WEATHER NOTES FOR AUGUST 1980

General—Throughout New Zealand, August was generally windier than usual, with the result that western and southern areas of the country were considerably wetter than normal. Sea level pressures were higher than normal to the north and lower to the south-east, resulting in a greater frequency than usual of south-westerly winds.

Many farmers reported little pasture growth, but that lambing and calving were well under way. Stock was generally in good condition, but in parts of Otago and Southland poor stock health was reported. Stock losses were reported as being relatively light during the month.

During the 15th to 17th of August, there were reports of gale force winds and heavy rain from many areas of New Zealand including Wellington, Central Otago, Buller, Nelson, Marlborough, Wairarapa, Gisborne, and Taranaki. A tornado in Onehunga (Auckland) caused considerable damage and resulted in the death of a woman.

Rainfall—Rainfall was below average in eastern and northern areas of both islands, and in parts of Northland and Marlborough it was only 40 percent of normal. Over the rest of New Zealand rainfall was above normal, with some stations in Fiordland, Otago, Southland, Westland, and the alpine regions of Canterbury receiving more than 250 percent of the average rainfall.

Record August rainfalls were recorded at Alexandra (64 mm) which commenced recording in 1947 and at Invercargill Airport (162 mm) where records commenced in 1939. At Queenstown, 184 mm of rain were measured, this being the wettest August since 1946 and the second wettest since records began in 1890. Mapua near Nelson, on the other hand recorded only 17 mm of rain making it the driest August since records began in 1922.

On the morning of the 25th heavy rain began to fall over Southland and Otago, and this resulted in flooding in northern, western, and central areas of Southland. The floods caused some transport disruptions but did not appear to have caused many stock losses. At Lumsden 84 mm were recorded between 9 a.m. on the 25th and 9 a.m. on the 26th. The following stations also recorded heavy falls; Gore (44 mm), Manapouri (85 mm), Makarora (63 mm), Monowai (80 mm), Te Anau (102 mm), Tuatapere (62 mm), and Winton (54 mm).

Temperatures—Temperatures were slightly cooler than normal over the North Island and in parts of the West Coast of the South Island. Over the rest of New Zealand it was warmer than usual, and in some areas of central Otago the mean monthly temperature was more than 1.5°C above normal. This departure was due to foehn heating in the strong westerly flow.

Sunshine—Sunshine hours were near normal over much of the country during August, except in the Bay of Plenty-Taupo area where they were below average. The east coast of the South Island had significantly more sun than usual. The largest deficits were reached at Tauranga (19 hours), and at Taupo (27 hours), while the largest surpluses were recorded at Christchurch (33 hours), Timaru (38 hours), and Blenheim (28 hours). At both Christchurch and Timaru it was the sunniest August since 1959.

WEATHER SEQUENCE FOR AUGUST 1980

A depression crossed the South Island during the 1st, and its associated cold front had passed over the country by the 2nd, bringing moderate to heavy falls of rain to both islands.

A showery south to south-west airflow covered New Zealand until the 7th with rain in many districts. A large anticyclone covering much of the Tasman Sea spread onto the country and its centre was situated near Fiordland on the 8th and by the 12th had drifted north-eastwards to lie near Northland. During this time a few showers occurred along the east coast of the North Island.

A north-west airflow became established over New Zealand during the 11th and 12th, and a slow moving front within this flow moved on to the south-west of the country on the 12th, causing heavy falls of rain in Westland, Fiordland, and parts of Southland. This front, followed by another, crossed New Zealand during the 13th and 14th, bringing rain to much of the country with further heavy rain in the west and south of the South Island, where falls in excess of 100 mm occurred.

On the 16th a major cold front passed eastwards over New Zealand, with rain falling over most of the country. The front was followed by a south to south-west airflow which persisted until the 21st. Rain was recorded during this time chiefly in the west of both islands, and about Southland, although some light falls were recorded during the 19th in eastern North Island districts.

An anticyclone covered the country on the 22nd, and on the following day lay to the north with a westerly airflow over New Zealand. A rainy cold front within this airflow reached New Zealand on the 25th and lay to the east by the 28th. During this period heavy falls were recorded in the west and south of the South Island, about central New Zealand, and in the north and east of the North Island.

A ridge of high pressure, from an anticyclone over Queensland moved on to the South Island on the 28th, and lay to the north on the 31st when a westerly airflow became established over the country. A series of cold fronts within this flow crossed New Zealand until the end of the month. Rain fell chiefly in the west of both islands, with heavy falls being recorded on the 28th, 29th, and 31st, in many western areas of the South Island.

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