CLIMATOLOGICAL TABLE-continued Summary of the Records of Temperature, Rainfall, and Sunshine for November 1953-continued

<u></u>	immary of the Records of Temperature, Rainfall, and Sunshine for									November 1953—continued					
Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Fahrenheit)								Rainfall in Inches					
		Means of		Mean		Absolute Maximum and Minimum					No.		Maximum Fall		Bright Sun-
		A Max.	B Min.	of A and B	Difference From Normal	Maximum	Date	Minimum	Date	Total Fall	of Rain Days	Difference From Normal	Amount	Date	shine
The Hermitage Winchmore Haast Ashburton Fairlie Timaru Adair Tara Hills, Omarama Milford Sound Waimate Frankton Airfield Prankton Airfield Ophir Cromwell Mijpiata Alexandra Mid Dome Mos Flat, West Otago Manorburn Dam Taiseri Gore Gore Otautau	$ Ft. 2,510 \\ 525 \\ 15 \\ $	$^{\circ}$ F. 62.0 68.2 60.4 70.4 70.4 67.7 69.1 65.9 66.2 59.6 68.8 65.4 64.3 66.8 67.8 62.4 69.7 65.9 61.4 55.3 65.7 65.1 65.5 64.6	$\begin{array}{c} ^{\circ}\mathbf{F.} \\ 43\cdot 6 \\ 44\cdot 9 \\ 48\cdot 2 \\ 45\cdot 9 \\ 42\cdot 0 \\ 47\cdot 4 \\ 47\cdot 2 \\ 47\cdot 3 \\ 44\cdot 0 \\ 47\cdot 2 \\ 47\cdot 3 \\ 46\cdot 5 \\ .5 \\ 43\cdot 5 \\ 45\cdot 6 \\ .5 \\ 45\cdot 6 \\ .5 \\ 45\cdot 6 \\ .5 \\ .5 \\ .5 \\ .5 \\ .5 \\ .5 \\ .5 \\ $	$^{\circ}$ F. 52·8 56·6 54·3 58·2 56·6 55·1 55·4 55·9 55·4 55·9 57·0 55·9 57·0 55·2 55·3 47·2 55·3 55·5 55·1	$\begin{vmatrix} +1\cdot 4\\ (+2\cdot 3)\\ (+0\cdot 3)\\ +2\cdot 5\\ +1\cdot 1\\ +2\cdot 7\\ (+2\cdot 6)\\ (+1\cdot 7)\\ +1\cdot 1\\ +2\cdot 6\\ \cdots\\ +1\cdot 5\\ \cdots\\ +1\cdot 5\\ \cdots\\ +1\cdot 7\\ (+1\cdot 3)\\ +0\cdot 7\\ +2\cdot 4\\ (+2\cdot 1)\\ \cdots\\ (+2\cdot 0)\\ (+3\cdot 0)\end{vmatrix}$	$^{\circ}$ F. 68.0 79.55 83.00 83.0 87.2 77.2 77.2 73.2 77.2 73.2 77.2 73.2 75.0 68.0 87.0 87.0 75.0 68.0 82.9 85.2 81.0 82.9 85.2 81.0 74.0 82.9 85.2 81.0 78.1 75.0 75.	27 18 6 23 28 28 28 28 28 28 28 28 28 28 28 28 28	$\begin{array}{c} 34 \cdot 0 \\ 30 \cdot 5 \\ 34 \cdot 4 \\ 28 \cdot 0 \\ 32 \cdot 2 \\ 38 \cdot 8 \\ \\ \\ \\ 35 \cdot 0 \\ 33 \cdot 2 \end{array}$	$\begin{array}{c} 10\\ 11\\ 15\\ 21\\ 11, 12\\ 12\\ 12\\ 11\\ 11\\ 11\\ 11\\ 11\\ 11\\ 11\\$	$\begin{array}{c} \text{In.}\\ 23,35\\ 0.98\\ 24.74\\ 1.098\\ 2.33\\ 1.21\\ 1.29\\ 2.41\\ 35.28\\ 3.29\\ 2.59\\ 3.29\\ 2.59\\ 3.29\\ 2.59\\ 3.29\\ 2.59\\ 1.13\\ 2.91\\ 1.51\\ 2.43\\ 2.91\\ 1.51\\ 2.43\\ 2.92\\ 3.29\\ 2.75\\ 3.90\end{array}$	$\begin{array}{c} 22\\ 11\\ 25\\ 12\\ 14\\ 10\\ 10\\ 15\\ 27\\ 17\\ 17\\ 17\\ 16\\ .\\ 10\\ 9\\ 12\\ 13\\ 17\\ 15\\ 19\\ 20\\ .\\ 19\\ 16\\ 17\\ 17\\ 15\\ 19\\ 10\\ 16\\ 17\\ 17\\ 15\\ 19\\ 16\\ 17\\ 17\\ 15\\ 19\\ 16\\ 17\\ 17\\ 17\\ 15\\ 19\\ 10\\ 17\\ 17\\ 15\\ 19\\ 10\\ 17\\ 17\\ 15\\ 19\\ 10\\ 17\\ 17\\ 15\\ 19\\ 10\\ 17\\ 17\\ 15\\ 19\\ 10\\ 17\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10$	$\begin{array}{c} +9\cdot04\\ (-1\cdot36)\\ (-11\cdot85)\\ -1\cdot36\\ -0\cdot06\\ -0\cdot74\\ (-0\cdot77)\\ (-0\cdot92)\\ +11\cdot22\\ +1\cdot12\\ +0\cdot57\\\\ +0\cdot23\\ (+0\cdot05)\\ +0\cdot38\\ +0\cdot05\\\\ (-0\cdot08)\\ -0\cdot31\\ +0\cdot15\\ +0\cdot09\\\\ (+0\cdot08)\\ (-0\cdot76)\\ (-0.76)\\$	In. $4 \cdot 45$ $0 \cdot 21$ $4 \cdot 98$ $0 \cdot 37$ $0 \cdot 57$ $6 \cdot 64$ $1 \cdot 60$ $0 \cdot 91$ $1 \cdot 25$. $0 \cdot 43$ $0 \cdot 38$ $0 \cdot 38$ $0 \cdot 35$ $1 \cdot 07$ $0 \cdot 61$ $0 \cdot 39$ $0 \cdot 47$ $0 \cdot 68$. $0 \cdot 98$ $1 \cdot 039$	$\begin{array}{c} 13\\ 5\\ 23\\ 5\\ 4\\ 4\\ 4\\ 13\\ 13\\ 13\\\\ 4\\ 4\\ 4\\ 4\\ 4\\ 4\\ 4\\ 8\\ 9\\ 9\\ .\\ 23\\ 23\\ 23\end{array}$	Hrs 111.1 162.7 165.6 180.6 180.6 182.9 170.0 193.7 150.5 154.4 145.0
Pebbly Hills Invercargill South Invercargill Airfield	150 8 0	$ \begin{array}{r} 64 \cdot 6 \\ 62 \cdot 9 \\ 62 \cdot 2 \end{array} $	$45 \cdot 6 \\ 47 \cdot 2 \\ 45 \cdot 3$	$55 \cdot 1 \\ 55 \cdot 0 \\ 53 \cdot 8$	$\begin{array}{c} \cdot \cdot \\ +2 \cdot 0 \\ +2 \cdot 0 \end{array}$	$77 \cdot 0$ $78 \cdot 0$ $74 \cdot 7$	$\begin{array}{c} 28\\ 26\\ 26\end{array}$	$33 \cdot 0 \\ 35 \cdot 0 \\ 32 \cdot 4$	11	$ \frac{3 \cdot 90}{2 \cdot 64} \frac{2 \cdot 70}{2 \cdot 70} $	17 18 19	(+0.35) (-1.09) -0.94	$0.88 \\ 0.76 \\ 0.76 \\ 0.76$	23 23 23	 141.5
					LAT	TE RE	TURN	s							
Otara, Oct., 1953 Kaingaroa, Oct., 1953 Adair, Oct., 1953	40 1,800 200	$63 \cdot 1 \\ 60 \cdot 2 \\ 57 \cdot 0$	$48 \cdot 0 \\ 41 \cdot 9 \\ 42 \cdot 6$	$55 \cdot 6 \\ 51 \cdot 0 \\ 49 \cdot 8$	$\begin{array}{c} \cdot \cdot \\ +1 \cdot 6 \\ (-0 \cdot 8) \end{array}$	$68 \cdot 5 \\ 74 \cdot 8 \\ 72 \cdot 7$	23 24 21	$35 \cdot 0 \\ 31 \cdot 0 \\ 32 \cdot 0$	$\begin{array}{c} 21\\21\\1\end{array}$	$2 \cdot 87 \\ 4 \cdot 07 \\ 1 \cdot 66$	20 18 9	-1.08 (-0.33)	$0.57 \\ 0.98 \\ 0.67$	8 8 8	· · · · ·

-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 1921-50. 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 November 1953

General.—There was a marked predominance of westerly conditions in November. Generally the month was windy, warm, and rather cloudy. A spell of ten days of settled weather over almost the whole of the North Island from the 18th to the 28th allowed good progress to be made with shearing. On the other hand the high frequency of strong drying winds, and the inadequate rainfall, especially in eastern districts, dried up the ground and retarded pasture growth in many parts of the country.

the country. On the 13th a strong westerly gale in South Otago damaged houses and blew down trees. On the 4th exceptionally heavy rain fell in half an hour during a thunderstorm in Hamilton, and considerable damage was done by flooding.

Rainfall.—Rainfall was below normal in the Auckland Province except Northland, in Hawke's Bay, the Kaikoura Coast and Canterbury, and in parts of Southland. The deficiency was greatest in Gisborne and Hawke's Bay, which received less than one-quarter of their normal rainfall.

Many thunderstorms were reported on the 4th and 5th and again on the 9th and 10th. On the former occasion they were widespread, particularly in western districts. On the latter occasion there was also considerable hail, especially in parts of Otago and Southland.

Temperatures.--Temperatures were above normal over the Temperatures.—Temperatures were above normal over the whole country. The departure was greatest in eastern districts and exceeded 3° F. in Gisborne, Hawke's Bay, and the greater part of Canterbury. For Napier it was the warmest November in ninety years of records. The last few days of the month were particularly warm in eastern districts, and in Christchurch the maximum temperature exceeded 80° F. on each of these days days

Sunshine.-Sunshine was well below normal over the Sunshine.—Sunshine was well below normal over the greater part of the country. The deficiency was greatest in western districts, exceeding forty hours over Westland and Taranaki, and also over the greater part of Central Otago. For New Plymouth this was the dullest November in twenty-nine years of records; the deficit was sixty hours. Hawke's Bay, Gisborne, and the Bay of Plenty were favoured with a small surplus.

Small surplus. Weather Sequence.—During the first three days of the month the country was affected by several shallow depressions. In Westland the weather was unsettled with frequent periods of rain, and most other South Island districts received some rain. In Northland, too, the weather was unsettled and there were some heavy falls on the 3rd; but most other North Island districts experienced fair weather. On the 4th and 5th rain fell in all districts except Southland as a deeper deperguing from the Tasman Sea moved across Nelson and Marlborough.

Thunderstorms were widespread, especially in eastern districts. Westerly conditions developed with the passage of several deep depressions to the south of the country from the 7th to

the 10th. On the east coast and in parts of Southland there were some fair spells, but elsewhere the weather was unsettled with frequent periods of rain. On the 9th and 10th thunder-storms were again widespread, and winds were unusually strong over the greater part of the North Island. Conditions improved temporarily in most western districts on the 11th during a brief spell of south-westerly winds, but soon deteriorated again as westerlies freshened on the 12th and 13th. In south Otago strong gales damaged houses and inter-rupted power supplies and telephone communications; gales were also reported in many other districts from Manawatu southward. Rain was mainly confined to western districts and was heavy in the south. Another south-westerly change swept over the country on the 14th, bringing a temporary improvement to the West Coast,

southward. And was manify confined to western districts and was heavy in the south. Another south-westerly change swept over the country on the 14th, bringing a temporary improvement to the West Coast. There were showers in many districts, but fair weather persisted in Hawke's Bay and Gisborne. From the 15th to the 17th winds remained light over the Auckland Province under the influence of a ridge of high pressure, but elsewhere westerlies freshened again as a very deep depression passed far to the south. Gales were reported from Southland and from parts of the Wellington Province. Considerable falls of rain occurred on the West Coast, and there was some rain also in the far south and about Cook Strait. With an anticyclone to the north and deep depressions passing far to the south, the general westerly pattern remained very similar for another five days. The weather was unsettled and showery in western and southern districts of the South Island from the 18th to the 20th; on the 18th western districts of the North 18th and 22nd the weather was fair over most of the country. On the 23rd a trough of low pressure commenced to move slowly northward over the South Island, and became stationary over Canterbury on the 24th. There was heavy rain on the West Coast, and light rain in eastern districts south of Kaikoura. Conditions remained unchanged as a depression formed over the Tasman Sea on the 25th and moved slowly south-eastwards on the 26th. On the following day, as the depression passed to the south of Southland, the weather deared in eastern districts. By this time, however, light rain had developed about Cook Strait. On the 28th moderate to heavy rain still persisted on the West Coast as yet another depression passed far to the south; elsewhere the weather was mainly fair. On the last two days of the month, however, the trough of low pressure which had been stationary over the South Island became active again and moved northwards over the country, bringing welcome rain to the northern half of the North Island an

country, bringing welcome rain to the northern half of the North Island and some light falls about Cook Strait. On the 29th Westland had its first day of fair weather for over a week, but received further moderate rain on the 30th as another depression passed to the south.

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(N.Z. Met. S. Misc. Pub. 107)