CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for March 1966—continued

Station			Air Temperatures in Degrees (Fahrenheit)								Rainfall in Inches					
		Height of Station Above	Means of		Mean of A	Differ- ence	Absolute Maximum and Minimum				Total	No. of	Differ- ence	Maximum Fall		Bright Sun- shine
		M.S.L.	A Max.	B Min.	and B	From Normal	Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date	
Cromwell Ophir Moa Creek Earnscleugh Alexandra Roxburgh Hydro Moa Flat, West Otago Lake Mahinerangi Tapanui Rankleburn Forest Otautau Gore Winton Pebbly Hills Invercargill Airport Milton Balclutha Rarotonga Raoul Island Chatham Islands Campbell Island Scott Base, Antarctica		Ft. 720 1,000 1,400 500 461 350 1,345 1,300 740 835 180 230 150 138 1 60 20 15 126 157 49 45	°F. 73·7 71·9 70·1 73·2 72·2 70·0 64·5 64·0 66·0 66·0 67·0 65·3 83·9 77·7 60·9 51·6	°F. 49·2 42·7 41·8 43·2 49·4 47·1 45·9 46·8 48·8 47·1 47·8 47·8 47·8 49·2 71·5 68·2 49·6 42·6	°F. 61·4 57·3 56·0 58·2 60·8 55·4 55·4 55·6 56·6 57·4 56·8 57·2 77·7 73·0 55·2 47·1 9·3	+3·0 +2·0 +3·4 +1·8 +2·9 +0·9 +3·0 +3·6 +1·8 +1·7 +2·1 -0·5 +1·8 -1·7	°F. 84·0 82·7 81·1 88·0 83·1 82·5 77·4 78·0 81·5 77·2 79·5 80·0 79·0 80·0 75·6 78·8 79·8 87·8 82·6 70·2 58·0 24·3	18 18 18 17 17 1 1 18 18 18 17 17 1, 14 17 17, 18 18 16 3 3 3 24	°F. 37·7 30·3 29·0 31·5 38·1 33·9 36·4 33·3 35·2 36·0 33·8 37·0 34·3 35·6 61·8 40·6 30·8 -18·4	6 13 13 13 12 13 13 6 13 6 13 13 6 6 6 6 9 30 21 22	In. 1·83 1·53 1·20 1·08 2·30 2·94 3·25 2·81 3·84 4·23 3·27 3·16 3·07 3·46 3·23 2·05 3·58 1·97 3·52 	9 6 8 8 8 12 16 12 16 18 14 16 18 19 19 12 12 15 20 10 25	$\begin{array}{c} +0.3 \\ 0.0 \\ -0.1 \\ -0.1 \\ +0.5 \\ +0.2 \\ -0.5 \\ \vdots \\ +0.2 \\ -0.5 \\ \vdots \\ +0.7 \\ -6.8 \\ +0.7 \\ -6.3 \\ +3.0 \\ -0.6 \\ \vdots \\ \end{array}$	In. 0·64 0·69 0·52 0·42 1·17 0·80 0·56 1·07 1·50 0·94 0·84 1·87 1·37 0·99 1·15 2·17 0·58 0·75	29 2 29 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Hrs 206 119 126 131 128 118 205 132 124 49
LATE RETURNS																
Whatawhata, Feb 1966 Waipiata, Feb 1966 Moa Creek, Feb 1966 Rukuhia, Feb 1966 Errata Bromley, Feb 196	• •	340 1,550 1,400 215	75·6 72·8 74·9	60·1 38·8 49·1	67·8 55·8 62·0	$\begin{vmatrix} +3 \cdot 2 \\ -2 \cdot 0 \\ +5 \cdot 2 \\ \vdots \\ \vdots \\ \end{vmatrix}$	80·2 85·0 83·8	19 18 13	50·2 29·0 33·3	6 27 1 	6.66 1.06 1.01 6.25 2.07	14 7 6 12	$ \begin{array}{c} +2.4 \\ -0.8 \\ -0.7 \\ +2.9 \end{array} $	1·79 0·29 0·35 1·97	28 23 19 28	152 167 

The "normal" refers to the present site of the instruments. The standard periods for normals are: for temperature 1931-60, for rainfall 1921-50, and for sunshine 1935-60. No normals are available for stations with only short records.

## Notes on the Weather for March 1966

General: March was warmer than usual, with an unusually high frequency of northerly to easterly winds. The two main wet periods were at the beginning and end of the month. Between these two periods many areas experienced two or three weeks of settled weather, which proved useful for harvesting. Generally pasture growth was reported to be very good, as in previous months.

Rainfall: Rainfall was mainly about 50 per cent above average in northern districts of the North Island and in eastern districts of both islands. In southern districts of the North Island, in the Marlborough Sounds and in western and most inland districts of the South Island rainfall was below average, mainly by 25 to 50 per cent.

Temperatures: Temperatures were mainly above average by 1–3 degrees, highest departures being in Taranaki and in some inland districts of the South Island. New Plymouth had its warmest March since 1938. However, in Gisborne and Hawke's Bay temperatures were only about average.

Sunshine: Sunshine was above average by 30–70 hours in western districts of the North Island from Auckland to Wellington, largest surpluses being in Manawatu and Waikato. Elsewhere sunshine was fairly close to the average value. However, in Gisborne sunshine was down by 30–50 hours; while over the coastal areas of Canterbury, Otago, and Southland from Ashburton southward it was down by 20–30 hours.

Weather Sequence: At the beginning of the month a complex depression was centred over Northland. It had already caused considerable rain over the North Island, which continued, now affecting also Nelson, Marlborough and North Canterbury. One centre moved southward along the west coast of the North Island and through Cook Strait. At the same time a trough of low pressure crossed the South Island; and the 2nd and 3rd were wet days in nearly all districts. Another centre developed on the following day over Northland, and the rain was then restricted mainly to northern districts of the North Island together with Gisborne and Hawke's Bay.

The weather cleared over the North Island on the 5th as an anticyclone over the Tasman Sea extended on to New Zealand and eastward to the Chatham Islands. However, on this and the following day the depression which had developed over Northland remained active while moving away, with some rain in eastern Northland. A trough of low pressure crossed the country on the 7th with rain in western districts of both islands and also in central

districts of the North Island and Otago and Southland. On the following day south-westerlies prevailed with scattered light showers. On the 9th a depression passed close to Southland and the associated trough of low pressure brought rain to the southern half of the South Island. South-westerlies prevailed again during the next two days with showers in many districts. From the 12th to the 16th an anticyclone covered the Tasman Sea and New Zealand and extended to the east. However, the weather was showery at first around Auckland in the easterlies; and showers were also reported on most days in Fiordland or the Southland-Otago coast

By the 17th the belt of high pressure still covered most of the country but the weather deteriorated in Northland with the approach of a depression from the north. During the next two days the rain spread southward, affecting especially Coromandel and Bay of Pienty. On the 20th the depression commenced to move away to the east of North Cape, and in the easterlies the rain spread also to Hawke's Bay. On the following day, as the depression lost intensity, the rain became very scattered, affecting mainly Northland and some of the eastern North Island ranges. The anticyclone was now centred to the east of the South Island and during the next three days it moved away very slowly while depressions appeared over the North and South Tasman Sea. These were days of warm and predominantly fair weather. However, the West Coast received some rain; and thunderstorms were reported at times in the North Island ranges and in the Wairarapa, with one or two heavy downpours in the latter area.

The northernmost depression remained almost stationary on the 25th and 26th but a trough of low pressure gradually spread rain over the greater part of the South Island. Somewhat similar conditions persisted during the next two days as the depression moved slowly southward, but some rain was reported in Bay of Plenty. Heavier and general rain was experienced on the 29th and 30th as one small depression from the North Tasman Sea crossed the Auckland Peninsula and another centre crossed the South Island. The rain was particularly heavy in south Westland, and some considerable falls were also reported in other parts of the West Coast and the Alps, in Nelson, and in the Taranaki-Taumarunui-Rotorua area. On the last day of the month the northernmost of the two depressions lay to the east, and a trough of low pressure crossed the country. Rain was restricted mainly to western and northern districts of both islands.

J. F. GABITES, Director.

<sup>\*</sup>Sunshine recorder is not located at the station but is in the near vicinity.