CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for November 1973—continued

	Height of Station Above M.S.L.	Air Temperatures in Degrees (Celsius)								Rainfall in Millimetres					
Station		Means of		Mean of A	Differ- ence	Absolute Maximum and Minimum				Total	No.	Differ- ence	Maximum Fall		Bright Sun- shine
		A Max.	B Min.	and B	From Normal	Maxi- mum Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date		
Ashley Forest, October	Metres 107	°C 17.9	°C 6.4	°C 12.2	°C +1.0	°C 26.7	10	°C 0.2	25	mm 17	6	mm 41	mm 6	16	Hrs. 208
Christchurch, August 1973 Lake Pukaki No. 2, May 1973	7 556	11.4 11.4	3.0 1.5	7.2 6.5	+0.2	21.2 15.6	29 23	$ \begin{array}{c} -2.4 \\ -4.5 \end{array} $	1 21	102 44	17 12	+49 	23 15	7 8	::
Lake Pukaki No. 2, October 1973	556	16.4				23.9	9			57	11		15	23	
Twizel, September 1973 Herbert Forest, October 1973	457 61	15.3 15.7	0.3	7.8 9.8	::	23.9 22.5	30 1	-4.0 -0.3	10 20	13 58	9	::-	is	i	.:

The "normal" refers to the present site of the instruments. Standard periods for normals are: Temperature 1931-60, Rainfall 1921-50, Sunshine 1935-60. No normals are available for stations with only short records.

\*Indicates that the sunshine recorder is not located at the station but is in the near vicinity,

A rain day is a day with rainfall equal to or greater than 0.1 mm.

Where the extremes of temperature and rainfall have occurred more than once during the month, the date of the first occurrence is given.

## NOTES ON THE WEATHER FOR NOVEMBER 1973

General—November was cloudy and warm. Most of the areas where the October weather had been too dry received adequate rain in November, and growth was reported to be good. However, conditions were too dry in South Canterbury and in parts of Northland.

Rainfall—Rainfall was above normal over the greater part of the country. The surplus amounted to more than 50 percent in Central and Southern Hawke's Bay, Western Nelson with Buller and North Westland, and most of the Marlborough Sounds. Rainfall was below normal by 25 percent in Coromandel, Gisborne and Northern Hawke's Bay, South Canterbury; most of Northland, Bay of Plenty, and Southern Wairarapa; and parts of Wanganui, Manawatu, Central Canterbury, and Central Otago.

Some heavy falls were recorded in Central and Southern Hawke's Bay from the 14th to the 16th, amounting over the 3 days to 130–150 mm. In the Alps and on the West Coast the 2nd and 3rd were very wet, with amounts of up to 250–300 mm over the 2 days; and amounts of 100 mm and more on the 20th caused some flooding, especially around Karamea.

Temperatures—Temperatures were 1° to 2°c above normal over the North Island, and 1°c above normal over the northern half of the South Island. The first eight days were particularly warm, except on the 4th in the south.

Sunshine—Sunshine was mainly below normal by 30-50 hours. However, in most eastern districts from Oamaru northward it was about normal.

Weather Sequence—At the beginning of November a deep depression far to the south-west was moving eastward and the associated trough of low pressure was approaching the South Island, while another trough was moving off the North Island. Rain was reported west of the ranges and also in parts of Southland and about the Otago coast. Temperatures were warm. The approaching trough moved across the country during the next three days with the formation of small depressions and it became stationary over the North Island. Rain became fairly general but was light east of the ranges in the North Island. The rain was heavy on the West Coast and in the Alps, and several Canterbury rivers reached flood levels. Temperatures remained rather warm. From the 5th to the 7th a depression over the western Tasman Sea moved south-eastward towards Campbell Island and the associated trough of low pressure crossed New Zealand. In the warm north-westerlies further considerable rain was reported on the West

Coast and rain was also reported in Southland and parts of Otago, and in some western districts of the North Island. Conditions remained similar on the following day as a depression to the south moved eastward, but on the 9th a southerly change brought a clearance on the West Coast and a little light rain to eastern districts of the North Island and the Cook Strait area. On the following day a weak ridge of high pressure brought fine weather.

During the 11th a depression passed to the south and its associated trough of low pressure moved over the country with further rain on the West Coast and some also in western and northern districts of the North Island, while temperatures once more became warm. On the following day a secondary depression which formed over the eastern Tasman Sea passed through Cook Strait, causing considerable rain over most of the South Island and parts of the North Island. Another secondary depression followed a somewhat similar track but further northward, moving rather slowly from the 13th to the 16th. Rain was rather persistent and heavy at times over the North Island, especially from the 14th, and parts of the South Island were also affected at times. During the next two days the weather was affected by yet another trough associated with a depression far to the south, and rain was reported in many parts of both islands. Inland districts of the South Island and eastern districts of the North Island received little or none. An improvement occurred in many areas on the 19th with the approach of an anticyclone, but rain persisted in the west and far south of the South Island.

A depression crossed Southland from the west during the 20th and 21st, while the associated trough of low pressure moved over the country. Rain was fairly general west of the ranges and in Southland. A ridge of high pressure brought improved weather on the following day, except in South Westland and Fiordland, where the rain persisted. A small depression over the North Tasman Sea brought some rain to Northland on the 23rd, while unsettled conditions persisted on the West Coast. During the next three days the weather became more settled with the passage of an anticyclone across New Zealand. On the 27th the weather deteriorated once more on the West Coast with the passage of a depression to the south. However, a large anticyclone covered New Zealand during the next two days with fair weather. A depression passed close to Southland on the last day of the month, while the associated trough of low pressure moved over New Zealand. Rain was fairly general but light in some eastern districts and the Bay of Plenty.

J. F. de LISLE, Director.

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