

WEATHER SEQUENCE FOR AUGUST 1981

A complex trough covered New Zealand on the 1st of August, with showers in many areas. These cool, showery conditions persisted for the following 2 days as the trough moved across the country. By the 4th there was a widespread clearance in all districts except those to the north-east.

On the 5th an anticyclone which had developed to the south of New Zealand covered the South Island, bringing cool, settled weather to most places. Fine, cool weather continued in the south, but a depression, centred south of Norfolk Island, brought widespread heavy falls of rain to the north of the country on the 6th. This depression and an associated cold front moved south and rain spread over much of the country except Southland and Fiordland. Cool, wet weather persisted in many areas until the depression moved across the country to lie to the east by the 10th.

A second complex depression developed in the Tasman Sea on the 10th and by the 11th a cold front within this trough lay across Auckland. Rain fell over most of the North Island and there were showers in parts of the South Island where a second front, associated with the same depression, extended across Fiordland and Otago. Temperatures were cool. A general clearance followed as both fronts moved off the east coast, although light rain fell in some areas on the 13th.

A cold front associated with a complex depression lay off Australia on the 14th. A trough developed and the system moved to lie off the west coast of New Zealand on the 15th. Rain fell in northern and western areas and there were showers in isolated areas over the next 2 days as the trough crossed the country.

A ridge from an anticyclone near New Caledonia extended over the North Island on the 18th but an extensive cold front lay to the west of the South Island, within a trough over the Tasman Sea. Although temperatures were milder, rain was widespread except in Otago and Southland. The front crossed the South Island on the 19th and was followed by fine, mild weather. However the northern section of the front still lay to the west of the North Island where rain continued to fall in many areas. Showers persisted in some districts on the 21st as the trough moved to the east and a ridge covered the country.

During the period between the 22nd and the 25th a deep depression crossed New Zealand and brought cool, wet weather to all districts except Southland, Fiordland and South Westland. This depression and its associated fronts had moved away by the 26th but the weather continued to be cool and showery in most places with southerly or south-westerly winds.

An anticyclone lay in the Tasman Sea on the 26th and as it moved south-east over the next 3 days it brought fine, settled weather to many areas, although southerly or south-easterly winds continued to bring cold wet weather to central and some eastern districts. A small depression which formed off the South Island on the 26th brought heavy rain and some snow to parts of Canterbury.

On the 30th a cold front associated with a depression in the central Tasman Sea lay north-east of Northland. Heavy rain fell in northern districts, but, due to the continued presence of the anticyclone to the south, fine, cool weather continued over the rest of the country. The rain spread further south into central areas of the North Island on the 31st as the front moved southward to lie across Northland. Fine, cool weather continued in the South Island.

THE NEW ZEALAND WEATHER IN AUGUST 1981

General—The weather for August was very variable, with reports from different regions varying from cold and very wet to relatively mild and dry.

Strong winds were less frequent than usual over the whole country. In the south, south-easterlies were much more frequent than usual, while north-westerlies occurred only half as often as normal for August. There were also slightly more south-easterly winds than usual in the north.

Grass growth was poor in many districts due to cool, wet conditions. Some lambing losses were reported from most areas, particularly during a cold wet spell between the 22nd and 25th. Cold weather also affected calving in northern area. Although drier in the south of the South Island grass growth was still poor due to severe frosts.

Rainfall—Rainfall was below normal in Manawatu, Auckland and Coromandel in the North Island and for all of the South Island except coastal areas between Christchurch and Blenheim. Fiordland and Westland were particularly dry. Milford Sound and Franz Josef recorded only 13 percent and 14 percent respectively of their normal rainfall and most other stations on the west coast recorded less than 30 percent of their normal August rainfall. The rainfall at Milford Sound (55 mm) was the fifth lowest total for any month since the station opened in 1930 and at Franz Josef (52 mm) the fourth lowest for any month since 1926.

Central, south and eastern areas of the North Island and the north-east of the South Island had above normal rainfall, with some eastern districts having more than twice their normal rainfall.

Christchurch had nearly 40 mm of rain in 12 hours on the 26th and this, combined with high tides, caused flooding in low lying areas around the Heathcote River.

Temperatures—Mean temperatures for August were below normal by an average of 0.5°C in the North Island and 1.0°C in the South Island. In many areas, particularly those from Rotorua and Hamilton south, mean maximum temperatures were up to 2.5°C lower than average. At Wellington the extreme maximum temperature, 12.9°C, was the lowest for any month since recording began in 1869. Other very low extreme maximums were 10.4°C at Waiouru and 13.0°C at Kaingaroa Forest, both records for August since the stations opened in 1966 and 1951 respectively. Dunedin had its lowest maximum for August since 1907, Napier since 1961 and Tauranga and Tapanui their lowest since 1964.

There were several distinct cold spells this month. On the 3rd and 4th mean temperatures over the whole country were between 2°C and 4°C below the monthly average, while on the 12th some central North Island districts reported minimum temperatures as much as 9°C to 10°C below average. There was a period of cool weather between the 24th and 30th during which maximum temperatures in the South Island were up to 8°C below average and mean temperatures were between 2°C and 4°C low for the whole country at times.

Sunshine—Sunshine hours were mostly close to or slightly above normal for northern and western areas of both Island and slightly below average in other areas. Among those stations with greatest anomalies were Hokitika (+32 hrs), Westport (+20 hrs), Hamilton (+18 hrs), Wellington (-24 hrs), Gisborne and Christchurch (both -20 hrs).

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

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