CLIMATOLOGICAL TABLE-Summary of the Records of Temperature, Rainfall, and Sunshine for December 1959-continued

			Air Temperatures in Degrees (Fahrenheit)							Rainfall in Inches					- -
Station	Heig of Stati Abo	on Me	Means of		Differ- ence	Absolute Maximum and Minimum			Total	No. of	Differ- ence	Maximum Fall		Bright Sun- shine	
	M.S.		B Min.	of A and B	From Normal	Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date	Sinne
	Ft		°F.	°F.		°F.		°F.		In.			In.		Hrs.
Hanmer	1,27		48.1	58.6	+0.8	83.1	1	40.4	17	1.45	8	-2.26	0.51	9	101
Hokitika South	1		53.1	60.2	+4.1	75.8	30	43.6	16	8.08	12	-1.88	4.50	9	202
Balmoral	65		49.1	59.6	+2.3*	82.0	22	40.0	21	0.79	9	-1.51	0.23	4	
Lake Coleridge	1,19		49.6 50.3	58.4 59.4	+0.8	83.0 91.7	1	40.0 41.9	11	2.97 2.73	12	$+0.39 \\ -0.87*$	1.76	14	
Engran Lagaf	15		51.4	60.6	• • •	80.0	27	41.9	23	15.56	17	-0.9/	4.02	9	
A 11 Thomas	25		51.4	58.2	-0.9*	82.6	1	43.8	11	1.38	11	-1.90*		14	
Darfield	64		51.0	60.0	+1.1	91.4	1	42.0	11, 20	2.42	12	-0.43	0.75	14	
Christchurch Airport	9		53.1	59.5	1.1	80.1	8	45.1	11, 20	1.44	11	0 45	0.67	14	124
Christchurch	2		53.9	60.2	+0.4	82.1	8	45.1	11	1.20	8	-1.34	0.54	14	
Wigram	7		52.3	59.4	-0.6*	82.1	8	44.1	11	1.37	10	-1.02*	0.54	14	
Akaroa	15	0 66.8	52.6	59.7	-0.6	84.0	1	43.8	17	1.66	14	-1.04*	0.41	14	124
Lincoln	3		51.4	59.1	+0.4	84.1	1	40.6	28	1.75	11	-0.47	0.39	9	148
Highbank	1,10		49.6	57.7		82.0	1	41.5	11	3.79	12		1.79	9	122
The Hermitage	2,51		47.4	56.8	+2.2	77.0	30	37.0	10	9.72	12	-3.20	3.18	9	120
Winchmore	62		49.9	58.0	+0.3*	88.0	1	40.5	31	2.90	11	+0.10*		9	110
Haast	1		53.5	60.0	+3.3*	78.9	30	43.8	17	9.61	14	-2.97*		9	142
Ashburton	32		51.1	60.0	+0.9	90.2	1	42.6	19	3.12	13	+0.11	1.15	9,14	106
Fairlie	1,00		48.9	56.8	-0.3	83.0	1	42.0	11	4.13	15	+1.24	1.67	14	
Timaru Adair	5		$52 \cdot 3$ 51 \cdot 3	59.0 56.9	$+0.3 \\ -0.3*$	$\begin{array}{c} 75 \cdot 9 \\ 78 \cdot 8 \end{array}$	87	$41 \cdot 3$ $40 \cdot 6$	16 16	2.66 3.05	14 12	+0.00 + 0.22*	$1 \cdot 30$ 1 \cdot 73	9	90
Tara Hills, Omarama	1 (0		48.1	58.6	+0.3*	79.0	6	33.7	16	3.05	13	+0.22 +1.04*		9	125
Benmore, Otematata	00		51.2	60.0	+0.7.	80.8	1	36.9	16	1.82	10	+1.04.	0.81	9	
Milford Sound	92		52.6	59.4	+4.0	78.0	26	43.8	1	11.41	18	-11.95	1.70	7	
Waimate	20		50.1	57.6	-0.2*	79.0	8	36.0	Î	3.49	17	+0.56	2.01	9	60
Naseby Forest	2,30		44.6	55.8		77.8	7	28.8	31	2.24	11		0.45	14	
Queenstown	1,10		50.2	59.8	+1.9	79.0	28	38.4	31	2.21	16	-0.29	0.61	13	190
Cromwell	72	0 73.5	53.8	63.6	+3.4*	82.1	7	41.3	31	2.86	12	+1.58*	0.85	13	
Ophir	1,00														
Moa Creek	1,40		47.4	58.3		77.2	7	30.1	31	2.09	12		0.57	13	
Earnscleugh	50		50.7	61.5	+1.9*	82.0	7	35.3	31	2.93	11	+1.67*		23	::-
Waipiata	1,55		46.2	56.0	+0.0	76.9	7	33.4	31	2.09	9	-0.10	0.51	13	172
Alexandra	52		53.1	63.0	+2.8	82.0	10 22	39.5	31	2.18	12	+0.88	0.47	13 12, 18	181
Garston	1,00		$48 \cdot 5$ 51 \cdot 2	$59 \cdot 2$ 61 · 3		78·3 84·0	19, 28	30.6 37.0	31	1.57 2.39	14 16	+0.58*	$0.25 \\ 0.41$	12, 10	
Roxburgh Hydro Mid Dome	1 25		48.0	57.6		76.0		33.0	31	3.62	14	+0.30	0.90	22	
Moa Flat, West Otago	1,23		47.3	55.6		74.2	7	34.8	· 31	2.55	13	-0.41	1.04	22	
Taieri	8		50.4	56.9	+0.9*	82.4	7	43.8	10	4.30	14	+1.74*	1.52	14	109
Musselburgh, Dunedin		5 61.1	51.4	56.2	-0.6*	73.8	7	44.5	10, 11	6.33	21	+3.45*		9	100
Tapanui	55		48.5	58.0		78.0	19	33.8	16	3.45	13		0.81	14	
East Gore	24	5 66.9	49.6	58.2	+1.9	79.5	21	35.0	31	2.46	12	-0.62	0.54	22	
Gore	24		50.9	58.8	+2.1*	81.0	21	35.0	31	2.39	12	-0.69*		22	165
Otautau	18					77.0	20			3.12	13	+0.10*	0.77	9	128
Pebbly Hills	15		48.5	57.4		76.0	7	34.0	31	4.07	13	+0.55*	1.15	14	
Invercargill		8	10.0		1.7*					1	1:		0.50		1 110
Invercargill Airfield	••	0 63.8	49.6	56.7	+1.7*	75.6	20	38.9	31	3.06	13	-0.54*	0.59	14	140
					LATE	RETI	IRNS								
Thames, Nov 1959	1	0 69.0	54.5	61.8	(73.0	30	41.2	12	2.62	9		0.81	18	178
Karipapanga, Nov 1959	1,60		42.4	53.7		71.2	2	26.4	12	1.56	8		0.65	10	
Wallaceville, Nov 1959	19		48.0	55.8	+1.2*	70.3	4	32.0	12	2.69	9	-0.82*		18	164
Cromwell, Nov 1959	72		45.8	58.2	+2.8*	78.2	29	34.8	20	1.60	7	-0.38*		8	
Tapanui, Nov 1959	55		42.9	53.0		78.0	5	32.3	25	4.47	19		1.44	8	

Note—At stations where departures from normal have an asterisk, the temperature record has been maintained for less than 10 years, the rainfall record for less than 20 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 1959

General: December was cloudy and warm, with an unusually high frequency of northerly to easterly winds. It was a good month for stock. However, in southern and western districts of the North Island and in the Nelson Province it was considered to be somewhat too dry, especially in the second half, and crops were affected.

A small local whirlwind caused some damage at Howick (Auckland) on the 15th.

Rainfall: Rainfall was appreciably below average in the North Island south of Hamilton (except in the Gisborne district) and in Marlborough and North Canterbury. In eastern districts from Christchurch to Napier and in Manawatu it was less than half the normal value. Parts of southern Wairarapa received only half an inch.

There was much more rain than usual near Whangarei and about the Hauraki Plains - Coromandel area, also over most of Otago and the Gisborne district. Coromandel received more than twice its normal rainfall, with totals up to 12 in. There was considerable thunderstorm activity on the 14th, 15th,

There was considerable thunderstorm activity on the 14th, 15th, 29th, and 30th, especially in western districts.

Temperatures: Temperatures were above average. Highest departures of 3–4 degrees were recorded on the West Coast, in Taranaki, and in the National Park - Taihape area. In Northland departures were 2–3 degrees. Elsewhere it was only about a degree warmer than usual.

Sunshine: Sunshine was below average, except in Westland. Greatest deficiencies of 50-110 hours were recorded in eastern

districts. Hanmer, Ashburton, Timaru, Waimate, and Dunedin all experienced their cloudiest December in over 30 years of observation. The total of 60 hours at Waimate was one of the very lowest ever recorded in New Zealand in any summer month.

Weather Sequence: On the 1st pressure was high to the north and a deep depression was passing to the south, with the associated trough of low pressure crossing the South Island. Rain was reported in Fiordland and most of Westland. During the next two days an anticyclone was centred to the south-east of the South Island and a depression moved southward over the Tasman Sea, passing just to the west of Southland. The rain spread over most of the South Island but it was light in eastern districts. From the 4th to the 7th an anticyclone centred to the east extended over most of the North Island. However, a trough of low pressure moved slowly northward from Southland to Manawatu, accompanied by rain over most of the South Island and in western districts of the North Island from Wellington to Hamilton.

The period from the 8th to the 16th was one of predominantly unsettled weather. A depression which had been developing over the Tasman Sea deepened and crossed the South Island, with general rain on the 8th and 9th. There were some heavy falls in and west of the Southern Alps and in South Canterbury. On the following day there was a clearance in the north as the main centre of the depression moved eastward off the South Island. An anticyclone over Northland brought mainly fair weather on the 11th and 12th, but with pressures falling again over the western Tasman Sea rain persisted in western and southern districts of the South Island. During the next two days rain became more or less general again with the passage of another depression from the Tasman Sea

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