

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for October 1965—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.			Maxi- mum	Date	Mini- mum	Date				Amount	Date	
	Ft.	°F.	°F.	°F.		°F.		°F.		In.			In.		Hrs.
Ophir ..	1,000	60.1	35.0	47.6	−2.7	72.3	26	25.2	8	2.12	12	+0.5	0.64	31	..
Moa Creek ..	1,400	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Earnsclough ..	500	61.8	35.4	48.6	−3.0	74.0	22	26.0	1	1.98	8	+0.7	0.80	31	..
Alexandra ..	461	61.6	39.0	50.3	−2.5	74.2	22	30.0	1	1.78	10	+0.6	0.60	31	222
Roxburgh Hydro ..	350	61.2	..	..	..	75.0	22	..	..	2.26	13	+0.5	0.63	31	..
Moa Flat, West Otago ..	1,345	55.3	35.8	45.6	−2.7	67.1	22, 30	25.7	5	3.62	17	+1.1	0.92	31	..
Lake Mahinerangi ..	1,300	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tapanui ..	740	57.4	38.7	48.0	−2.2	69.0	15, 31	32.0	5, 6	4.43	15	+1.5	1.12	31	..
Rankleburn Forest ..	835	56.8	37.3	47.0	−2.2	68.0	31	29.6	1	4.44	17	..	1.39	31	..
Otautau ..	180	57.3	38.4	47.8	−3.6	69.0	15, 25	32.0	12	6.08	17	+3.4	1.40	31	174
Gore ..	230	58.0	38.4	48.2	−3.2	71.0	15	31.0	13, 14	4.12	14	+1.4	1.28	31	186
East Gore ..	245	56.9	37.9	47.4	−3.8	71.0	15	30.0	13	4.35	14	+1.6	1.42	31	..
Winton ..	150	57.5	39.0	48.2	..	69.9	15	32.1	12	3.92	17	..	1.09	31	195
Pebble Hills ..	138	58.0	40.4	49.2	−1.5	70.0	15	31.0	13	4.45	17	+1.4	1.17	31	..
Invercargill Airport ..	1	55.8	39.8	47.8	−0.9	68.8	15	33.0	6	4.88	20	+1.5	1.00	31	169
Milton ..	60	58.9	37.5	48.2	..	69.7	22	26.8	1	2.28	16	0.0	0.68	31	..
Balclutha ..	20	59.4	37.5	48.4	..	73.2	30	30.0	1	2.91	12	..	1.15	31	202
Rarotonga ..	15	77.6	67.7	72.6	..	81.5	18	57.5	24	4.34	14	..	1.11	28	..
Raoul Island ..	126	67.2	55.7	61.4	..	71.8	31	48.9	16	3.45	13	..	1.13	15	234
Chatham Islands..	157	53.6	43.3	48.4	+1.8	58.7	23	35.6	2	0.99	11	−0.9	0.49	7	184
Campbell Island ..	49	46.1	35.6	40.9	..	50.7	14, 27	27.6	10	6.73	30	..	1.23	1	78
Scott Base, Antarctica ..	45	..	..	−6.3	..	+21.6	..	−39.1	..	..	..	..	..	..	..

## LATE RETURNS

Owairaka, Sept 1965 ..	133	60.7	46.7	53.7	-0.1	66.0	18	38.9	10	1.44	9	-2.7	0.43	15	..
Paeroa, Aug 1965 ..	27	57.4	42.0	49.7	+0.3	65.2	16	25.0	8	13.11	20	..	4.18	25	..
Te Aroha, Sep 1965 ..	40	61.6	44.6	53.1	-0.5	67.0	7, 14	32.0	11	1.71	11	-2.9	0.36	24	..
Taumarunui, Sept 1965 ..	562	62.5	39.3	50.9	+0.4	69.9	8	26.9	6	2.29	13	-2.5	0.66	23	161
Naseby, Sep 1965 ..	2,000	55.0	32.0	44.4	+1.6	64.6	13	23.1	5	1.06	5	-0.5	0.74	3	..
Temuka, Sep 1965 ..	80	60.1	36.9	48.5	+2.1	72.5	13	24.4	5	0.61	6	..	0.33	3	..
Harihari, Sep 1965 ..	160	56.7	39.7	48.2	..	61.9	9	25.9	5	17.23	18	..	2.50	23	..
Mid Dome, Sep 1965 ..	1,252	55.0	37.0	46.0	0	65.0	13	28.2	28	3.08	12	+0.3	1.09	2	..
Erratum, Wellington Airport, Sep 1965 ..	20	..	..	..	..	65.8	16	..	..	..	..	..	..	..	..

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.

## NOTES ON THE WEATHER FOR OCTOBER 1965

**General:** October was a cool month and in many areas also rather dry. In Marlborough and Bay of Plenty, after two months with very little rain conditions were becoming very dry with a serious effect on pastures. In many other districts growth was retarded by the cool temperatures, and, in the North Island also by lack of rain; but Gisborne and Hawke's Bay had more favourable conditions.

A particularly strong north-westerly gale buffeted inland Canterbury on the 3rd. In some areas it was reported to be even more destructive than the gale of 13 July 1945.

**Rainfall:** Over the greater part of the country rainfall was 25 per cent below average. In Bay of Plenty and Marlborough it was less than half; and in both of these areas it was the second month in succession with rainfall well below average. Some stations in Marlborough had a total of under an inch for the two months, the lowest ever recorded for September plus October.

There were two main areas with rainfall above average. The first included the whole of Southland, Otago except for coastal districts from about Dunedin northward, and inland South Canterbury. In parts of Central Otago and inland Southland it was twice as wet as the normal value. The other main area, with rainfall up to 50 per cent above average, consisted of Gisborne (apart from coastal districts) and Hawke's Bay.

**Temperatures:** Except in parts of the Gisborne district temperatures were below normal, mainly by 2 degrees. In Southland and Central Otago departures were as high as 3 degrees.

On the 6th a cold front brought snow to the high country of both islands extending also to low levels in parts of the South Island including Dunedin, Christchurch, and Nelson.

**Sunshine:** Sunshine was somewhat above normal over the greater part of the country, and some eastern districts were favoured with a surplus of 30 hours or more. In western and northern districts of both islands sunshine was close to or somewhat below average, with deficits of up to 30 hours in Northland and Manawatu.

**Weather Sequence:** The westerly conditions which had predominated during the last three weeks of September persisted for the first five days of October. Two very deep depressions passed to the south and the associated troughs crossed the country. The weather was unsettled on the West Coast and in Southland with frequent periods of rain, which extended at times to inland districts of Otago and Canterbury and also many parts of the North Island.

Gales buffeted many districts and they were reported to be exceptionally strong in inland Canterbury on the 3rd.

On the 6th a small depression formed off the Otago coast and moved rapidly north-eastward with an associated cold front. Snow fell on the high country of both islands and to low levels in many areas, including Dunedin, Christchurch, and Nelson. Rain affected most other districts. Three days of better weather followed as an anticyclone crossed the North Island.

During the 10th and 11th a trough of low pressure moved over the country, with some light rain in western districts of both islands. As the trough reached Gisborne a small depression, developed on it, causing considerable rain there and in Hawke's Bay on the 12th and 13th, with some rain also extending at times to other parts of the North Island and to Marlborough. For the next two days fair weather once again prevailed, with an anticyclone extending from the North Tasman Sea across New Zealand to the Chatham Islands. Another trough of low pressure then crossed the country, with general rain on the 16th. A depression again developed east of the North Island, and the 17th was showery in coastal districts. However, a ridge of high pressure associated with an anticyclone to the north brought another spell of fair weather during the next two days.

From the 20th to the 22nd a small depression with its associated trough of low pressure moved eastward across the North Island, while another trough crossed the South Island. Rain was reported on the West Coast and in western and northern districts of the North Island. As pressures rose on the 23rd with an anticyclone over the Tasman Sea, the weather improved generally, but some showers were reported in Gisborne, Hawke's Bay, Manawatu, and Invercargill. On the 24th a depression passed close to Southland causing rain over the southern half of the South Island; while a trough still remained active east of the North Island, with unsettled weather in the Gisborne-Otago area.

From the 25th to the 29th a trough of low pressure moved rather slowly northward over the country, with some rain in all districts, heaviest in Buller. A small depression formed on the trough to the north and moved on to the Auckland Province, with further rain on the 30th and 31st. On the last day of the month a depression also passed close to Southland, with rain there and in Otago and some heavy falls on the West Coast.

J. F. GABITES, Director.