

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for September 1973—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		Hrs.	
Lake Grassmere, April 1973	2	17.3	9.3	13.3	+0.1	24.0	16	3.7	25	13	4	-33	5	20	168
Molesworth, August 1973	893	8.1	-1.6	3.3	+0.6	..	..	-9.6	24	71	..	+13	23	11	..
Waimate, July 1973	61	9.7	0.3	5.0	-0.7	13.4	9	-4.5	4	9	5	-34	5	6	122
Otiake Farm, July 1973	183	9.0	-1.2	3.9	..	14.4	8	-6.1	30	3	3	..	2	5	..
Clyde, August 1973	183	9.9	-0.9	4.5	..	19.4	30	-5.2	20	31	8	..	11	30	..
Rarotonga Airport, July 1973	7	25.6	19.9	22.8	+1.2	28.4	28	16.4	10	43	14	-54	7	4	140

The "normal" refers to the present site of the instruments. Standard periods for normals are: Temperature 1931-60, Rainfall 1941-70, Sunshine 1935-60. No normals are available for stations with only short records. This is the first month for which rainfall normals for the period 1941-70 have been used.

\*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 SEPTEMBER 1973

**General**—September was warmer than usual. Farmers found the mild weather to their liking; and in many areas growth was reported to be good. However, in the North Island more sun would have been appreciated for the health of animals, while in parts of Canterbury more rain was needed.

**Rainfall**—In the North Island rainfall was mainly above normal. In Coromandel and parts of Bay of Plenty and Central Hawke's Bay it was more than double the normal value. The heaviest rain over the North Island was from the 16th to the 18th, causing flooding in Ohura, King Country.

In the South Island rainfall was mainly below normal. Over the greater part of Canterbury with parts of Marlborough and Otago it was less than half the normal value.

**Temperatures**—Temperatures were above normal, mainly by 1° to 1.5°C. The warmest period was the last 5 days of the month; and the coldest period was from the 6th to the 9th, with snow on the ranges and parts of the South Island high country.

**Sunshine**—Sunshine was 20-60 hours below normal in northern and some western districts of the North Island and about Wellington, with particularly low values in the Rotorua-Taupo area. Elsewhere it was mainly about normal, but parts of the West Coast with the Alps and the Southern Lakes district were favoured with 20 hours above normal.

**Weather Sequence**—At the beginning of September a depression centred off the South Canterbury coast was moving north-eastward while pressures were high to the north. Rain affected mainly northern districts of the North Island besides Wellington and Canterbury, but there were light falls in many other areas. Conditions improved on the 2nd but showers were still reported, especially in eastern districts. On the following 2 days a deep depression south of Macquarie Island moved eastward and the associated trough of low pressure crossed New Zealand. Rain affected most of the North Island and western districts of the South Island. During the 5th and 6th another very deep depression was passing far to the south while a smaller disturbance crossed Northland. Rain was still reported in northern and western districts of the North Island and in western districts of the South Island, also in Southland. A change to southerlies on the following day brought fairly general rain, except in parts of Canterbury, Otago, and Fiordland. Temperatures became colder

with snow on the ranges of both islands. Cold south-westerly conditions prevailed on the 8th and 9th with showers in some districts, especially around Auckland.

During the 10th and 11th a depression passed to the south and its associated trough crossed the South Island. Rain was reported on the West Coast with showers in western districts of the North Island and in Otago and Southland. On the following day an anticyclone was centred close to Northland and the weather was fair apart from a few showers in the south-westerlies. There was another period of westerlies from the 13th to the 15th with a belt of high pressure to the north of the country and depressions passing to the south, while their associated troughs moved over New Zealand. Some rain was reported west of the ranges from Hamilton southward and temperatures were warm, especially in eastern districts.

A trough of low pressure became stationary over the North Island with the formation of a small depression on the 16th, while an anticyclone moved on to the South Island. From this date to the 19th was the wettest period of the month in the North Island with some considerable amounts of rain causing serious flooding in Ohura, King Country. Northern districts of the South Island also received some rain at times. During the next 3 days two small depressions moved across the country. Rain became fairly general, except in eastern districts of the North Island, but lighter.

From the 23rd to the 25th an anticyclone, centred to the east, extended over and to the west of the South Island, while a small depression crossed Northland and moved across the coast of the Bay of Plenty. Rain affected northern and some eastern districts of the North Island. On the 26th fine weather was fairly general temporarily, but during the next 3 days another depression passed to the north-east of Auckland, bringing rain to most northern districts of the North Island, besides Gisborne and most of Hawke's Bay. Temperatures became much warmer from the 26th. On the last day of the month a deep depression passed far to the south and the associated trough of low pressure was approaching New Zealand from the west. Rain was reported on the West Coast besides Southland and coastal Otago, while temperatures remained warm.

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