

### **National Climate Summary – October 2004**

- **Rainfall: Well below average in South Westland, Fiordland and the Kaikoura Coast; well above average rainfall in parts of Hawke’s Bay and Wairarapa**
- **Near or above average temperatures in the North Island, near or below average temperatures in much of the South Island**
- **Sunshine: Near or records highs in coastal Otago and Southland, near or record lows in the southwest of the North Island**

Rainfall was well below average in south Westland, Fiordland, along the Kaikoura Coast, in Banks Peninsula, and parts of inland South Canterbury. Significant soil moisture deficits now exist in coastal Marlborough. In contrast, rainfall was well average in parts of Hawke’s Bay and Wairarapa. Temperatures were above average in coastal Bay of Plenty, Gisborne, Hawke’s Bay, Wanganui, and Nelson, but below average in much of Canterbury and coastal Otago. The national average of 12.1°C was close to average. Sunshine hours were much above average in coastal Otago and Southland, and well below average in the southwest of the North Island. Depressions (‘lows’) were more frequent to the southeast of Chatham Islands with troughs of low pressure from time to time over the North Island. Anticyclones were often centred in the south Tasman Sea.

#### **Highlights:**

- The highest October 2004 temperature was 29.0°C, recorded at Nelson Park, Napier on the 29<sup>th</sup>. This was Napier’s highest October temperature since 31.3°C (their record) in 1961, and 3<sup>rd</sup> highest since measurements commenced in 1968. The lowest temperature for the month was -5.7°C, recorded at Waiouru on the 3<sup>rd</sup>, the 3<sup>rd</sup> lowest there in October (records commenced in 1966).
- A tornado was seen forming between Carterton and Masterton during the late afternoon on the 17<sup>th</sup>, and thunderstorms with hailstones “the size of peas” affected Carterton about the same time. Hail also struck several Hawke’s Bay orchards at about 3am on the 18<sup>th</sup> resulting in damage to apples and stonefruit, one orchardist noting that it was “the worst he had seen”. Thunderstorms also produced high intensity rainfall in Napier, where up to forty people were evacuated, many cars stranded, phones out, and about 300 houses were without electricity, and nine schools were closed.
- Of the four main centres Dunedin was the sunniest and Christchurch the driest. Rainfall was below average in Wellington, Christchurch, and Dunedin, but near average in Auckland. Temperatures were near average in Auckland and Wellington, but below average in the other two main centres. Sunshine hours were record high in Dunedin, near average in Christchurch, and below average in Auckland and Wellington.

**Rainfall:** Rainfall was less than 50 percent (half) of average in south Westland, Fiordland, along the Kaikoura Coast, in Banks Peninsula, and parts of inland South Canterbury. Rainfall was also below average in Southland. In contrast, rainfall was about 200 percent (twice) of average in parts of Hawke’s Bay and Wairarapa and also above average, in parts of Auckland, Bay of Plenty, Waikato, King Country, Taupo, Manawatu, central Marlborough, and north and Central Otago.

**Temperature:** Mean temperatures were above average in coastal Bay of Plenty, Gisborne, Hawke’s Bay, Wanganui, and Nelson, but below average in much of Canterbury and coastal Otago. The national average of 12.1°C was 0.1°C below average.

#### **Sunshine:**

Sunshine hours were much above average in coastal Otago and Southland, well below average from south Taranaki to Kapiti, and near average in most other regions.

#### **For further information, please contact:**

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**WELL BELOW AVERAGE RAINFALL IN SOUTH WESTLAND, FIORDLAND AND THE KAIKOURA COAST**

## WELL ABOVE AVERAGE RAINFALL IN PARTS OF HAWKE'S BAY AND WAIRARAPA

Rainfall was well below average in south Westland, Fiordland, along the Kaikoura Coast, in Banks Peninsula, and parts of inland South Canterbury, all with totals less than 50 percent (half) of average rainfall. Rainfall was also below average in Southland, where totals with less than 75 percent (three quarters) of average. In contrast, October rainfall totals were about 200 percent (twice) of average in parts of Hawke's Bay and Wairarapa and at least 125 percent (one and a quarter) of average, in parts of Auckland, Bay of Plenty, Waikato, King Country, Taupo, Manawatu, central Marlborough, and north and Central Otago. Rainfall was near average in most other districts.

### Near or record October rainfall was recorded at:

Location	October rainfall (mm)	Percentage of normal	Year Records began	Comments
Franz Josef	193	28	1982	2 <sup>nd</sup> lowest
Le Bons Bay	23	25	1987	Lowest
Waione	177	201	1991	Highest

## NEAR OR ABOVE AVERAGE TEMPERATURES IN THE NORTH ISLAND

## NEAR OR BELOW AVERAGE TEMPERATURES IN MUCH OF THE SOUTH ISLAND

Mean temperatures were at least 0.5°C above average in coastal Bay of Plenty, Gisborne, Hawke's Bay, Wanganui, and Nelson, but 0.5°C to 1.0°C below average in much of Canterbury and coastal Otago. Temperatures were near average in other regions.

## EXTREMELY SUNNY IN COASTAL OTAGO AND SOUTHLAND, WELL BELOW AVERAGE SUNSHINE IN THE SOUTHWEST OF THE NORTH ISLAND

Sunshine hours were at least 110 percent of average in coastal Otago and Southland. However, they were less than 75 percent of average in the southwest of the North Island from south Taranaki to Kapiti, and below average in the north and west of the North Island, as well as Marlborough, and near average in most other regions.

### Near or record October sunshine hours were recorded at:

Location	October Sunshine (hours)	Percentage of normal	Year Records began	Comments
Dunedin, Musselburgh	203	138	1948	Highest
Kaitaia	149 <sup>a</sup>	77	1985	2 <sup>nd</sup> lowest
Dargaville	127	76	1943	2 <sup>nd</sup> lowest
Stratford	135	79	1963	2 <sup>nd</sup> lowest
Palmerston North	93	63	1930	Lowest
Paraparaumu Airport	125	71	1953	3 <sup>rd</sup> lowest

<sup>a</sup> estimate

## OCTOBER'S CLIMATE IN THE FOUR MAIN CENTRES

Of the four main centres Dunedin was the sunniest and Christchurch the driest. Rainfall was below average in Wellington, Christchurch, and Dunedin, but near average in Auckland. Temperatures were near average in Auckland and Wellington, but below average in the other two main centres.

Sunshine hours were a record high in Dunedin, near average in Christchurch, and below average in Auckland and Wellington.

Location	October Mean Temp. (°C)	Dep. from normal (°C)		October rainfall (mm)	% of normal		October Sunshine (hours)	% of normal	
Auckland	14.4 <sup>a</sup>	0.0	Average	96 <sup>b</sup>	105	Near Average	146	82	Below Average
Wellington	11.9	-0.1	Near average	71	62	Below average	164	85	Below average
Christchurch	10.9 <sup>c</sup>	-0.8	Below average	36 <sup>c</sup>	74	Below average	185	93	Near average
Dunedin	10.1	-0.7	Below average	43	60	Below average	203	138	Highest

a-Mangere

b-Owairaka (Mount Albert)

c-Christchurch Airport

## HIGHLIGHTS AND EXTREME EVENTS

### • Temperature

The highest October 2004 temperature was 29.0°C, recorded at Nelson Park, Napier on the 29<sup>th</sup>. This was Napier's highest October temperature since 31.3°C (their record) in 1961, and 3<sup>rd</sup> highest since measurements commenced in 1868. Nelson Park also recorded 28.5°C, this month, on the 14<sup>th</sup>. The lowest temperature for the month was -5.7°C, recorded at Waiouru on the 3<sup>rd</sup>, the 3<sup>rd</sup> lowest there in October (records commenced in 1966).

### Near or record October air temperatures were recorded at:

Location	Extreme temperature	Date of occurrence	Records Began	Comments
Napier, Nelson Park	29.0	29 <sup>th</sup>	1868	3 <sup>rd</sup> highest
Takaka	27.9	14 <sup>th</sup>	1986	Highest
Motueka, Riwaka	26.7	14 <sup>th</sup>	1956	2 <sup>nd</sup> highest
Nelson Airport	25.2	14 <sup>th</sup>	1943	2 <sup>nd</sup> highest
Blenheim Research	26.5	14 <sup>th</sup>	1985	Highest
Awatere Valley	28.2	14 <sup>th</sup>	2001	Highest
Hanmer Forest	-5.0	3 <sup>rd</sup>	1906	3 <sup>rd</sup> equal lowest

### • Damaging winds

Thousands of houses were without power as gale force winds (speeds of 100 km/h were reported) toppled trees in the Golden Bay district on the 14<sup>th</sup>.

### • Tornado, damaging hail, high rainfall, and flooding

A tornado was seen forming over land, but did not reach the ground, between Carterton and Masterton during the late afternoon on the 17<sup>th</sup>. Thunderstorms with hailstones "the size of peas" affected Carterton for about 15 minute about the same time. Hail also struck several Hawke's Bay orchards at about 3 am on the 18<sup>th</sup> resulting in damage to apples and stonefruit, one orchardist noting that it was "the worst he had seen". The thunderstorms also produced high intensity rainfall. In Napier, up to forty people were evacuated, many cars stranded, phones out, and about 300 houses were without electricity, and nine schools were closed. Steady, but heavy, rainfall occurred at Napier Airport, totalling 42.4 mm in the 3-hours to 4am, with intensities as much as 15 mm in an hour. An unofficial total of 143 mm was reported in Tamatea, where flooding was worst, with water up to 1 m deep in some roads. High rainfall and surface flooding also occurred on the same day in Pongaroa, totalling 130 mm in 12-hours.

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