

WEATHER NOTES FOR FEBRUARY 1981

General—February was a warm month with below average rainfall in most districts. There was an unusually high frequency of north-easterly winds to the north while strong north-westerlies predominated in the south of the country.

Most farmers reported stock health to be good although there was some concern over dwindling feed reserves and falling milk production in the drier areas. Grass growth remained good in north-eastern districts.

Very dry weather led to the imposition of fire bans in many areas including Wellington, Nelson, Blenheim, and Marlborough. Two concurrent fires in the Hira State forest early in the month led to the destruction of buildings and over 450 hectares of pine plantation.

Rainfall—February was a particularly dry month for much of the country with many districts in both islands receiving less than 50 percent of their normal rainfall. Large areas of Nelson, Marlborough, Blenheim, and Wellington had less than 10 percent of normal, with Nelson and Blenheim having their driest February since 1973 and Wellington, with 3 mm, its driest February since 1908. Several stations in the Wye Valley and Wairoa Gorge areas of Marlborough recorded nil rainfall.

On the 28th a front associated with a small depression to the north-east of New Zealand lay to the east of Coromandel Peninsula and East Cape bringing localized heavy rain to these districts. Coromandel recorded 92 mm of rain between 9 a.m. on the 28th and 9 a.m. on the 1st of March, with 26 mm falling in the 2 hours between 9 p.m. and 11 p.m. Up until the 28th Coromandel had had only 40 percent of its normal rainfall. Stations reporting heavy falls in the Gisborne - East Cape region on that day were Te Puia Springs (105 mm), Mangatuna, Tolaga Bay (131 mm) and Waitahaia Station (106 mm).

Above average rainfalls were also recorded in Buller, Fiordland, and about Dunedin.

Temperatures—Mean temperatures were about 1° above normal over most of the country but close to normal in eastern Otago, Westland, and Fiordland.

During the warm spell on the 10th and 11th the east coast of the South Island recorded some of its warmest February temperatures since 1974. High temperatures on the 10th were recorded at Winton (29.8°C), Gore (30.4°C), Berwick Forest (34.6°C), Palmerston (34.0°C), Dunedin (34.1°C), Lincoln (37.8°C), Christchurch Airport (35.5°C). Invercargill had a maximum of 29.8°C, the highest since 1949.

There were two cool periods, the 1st to the 4th over the South Island and the 19th to 23rd over the whole country. Daily mean minimum temperatures during the latter period were down to 8°C below normal.

Sunshine—Monthly sunshine was below average in most areas with Auckland City receiving only 127 hours, the lowest total since records began in 1933. (No figures were recorded between 1956 and 1961). Other regions with high sunshine deficits were Kaitaia (-38 hrs), Tauranga (-31 hrs), Rotorua (-33 hrs), and Taupo (-35 hrs). The Westport total of 138 hours was the lowest for February since 1966. In contrast Wellington received slightly more sunshine than normal.

DAILY WEATHER SEQUENCE FOR FEBRUARY 1981

The anticyclone which had been centred east of New Zealand at the end of January still covered much of the country on the 1st of February, with its centre now lying east of Chatham Island. A front associated with a low pressure system west of Norfolk Island brought rain to much of the North Island. This rain cleared as the front passed across Northland, but persisted in the East Cape - Bay of Plenty region until the 4th. Meanwhile, a strong south-westerly flow associated with a deep depression to the south-east of New Zealand brought light rain to the south of the South Island between the 1st and the 3rd and a front associated with this system brought some heavier falls to Fiordland and Southland during the 4th to the 6th.

An anticyclone crossing northern New Zealand during the 5th to 7th gave fine weather to the North Island and the east of the South Island on the 5th, but a following cold front brought light rain to much of the North Island on the 6th and 7th. The front became stationary over Auckland during the 8th giving light rain in Northland and fine, warm conditions elsewhere, with some very warm temperatures in inland Canterbury and Central Otago on the 7th.

A deep depression to the south of Tasmania and an associated trough extending into the Tasman Sea brought heavy rain to Fiordland and Westland during the 9th to 11th and lighter rain over the rest of the South Island except Centerbury, Nelson, and the Kaikoura coast. Northland also continued to have light rain throughout this period. Rain spread to most of New Zealand except Central Districts, Gisborne, and Hawkes Bay, and by the 12th the front lay across the central North Island giving rain in this area. It remained across the North Island giving further light rain to most parts of the country on the 14th. An anticyclone in the Tasman Sea meanwhile brought fine, cool weather to the South Island.

A warm front developed in the Tasman on the 15th giving moderate to heavy rain on the West Coast and in Fiordland and Southland, and light rain over other parts of the country. Temperatures were generally warm, particularly in the eastern South Island.

A depression which developed south of Tasmania on the 13th moved slowly eastward and by the 17th its associated trough covered New Zealand, with some heavy falls of rain recorded in Westland and Fiordland and lighter rain in central and northern North Island. Temperatures were cooler. This trough moved across the country during the 18th and 19th and was followed by a warm ridge extending over much of the country giving fine, slightly cool weather in all districts between the 20th and 21st, except for some light rain in Southland on the 20th.

A small depression which developed in the Tasman on the 23rd gave further rain to much of the South Island except Nelson and Blenheim. The depression and an associated cold front remained in the Tasman and weakened progressively over the following 5 days.

The anticyclone which had been over New Zealand on the 22nd moved eastward and became stationary, giving a north-easterly flow onto the country. This resulted in light rainfalls in eastern districts and Northland during the 24th to 27th and in the north and east of the North Island on the 28th.

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