

National Climate Summary – May 2012: Dry over the South Island; generally sunny & cool

- **Rainfall: Extremely dry in Canterbury, and generally dry elsewhere in the South Island.**
- **Sunshine: Extremely sunny for western regions, and generally above normal sunshine elsewhere. Closer to normal sunshine for Canterbury, Gisborne, and Nelson.**
- **Temperatures: Below average for much of the North Island, as well as the north and east of the South Island. Near average in the southwest of the country.**
- **Soils: Drier than normal in Canterbury and Nelson, as well as the Tararua District and around Palmerston North.**

May was characterised by higher pressures than normal to the southeast of the country. Lower pressures than usual were observed near Tasmania and also to the east of the North Island. This pressure pattern resulted in more easterly quarter winds than usual over New Zealand.

It was an extremely dry May for Canterbury, with less than a quarter of normal May rainfall recorded – and it was generally dry elsewhere in the South Island. It was the 2nd-driest May on record for Christchurch. Rainfall was around half of May normal in Nelson and Marlborough, and across much of Westland and Otago. In Fiordland and for the alpine districts, rainfall ranged between 50 and 80 percent of May normal. Rainfall totals were near normal in Southland, as well as across much of the north and west of the North Island. In contrast, northern Hawkes Bay and coastal Bay of Plenty experienced a wet May, whilst Gisborne, southern Hawkes Bay, and much of the Tararua District recorded below normal rainfalls. At the end of May, soils were much drier than normal for the time of year in Canterbury and Nelson, as well as in the Tararua District and around Palmerston North. Elsewhere, soil moisture levels were generally near normal.

May was an extremely sunny month in the west of both islands. Well above normal sunshine totals were observed in western regions between Hamilton and the Kapiti Coast, as well as Westland, Fiordland and Southland. It was the sunniest May on record for New Plymouth and Queenstown – in over 80 years of record in the case of Queenstown. Sunshine totals were also above normal in most other parts of the country. The exceptions were Canterbury, Gisborne and Nelson, which experienced closer to normal sunshine totals.

Mean temperatures for May were generally below average across much of the North Island, as well as the north and east of the South Island. Temperatures were near average (within 0.5°C of the May average) in the southwest of the country (Southland, Fiordland, and southern Westland), as well as locally around Christchurch, and in parts of Auckland and Northland and coastal Bay of Plenty. The nation-wide average temperature in May was 10.3°C (0.4°C below the 1971–2000 May average), using NIWA's seven-station temperature series which begins in 1909.

Further Highlights:

- The highest temperature experienced was 23.4°C, recorded at Whangarei on 9 May.
- The lowest temperature experienced was -8.1°C, recorded at Ranfurly on 20 May.
- The highest 1-day rainfall experienced was 207 mm, recorded at North Egmont on 27 May.
- The highest gust recorded was 139km/h, recorded at Cape Reinga on 8 May.
- Of the six main centres, Auckland was the warmest, Tauranga the wettest but also the sunniest, Christchurch the coolest and driest, and Dunedin the cloudiest.

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RAINFALL: EXTREMELY DRY IN CANTERBURY. GENERALLY DRY ELSEWHERE IN THE SOUTH ISLAND, AS WELL AS SOUTHERN HAWKES BAY, TARARUA DISTRICT AND GISBORNE. WETTER THAN USUAL IN THE BAY OF PLENTY AND NORTHERN HAWKES BAY. NEAR NORMAL RAINFALL ACROSS THE REMAINDER OF THE NORTH ISLAND.

It was an extremely dry May for Canterbury, with less than a quarter (25%) of normal May rainfall recorded – and it was generally dry elsewhere in the South Island. At both Lincoln and Christchurch Airport, it was the 2nd-driest May on record. Rainfall was also well below normal (around 50 percent of May normal) in Nelson and Marlborough, across much of Westland and Otago. In Fiordland and for the alpine districts, rainfall ranged between 50 and 80 percent of May normal, but totals were closer to normal in Southland. Rainfall was also near normal (between 80 and 119 percent of May normal) across much of the north and west of the North Island. In contrast, northern Hawkes Bay and coastal Bay of Plenty experienced above normal rainfall (more than 120 percent of May normal), whilst Gisborne, southern Hawkes Bay, and much of the Tararua District recorded below normal rainfalls (between 50 and 80 percent of May normal).

At the end of May, soils were much drier than normal for the time of year in Canterbury and Nelson, as well as in the Tararua District and around Palmerston North. Elsewhere, soil moisture levels were generally near normal for the time of year.

Near-record May rainfall totals were recorded at:

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
Christchurch	11	21	1863	2nd-lowest
Lincoln	10	18	1881	2nd-lowest

SUNSHINE: EXTREMELY SUNNY FOR WESTERN AREAS OF BOTH ISLANDS. GENERALLY ABOVE NORMAL SUNSHINE ELSEWHERE. CLOSER TO NORMAL FOR CANTERBURY, GISBORNE AND NELSON.

May was an extremely sunny month in the west of both islands. Well above normal sunshine totals (exceeding 125 percent of May normal) were observed in western regions between Hamilton and the Kapiti Coast, as well as Westland, Fiordland and Southland. It was the sunniest May on record for New Plymouth and Queenstown – in over 80 years of record in the case of Queenstown. Sunshine totals were also above normal (between 110 and 124 percent of May normal) in most other parts of the country. The exceptions were Canterbury, Gisborne and Nelson, which experienced near normal sunshine totals (between 90 and 109 percent of May normal).

Record or near-record May sunshine hours were recorded at:

Location	Sunshine (hours)	Percentage Of normal	Year records began	Comments
Kaitaia	173	116	1985	3rd-highest
Te Kuiti	163	147	1962	3rd-highest
Taumarunui	144	156	1947	3rd-highest
New Plymouth	184	128	1972	Highest
Paraparaumu	166	128	1953	3rd-highest
Cheviot	151	123	1983	2nd-highest
Mt Cook	115	129	1930	3rd-highest
Lake Tekapo	180	141	1928	4th-highest
Queenstown	152	166	1930	Highest
Balclutha	120	128	1964	4th-highest

TEMPERATURES: BELOW AVERAGE FOR MUCH OF NORTH ISLAND, AND NORTH AND EAST OF SOUTH ISLAND. NEAR AVERAGE OVER THE SOUTH WEST OF THE COUNTRY.

Mean temperatures for May were generally below average (between 0.5°C and 1.2°C below May average) across much of the North Island, as well as the north and east of the South Island. Temperatures were near average (within 0.5°C of the May average) in the southwest of the country (Southland, Fiordland, and southern Westland), as well as locally around Christchurch, and in parts of Auckland and Northland and coastal Bay of Plenty. The nation-wide average temperature in May was 10.3°C (0.4°C below the 1971–2000 May average), using NIWA’s seven-station temperature series which begins in 1909¹.

Near-record² monthly-average maximum air temperatures for May were recorded at:

Location	Mean maximum air temperature (°C)	Departure from normal (°C)	Year records began	Comments
Kaikohe	18.0	1.5	1973	4th-highest
Leigh	19.0	1.1	1966	Equal 4th-highest
Martinborough	14.8	-1.0	1986	4th-lowest
Wanganui	15.6	-0.3	1987	4th-lowest

Near-record monthly-average minimum air temperatures for May were recorded at:

Location	Mean minimum air temperature (°C)	Departure from normal (°C)	Year records began	Comments
Dannevirke	3.8	-2.4	1951	3rd-lowest
Martinborough	3.8	-1.6	1986	3rd-lowest
Wallaceville	3.2	-2.8	1939	2nd-lowest
Wanganui	7.4	-1.3	1987	4th-lowest
Motueka	2.1	-2.1	1956	3rd-lowest
Hanmer Forest	-1.5	-2.9	1906	2nd-lowest

¹ Interim monthly value.

² The rankings (1st, 2nd, 3rd....etc) in Tables in this summary are relative to climate data from a *group* of nearby stations, some of which may no longer be operating. The current climate value is compared against all values from any member of the group, without any regard for homogeneity between one station’s record, and another. This approach is used because of the practical limitations of performing homogeneity checks in real-time.

MAY CLIMATE IN THE SIX MAIN CENTRES

It was an extremely sunny May in all of the six main centres, except Christchurch (which recorded near normal sunshine totals). It was an extremely dry month for the South Island centres – with about half of May normal rainfall recorded at Dunedin, and less than a quarter at Christchurch. In fact, it was the 2nd driest May on record at Christchurch Airport, in records which begin in 1863.

Of the six main centres, Auckland was the warmest, Tauranga the wettest but also the sunniest, Christchurch the coolest and driest, and Dunedin the cloudiest.

May 2012 main centre climate statistics:

Location	Mean temp. (°C)	Departure from normal (°C)	Comment	Rainfall (mm)	% of normal	Comment	Sunshine (hours)	% of normal	Comment
Auckland ^a	13.5	-0.3	Near average	91	89	Near normal	168	122	Above normal
Tauranga ^b	12.7	-0.1	Near average	114	129	Above normal	204	125	Well above normal
Hamilton ^c	10.6	-0.7	Below average	107	102	Near normal	161 ^g	123	Above normal
Wellington ^d	10.7	-0.8	Below average	107	91	Near normal	144	113	Above normal
Christchurch ^e	8.6	-0.3	Near average	11	21	2 nd -driest May on record	145	102	Near normal
Dunedin ^f	9.2	-0.1	Near average	37	53	Below normal	120	120	Above normal

^a Mangere ^b Tauranga Airport ^c Hamilton Airport ^d Kelburn ^e Christchurch Airport ^f Musselburgh ^g Ruakura

HIGHLIGHTS AND EXTREME EVENTS

- **Rain and slips**

The highest 1-day rainfall experienced was 207 mm, recorded at North Egmont on 27 May.

On 9 May, heavy rain overnight caused transport problems in Auckland and Bay of Plenty. Fallen trees blocked SH30 at Lake Rotoma near Rotorua, and in Auckland two motorway on-ramps were partially blocked by fallen trees.

On 14 May, heavy rain caused the roof of Porirua warehouse to collapse, destroying furniture and other items donated to Mary Potter Hospice. A supermarket in Titahi Bay was also flooded.

Record or near record May extreme 1-day rainfall totals were recorded at:

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Wanganui	44	10th	1937	3rd-highest

- **Temperatures**

The highest temperature experienced was 23.4°C, recorded at Whangarei on 9 May.

The lowest temperature experienced was -8.1°C, recorded at Ranfurly on 20 May. During the period 20-22 May, air frosts were unusually severe for the time of year, at many locations around the country. Leigh and Turangi experienced their lowest minimum air temperatures on record for May, on 30 May and 22 May, respectively.

Near-record daily maximum air temperatures for May were recorded at:

Location	Extreme maximum temperature (°C)	Date of extreme temperature	Year Records Began	Ranking
Kerikeri	22.8	9th	1981	Equal 2nd-highest
Leigh	22.4	9th	1966	3rd-highest
Mt Cook	20.2	7th	1929	Equal 3rd-highest
Hamilton	9.1	30th	1940	4th-lowest
Taumarunui	7.0	30th	1947	3rd-lowest
Dannevirke	6.9	29th	1951	3rd-lowest
Castlepoint	8.9	29th	1972	Equal 3rd-lowest
Palmerston North	9.8	16th	1991	3rd-lowest
Wallaceville	7.6	16th	1972	4th-lowest
Puyssegur Point	8.1	28th	1978	4th-lowest

Near-record daily minimum air temperatures for May were recorded at:

Location	Extreme minimum temperature (°C)	Date of extreme temperature	Year Records Began	Ranking
Leigh	5.3	30th	1966	Equal lowest
Whangaparaoa	7.1	30th	1982	4th-lowest
Taupo	-4.5	21st	1949	Equal 4th-lowest
Port Taharoa	3.2	30th	1973	3rd-lowest
Taumarunui	-4.0	30th	1947	Equal 3rd-lowest
Turangi	-4.9	22nd	1968	Lowest
Takapau Plains	-2.5	21st	1962	3rd-lowest
Dannevirke	-3.3	30th	1951	4th-lowest
Martinborough	-3.8	21st	1986	2nd-lowest
Napier	-1.7	30th	1868	3rd-lowest
Paraparaumu	-2.5	21st	1953	3rd-lowest
Palmerston North	-2.5	21st	1991	3rd-lowest
Wallaceville	-4.3	21st	1939	4th-lowest
Motueka	-3.4	20th	1956	4th-lowest
Appleby	-3.6	20th	1943	4th-lowest
Hanmer Forest	-7.5	20th	1906	Equal 2nd-lowest
Le Bons Bay	2.0	29th	1984	4th-lowest

- **Wind**

The highest gust recorded was 139 km/hr, recorded at Cape Reinga on 8 May. There were no record wind gusts in May.

On 1 May, wind warnings were issued for SH1 between Palmerston and Dunedin.

On 9 May, wind warnings were issued for SH6 between Franz Josef and Harihari.

On 14 May, a twister moved through Papamoa Beach, lifting roof tiles and causing other property damage, including a piece of “2x4” timber being blown through a window. In Taranaki, water spouts were reported off the coast at Oakura.

On 27 May, strong winds in Kaikoura caused damage to property and trees, and even tossed two shipping containers on to a fishing boat.

- **Lightning and hail**

On 15 May, thunder and hail were reported across the Canterbury Plains. Severe thunderstorms also crossed north Auckland. Several funnel clouds were also reported off the south coast of Wellington.

On 16 May, an Air New Zealand flight from Auckland to Wellington returned to Auckland after flying into a lightning storm. The plane was not damaged.

On 29 May, a hailstorm lashed Wellington, settling on the roads causing hazardous driving conditions.

- **Snow and ice**

On 15 May, the first snow of the season fell on Mt Ruapehu, closing some access roads. Snow also fell in Southland and Otago, with chains required on the Crown Range Road.

On 21 May, ice on both the tracks and overhead power lines delayed commuter trains into Wellington by up to an hour.

- **Cloud and fog**

On 7 and 8 May, fog disrupted flights at Timaru Airport.

On 10 May, fog caused the cancellation or delay of about 30 domestic flights into and out of Auckland Airport.

On 19 May, dense fog blanketed South Canterbury, making life difficult for road-workers resurfacing Temuka Bridge during the night.

On 24 May, fog caused the cancellation or delay of domestic and international flights into and out of both Auckland and Hamilton Airports.

On 26 May, fog again caused the cancellation or delay of about 40 domestic flights into and out of Auckland Airport. Two international flights were diverted to Christchurch.

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