

THE WEATHER IN NEW ZEALAND DURING JUNE 1982

General—June was generally drier, cooler and less windy than usual. Mean sea level pressures at Campbell Island were unusually high, and consequently there was a very high frequency of light winds from the easterly quarter over New Zealand.

There was widespread fog over northern districts of the North Island on the 1st and 2nd, causing disruptions to both domestic and international air traffic. Widespread freezing fog on the 15th and again on the 16th blanketed the McKenzie Basin area of South Canterbury during the daytime.

Farmers over the country reported that the growth of grass was very slow, and in eastern South Island areas, the dry soil conditions which were reported in May continued through June. Most farmers noted that stock health was good.

Rainfall—Apart from central New Zealand, the rainfall over New Zealand during June was generally below average. Rainfall was particularly low about Westland and Fiordland, and in some eastern areas of the South Island.

In parts of central New Zealand, more than 150 percent of the usual June rain was recorded. Most of the month's rain fell between 9 a.m. on the 21st to 9 a.m. on the 26th. Those places measuring large daily totals during this time include Nelson, (61 mm on the 21st), Kaikoura (71 mm on the 24th), and Wellington (60 mm on the 25th).

Intense short period heavy rainfall leading to surface flooding occurred in New Plymouth on the 4th and in Auckland City on the 22nd. At New Plymouth, 30 mm was recorded between midnight and 7 a.m. In one hour at Auckland, 38 mm was measured. A rain storm of this magnitude normally recurs about once in every 40 years. The entire storm lasted nearly two hours.

Fresh falls of snow were observed on the South Island high country on the 4th and 21st, and on the North Island high country on the 7th.

Temperatures—Over the North Island mean temperatures were mostly 0.5°C to 1.0°C below average. Many areas of the South Island were close to or just below normal, although parts of Westland were more than 0.5°C above, and Central Otago and inland Southland were at least 1.5°C below the normal June temperatures. The low temperatures were largely due to the position of the semi-permanent anticyclone near Campbell Island which brought air from the far south of New Zealand.

There was a brief mild spell on the 1st and 2nd, during a period when north-westerlies covered the country. Maximum temperatures were above average, by as much as 8°C over the eastern South Island. Locations to record temperatures of at least 20°C during this time include Ashley Forest, Hororata, Christchurch and Ashburton.

During the 15th to 22nd there was a cold spell, which affected the southern half of the South Island, when maximum temperatures remained mostly below 10°C. Alexandra recorded maximum temperatures of below freezing on 4 consecutive days from the 18th to the 21st. The last time there were a number of days of below freezing maxima occurred in 1973.

Sunshine—Sunshine hours were above normal except in eastern areas of both islands where there was less than usual.

Among stations to have greatest departures this month were : Alexandra (-46 hours), Wellington (-44 hours), Gisborne (-39

hours), Hokitika (+30 hours), Westport (+29 hours), Tauranga (+26 hours), and Invercargill (+21 hours).

At Kelburn, Wellington there were only 61 hours of sunshine, and at Alexandra there were only 52 hours—the lowest totals ever recorded.

THE WEATHER SEQUENCE, JUNE 1982

1st-7th June

An anticyclone lay centred to the east of the North Island at the beginning of June, with a disturbed north-westerly flow across the south of the South Island. Apart from rain in some western areas the weather was fine and very mild until the 3rd. A complex depression had formed over the Tasman Sea by the 3rd and as an associated front moved onto the country, rain became widespread, apart from some eastern areas, on the 3rd and 4th. Temperatures remained mild. Rain began clearing from the south as the depression moved across the North Island on the 5th and a ridge from an anticyclone centred over Tasmania extended onto the south of the South Island. By the 7th the depression lay to the east of the North Island with a southerly to south-easterly flow across the country. Temperatures became cool and there were isolated outbreaks of rain.

8th-14th June

The anticyclone that was centred over Tasmania moved slowly south-eastwards during this period, to be centred close to Campbell Island by the 14th. Although most of the country had dry weather during this week there was some light rain or drizzle in the Cook Strait/South Wairarapa area between the 11th and 14th. Northern and western areas were without rain throughout this week and temperatures were cool.

15th-21st June

The weather continued to be dominated by the anticyclone which remained centred southeast of the South Island between the 15th and 20th. Light rain fell at times in Northland and in the east of both Islands. A weak stationary cold front, associated with a shallow trough of low pressure lying in the Tasman Sea brought rain to the north of the North Island on the 20th. Rain became widespread, and locally heavy, in the north and west of both Islands on the 21st.

22nd-30th June

The trough of low pressure covering the Tasman Sea at the beginning of the period drifted south to lie over the South Island, but by the 25th was lying across the central North Island. The trough brought rain to the country and heavy falls were recorded about central New Zealand on the 25th. By the 27th the trough had moved off New Zealand. A fine, cool south-west airflow covered the country and a narrow ridge of high pressure covered the western Tasman Sea. A cold front moved into the Tasman on the 28th. The ridge moved eastwards and a large slow moving anticyclone developed east of Canterbury on the 29th bringing fine frosty weather to the country. Cyclogenesis on the cold front occurred during the 28th, and the resulting shallow stationary depression covered the central Tasman Sea till the end of the month.

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