

CLIMATOLOGICAL TABLE—continued  
Summary of the Records of Temperature, Rainfall, and Sunshine for October 1951—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.
	Ft.	°F.	°F.	°F.	( )	°F.	°F.	°F.	In.		In.		Hrs.		
Akaroa .. .. .	150	61.8	46.2	54.0	(-0.3)	74.0	17, 25	37.5	29	5.13	17	(-2.83)	1.31	22	141.7
Lincoln .. .. .	36	60.8	41.8	51.3	-0.6	73.4	25	30.1	29	3.73	19	-2.02	0.95	22	172.0
The Hermitage ..	2,510	54.0	37.6	45.8	-1.5	65.0	2	27.1	11	21.77	18	+5.91	5.20	26	119.9
Winchmore .. ..	626	60.0	41.4	50.7	(-0.3)	71.0	15, 16	31.1	11	3.86	19	..	1.31	5	..
Haast .. .. .	15														
Ashburton .. ..	323	62.2	42.8	52.5	+0.1	74.8	15	31.8	11	4.45	16	+2.25	1.46	5	153.8
Fairlie .. .. .	1,004	61.8	38.5	50.2	+0.1	73.0	16, 17	28.0	29	3.20	19	+0.28	0.94	5	..
Lake Tekapo .. .	2,400	57.2	35.4	46.3	-1.5	66.9	9	25.2	29	3.49	14	+1.52	0.83	17	182.5
Timaru .. .. .	56	61.3	42.0	51.6	-1.1	75.0	30	33.0	29	3.25	11	+1.39	0.94	5	159.3
Adair .. .. .	200	58.2	43.5	50.8	(+0.2)	72.1	17	35.8	29	3.35	14	..	0.83	20	..
Tara Hills .. ..	1,600	59.0	38.3	48.6	(-0.4)	69.4	16	28.6	13	3.12	14	..	0.81	25	151.5
Milford Sound ..	20	57.6	43.3	50.4	+0.7	64.6	23	34.2	28	18.17	20	(-7.00)	4.24	29	..
Waimate .. .. .	200	60.6	42.9	51.8	-0.4	73.0	1, 26	31.0	29	3.84	14	+1.76	1.13	5	131.3
Queenstown .. ..	1,100	59.3	40.9	50.1	-0.3	70.2	16	30.0	11	3.16	14	-0.10	0.83	26	168.5
Cromwell .. .. .	720	62.0	41.9	52.0	(+0.9)	70.6	16	33.1	29	1.66	15	..	0.32	25	..
Ophir .. .. .	1,000			Incomplete											
Earnsleugh .. ..	500	61.9	39.3	50.6	(-1.1)	72.5	17	30.0	23	0.83	8	..	0.37	29	..
Waipiata .. .. .	1,550	56.7	38.9	47.8	-1.1	67.0	1	30.5	29	1.77	11	+0.17	0.57	5	167.1
Alexandra .. .. .	520	62.3	41.0	51.6	-0.8	70.7	24	30.6	29	1.05	13	-0.18	0.29	29	166.5
Roxburgh Hydro ..	350	62.2	41.8	52.0	..	73.3	17	31.2	29	1.75	13	..	0.32	25	..
Mid Dome .. .. .	1,252	58.5	39.2	48.8	..	69.0	24	28.0	13	4.99	16	..	0.90	5	..
Moa Flat, West Otago	1,345	56.2	39.2	47.7	..	66.7	1	32.3	28	3.33	19	..	0.54	5	..
Manorburn Dam ..	2,448	53.3	35.6	44.4	+0.1	61.5	1	28.0	10	1.74	12	-0.03	0.53	3	..
Taieri .. .. .	80	58.8	42.1	50.4	(-0.7)	72.9	15	32.2	29	1.84	16	(-0.35)	0.47	5	134.1
Musselburgh, Dunedin	5	57.7	44.6	51.2	(-1.4)	73.1	17	32.5	29	2.44	20	+0.08	0.44	5	115.2
East Gore .. .. .	245														
Gore .. .. .	240	60.3	41.5	50.9	+0.2	74.0	1, 25	32.5	28	4.25	17	..	1.16	31	164.4
Otautau .. .. .	180	60.0	42.2	51.1	(+1.0)	79.8	29	36.8	10	4.49	18	..	0.83	18	..
Pebble Hills .. .	150	59.8	42.5	51.2	..	72.0	24	34.7	7	3.70	16	..	0.90	3	..
Invercargill .. .	32	59.2	42.9	51.0	+0.3	72.0	24, 25	37.0	28	2.64	9	-0.94	0.52	30	148.6
Invercargill South ..	8	58.6	43.8	51.2	+0.5	72.0	24	37.0	28	2.54	20	(-1.13)	0.55	30	..

LATE RETURNS

Molesworth, Sept. 1951	2,930	54.6	32.4	43.5	(+2.1)	65.0	28	21.0	7	0.50	1	(-2.00)	0.50	19	..
Akaroa, Sept. 1951 ..	150	60.4	42.7	51.6	(+1.2)	73.0	28	34.0	7	0.78	8	(-3.63)	0.19	1, 16	171.9
Haast, Sept. 1951 .. .	15	54.3	40.9	47.6	(-0.6)	60.8	17	32.6	1	15.06	23	..	2.45	27	132.1
Ashburton, Sept. 1951	323	60.8	38.4	49.6	+1.7	76.8	16	27.8	3	0.54	3	-2.02	0.36	19	150.9
Adair, Sept. 1951 .. .	200	56.9	40.6	48.8	(+2.5)	69.5	16	32.4	4	0.44	8	..	0.15	5	..
Ophir, Sept. 1951 .. .	1,000			Incomplete											
Gore, Sept. 1951 .. .	240	57.7	38.6	48.2	+0.6	71.0	30	30.0	3, 7	2.22	16	..	0.49	16	134.8

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 OCTOBER 1951

**General.**—October's weather was mainly dull and stormy—in sharp contrast to the mild, dry conditions of the preceding month. Though rivers ran high on several occasions, especially about the central provinces, there was no major flooding. In a few places the ground was too wet for cultivation, but pastures and spring-sown crops were reported to be making good growth.

It was not a good month for stock. Lambs were feeling the lack of sunshine, and there has been much trouble with bloat in dairy cattle in the North Island. Shearing was delayed, and, there were losses of newly-shorn sheep after snow in the Hawke's Bay hill country on the 7th.

**Rainfall.**—Rain was frequent and often heavy, especially about the central provinces where many places received double the normal October rainfall. There was also a substantial excess in Canterbury, although there were not so many wet days. Totals were slightly below normal in Northland, Bay of Plenty, Central Hawke's Bay, Westland, and parts of Southland.

**Temperatures.**—Temperatures were fairly uniform throughout the month over much of the country. East of the ranges, however, there was more variation with thermometers exceeding 80° F., on a few occasions in inland districts of Canterbury and Hawke's Bay.

Monthly mean temperatures were about normal over the South Island, and about 1° F. above normal over most of the North Island.

Frosts were fewer than usual.

**Sunshine.**—In the far north sunshine was close to normal, but elsewhere it was appreciably below normal. Wellington's total of 113.7 hours was no less than 18.4 hours lower than any other October figure since records began in 1907. Other areas where the deficit was equivalent to about an hour a day or more included the provinces of Otago, Taranaki, Wellington, and Westland.

**Weather Sequence.**—An extensive and complex depression moving slowly eastwards across the Dominion was responsible for a period of mild but very unsettled weather at the beginning of the month, rainfalls being moderate to heavy in the North Island. A new depression from the Tasman Sea, which deepened steadily during the 4th, crossed the North Island that night and travelled on towards the south-east. South-westerly gales were reported from Taranaki and the Auckland Province on the 5th. Strong southerlies and much colder temperatures followed the passage of a vigorous cold front on the 6th. Gales occurred about Cook Strait and the southern half of the North Island, while snow covered the high country of both Islands.

For the next few days an anticyclone over the western Tasman Sea made little progress towards New Zealand. Pressures remained

low to the south-east, and changeable south-westerly weather predominated. Showers were frequent and heavy in coastal districts with some severe squalls in the east, but inland there were considerable fair intervals.

A general improvement took place on the 12th, and the weather remained fair and mild for the next two days while the centre of the anticyclone from the west passed across the North Island.

With barometers falling rapidly in the south as the anticyclone moved off to the east, north-westerlies prevailed and rain commenced in Westland on the 15th. One depression passed south of the Dominion on the evening of the 15th, while another crossed Southland twenty-four hours later. The north-westerlies rose to gale force in exposed positions, and rain soon spread to other districts in and west of the ranges. The development of a wedge of high pressure far to the south forced the low-pressure belt further northwards and by the 18th substantial rains had fallen over the greater part of the country.

Ridges of high pressure to the north and south brought a temporary improvement to Northland and Southland on the 19th, but elsewhere the weather remained unsettled with intermittent heavy rain. A low-pressure centre, which had been lying off Westland for some days, finally moved across the Cook Strait region on the 22nd giving general rain north of Otago.

Apart from a few scattered showers the weather cleared temporarily on the 22nd. On the same day the first of a series of very deep depressions crossed Tasmania and sped rapidly towards southern New Zealand. Although the centres of these depressions kept to the south of the Dominion, the associated cold fronts moved across the country from the west. As a result, strong squally north-westerly winds predominated from the 24th to 27th accompanied by periods of heavy showers. However, few showers penetrated to the Canterbury and Hawke's Bay coast where the weather was fine and very warm. Thunderstorms were reported over a wide area on the 26th.

After the passage of a cold front on the 27th, which brought a temporary change to cold south-westerly winds, rain extended for a time to the east coast. An anticyclone, advancing across the Tasman Sea, kept well to the north, and a series of westerly depressions in the south ensured the continuance of unsettled showery weather in and west of the ranges, especially south of the Waikato.

At the end of the month pressures were rising slowly in the south under the influence of a large anticyclone centred over Tasmania; but a cold front, which had become stationary near Cook Strait due to the development of a new depression further to the west, was causing widespread rain over the central provinces.

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