

National Climate Summary – October 2005

Rainfall: Above average in the North Island, below average over much of the South Island
Soil moisture; Significant deficits developing in Marlborough, south Canterbury and much of Otago
Temperature: Above average in the northern half of the North Island, below average in eastern regions
Sunshine: Very sunny in Buller and Westland
Flooding: Significant in the Gisborne region

Contrasting rainfall patterns between the North and South Islands were a highlight in October. Gisborne, Hawke's Bay, Auckland and Waikato were extremely wet with new October records established in some centres, while much of the South Island was extremely dry. Rainfall in Gisborne and Hawke's Bay, was at least 300 percent of (three times) normal, while parts of Nelson and Southern Lakes, south Westland, Fiordland, and inland South Canterbury all had less than 50 percent of (half) normal. Significant soil moisture deficits are developing in Marlborough, south Canterbury and much of Otago. Temperatures were above average in the northern half of the North Island, and below average in many eastern regions. The national average temperature of 12.0 °C was 0.1 °C below normal. October was very sunny in Buller and Westland. Higher than normal air pressures to the south of New Zealand producing more easterly quarter air flow than usual over New Zealand.

Other Highlights:

The highest temperature during October 2005 was 27.0 °C recorded at both Alexandra on the 26th, and Woodbury on the 27th. The lowest temperature for the month was -5.1°C at Ranfurly on the 6th.

The highest wind gust for the month was 132 km/h from the northwest, recorded at Castlepoint on the 1st. Damaging westerly gales affected Northland and Auckland on the 8th, and a tornado affected parts of Auckland city on the 11th. Damaging high winds also occurred near Matamata on the 15th.

A major rainfall event produced rainfall totals of 55 to 85 mm throughout much of Northland, Auckland, Coromandel, Bay of Plenty on the 20th, spreading to Gisborne and Hawke's Bay the next day; Gisborne Airport recording 148 mm for the 24 hours to 9am on the 22nd, and Motu 134 mm, with 93 mm at Napier Airport. More than 300 mm of rainfall was reported in some inland hill country areas north of Gisborne. There were extensive crop losses and damage to roads on the Tologa and Poverty Bay plains. About 50 homes were evacuated, and the water supply affected. Mangatuna was the worst affected area.

A hailstorm affected parts of Hawke's Bay on the 5th. Further damaging hailstorms affected parts of Gisborne and Hawke's Bay on the 17th. Pea sized hail occurred in Wairarapa on the 30th.

Of the four main centres Dunedin was the driest and Auckland the wettest, while Wellington was the sunniest. Rainfall was a record October high in Auckland, near average in Christchurch, and below average in Wellington and Dunedin. Temperatures were slightly above average in Auckland and Wellington, but below average in the other main centres. Sunshine hours were well above average in Wellington and Dunedin, near average in Auckland and below average in Christchurch.

Rainfall: Rainfall was above average over much of the North Island, especially in Gisborne and Hawke's Bay, with more than 300 percent (triple) of normal, and parts of Auckland, Waikato, Bay of Plenty, Taupo, and Wairarapa, and at least 200 percent (double) of normal. Rainfall was below average over much of the South Island, and in Horowhenua and Wellington.

Temperature: Mean temperatures were above average in much of Northland, Auckland, Waikato, and Bay of Plenty. However, they were below average in many eastern regions from Hawke's Bay to coastal Otago. Temperatures were near average elsewhere.

Sunshine: Sunshine hours were at least 150 percent of average in Buller and Westland, at least 120 percent of average in Manawatu, Kapiti, Wellington, Nelson, coastal Otago, and Southland. It was also sunnier than average in Taranaki, and inland south Canterbury.

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**WET OVER MUCH OF THE NORTH ISLAND, ESPECIALLY GISBORNE AND HAWKE'S BAY
WELL BELOW AVERAGE RAINFALL IN SOUTH WESTLAND, FIORDLAND AND INLAND
SOUTH CANTERBURY**

Rainfall was at least 125 percent of normal rainfall over much of the North Island, at least 200 percent of normal in parts of Auckland, Waikato, Bay of Plenty, Taupo, and Wairarapa, and more than 300 percent of normal in Gisborne and Hawke's Bay. In contrast, rainfall was below average over much of the South Island, and in Horowhenua and Wellington, with less than 75 percent of normal in many places. Rainfall was less than 50 percent of normal in parts of Nelson, Southern Lakes, south Westland, Fiordland, and inland South Canterbury. Rainfall was near average along the Canterbury coast.

Near or record high October rainfall was recorded at:

Location	October Rainfall (mm)	Percentage of normal	Year records began	Comments
Whangaparaoa	162	217	1987	Highest
Auckland, Henderson	193 ^a	177	1986	Highest
Auckland, Owairaka	209	229	1949	Highest
Whitianga Airport	246	193	1990	Highest
Tauranga Airport	193	204	1898	Well above average
Te Puke	313	228	1973	2 nd equal highest
Whakatane Airport	216	215	1975	3 rd highest
Taupo Airport	174	192	1976	3 rd highest
Motu	284	159	1991	2 nd highest
Auckland Airport	180	218	1962	2 nd highest
Hamilton Airport	202	204	1935	2 nd highest
Waione	176	200	1996	2 nd highest
Gisborne Airport	225	356	1905	2 nd highest
Napier Airport	194	328	1950	2 nd highest
Whakatu	155	318	1983	2 nd highest
Mahia	202	244	1991	Highest

^a to 28 October

Near or record low October rainfall was recorded at:

Location	October Rainfall (mm)	Percentage Of normal	Year records began	Comments
Takaka	69	28	1986	Lowest
Franz Josef	218	31	1982	3 rd lowest
Manapouri Airport	38	30	1991	2 nd lowest

**TEMPERATURES ABOVE AVERAGE OVER THE NORTHERN HALF OF THE NORTH
ISLAND; BELOW AVERAGE IN MANY EASTERN REGIONS**

Mean temperatures were about 0.5 °C above average in much of Northland, Auckland, Waikato, and Bay of Plenty. However, they were about 0.5 °C below average in eastern regions from Hawke's Bay to coastal Otago, and about 1.0 °C below average in inland parts of south Canterbury. Temperatures were near average elsewhere. The national average temperature was 12.0 °C, 0.1 °C below average.

VERY SUNNY AVERAGE IN BULLER AND WESTLAND

Sunshine hours were at least 150 percent of average in Buller and Westland, at least 120 percent of average in Manawatu, Kapiti, Wellington, Nelson, coastal Otago, and Southland, and more than 110 percent of average in Taranaki, and inland south Canterbury. Hours of bright sunshine were near average elsewhere.

Near or record October sunshine hours were recorded at:

Location	October sunshine (hours)	Percentage of normal	Year Records began	Comments
Arapito	214 ^a	154	1979	Highest
Hokitika Airport	243	155	1912	2 nd highest

^a to 30 October

OCTOBER'S CLIMATE IN THE FOUR MAIN CENTRES

Of the four main centres Dunedin was the driest and Auckland the wettest, while Wellington was the sunniest. Rainfall was the highest on record for October in Auckland, near average in Christchurch, and below average in Wellington and Dunedin. Temperatures were slightly above average in Auckland and Wellington, but below in the other main centres. Sunshine hours were well above average in Wellington and Dunedin, near average in Auckland and below average in Christchurch.

Location	Oct. Mean Temp. (°C)	Dep. from normal (°C)		Oct. rainfall (mm)	% of normal		Oct. Sunshine (hours)	% of Normal	
Auckland	14.6 ^a	+0.2	Near average	209 ^b	229	Highest	170 ^a	95	Near average
Wellington	12.3	+0.3	Above average	85	74	Below average	232	120	Well above average
Christchurch	10.8 ^c	-0.9	Below average	43 ^c	88	Near average	172	87	Below average
Dunedin	10.4	-0.5	Below average	24	33	Well below average	178	121	Well above average

a Mangere

b Mt Albert

c Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

Temperature

The highest temperature during October 2005 was 27.0 °C recorded at both Alexandra on the 26th, and Woodbury on the 27th. The lowest temperature for the month was -5.1°C at Ranfurly on the 6th.

Rainfall

Rainfall totalling 70-80 mm was recorded in Western Bay of Plenty on the 2nd.

A major rainfall event produced rainfall totals of 55 to 85 mm throughout much of Northland, Auckland, Coromandel, Bay of Plenty on the 20th, spreading to Gisborne and Hawke's Bay the next day; Gisborne Airport recording 148 mm for the 24 hours to 9am on the 22nd, and Motu 134 mm, with 93 mm at Napier Airport. However, more than 300 mm of rainfall was reported in the inland hill country in areas north of Gisborne. There were extensive crop losses (affecting about 3000 ha of horticultural land), and damage to roads on the Tologa and Poverty Bay plains. About 50 homes were evacuated, and the water supply cut off. The Mangatuna settlement appeared to be the worst affected area. The cost of the damage and losses is estimated to be in the millions.

Hailstorms

A hailstorm affected parts of Hawke's Bay (Mangateretere and Whakatu) at about 2.30pm on the 5th, damaging summer fruit crops. Most of the hailstones were described as pea-sized, which lasted for 10 minutes. Hail was still lying on the ground at 5pm. Further hailstorms affected parts of Gisborne (Te Karaka) during the afternoon on the 17th, some hail stones estimated to be the size of small golf balls, and also Hawke's Bay with crops in some orchards damaged. Pea sized hail occurred in Wairarapa on the 30th. These were associated with thunderstorms which produced torrential rainfall, totalling 22 mm in 10 minutes and 32 mm in an hour, in Masterton.

High winds

The highest wind gust for the month was 132 km/h from the northwest, recorded at Castlepoint on the 1st.

During gale force westerlies and rough seas on the 8th, a 3000-tonne container ship crashed into Auckland's old Mangere Bridge, and about 20 boats were blown off their moorings,. Trees were felled, power lines broken, and roofs lifted in the city, with power cuts for about 17,500 residents. Gusts to 150 km/h were noted at Tiri Tiri Matangi lighthouse, and 100 km/h at Auckland Airport. Lightning strikes also caused power outages affecting people as far north as Wellsford. The same weather system resulted in fallen trees in Northland, and snowfall on the Desert Road, and 15 cm of snow in Arthurs Pass, Lewis Pass and Porters Pass.

A tornado affected parts of Auckland city just after 1am, including Western Springs, Kingsland, and Morningside on the 11th, resulting in damaged roofs. High winds, also attributed to a tornado, damaged an Okorore barn, trees, fences and power lines near Matamata on the 15th.

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