

WEATHER NOTES FOR JANUARY 1980

General—Throughout January pressures were lower than normal over the whole of New Zealand, but slightly above average to the north and south of the country. There was an exceptionally high frequency of north-west winds in all districts, with a greater number of days than usual with high gusts in the Wellington region. Conditions were wetter and cloudier than usual in most areas, with temperatures slightly warmer than normal. Gales on the 2nd and 3rd, with winds gusting to 122 km/h, disrupted ferry and aircraft movements in Wellington.

Most farmers reported that grass growth had been very good for this time of the year. Wet weather had delayed shearing and haymaking in some districts, but stock condition was good, although in parts of the South Island lambs were slow to fatten.

Rainfall—Areas recording below normal rainfall for the month were parts of Bay of Plenty, Poverty Bay, Hawke's Bay, Wairarapa, Taranaki, Manawatu, Nelson, Marlborough, and Canterbury. In some of the eastern districts of the North Island totals were less than 50 percent of the average. The wettest areas were Northland, Waikato, coastal Canterbury, inland Otago, and Southland. At Christchurch Airport 139 mm were recorded, making this the wettest January at this station since records began in 1944. A number of places along the Canterbury coast had monthly totals of between 200 and 300 percent above the normal value.

Heavy rain began to fall in the Christchurch area at 7 p.m. on the 2nd and rain continued to fall until about 11 p.m. on the 3rd. During the period of very heavy rain 108 mm were recorded in 12 hours, this being the highest ever recorded in 12 hours at this station in any month. The rain was accompanied by strong winds which uprooted trees and telephone poles. Many South Canterbury bridges were washed out and there was extensive flooding on the state highway to Kaikoura.

On the 16th heavy rain started to fall in Otago and Southland during the afternoon. Rivers in the area rose rapidly and some breached their banks. Gore was isolated from neighbouring towns, and Kelso and Maitua were evacuated. Roads and bridge approaches were washed out and there was widespread flooding throughout the area. At Kelso 116 mm of rain were recorded in the 24 hours up to 9 a.m. on the 17th.

Serious flooding occurred in the Greytown area on the 20th, when the Waiohine River breached its banks after heavy rain had fallen in the Tararua Ranges during the night. Many market gardens and orchards suffered extensive damage when they were inundated by flood waters.

Parts of Greymouth, Cobden and Blaketown were evacuated when heavy rain caused flooding in the area on the 24th and 25th. In the lower areas of Greymouth it was reported that the water at its peak was almost 2 metres deep submerging cars and flooding the central business area. There were no rainfall readings from Greymouth as the rain-gauge was flooded, but at Dobson 97 mm were measured in 48 hours up to 9 a.m. on the 25th, and at Atarau 120 mm in the same period.

Temperatures—Temperatures were above normal throughout New Zealand by 0.5°C to 1.0°C, the only areas below average being in inland Canterbury and Central Otago by the same amount. The coldest spell during the month was from the 3rd to 6th inclusive with daytime maximum temperatures below average by more than 5.0°C in eastern districts. During a warm spell at the end of the month they were above normal by 5.0°C to 10.0°C in the same areas.

Sunshine—The only areas with above normal sunshine for the month were in South Canterbury with an excess of approximately 10 hours. The cloudiest areas were in Bay of Plenty with deficits of more than 60 hours for the month. Many parts of the North Island were below average with 30 to 50 hours less sunshine than usual.

WEATHER SEQUENCE FOR JANUARY 1980

At the beginning of January the depression that had been crossing the North Island at the end of December continued to move eastwards, and a cold front was proceeding east towards the South Island. On the 2nd a small depression formed on the cold front, and this began to move east across the country. Rainfalls of 50 mm to 100 mm were recorded in Canterbury in 24 hours up to 9 a.m. on the 3rd, and moderate rain was reported in districts throughout the South Island and the southern half of the North Island. Gale force southerly winds were reported on the 2nd and 3rd in many parts of central New Zealand. By the 4th a ridge of high pressure extended onto the country and this persisted until the 7th. Temperatures were very cold in eastern districts on the 3rd and 4th, maximum daytime temperatures being as much as 10°C below normal.

On the 8th a depression of tropical origin had moved southwards into the Tasman Sea, and the ridge of high pressure over New Zealand had become weak, but fine weather prevailed throughout the country apart from isolated showers in both islands. The depression in the Tasman Sea continued to move south, but on the 11th the cold front associated with it had moved onto the South Island and was progressing northwards. In most districts light to moderate rain was recorded as the cold front crossed the country. Temperatures were warmer than usual along the east coast of New Zealand from the 11th to the 14th.

On the 14th a front moved across the South Island bringing light to moderate rain to areas west of the main ranges. Early on the 15th a depression formed in the north Tasman Sea and began to move towards New Zealand. By the morning of the 16th the depression had moved onto the West Coast and had deepened. More than 100 mm of rain were recorded in 24 hours in parts of Westland and inland Canterbury. Heavy falls were also reported in Fiordland, Southland, parts of Otago, Marlborough, and central districts of the North Island. Some stations west of the main ranges recorded 48-hour falls up to 9 a.m. on the 17th of nearly 200 mm. The only areas with light rain were parts of Hawke's Bay, Wairarapa, and coastal Canterbury. Temperatures were very cold throughout New Zealand on the 17th.

By the morning of the 18th the depression had moved to the east and was lying near the Chatham Islands. Later on the same day a depression with associated cold front moved towards the South Island from the Tasman Sea, and by the morning of the 19th the cold front had moved onto Fiordland. As this front crossed the country heavy rain was reported on the West Coast and in Wellington, parts of Manawatu, and Taranaki. Areas east of the main ranges reported no rain or only isolated showers. On the 21st a wave depression formed on a front in the Tasman Sea and this moved across the North Island early on the 22nd. In Northland, Auckland, and Bay of Plenty 24-hour falls of more than 30 mm were recorded up to 9 a.m. on the 22nd, and moderate rain throughout other North Island districts, and in the northern half of the South Island in the same period.

A depression in the Tasman Sea moved east and crossed the South Island on the 23rd, and this was followed by a trough of low pressure on the 24th. On the West Coast 24-hour falls of more than 50 mm were reported, with light to moderate falls throughout the South Island. A ridge of high pressure extended onto the North Island on the 25th, and this brought fine weather to most districts apart from the West Coast. Small disturbances in a westerly flow onto the South Island did bring some heavy rain to Fiordland and Westland until the 27th. Most of the country experienced fine weather until the end of the month. The only area with appreciable rainfall was Fiordland. From the 29th to 31st some east coast areas had daytime maximum temperatures of 5°C to more than 10°C above normal.

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