

## THE WEATHER IN NEW ZEALAND IN SEPTEMBER 1984

## THE WEATHER SEQUENCE, SEPTEMBER 1984

*General*—The weather in September was highly variable, but in general slightly milder and drier than usual.

North-easterly winds were very much more frequent than the usual this month. The south of the country had the highest frequency of north-easterlies for September on record (since 1956), while the highest frequency for the month since 1966 was recorded in the north. There was a corresponding decrease in the number of north-westerly winds this month, with the south of country having the lowest frequency of north-westerlies for September since 1966. There were also fewer strong winds than usual in the south.

Pressures were higher than normal to the south-east and low to the north-west this month.

Farmers in most parts of the country reported good grass growth with the mild, dry conditions early in the month but cold wet weather during the last 10 days checked pasture growth considerably. The numbers of wet days this month in central districts caused delays in seasonal work, especially docking, shearing and crop planting. However, some irrigation has already been necessary in areas of southern Canterbury and North Otago.

*Rainfall and Snow*—Parts of Northland, the east of the North Island, South Otago and Southland were wetter than usual this month while the rest of the country was drier. Coastal areas of North Otago and South Canterbury were very dry, especially around Timaru where only 20 percent of normal rain fell. Parts of Nelson and Blenheim were also very dry, with between 40 percent and 50 percent of normal rainfall this month.

Very heavy rain fell in the Otago and Dunedin areas on the 29th. Among the heavier falls recorded in 24 hours to 9 a.m. on the 30th were: Ross Creek 100 mm, Sullivans Dam 90 mm, Portobello 76 mm and Mosgiel 70 mm. Widespread surface flooding was reported in the Mosgiel—Taieri area and the Three Mile Hill Road between Dunedin and Mosgiel was closed by flooding overnight on the 29th—30th.

Snow fell in parts of Otago and Southland on the 29th and 30th, with heavy falls in the Maniototo area and about Hindon, Middlemarch and Milton. Many roads in the area were closed by snow drifts including State Highways 85 (Ranfurly—Becks), 87 (Outram—Middlemarch) and 97 (Te Anau—Milford). Farmers, especially in the high country, reported very heavy losses of newborn lambs.

*Temperatures*—Temperatures were very close to normal for September. In the North Island temperatures were generally between normal and 0.5°C above normal in western and southern areas and down to 0.5°C below normal in northern and eastern areas. Temperatures were also slightly below average in Central Otago but the rest of the South Island was up to 1.0°C milder than usual.

Some very low temperatures were recorded in parts of Southland and Otago during a period of snow and heavy rainfall on the 29th—30th. Maximum temperatures on these 2 days were generally 6°C to 8°C but locally 10°C to 12°C below average for September.

*Sunshine*—Northern and western areas of the North Island and south and west of the South Island were sunnier than usual with between 20 hours and 40 hours more sunshine than usual this month. Eastern and southern areas of the North Island had up to 40 hours less sunshine than usual while northern and eastern areas of the South Island had 10 to 30 hours less.

Among those stations recording the greatest departures this month were: New Plymouth (+38 hours), Invercargill (+32 hours), Kaitaia (+30 hours), Gisborne (-39 hours), Wellington (-37 hours) and Taupo (-35 hours).

## 1-7 September

A shallow depression covered the North Island on the 1st with fronts lying to the north of Northland and across the centre of the North Island. Showers fell in some eastern and central districts of the North Island on the 1st and 2nd but the weather was otherwise fine. During the 2nd a ridge, from an anticyclone centred near Lord Howe Island, began to extend onto the South Island and by the 3rd a belt of high pressure extended north-west—south-east across the country. Although showers persisted in some central and eastern areas of the North Island the weather was generally fine and mild. Fine weather continued as the high pressure system remained over the country on the 4th and 5th although showers fell in some western and southern areas on the 5th as a front approached the country. There was a further light rain in eastern and central areas on the 6th and 7th as the front crossed the country. During this period an anticyclone became established to the south of Stewart Island.

## 8-14 September

By the 8th a cool south-westerly flow covered the country bringing showers to isolated areas. The anticyclone remained centred to the south-west but a front extended along the western coast of the country on the 9th and rain fell in Westland and Fiordland and there were showers in Northland. Further rain fell in southern and western areas of the South Island and about Cook Strait on the 10th and also in central areas of the North Island on the 11th as the front crossed the country. A moist north-westerly flow associated with a trough in the Tasman Sea brought rain to much of the South Island and isolated areas of the North Island on the 12th, with heavy falls in southern and western areas of the South Island. Rain became widespread on the 13th as the trough and its associated front crossed the country but cleared from most areas on the 14th.

## 15-21 September

An anticyclone centred in the Tasman Sea began to extend a ridge onto the country on the 15th and the associated south to south-westerly flow brought showers to eastern and central areas of the country on the 15th and 16th. By the 17th the anticyclone covered the South Island, bringing generally fine, cool weather although light showers persisted in some eastern areas and the south of the North Island on the 17th and 18th, with some heavy falls in the Hawke's Bay - East Cape area. By the 19th a belt of high pressure had developed across the South Island and a depression lay off the coast of Australia. The resulting easterly flow continued to bring showers to eastern areas and rain developed in Northland as the depression crossed the Tasman Sea to lie across Northland on the 21st.

## 22-30 September

By the 22nd the high pressure system that had covered the South Island had moved away to the east and a depression to the west of the North Island extended a cold front across Auckland. Showers fell over most of the North Island south of Auckland and in the north and east of the South Island on the 22nd and 23rd. A complex frontal system crossed the Tasman to lie west of New Zealand by the 24th, bringing widespread rain. A deep trough developed over the country during the 25th, with rain continuing in many areas until the 27th. Heavy falls were recorded in central areas of the North Island on the 26th and northern areas on the 27th. Rain had largely cleared from the South Island by the 27th. A second depression travelling in the same trough approached the South of the South Island on the 28th. As this crossed the country rain fell in southern and western areas of the South Island on the 28th and became widespread on the 29th and 30th, although a clearance had begun in the south and west of the South Island by the 30th.

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