

CLIMATOLOGICAL TABLE—continued
Summary of the Records of Temperature, Rainfall, and Sunshine for November 1952—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.	°F.	In.		In.		Hrs.		
Wigram	74	60.9	47.7	54.3	(-2.1)	69.6	19	38.5	16	5.43	14	+3.71	1.76	6	151.5
Rudstone, Methven ..	1,217	61.3	43.7	52.5	-1.7	71.2	4	36.4	12	12.91	24	+9.34	3.50	6	121.6
Akaroa	150	61.2	48.2	54.7	-2.4	69.0	19	41.0	23	6.30	20	(+4.02)	1.75	27	139.7
Lincoln	36	60.8	45.9	53.4	-1.7	70.6	19	34.5	16	5.81	21	+3.91	1.29	6	163.9
The Hermitage	2,510	57.2	39.4	48.3	-3.1	68.1	16	33.0	13	6.85	15	-7.46	2.00	20	110.3
Winchmore	626	58.6	44.7	51.6	(-2.7)	67.0	19	35.5	23	9.96	21	(+7.62)	2.45	7	..
Haast	15	63.1	47.0	55.0	(+1.0)	74.9	27	38.3	11	8.19	17	(-4.70)	2.96	20	192.6
Ashburton	323	61.1	45.5	53.3	-2.4	69.0	20	37.8	16	10.10	22	+7.65	2.90	7	111.3
Fairlie	1,004	59.2	44.6	51.9	-1.8	67.0	20	35.0	23	7.06	22	+4.67	1.59	7	..
Lake Tekapo	2,400	60.8	41.8	51.3	..	71.0	17	35.0	13	3.08	12	+1.42	1.37	7	168.3
Timaru	56	63.1	44.3	53.7	-1.8	73.8	18	37.5	12	8.81	16	+6.86	2.44	7	111.1
Adair	200	57.9	46.5	52.2	(-1.8)	68.8	18	36.3	12	9.51	24	+7.45	2.32	7	..
Tara Hills	1,600	62.5	41.7	52.1	(-1.3)	74.7	17	34.5	20	0.94	14	-0.55	0.20	7	135.0
Milford Sound	20	63.0	47.0	55.0	+2.7	75.7	27	40.1	16	7.15	11	-16.91	3.08	20	..
Waimate	200	60.7	45.0	52.8	-2.6	69.0	19	36.0	12	7.17	23	+5.00	1.64	7	80.7
Queenstown	1,100	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cromwell	720	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophir	1,000	64.5	41.0	52.8	-1.4	76.4	17, 29	27.3	12	1.61	11	+0.28	0.45	24	..
Earnsclough	500	65.0	42.9	54.0	(-1.7)	78.7	17	31.0	20	2.09	14	(+1.01)	0.77	1	..
Waipiata	1,550	58.8	41.1	50.0	-2.4	73.4	17	30.5	20	2.76	13	+1.21	0.70	30	168.8
Alexandra	520	65.9	45.3	55.6	-0.8	79.3	17	34.4	20	1.83	16	+0.75	0.34	26	172.1
Roxburgh Hydro	350	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mid Dome	1,252	62.3	41.8	52.0	..	76.0	30	31.0	20	2.76	17	..	0.86	1	..
Moa Flat, West Otago	1,345	58.6	41.2	49.9	..	73.0	17	29.8	20	2.80	17	(-0.19)	0.45	20	..
Manorburn Dam	2,448	55.2	37.6	46.4	-1.7	68.5	17	28.5	20	1.50	12	-0.32	0.23	4	..
Taieri	80	59.4	44.3	51.8	(-1.6)	67.0	30	31.8	13	4.02	20	(+1.74)	0.88	7	145.2
Musselburgh, Dunedin	5	57.9	46.5	52.2	(-2.4)	65.1	30	36.4	13	4.21	21	+1.70	0.78	1	147.3
East Gore	245	62.6	42.6	52.6	-0.5	83.0	17	30.0	13	3.86	17	+0.65	0.77	18	..
Gore	240	62.5	42.8	52.6	(-0.9)	83.0	17	33.0	13, 20	3.90	18	(+0.69)	0.82	18	160.3
Otautau	180	60.6	40.8	50.7	(-1.4)	80.0	17	29.9	13	2.83	14	(-0.68)	1.05	18	..
Pebble Hills	150	63.2	41.6	52.4	..	81.0	17	31.0	13	4.97	18	(+1.42)	2.50	18	..
Invercargill South ..	8	60.8	44.5	52.6	-0.4	81.2	17	33.3	13	3.42	23	(-0.31)	1.37	18	..
Invercargill Airfield ..	0	59.4	43.5	51.4	(-0.4)	77.6	17	31.1	13	3.30	18	(-0.34)	1.28	18	182.5
LATE RETURNS															
Waihi, Oct., 1952 ..	354	65.0	47.2	56.1	+0.4	71.3	31	35.5	12	5.64	16	-1.66	1.03	28	181.9
Tangoio, Oct., 1952 ..	960	63.6	48.1	55.8	..	72.1	13	41.5	7	3.14	13	..	1.35	7	..
Queenstown, Oct., 1952	1,100	61.6	41.7	51.6	+1.2	70.2	17	35.4	7, 10	3.15	12	-0.21	1.17	18	..

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. Rainfall normals have been revised and now refer to the standard period 1921-1950. Where observations are not available for the whole period, or where the site of the raingauge has been changed, the normals are partly interpolated.

NOTES ON THE WEATHER FOR NOVEMBER 1952

General.—Dull unsettled weather prevailed throughout November. Such widespread excess rainfall and lack of sunshine has not previously been experienced in November for at least fifty years. Though the total rainfall was high, it was well distributed throughout the month and the floods which did occur were mainly local and caused relatively minor damage.

Over large areas of farm land the ground became waterlogged bringing cultivation to a standstill. Shearing and haymaking were also well behind schedule. Plant growth was prolific but the humid conditions favoured the development of blight in vegetable crops, particularly in North Island potatoes.

Stock in general, and young lambs in particular, suffered through continual dampness and lack of sunshine. Dairy production fell off appreciably during the month.

At least two vigorous tornadoes occurred in the Waikato district, fortunately not in closely-settled areas, damage being confined to uprooted trees and to a few farm buildings.

Rainfall.—For the Dominion as a whole the total rainfall was more than double the average. South Canterbury received four times the usual November rainfall while Marlborough, southern Hawke's Bay, and the Wairarapa also had a substantial surplus. All these districts were affected by minor flooding in some part of the month, South Canterbury about the 8th and the other districts about the 27th.

By contrast Stewart Island had a very low rainfall, while totals were slightly below average in Westland, and the Southern Lakes District.

Temperatures.—In western districts of both Islands, also in Nelson and Northland, mean temperatures were about 1° F. above normal. Elsewhere they were close to normal except east of the South Island ranges where conditions were relatively cool.

Sunshine.—Apart from a moderate surplus in Westland and Southland, the duration of bright sunshine was far below the average. For the most part the deficiency was equivalent to at least two hours a day. Many places established new records for low totals of November sunshine, including Napier, Wellington, Blenheim, and Hanmer, all of whose sunshine records are at least thirty-five years in length.

Weather Sequence.—During the first quarter, the Dominion was under the influence of a series of large and complex depressions moving slowly south-eastwards across the Tasman Sea and New Zealand. The weather was dull and unsettled with rain being recorded each day in most districts. On the 3rd a cold southerly change briefly affected the southern part of the South Island where thunderstorms were reported during the afternoon. Thunderstorms also occurred in the North Island during the eastward passage of

a cold front on the night of the 6th. The front was associated with a deep depression centred at that time over the northern part of the South Island. As this depression moved away slowly south-eastwards, heavy rain continued in South Canterbury for the next two days causing some local flooding.

The next depression also caused general rain with heaviest falls about the central provinces on the 10th and 11th. One centre crossed the Wellington Province on the night of the 10th while another weak centre persisted near Westland but gradually dissipated during the next two days. A temporary change to moderate southerlies preceded a narrow ridge which caused a brief clearance during the 12th.

Rain spread rapidly southwards over the North Island and the northern half of the South Island on the 13th, due to the approach of a depression whose centre passed across Taranaki and Hawke's Bay on the following day. Cool southerlies then prevailed ahead of another narrow ridge which brought a brief improvement as it moved across from the west on the 16th.

The weather remained very unsettled but, for the next seven days, the centres of the numerous depressions affecting the Dominion had a more southerly track. A deep depression crossed Otago and Southland on the 18th. Another passed a little farther to the south on the 20th; then a secondary depression which developed in the accompanying trough moved westwards across the centre of the North Island on the 22nd.

Fair weather prevailed temporarily over the North Island on the 22nd but a shallow trough advancing slowly north-eastwards over the South Island soon carried rain to northern districts. Two low pressure centres forming within the trough as it was crossing the South Island failed to develop much, but a third centre near North Cape on the 25th developed into a vigorous depression which moved southwards on to the North Island, reaching Hawke's Bay on the morning of the 27th. Strong south-easterly winds and heavy rain affected eastern districts southwards to Canterbury, and some minor flooding occurred from Marlborough to southern Hawke's Bay. Gales were reported in exposed places about Cook Strait. The depression began to fill up slowly on the 27th but remained over the North Island, while the main centre moved across from Hawke's Bay to Taranaki before returning northwards to the vicinity of Auckland on the 28th.

In the meantime a belt of high pressure had extended across the South Tasman Sea and to the south of New Zealand where it gradually intensified. As a result, fair weather prevailed in Southland on the 26th. Over the remainder of the country, however, an active trough persisted until the end of the month and the weather remained unsettled and showery.

M. A. E. BARNETT, Director.