

WEATHER NOTES FOR JANUARY 1981

General—January was a warm month with rainfalls below average except in the north. There was an unusually high frequency of north-easterly winds in the north, the highest at Auckland since 1965. Strong south-westerly winds predominated in the south of the country.

Stock health was reported by most farmers to be good. Grass production in northern districts benefited by the wet mild month, but elsewhere the dry sunny conditions have meant little grass growth.

Gale force winds during the 27th in Otago caused some minor damage in Central Otago. Alexandra reported winds to 45 knots, Taiaaroa Head 70 knots, and Nugget Point, 80 knots. Power poles were snapped in Cromwell, flying gravel was reported at Middlemarch, and cross winds at Dunedin Airport caused flight delays.

Rainfall—In Northland, Auckland, Bay of Plenty, and northern Gisborne, where rainfall was above average, some Northland areas had over 50 percent of normal. Over the rest of the country dry conditions were experienced and many districts of both islands had less than 50 percent of the normal January rainfall.

A shallow trough of low pressure in the north-easterly airflow over Northland during 19th and 20th brought localized heavy rain to the far north and east. From 9 a.m. on the 19th to 9 a.m. on the 20th, Glenbervie Forest (Whangarei) recorded 96 mm, 63 mm falling between 9 a.m. and 3 p.m. and 39 mm between 12 noon and 3 p.m. Other sites recorded the following amounts indicating the spatial variety of the rainfall during this 24-hour period: Cape Reinga 72 mm, Warkworth 52 mm, Kaikohe 55 mm, Waipapakauri 32 mm, Waimatenui 50 mm, Matapouri 80 mm, Kaitaia 21 mm, Dargaville 10 mm, Waipoua Forest 27 mm, and Waitotemarama 28 mm.

Below normal rainfall over the South Island made some areas the driest for a number of years. At Musselburgh (Dunedin) 17 mm of rainfall indicated the driest January since records started in 1918, while at Invermay only 13 mm of rain were measured making it the driest January since 1973 when 8 mm were recorded.

Temperatures—Mean temperatures were above average by more than 1°C in the North Island and in eastern and northern areas of the South Island. Some inland districts of both islands and about Nelson were warmer by more than 2°C. The highest recorded temperature of 35.7°C occurred on the 27th at Musselburgh (Dunedin). Consequently it was the highest recorded temperature at this site since records began in 1865.

Sunshine—In most areas sunshine hours were above average but in the far north, the Bay of Plenty, Gisborne, and in the far south and south-west they were below.

DAILY WEATHER SEQUENCE FOR JANUARY 1981

A belt of high pressure predominated over New Zealand for the first 4 days of the month bringing dry settled weather to the country apart from some showers to the south-west of the South Island.

A cold front reached Fiordland late on the 4th accompanied by rain. Heavy falls were measured along the West Coast, but the front was very weak by the time it reached the North Island on the 6th. A ridge of high pressure followed the front, spreading on to Central New Zealand by the 7th. The westerly airflow on the southern side of the ridge brought cool showery conditions to the south-west and south of the country. A weak cold front in westerlies moved along the east coast of both islands on the 8th with a few showers, and by the 9th another belt of high pressure covered New Zealand.

A trough of low pressure on the northern side of the high pressure zone lay near Norfolk Island on the 9th and drifted slowly south-south-west to become almost stationary between Cape Reinga and Lord Howe Island on the 12th. The trough then moved slowly west towards Lord Howe Island. Its associated frontal band spread rain over the North Island on the 12th as the high pressure area moved east of the country.

A cold front over the Tasman Sea on the 11th spread on to the South Island during the 12th bringing rain chiefly to the west and south, and during the 13th merged with the front associated with the trough to lie north of the country.

A high pressure belt covered New Zealand from the 14th to 19th and was accompanied by dry warm weather apart from showers in Northland. On the 19th a shallow trough of low pressure lay over the eastern Tasman Sea. It crossed the country during the 20th bringing rain with localized heavy falls to the Bay of Plenty and the West Coast.

A cold front reached the South Island on the 23rd, weakened as it moved north-east over the country and by the 25th lay east of the North Island. The front brought scattered rain chiefly to the west and south of both islands.

High pressures predominated over the country from the 25th to the end of the month accompanied by mostly dry mild conditions, although there were showers in the west and south of New Zealand on the 28th.

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