

National Climate Summary – September 2004

- **Rainfall: Well below average in Northland and Hawke's Bay; above average in Central New Zealand and some eastern South Island districts**
- **Temperatures: 3rd consecutive month with below average temperatures**
- **Sunshine: Above average in many eastern regions**

September was dominated by cold southwesterlies. Rainfall was well below average in North Island areas sheltered from these, with the development of significant soil moisture deficits on the Kaikoura Coast. In contrast, above average rainfall occurred in the southwest of the North Island, as well as Marlborough, Nelson, the Southern Alps, and some eastern districts from Banks Peninsula to Southland. The month was unsettled, with several more wet days than average, in Westland, Fiordland, Southland and Central Otago. Temperatures were below average throughout much of New Zealand for the 3rd consecutive month. Sunshine hours were above average in many eastern regions, as well as the southwest of the North Island. Depressions ('lows') were very frequent well to the southeast of New Zealand, with anticyclones often centred in the Tasman Sea. This produced more frequent southwesterly airflow over New Zealand.

Highlights:

- The highest September 2004 temperature was 24.0°C, recorded at Woodbury on the 21st. The lowest temperature for the month was -8.0°C, recorded at Snowden (Canterbury) on the 29th.
- Snowfall and low temperatures occurred in inland areas of Southland and Otago on the 18/19th, and in inland areas of Canterbury on the 28th, with a loss of newborn lambs from exposure. Snowfall on the 28th also occurred on the Desert Road, the Rimutaka Hill Road, SH1 between Kaikoura and Cheviot, and most South Island high country passes.
- The same weather system that brought snowfall to Canterbury on the 28th also produced high rainfall and surface flooding in parts of Manawatu.
- Of the four main centres Wellington was the sunniest and Christchurch the driest. Rainfall was below average in Auckland, Christchurch, and Dunedin, but above average in Wellington. Temperatures were near average in Dunedin, but below average in the other three main centres. Sunshine hours were above average in Wellington and Dunedin, and near average in the other two main centres.

Rainfall: Rainfall was less than 50 percent (half) of average in inland and eastern Northland, Gisborne, Hawke's Bay, and the Kaikoura Coast. Totals were also below average in Auckland, Coromandel, Wairarapa, Tongariro-Ruapehu, and the region in and around Wanaka. Rainfall was above average in the southwest of the North Island from Wellington to Manawatu, as well as Marlborough, Nelson, the Southern Alps, Banks Peninsula, coastal areas of South Canterbury and north Otago, and Southland.

Temperature: Mean temperatures were below average throughout much of New Zealand, but near average on the Kaikoura Coast and in coastal areas of Otago. The national average of 10.0°C was 0.4°C below average.

Sunshine: Sunshine hours were above average in Gisborne, Hawke's Bay, Kapiti, Wellington, Marlborough, and Nelson, and near average in most other regions.

For further information, please contact:

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WELL BELOW AVERAGE RAINFALL IN NORTHLAND AND HAWKE'S BAY

Rainfall was below average in areas that are typically sheltered from southwesterlies, with less than 50 percent (half) of average rainfall in inland and eastern Northland, Gisborne, Hawke's Bay, and the Kaikoura Coast, and less than 75 percent (three quarters) of average in Auckland, Coromandel, Wairarapa, Tongariro-Ruapehu, and the region in and around Wanaka.

Low September rainfall was recorded at:

Location	September rainfall (mm)	Percentage of normal	Year Records began	Comments
Kerikeri	51	28	1982	Lowest
Kaikohe	44	32	1973	Lowest
Whangarei Airport	35	27	1937	2 nd lowest
Warkworth	50	35	1972	Lowest
Paeroa	17	14	1914	Lowest
Whakatu	19	31	1983	Well below average

ABOVE AVERAGE RAINFALL IN CENTRAL NEW ZEALAND AND SOME EASTERN SOUTH ISLAND DISTRICTS

September rainfall totals ranged from about 125 to 175 percent (one and a quarter to one and three quarters) of average in the southwest of the North Island from Wellington to Manawatu, as well as Marlborough, Nelson, the Southern Alps, Banks Peninsula, coastal areas of South Canterbury and north Otago, and Southland.

High September rainfall was recorded at:

Location	September rainfall (mm)	Percentage of normal	Year Records began	Comments
Ettrick	71 ^a	183	1985	3 rd highest
Campbell Island	226	195	1941	Highest

^a to 9am 30 Sep.

BELOW AVERAGE TEMPERATURES THROUGHOUT MUCH OF NEW ZEALAND

Mean temperatures were about 0.5°C below average throughout much of New Zealand, but 1.0 to 1.5°C below average in parts of Bay of Plenty, King Country, Manawatu, and Buller. Temperatures were near average on the Kaikoura Coast and in coastal areas of Otago. Mean daily minima were about 1.5°C below average in parts of inland Bay of Plenty, King Country, Hawke's Bay, and Canterbury.

Near or record low September mean temperatures were recorded at:

Location	Mean temperature	Departure from average (°C)	Records Began	Comments
Rotorua Airport	8.9	-1.5	1964	Well below average
Castlepoint	10.4	-1.7	1972	2 nd equal lowest

ABOVE AVERAGE SUNSHINE IN MANY EASTERN REGIONS

Sunshine hours were at least 110 percent of average in Gisborne, Hawke’s Bay, Kapiti, Wellington, Marlborough, and Nelson, and near average in most other regions.

SEPTEMBER’S CLIMATE IN THE FOUR MAIN CENTRES

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

Location	September Mean Temp. (°C)	Dep. from normal (°C)		September rainfall (mm)	% of normal		September Sunshine (hours)	% of normal	
Auckland	12.3 ^a	-0.5	Below average	97 ^b	84	Below average	152	102	Near Average
Wellington	9.9	-0.7	Below average	131	130	Above average	180	115	Above average
Christchurch	8.8 ^c	-0.6	Below average	32	68	Below average	172	105	Near average
Dunedin	9.1	-0.1	Near average	42	80	Below average	146	113	Above average

a- Mangere b- Owairaka (Mount Albert) c) Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

- **Temperature**

The highest September 2004 temperature was 24.0°C, recorded at Woodbury on the 21st. The lowest temperature for the month was -8.0°C, recorded at Snowden (Canterbury) on the 29th.

- **Snowfall**

Snowfall and low temperatures occurred in inland areas of Southland and Otago on the 18/19th, during which time thousands of newborn lambs died from exposure. Further snowfall occurred in inland areas of Canterbury on the 28th, also with a loss of newborn lambs from exposure. Snowfall also occurred on the Desert Road, the Rimutaka Hill Road, SH1 between Kaikoura and Cheviot, and most South Island high country passes.

- **Flooding**

The same weather system that brought snowfall to Canterbury also produced high rainfall and surface flooding in parts of Manawatu. The Manawatu River and Te Horo stream were in flood; the latter breaching its banks southwest of Otaki and the former on SH 57 between Shannon and Palmerston North. Several houses were evacuated due to flooding in Foxton, and two in Pahiatua. Landslips occurred between the Manawatu Gorge and Woodville.

- **High winds**

High wind gusts in excess of 150 km/h occurred at well-exposed sites on several occasions during the month, with 167 km/h recorded at South West Cape on the 18th, 152 km/h at Castlepoint on the 22nd, and 156 km/h at Baring Head on the 24th.

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