

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for November 1976—continued
LATE RETURNS AND CORRECTIONS—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Celsius)								Rainfall (in millimetres)				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
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm	mm	Hrs
Molesworth, October 1976	893	12.3	0.7	6.5	-1.7	17.8	29	-7.3	27	61	15	+3	12	18	..
Fairlie, October 1976	306	14.0	3.3	8.7	-1.2	22.7	30	-4.6	5	96	14	+32	22	18	..
Waimate, October 1976	61	14.0	5.5	9.8	-1.7	20.9	10	-0.1	5	61	14	+10	20	18	..
Herbert Forest, October 1976	61	13.1	3.6	8.4	-1.7	18.2	10	-1.0	5	69	18	+17	18	18	..
Moa Creek, September 1976	427	..	0.1	..	..	..	..	-3.8	3	13	6	-10	4	25	..
Raoul Island, October 1976	38	20.2	14.7	17.5	+0.0	23.2	19	11.0	6	186	20	+100	37	18	166
Nandi Airport, Fiji, October 1976	15	30.4	19.8	25.1	-0.2	34.6	26	15.3	2	38	6	..	14	29	250
Totokoitu, Rarotonga, September 1976	9	24.8	18.1	21.5	..	27.2	8	14.6	28	100	11	..	45	1	..
Totokoitu, Rarotonga, October 1976	9	26.2	19.8	23.0	..	29.0	23	16.5	1	70	10	..	19	5	..

The "normal" refers to the present site of the instruments. Standard period for normals is 1941-1970. 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 1976

General—November was the fourth successive month with an unusually high frequency of winds from an easterly quarter, bringing cloudy cold conditions east of the ranges and also causing a large relative deficiency of rainfall in some western areas of the South Island. Farmers in eastern districts have found that young stock need more sun. Adequate rain has brought good prospects for dairy production, especially in Northland. However, in some southern districts of the North Island and over most of the South Island conditions have been too dry.

Rainfall—In the South Island, except for Nelson and North Canterbury, rainfall was below normal, mainly by about 50 percent. It was less than a quarter of the normal value in the Mackenzie Basin and in parts of the Alps. Rainfall was also somewhat below normal over the greater part of the North Island. However, it was well above normal in some districts with an easterly aspect, especially Coromandel and eastern Northland. Rainfall has been exceptionally low for some months on the West Coast and in the Alps. Over a period of 5½ months to the end of November, Milford Sound received only 1063 mm, 221 mm lower than the previous lowest there for any 5½ months in about 45 years of record; and conditions have been similar at Mt. Cook.

Temperatures—Temperatures were below normal except on the West Coast, where they were close to normal. Departures averaged just over 1°C in both islands, with highest values of up to 2.5°C in Marlborough and Canterbury. East of the ranges in both islands it was the coldest November since 1946. In about the same areas, and especially in Canterbury, it was also by far the coldest spring season (September, October, November) since 1946. The coldest period in November was from the 10th to the 14th. On the 9th and 10th an exceptionally late fall of snow affected Invercargill and Christchurch, the South Island high country, and the hills around Wellington.

Sunshine—Sunshine was below normal by 30-70 hours in eastern districts from Gisborne to North Otago. It was above normal by 20-55 hours on the Southland Plain, on the West Coast, and also in most western North Island districts.

WEATHER SEQUENCE

At the beginning of the month an anticyclone was centred to the east of Campbell Island and a depression to the east of Southland, while another small depression was centred over the South Tasman Sea. For the first 2 days rain was reported from the easterlies in eastern districts of the North Island and especially in eastern Northland. On the following day a weak trough brought

some rain to western districts of both islands and temperatures became a little warmer. This rather warm spell persisted on the 4th in the northerlies with an anticyclone centred well to the north and pressures low over the Tasman Sea. On the following day the depression over the Tasman Sea, which had now become very deep, crossed Southland with fairly general rain, especially in the west. On the 6th and 7th an anticyclone was centred south of Adelaide and south-westerlies again brought colder temperatures with scattered showers, especially in the far south-west. Conditions remained somewhat similar on the following day.

From the 9th to the 11th, as the anticyclone south of Adelaide moved south-eastward and pressures remained low to the east of New Zealand, exceptionally cold southerlies swept over the country, bringing late snow to many areas, especially Invercargill and other parts of the Southland plain, but also some of the North Island high country. Conditions remained somewhat similar during the next 3 days as the anticyclone moved towards Campbell Island, with another centre over the North Tasman Sea. The main low pressure centre moved away to the east of the South Island, but another centre formed off the east coast of the North Island and very cold southerlies persisted. However, only scattered showers were reported, mainly in the east. On the 15th and 16th the whole north to south belt of high pressure moved slowly eastward but pressures remained low near the Chatham Islands. Temperatures became somewhat milder over the South Island but they also became very cold in Gisborne and Hawke's Bay; and showers were reported in eastern districts from Christchurch northward.

On the 17th the main belt of high pressure brought settled weather to the country, but a depression was advancing over the Tasman Sea. This depression soon developed two centres and during the next 3 days one centre passed to the north of Northland while another remained almost stationary east of Tasmania. Rain was reported mainly in Northland. From the 21st to the 23rd an anticyclone covered New Zealand bringing settled weather, with temperatures becoming somewhat milder.

By the 24th the anticyclone was centred far to the east and a depression covered the Tasman Sea with associated troughs of low pressure affecting New Zealand, causing some rain, mainly in northern and western districts. During the following 2 days this depression developed two centres and crossed New Zealand. Rain was fairly general with some considerable falls around Nelson. On the 27th a ridge of high pressure extending from an anticyclone centred to the south brought fair but cold weather. During the last 3 days this anticyclone and ridge moved to the east while a depression was almost stationary over the Tasman Sea. Considerable rain was reported, especially in Northland and also in some western districts of the North Island.

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