoura coast. In the South Island high country it was twice as wet as usual. On the other hand, the Bay of Plenty, Gisborne, and Hawke's Bay received less than half the normal value; Gisborne city was one of the driest places, with only a third of an inch.

In the Alps it was the wettest of any month in over fifty years of records. Arthur's Pass received 47 in.; and the Hermitage, Mount Cook, received 51 in., of which 19.34 in. fell on the 26th. Serious flooding disrupted road and rail transport across the Alps on at least three occasions, namely the 4th, the 14th, and the 26th. On the last occasion the township of Otira was under water and a considerable portion of the railway track was washed out. At the same time major floods developed in several Canterbury and Westland rivers, especially the Rakaia and the Waimakariri.

Temperatures: Temperatures were below normal over most of the country. The departure exceeded three degrees in the South Island high country, the West Coast, and Central Otago. The only parts of the country with appreciably warmer temperatures than usual were Gisborne and central Hawke's Bay.

Snow fell on the ranges of the South Island on the 5th and on some ranges of both Islands on the 19th, when it was reported in Central Otago as low as 1,500 ft.

Sunshine: It was appreciably cloudier than usual, except in the Auckland Province and on the Canterbury coast and plains. Greatest deficiencies in sunshine of 40-70 hours were recorded on the West Coast, in the Alps, and about Cook Strait.

Weather Sequence: At the beginning of the month a deep depression was passing to the south, and the associated trough of low pressure brought rain mainly to Taranaki, the central plateau of the North Island, and Canterbury. On the 2nd conditions were fair, under the influence of a weak ridge of high pressure. However, for the next three days the passage of another depression to the south caused general rain, except in eastern districts north of Christchurch. Heavy falls were reported in the Alps, with serious interruptions in road and rail transport. From the 6th to the 8th a south-westerly airstream covered the country, with showers in some areas; but the 9th was mainly fair.

For the next three days western and northern areas of both Islands received rain as a depression from the central Tasman Sea passed to the south-west of Southland. A trough of low pressure became stationary over the North Island on the 13th and secondary depressions developed on it, resulting in six days of unsettled weather, with flooding in western districts of both Islands. A cold front which crossed the country on the 18th brought snow down to 1,500 ft. in Otago, but conditions improved from the south on the following day with rising pressures.

On the 20th a ridge of high pressure extended over New Zealand from an anticyclone centred far to the north. The weather was fair, apart from rain on the West Coast associated with the approach of a depression across the South Tasman Sea. Rain became general over the South Island on the next two days as the depression passed to the south-west. From the 23rd to the 25th an anticyclone