

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for April 1978—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.			Maxi- mum	Date	Mini- mum	Date				Amount		Date
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm	Hrs	
Wharite Peak, March 1978	914	16.2	8.4	12.3	+1.8	20.8	3	2.0	25	99	10	-48	33	30	..
Avalon, Lower Hutt, March 1978	15	21.2	12.3	16.8	+0.9	24.7	16	5.5	26	46	7	-53	18	23	..
Pauatahanui, February 1978	30	23.3	13.6	18.5	+1.3	26.5	14	8.4	25	15	..	-69	..	..	..
Pauatahanui, March 1978 ..	30	21.7	11.8	16.8	+0.8	25.0	15	5.0	9	29	6	-57	12	23	..
Somes Island, March 1978	43	21.2	13.5	17.4	..	24.5	8	7.9	26	32	8	..	11	23	..
Manaia Dem. Farm, March 1978	98	21.5	12.3	16.9	+1.2	26.0	2	5.6	20	29	8	-52	8	29	191
The Hermitage, Mount Cook, March 1978	765	20.1	8.0	14.1	+1.8	27.0	14	-0.8	25	630	13	+277	232	27	186
Craigieburn Forest, March 1978	914	20.1	6.3	13.2	+1.7	28.0	14	-2.0	25	98	11	-4	26	26	..
Fairlie, March 1978 ..	306	23.8	8.4	16.1	+3.1	30.8	14	0.0	25	20	5	-51	7	23	..
Naseby Forest, March 1978	610	21.5	4.9	13.2	+1.7	29.0	13	-2.5	29	25	6	-41	11	18	..
Palmerston, March 1978 ..	21	21.5	6.3	13.9	+1.2	28.1	10	-0.5	26	22	8	..	7	27	201
Cherry Farm Hospital, February 1978	6	..	9.5	..	..	..	..	5.3	6	39	7	-4	21	3	..
Cherry Farm Hospital, March 1978	6	19.7	7.4	13.6	+0.4	25.8	10	0.0	20	28	14	-30	11	28	..
Moa Creek, February 1978	427	24.1	7.6	15.9	+1.6	29.0	1	0.6	27	58	5	+17	40	3	..
Moa Creek, March 1978 ..	427	22.7	3.8	13.3	+1.4	29.5	13	-5.0	25	26	..	-17	15	27	..
Winton, March 1978 ..	44	19.6	7.2	13.4	+0.3	30.1	13	1.5	30	72	11	+3	25	31	172
Stewart Island, March 1978	3	16.9	8.2	12.6	..	25.5	13	1.8	25	..	..	..	..	..	..
Totokoitu, Rarotonga, March 1978	9	28.4	23.3	25.9	..	31.7	6	21.5	20	295	21	..	107	19	..

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 APRIL 1978

**General**—During April pressures were below normal over the whole of New Zealand but higher to the east and north of the country. Winds were predominantly northerly over the whole country, stronger in the south than the north. The month was warm, but cloudy and wet in many areas especially east of the main ranges. Drought conditions were relieved in most areas with substantial rainfalls being recorded about the middle of the month, some places having more than 7 consecutive days with rain. Although grass growth improved during the month some farmers were still short of feed for stock. In some areas milk production ceased at the beginning of the month, 4 weeks earlier than usual. Stock was reported to be regaining condition after the long dry spell in most districts.

**Rainfall**—The only areas with rainfall totals below normal for the month were Poverty Bay, Southland, and parts of Northland, Central Districts of the North Island, Hawke's Bay, Westland, Marlborough, Otago, and inland Canterbury. Many parts of Marlborough, Kaikoura, and Canterbury had monthly rainfall totals of 200-300 percent above normal. At Spotswood (Canterbury) the total was more than 500 percent above normal. The majority of the heavy rain fell on the 16th/17th of the month. At Kaikoura 164 mm was measured in 12 hours, and 52 mm in 2 hours on the 17th. The worst hit area was around Cheviot where several roads were closed by slips and flood waters. The main north/south railway line was closed on the afternoon of the 17th because of slips.

On the 13th/14th Greymouth experienced the worst flooding the town has had for many years. In the 12-hour period from midnight on the 13th to noon on the 14th nearly 214 mm was recorded. Almost 255 mm was measured in a 48-hour period from the 13th to 15th. Land slips and floodwaters cut communications, and railway lines were under water in many places. People were evacuated when flood waters entered homes and other homes were endangered by slips.

**Temperatures**—Unusually high minimum temperatures during the month were reflected by the higher than normal mean temperatures over the whole of New Zealand. Many areas were above average by at least 2°C, and in some parts of both the North and South Islands mean temperatures were above by more than 3°C. The greatest departure was 4°C at Reefton, the mean temperature

for the month being the highest recorded in any April since the station began in 1961. Temperatures were exceptionally high, especially on the east coast, during the period 5th to 7th.

**Sunshine**—The total sunshine hours recorded for the month were below normal over the whole country, with the exception of a small area around Auckland which was slightly above. Stations in Taranaki, Wellington, Wairarapa, Nelson, Marlborough, West Coast, and Canterbury had 40-60 hours less sunshine than usual. Nelson and Blenheim had over 70 hours less sunshine than normal, the lowest April totals for over 40 years. Many districts had 5-7 days without sunshine during the prolonged wet spell from the 14th to 22nd.

#### WEATHER SEQUENCE

The cold front that had been lying across the South Island at the end of March continued to move northwards over New Zealand bringing rain to most areas of the country, heavy on the West Coast. By the 3rd the front had moved away to the north-east, and a ridge of high pressure extended onto the country from an anticyclone in the south Tasman Sea. A low pressure area had developed to the north-east of Tasmania, and had started to move slowly east towards New Zealand on the morning of the 4th. Temperatures were warmer than usual at the beginning of the month.

During the evening of the 4th a cold front, associated with the depression moving across the Tasman Sea, moved onto the South Island and this brought heavy rain to Fiordland and later Westland, with lighter falls elsewhere west of the main ranges and in Southland. The ridge of high pressure started to move slowly eastwards away from the country early on the 5th, and the depression in the Tasman Sea moved to the south of the country. Pressures were low in the north Tasman Sea early on the 6th, and an anticyclone moved east from near Tasmania to lie over New Zealand early on the 8th. A weak cold front crossed the South Island during the 8th, with light showers being reported in many areas of the South Island and parts of the North Island. The anticyclone persisted until the 11th when it started to move away from the country. The weather was fine over the majority of the country, with higher than normal temperatures for several days.

On the 13th a depression which had developed near New Caledonia began to move south into the Tasman Sea. A frontal zone